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BCC DS
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16/06/2026
APPLICATION REF
A006752237

CIVIL ASSESSMENT REPORT

PROPOSED SDA & RESIDENTIAL DEVELOPMENT

AT

15-25 WHITLEY STREET, MOUNT GRAVATT EAST

FOR

LSH PERSSE TRUST PARTNERSHIP

May 2026

(Revision B)

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Document Status

Revision No.	Author	Approved	Date
A	L Swinton	G Nagel	March 2025
B	L Swinton	G Nagel	May 2026

1.00 SCOPE

- 1.01 The scope of this report is to provide advice on the proposed civil engineering infrastructure required for the above Project in terms of bulk earthworks, retaining walls, driveways including hardstand areas, stormwater drainage, sewerage connection, water supply and associated works to support the Development Application for the proposed Multiple Residential Development on the subject property.
- 1.02 This updated Civil Assessment Report (Revision B) is support the proposed Change Application for this site to address the Material Change of Use for a Multiple Dwelling (inclusive of 12 SDA units) and Community Facilities (Community Care Centre, Community Use and Health Care Services) as well as Reconfiguring a Lot (4 into 2 subdivision) including one (1) Standard Format Lot and one (1) Volumetric Lot.
- 1.03 A summary of these services is detailed below and indicated on the attached Karamisheff Nagel Drawings 24-125-P01 to P06 (Appendix C).

2.00 BACKGROUND

- 2.01 The proposed development at 15-25 Whitley Street, Mount Gravatt East comprises one integrated building including a Specialist Disability Accommodation (SDA) component (inclusive of 12 SDA units and allied health services), a residential apartment component (inclusive of 53 units) and associated car parking on the ground level and basement. The building will be provided with site access from Whitley Street in accordance with Council standards.
- 2.02 The subject site, namely 15-25 Whitley Street, Mount Gravatt East, comprises a total area of approximately 2,588m² and is described as Lots 121 to 124 on RP13395.
- 2.03 The subject site is currently occupied by an existing commercial building and an associated hardstand area. The existing building and hardstand area will be demolished to allow the site to be redeveloped as detailed below.
- 2.04 The subject site is bordered by residential properties to the northern, southern and eastern boundaries and frontage to Whitley Street along the western boundary.

3.00 SITE DEVELOPMENT

- 3.01 The proposed development at 15-25 Whitley Street, Mount Gravatt East comprises one integrated building including a Specialist Disability Accommodation (SDA) component (inclusive of 12 SDA units and allied health services), a residential apartment component (inclusive of 53 units) and associated car parking as detailed on the Architectural Drawings 2401_1456 SK_201(U) and SK_202(X) prepared by Idearchitecture. (Appendix A).
- 3.02 The proposed development will include a Reconfiguring a Lot (4 into 2 subdivision) comprising one (1) Standard Format Lot and one (1) Volumetric Lot. (Appendix B)
- 3.03 Preliminary engineering design including bulk earthworks and retaining walls, driveway and car parking grading and levels, internal stormwater drainage and proposed infrastructure works to service the site is detailed on the attached Karamisheff Nagel Drawings 24-125-P01 to P06 (Appendix C) and as further discussed in the relevant sections of this report.
- 3.04 The proposed driveways and car parking levels have been determined based on the required grading constraints, relationship with the units and the permanent levels along the Whitley Street frontage.
- 3.05 The detailed civil engineering design and documentation will be completed in accordance with the Development Permit Conditions and will incorporate detailed Erosion and Sediment Control documentation to address the Construction Phase.

4.00 EARTHWORKS AND RETAINING WALLS

- 4.01 The site will require earthworks and the construction of basement retaining walls to achieve appropriate grading for the proposed buildings, basement car parking and driveways. Refer to Drawings 24-125-P01 to P06 (Appendix C).

5.00 EXTERNAL ROADWORKS – WHITLEY STREET

- 5.01 The existing site has direct access from Whitley Street with an existing concrete crossover to the dwelling. The existing crossover will be removed and the kerb and channel and footpath will be reinstated in accordance with Council standards.
- 5.02 The development proposes to gain direct access from Whitley Street via a 6.5m wide Type B1 crossover to the SDA carpark (16 bays) and a 6.5m wide modified Type B2 vehicle crossover to the multi-residential undercover ground level and basement car parks (82 bays) . The proposed crossovers will be designed and constructed in accordance with Council standards.
- 5.03 All works shall be in accordance with the BCC Transport Access, Parking and Servicing (TAPS) PSP and relevant Australian Standards where required.
- 5.04 Whitley Street is a No Through road classified as a neighbourhood road in the BCC City Plan 2014 with a 20 metre road reserve width. As part of the development, it is proposed to reconstruct the 1.8 metre wide concrete footpath for the full frontage of the site as required.

6.00 STORMWATER DRAINAGE

- 6.01 The subject site slopes from the southern boundary with an elevation of RL 41.0m to the northwestern corner of the property boundary at RL 39.2m.
- 6.02 The site is not impacted by overland flow, however Whitley Street does convey overland flows from the south into the existing creek waterway to the north at the end of Whitley Street.
- 6.03 There is existing stormwater network in Whitley Street that discharges from a headwall into the downstream creek waterway at the northern end of the street.
- 6.04 In accordance with Brisbane City Council's Development Guidelines, a suitably sized piped network and a water quality tank shall be provided to cater for the minor storm event. Major flows will be contained within the site and directed to Whitley Street as overland flow.
- 6.05 The lawful points of the discharge for this development have been identified as:
- Minor Development Flows – the existing stormwater gully and piped network located within Whitley Street
 - Major Development Flows – overland flow to Whitley Street.
- 6.06 Refer to the Site Based Stormwater Management Report (Appendix D) for further details.

7.00 WATER SUPPLY

- 7.01 Urban Utilities records confirm the sites are serviced by an existing 32mm connection from a existing 100mm AC main on the adjacent Whitley Street verge (refer Appendix E).
- 7.02 The existing services will be taken up and capped at the main.
- 7.03 The proposed development shall provide a new water service and meter from the existing 100mm AC water main in accordance with Urban Utilities standards.
- 7.04 It is not proposed that any upgrade to the existing water main shall be required.

8.00 SEWERAGE RETICULATION

- 8.01 Urban Utilities records confirm the presence of an existing 150mm sewer main entering lot 25 at the south-west corner of the lot into an existing manhole located at the rear of the lot. The main then travels north and exits the lot on the northern boundary (refer Appendix E).
- 8.02 It is proposed that the existing line within the site to be removed and realigned to suit the new development with two new manholes to be installed along the new alignment.
- 8.04 The proposed development shall provide a new DN150 sewer house connection from the new sewer manhole in accordance with Urban Utilities standards.

9.00 ELECTRICITY AND COMMUNICATION SERVICES

- 9.01 These services would be designed and constructed in accordance with the relevant Service Providers.

Appendix A – Proposed Development Site Plans

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NOTES

1. Confirm all dimensions and levels on site before commencing work.
2. Figure dimensions shall take precedence over scaled dimensions.
3. Dimensions relate to structure only and do not include fittings or claddings unless noted otherwise.
4. All work, materials and construction to comply with the Queensland Building Act 1975-2015 and the Building Code of Australia.

AMENDMENTS

rev	date	detail	checked
N	24.03.26	DA SUBMISSION	FI
O	27.03.26	DA SUBMISSION	FI
P	24.03.26	CLIENT REVIEW	FI
Q	30.03.26	CONSULTANT ISSUE	FI
R	31.03.26	PMT RELOCATED	FI
S	01.04.26	CLIENT REVIEW	FI
T	08.04.26	DA SUBMISSION-AMENDED	FI
U	20.04.26	SLINE + PMT ADJUSTED	FI

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Partnership

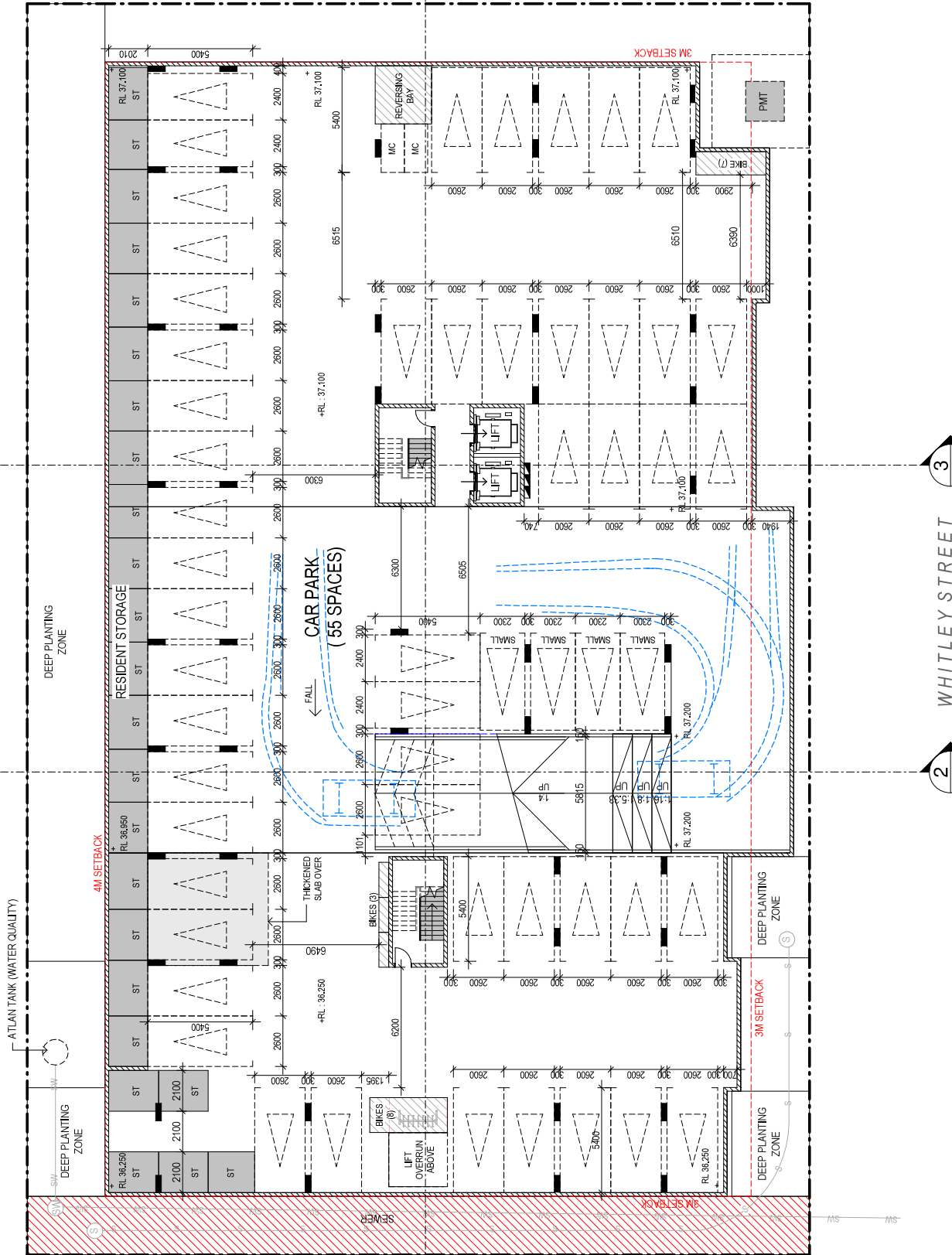
project PROPOSED SDA &
RESIDENTIAL
APARTMENTS

locatd 15-25 WHITLEY STREET,
MOUNT GRAVATT EAST
QLD 4122

title BASEMENT FLOOR
PLAN

scale 1:200
date 19.12.2024
job no 2410_1456
rev U

dwg no / scale SK_201



1 BASEMENT FLOOR PLAN

SCALE 1:200

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NOTES

1. Confirm all dimensions and levels to site before commencing work.
2. Elected dimensions shall take precedence over scaled dimensions.
3. Dimensions relate to structure only and do not include linings or claddings unless noted otherwise.
4. All work, materials and construction to comply with the Queensland Building Act 1975-2015 and the Building Code of Australia.

AMENDMENTS

REV	DATE	DETAIL	CHECKED
Q	27.03.25	DA SUBMISSION	FI
R	24.03.26	CLIENT REVIEW	FI
S	30.03.26	CONSULTANT ISSUE	FI
T	31.03.26	PMT RELOCATED	FI
U	01.04.26	CLIENT REVIEW	FI
V	06.04.26	DA SUBMISSION - AMENDED	FI
W	28.04.26	SEWERAGE LINE ADJUSTED	FI
X	22.05.26	FIH RELOCATION + WM ADDED	FI

EXISTING SERVICES LEGEND

- LP LIGHT POLE
- EP POWER POLE
- TP TELSTRA PIT
- GV GAS VALVE
- WM WATER METER
- SM SEWER MANHOLE
- SW STORMWATER MANHOLE
- E ELECTRICITY LINE
- W WATER LINE
- SW STORMWATER LINE
- G GAS LINE
- S SEWERAGE LINE

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client LSH Perse Trust Partnership

project PROPOSED SDA & RESIDENTIAL APARTMENTS

code 15-25 WHITLEY STREET, MOUNT GRAVATT EAST QLD 4122

title GROUND FLOOR PLAN

scale 1:200

date 19.12.2024

checked FI

job no 2410_1456

rev SK_202

rev X

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date 19.12.2024

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job no 2410_1456

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date 19.12.2024

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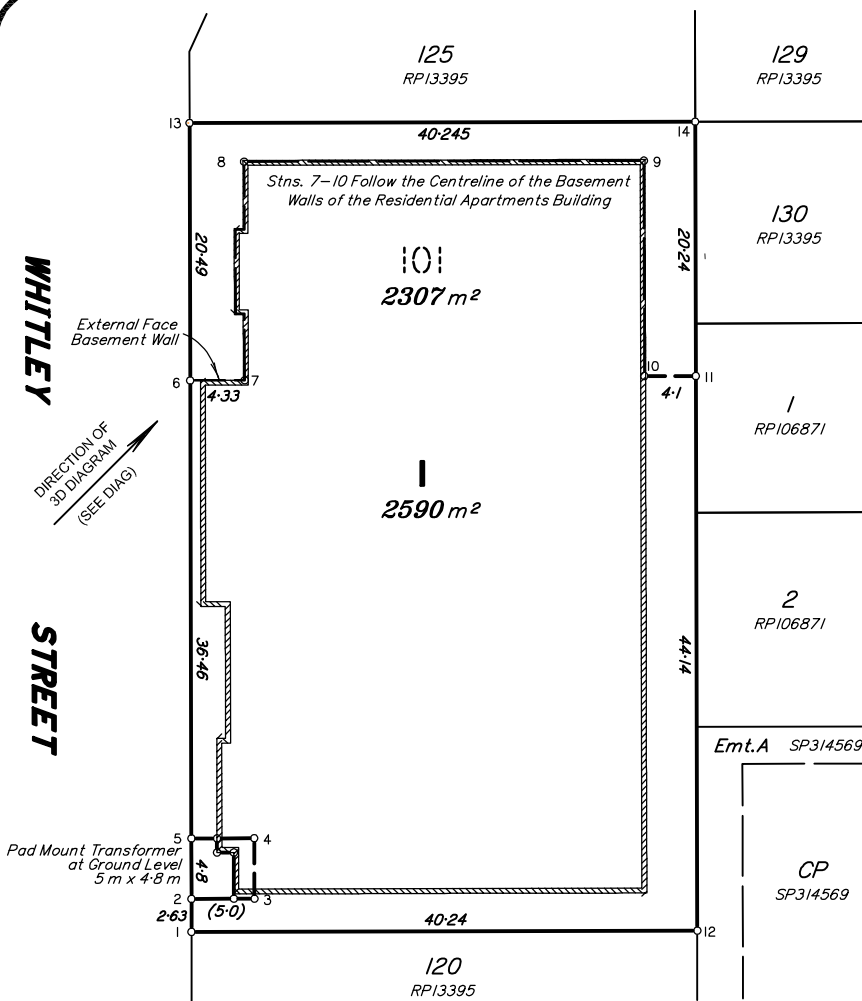
job no 2410_1456

rev SK_202

rev X

0 2 4 10

Appendix B – Proposed Reconfiguration of a Lot Plans



Lot 1 is a Standard Format Lot and is bounded by Stns. 1, 12, 13 and 14

Lot 101 is a volumetric Lot and its footprint is bounded by Stns. 1-12

The outer boundaries of Lot 101 are vertical planes and generally follow the centreline/face of structural walls, except where coincident with the outer boundaries of Lot 1

Emt.A SP314569

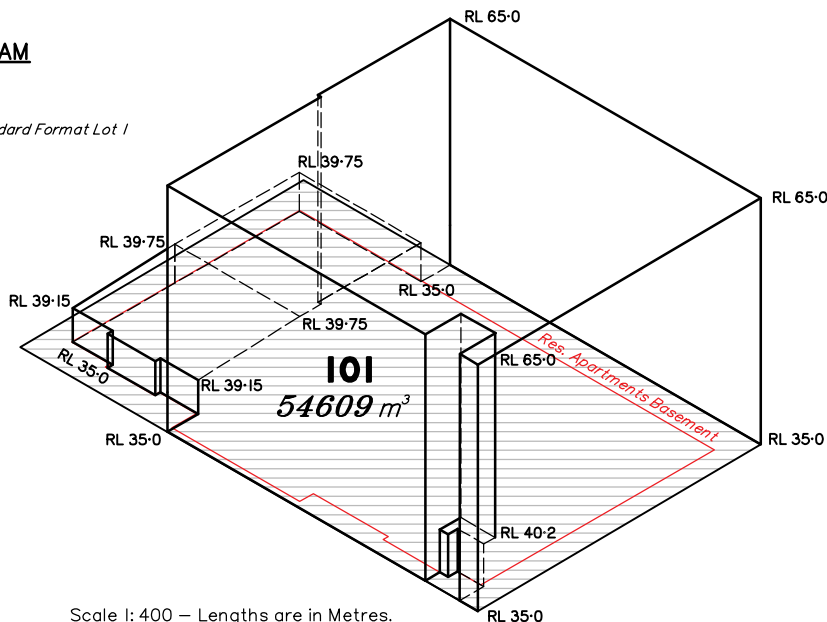
CP SP314569

**** Levels, areas and dimensions shown on this plan are indicative only. Final dimensions and areas will be confirmed by survey once the proposed buildings are constructed**

3D DIAGRAM

1:500

Standard Format Lot 1



Scale 1:400 - Lengths are in Metres.

IMPORTANT NOTE

This plan was prepared for LSH Persee Trust Partnership as a proposed subdivision to accompany a subdivision application to Brisbane City Council and should not be used for any other purpose. The dimensions, areas, levels and total number of lots shown hereon are subject to field survey and also to the requirements of Council and any other authority which may have requirements under any relevant legislation. In particular, no reliance should be placed on the information on this plan for any financial dealings involving the land.

Underground services have not been located. Prior to any demolition, excavation or construction on the site, the relevant authority should be contacted for possible location of underground services and detailed locations of all services.

This note is an integral part of this plan.



WYNNUM
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WYNNUM QLD 4178
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Email: mail@gsp-land.com.au

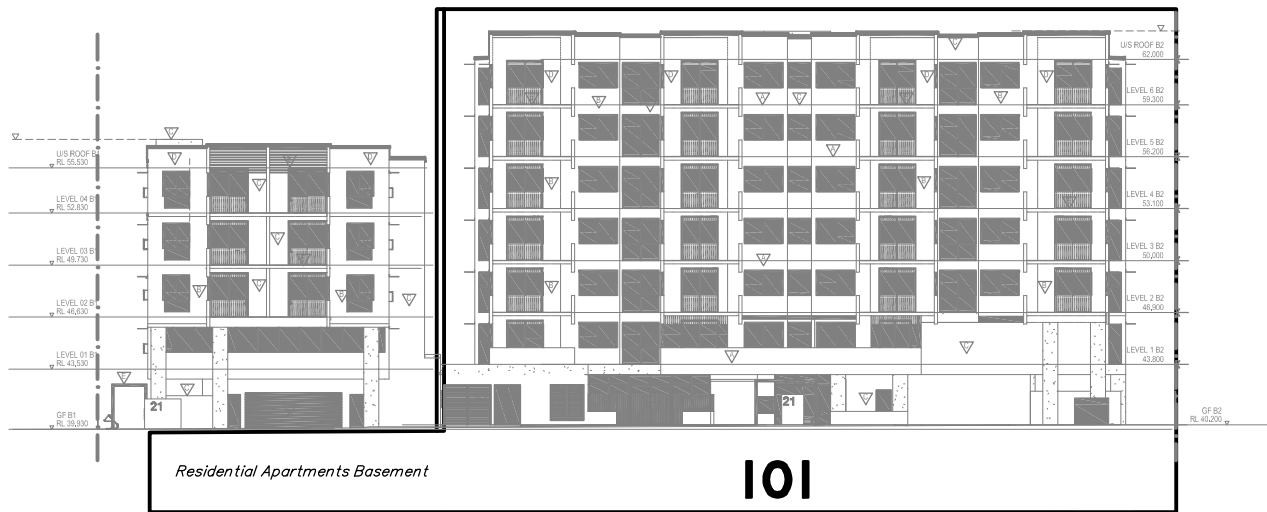
LAND SURVEYORS
PLANNING CONSULTANTS
PROPERTY CONSULTANTS
GPS SURVEYS
MINING SURVEYS

TITLE
PROPOSAL PLAN
Proposed Lots 1 and 101
Existing Lots 121-124 on RPI3395
21 Whitley Street, Mount Gravatt East

LOCALITY Mount Gravatt East	ORIG POR -	LOCAL AUTH Brisbane City	SURVEYED BY -	JOB No 9255	DRAWING No 9255-02	REVISION E
MAP REF 9542-44/131	DATE OF SURVEY -	DATE OF PLAN 13/05/2026	SCALE 1:400			

VERTICAL DATUM AHDD	HORIZONTAL DATUM IS267017
ORIGIN -	CONTOUR INTERVAL -
DRAWN BY SMc	FIELD BOOK -
DIGITAL FORMAT I2d/ACAD	

DIAGRAM
N.T.S



West Elevation

Appendix C - Proposed Civil Works Plans



NORTH

No	Description	Date	By
A	FOR APPROVAL	16/03/25	SC
B	COUNCIL RFI	26/05/24	LS



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Approved - Director
16/12/2024

ASSOCIATED CONSULTANTS:

CLIENT
**LSH PERSE
TRUST PARTNERSHIP**
PROJECT
**21 WHITLEY STREET,
MOUNT GRAVATT EAST**

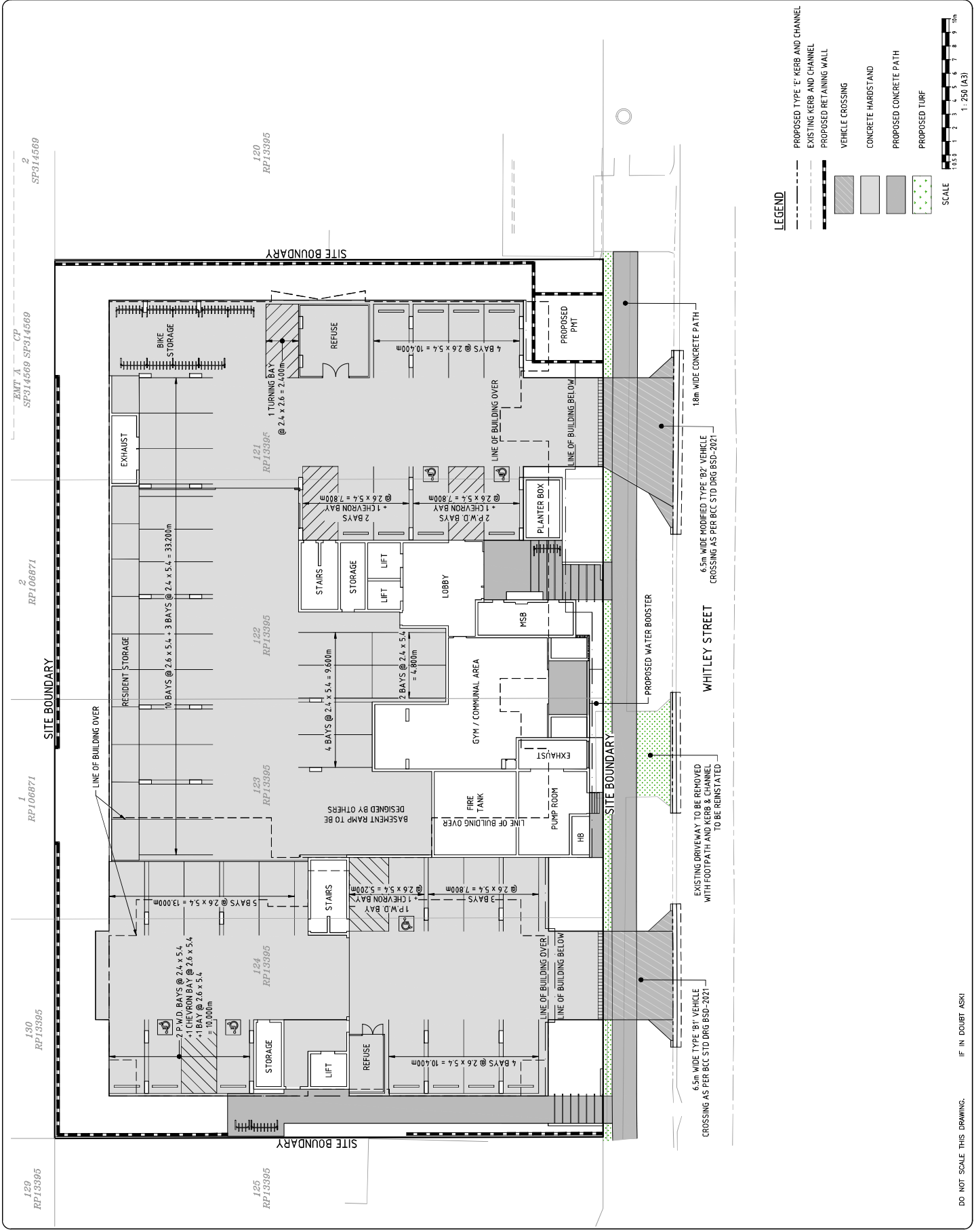
TITLE
SITE PLAN

Local Authority
BRSBANE CITY COUNCIL

Drawn	Checked	Date
SC	LS	MAR 25

Scale	AS SHOWN	Sheet	1 of 6
Drawing No	A3	Revision	6

24-125-P01



LEGEND

- PROPOSED TYPE 'E' KERB AND CHANNEL
- EXISTING KERB AND CHANNEL
- PROPOSED RETAINING WALL
- VEHICLE CROSSING
- CONCRETE HARDSTAND
- PROPOSED CONCRETE PATH
- PROPOSED TURF

SCALE 1:250 (A3)



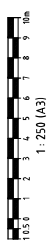
0140130



ASSOCIATED CONSULTANTS

CLIENT: LSH PERSSE
TRUST PARTNERSHIP
PROJECT: 21 WHITLEY STREET,
MOUNT GRAVATT EAST
TITLE: LAYOUT PLAN

Local Authority	BRISBANE CITY COUNCIL			
	Drawn SC	Designed LS	Checked GBN	Date MAR '25
	Scale AS SHOWN	A3		Sheet 2 of 6
	Drawing No 24-125-P02			Revision B



DO NOT SCALE THIS DRAWING. IF IN DOUBT ASK!

[illegible]

ABN 93 114 479 524

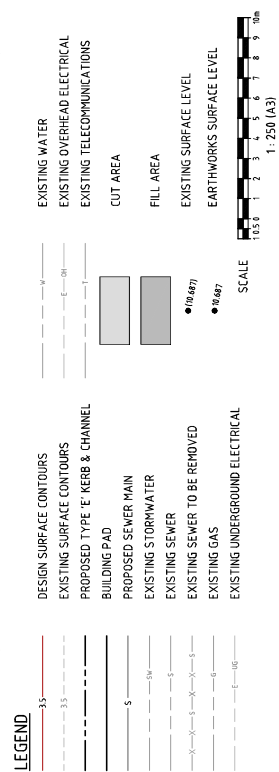
ASSOCIATED CONSULTANTS :

CLIENT :
LSH PERSE
TRUST PARTNERSHIP

PROJECT :
21 WHITLEY STREET,
MOUNT GRAVATT EAST

TITLE: **BULK EARTHWORKS PLAN**

Local Authority	BRISBANE CITY COUNCIL			
Drawn	SC	Designed	LS	Checked
Scale	AS SHOWN	GBN	MAR '25	Date
Drawing No	24-125-P03	A3	Sheet 3 of 6	Revision
				B



EARTHWORKS VOLUMES

TOTAL CUT = 7,019m³
TOTAL FILL = 15m³
NET = 7,004m³ (CUT)
AREA = 2,589m²

VOLUMES BASED ON EARTHWORKS SURFACE
1050mm BELOW BASEMENT FINISHED SURFACE LEVELS
AND 100mm BELOW EXISTING SURFACE LEVELS



REVISIONS		No.	Description	Date	By
A	FOR APPROVAL	1	10/01/2018	SC	
B	COUNCIL REF	2	20/01/2018	LS	

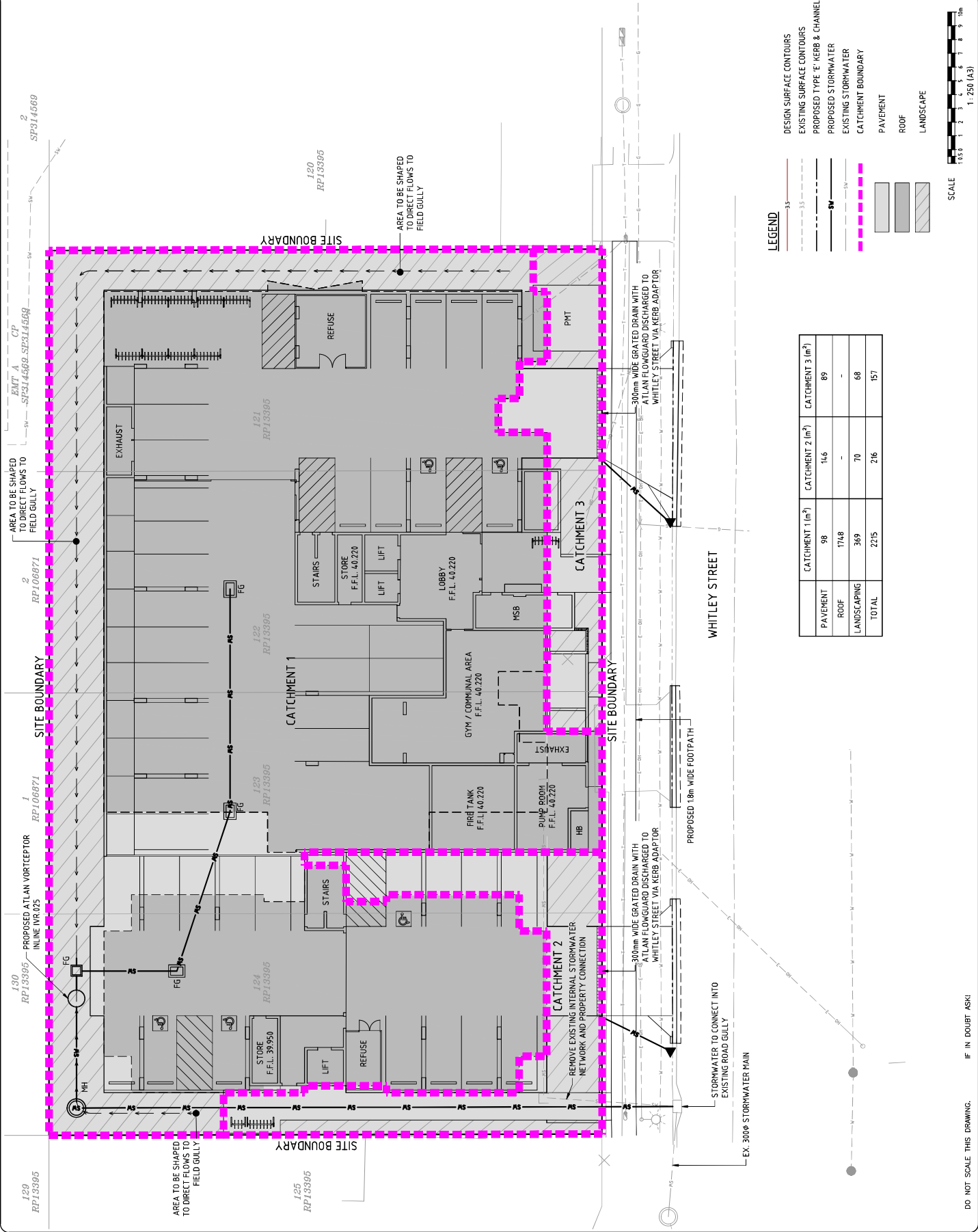


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Approved Director

ASSOCIATED CONSULTANTS:

CLIENT
LSH PERSSE
TRUST PARTNERSHIP
PROJECT
21 WHITLEY STREET,
MOUNT GRAVATT EAST
TITLE
STORMWATER MANAGEMENT
PLAN

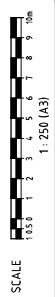
Local Authority		BRISBANE CITY COUNCIL		Date	
Drawn	SC	Designed	LS	Checked	GBN
Scale	AS SHOWN	AS SHOWN	A3	Sheet	5
Drawing No.	24-125-P05		Revision	of	6



LEGEND

- DESIGN SURFACE CONTOURS
- EXISTING SURFACE CONTOURS
- PROPOSED TYPE 'E' KERB & CHANNEL
- PROPOSED STORMWATER
- EXISTING STORMWATER
- CATCHMENT BOUNDARY
- PAVEMENT
- ROOF
- LANDSCAPE

	CATCHMENT 1 (m ²)	CATCHMENT 2 (m ²)	CATCHMENT 3 (m ²)
PAVEMENT	98	146	89
ROOF	1748	-	-
LANDSCAPING	369	70	68
TOTAL	2215	216	157





REVISIONS		No.	Description	Date	By
A	FOR APPROVAL	1	ISSUED FOR APPROVAL	10/03/2018	SC
B	COUNCIL RFI	2	FOR COUNCIL REVIEW	26/06/2018	LS



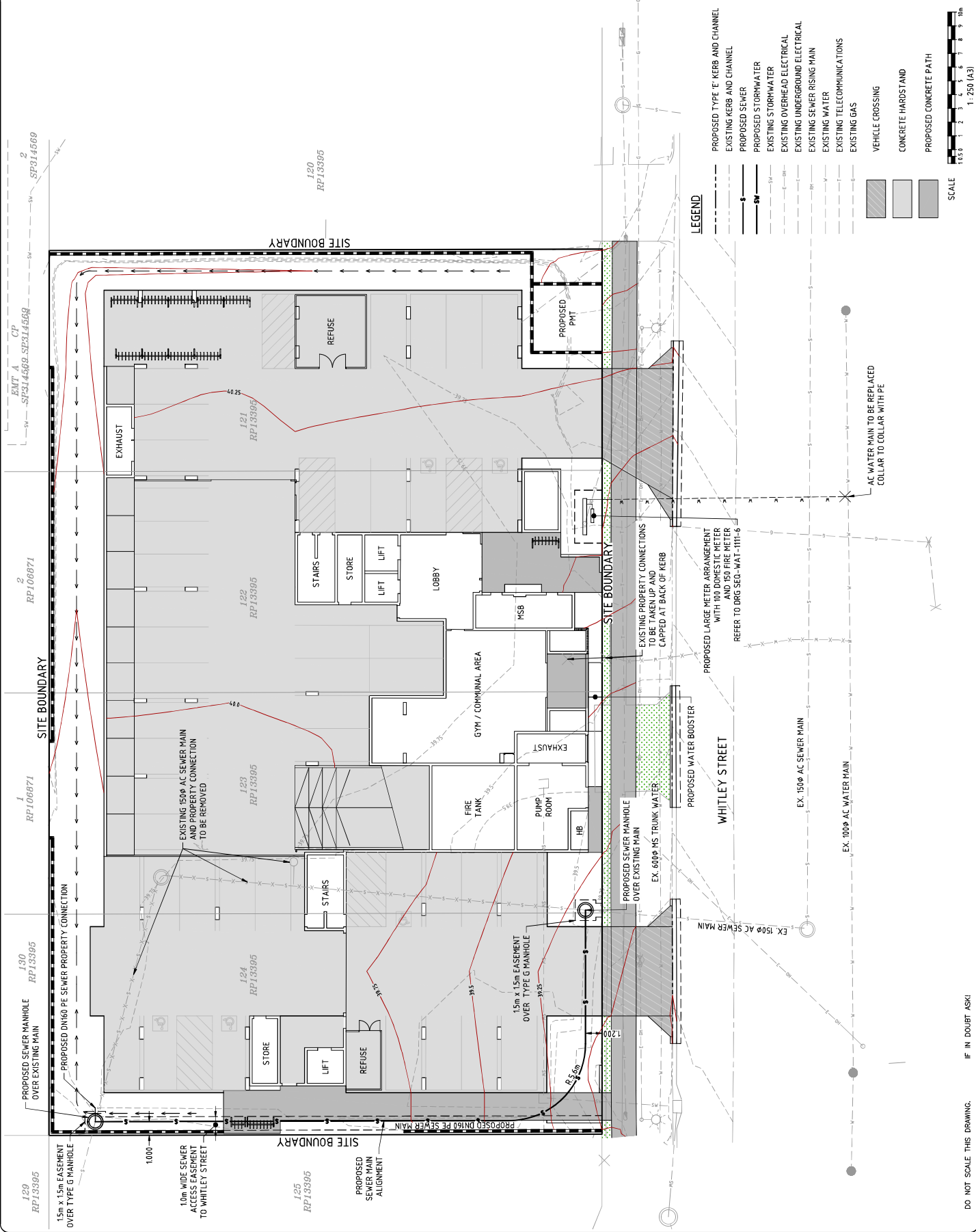
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ABN 53 114 479 524

[Signature]
APPROVED - CLIENT
10/03/2018

ASSOCIATED CONSULTANTS:

CLIENT
LSH PERSSE
TRUST PARTNERSHIP
PROJECT
**21 WHITLEY STREET,
MOUNT GRAVATT EAST**
TITLE
**PRELIMINARY SEWER
AND WATER PLAN**

Local Authority				BRISBANE CITY COUNCIL			
Drawn	SC	Designed	LS	Checked	GBN	Date	MAR 25
Scale	AS SHOWN	AS SHOWN	A3	Sheet	6	Revision	6
Drawing No.	24-125-P06						



Appendix D – Stormwater Management Report



**KARAMISHEFF
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SITE BASED STORMWATER MANAGEMENT PLAN

PROPOSED SDA & RESIDENTIAL DEVELOPMENT

AT

15-25 WHITLEY STREET, MOUNT GRAVATT EAST

FOR

LSH PERSSE TRUST PARTNERHSIP

**May 2026
(Revision B)**

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Document Status

Revision No.	Author	Approved	Date
A	L Swinton	G Nagel	March 2025
B	L Swinton	G Nagel	May 2026

1 INTRODUCTION

1.1 Scope of Report

Karamisheff Nagel Pty Ltd has been commissioned to prepare a Site Based Stormwater Management Plan for inclusion in the Development Application to Brisbane City Council for the multi -residential development at 15-25 Whitley Street, Mount Gravatt East.

This report has been prepared to assess the following:

- The existing and proposed stormwater drainage of the site.
- The management of stormwater quantity and quality within the site.
- The impact of the development on the existing stormwater infrastructure and downstream properties.

2 SITE CHARACTERISTICS

2.1 Location

The subject site consists of four adjacent freehold lots (Lots 121 to 124 on RP13395) covering a total area of approximately 2590m² and is currently occupied by an existing commercial dwelling and associated hardstand areas. The site is surrounded by residential properties on the southern, eastern and northern boundary of the site and Whitley Street to the west. See Figure 1 for reference.



Figure 1 Locality aerial photo (source: NearMap 2025)

2.2 Topography, Survey, Site Drainage and Watercourses

The subject site slopes from the southern boundary with an elevation of RL 41.0m to the northwestern corner of the property at an elevation of RL 39.2m.

The site currently has existing stormwater and roof water drainage that collects runoff from the hardstand and roof areas. All runoff is collected and piped to the north-west corner of the site, where it discharges into the existing road gully located along the frontage of Whitley Street.

The site is not located in a mapped Overland Flow Path however Whitley Street does convey overland flow from the south into the existing creek waterway to the northern end of the street.

2.3 Existing and Proposed Land Use

The subject site is currently occupied by an existing commercial dwelling, carparking and associated landscaping, creating an impervious area that covers 65% of the total area of the site which is approximately 1,693m².

The development proposes the removal of all existing structures and construct a multi-residential Specialist Disability Accommodation (SDA) building and a Multi-residential Building with basement carparking. Along with associated landscaping and driveways, the development will result in an impervious area of 2,095m², covering 81% of the site.

2.4 Legal Point of Discharge

The current site runoff and roof water is discharged to the road gully along the Whitley Street frontage while the major stormwater runoff is directed to the northwest corner of the site as sheet flow towards the north-western corner of the site onto Whitley Street.

On this basis, the existing Legal Point of Discharge is predominately the road gully and piped network along Whitley Street with major flows discharging to the Whitley Street verge as overland flow.

The proposed development will provide a piped stormwater network for the minor storms discharging into the existing road gully located within Whitley Street. The proposed grading of the site will direct major flows from the development to Whitley Street verge as overland flow as per existing conditions.

The Legal Point of Discharge for the proposed development is considered to be:

- Minor Storm Event – the existing stormwater gully and piped network located within Whitley Street
- Major Storm Event - overland flow to Whitley Street.

3 STORMWATER QUANTITY MANAGEMENT

3.1 Proposed Stormwater Quantity Management

In accordance with Brisbane City Council's Development Guidelines, a suitably sized piped network and shall be provided to cater for the minor storm events for the development. Major flows from the total site shall be wholly contained within the site and directed to the legal point of discharge as overland flow..

The existing site is fully developed and over 90% impervious. The proposed development therefore will not create an to increase peak discharge from the site during storm events. In accordance with Brisbane City Council's Infrastructure Design Planning Scheme Policy (IDPSP) Section 7.5.2, stormwater detention requirements can be waived when the following items are satisfied, namely.

7.5.2 When to provide stormwater detention

1. *As a general rule, stormwater detention is less likely to be required at the bottom one-third of the catchment.*
3. *Stormwater detention requirements may be waived where:*
 - a. *The development will not cause adverse impacts or actionable nuisance to surrounding properties;*
 - c. *the site discharges directly into the lower catchments of creeks or major drains where it would generally be undesirable to have detention where it may allow peak flows from the site to coincide with the wider catchment flood peak;*
 - d. *the proposal is for residential development where stormwater is disposed to Council's kerb and channel or piped stormwater system and major flows from the site would drain to Councils road reserve;*
 - e. *for infill development only, the development site has an existing actual impervious fraction greater than 60%;*

On this basis, it is considered that stormwater detention is not required. Reference can be made to the attached KN Drawing No. 24-125-P05 for the proposed stormwater management for the development.

4 STORMWATER QUALITY MANAGEMENT

4.1 State Planning Policy 2017

State Planning Policy 2017 identifies development applications that need to demonstrate compliance to the requirements of the policy which fall into any of the following categories:

- 1) *a material change of use for an urban purpose that involves premises 2500 square metres or greater in size and:*
 - a) *will result in six or more dwellings; or*
 - b) *will result in an impervious area greater than 25 per cent of the net developable area; or*
- 2) *reconfiguring a lot for an urban purpose that involves premises 2500 square metres or greater in size and will result in six or more lots; or*
- 3) *operational works for an urban purpose that involves disturbing a land area 2500 square metres or greater in size.*

As the development site is more than 2,500m², the proposed development shall need to demonstrate compliance with the stormwater quality load reduction objectives outlined in State Planning Policy 2017 Stormwater Quality Objectives

State Planning Policy 2017 outlines the following stormwater quality load reduction objectives to be achieved.

- Total Suspended Solids (TSS) reduction of 80%.
- Total Phosphorus (TP) reduction of 60%.
- Total Nitrogen (TN) reduction of 45%.
- Gross Pollutants reduction of 90%.

4.2 Proposed Stormwater Quality Management / Treatment Train

The management of the stormwater quality on-site has been assessed, modelled and compliant quality treatment systems adopted:

Total roofed areas, with majority of landscaping and hardstand areas are to be treated. The proposed stormwater quality treatment train for the site is as follows:

- 1 x Atlan Vortceptor
- 2 x Atlan Flow Guard Grated Drains

4.3 MUSIC Modelling Parameters/Assumptions

The proposed development has been assessed using MUSIC in accordance with the following guidelines and parameters:

- Music version 6.3.0
- Water By Design's MUSIC Modelling Guidelines Version 3.0 - 2018 utilising modified % impervious area, rainfall threshold, soil properties & pollutant concentration
- No drainage routing between nodes.

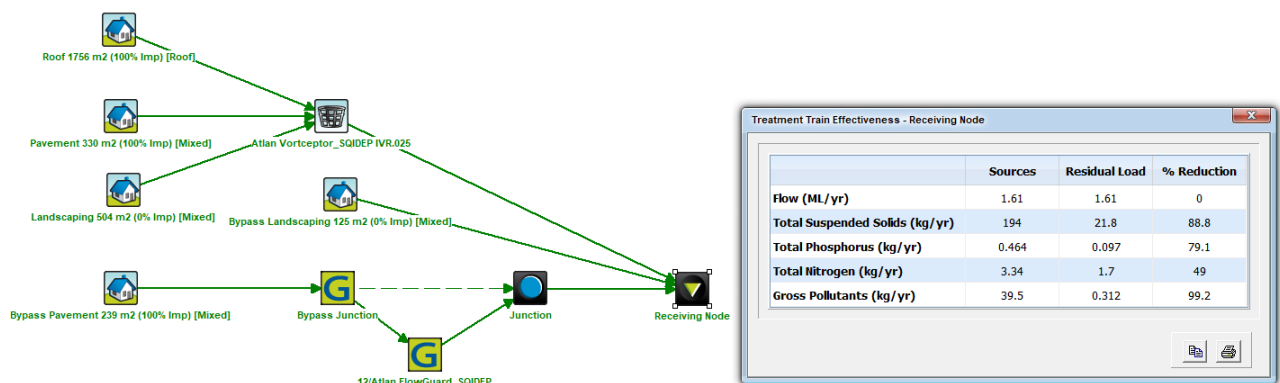


Figure 4.04a – MUSIC Modelling Flowchart and Result

4.4 MUSIC Modelling Results

Figure 4.05a confirms the pollutant load reduction levels for the proposed catchment achieves the requirements of the State Planning Policy 2017.

Pollutant Type	SPP 2017 Requirement	Development Results Achieved	Requirement Satisfied
	%	%	YES/NO
TSS	80.0	88.8	YES
TP	60.0	79.1	YES
TN	45.0	49.0	YES
GP	90.0	99.2	YES

*Table 4.05a - Summary of MUSIC Modelling Results
Catchment 1*

5 CONCLUSION

It is considered that the subject site can be successfully developed to cater for the proposed development without adversely impacting on existing infrastructure or adjoining properties.

The legal point of discharge for this development has been identified as the existing Council stormwater Infrastructure for minor storm events and the Whitley Street road corridor for major storm events.

In accordance with Brisbane City Council's Infrastructure Design Planning Scheme Policy (IDPSP) Section 7.5.2, stormwater detention is not required to mitigate peak flows for the proposed redevelopment.

The proposed development shall provide on-site treatment systems to cater for water quality issues to satisfy State Planning Policy 2017.

Karamisheff Nagel Pty. Ltd.



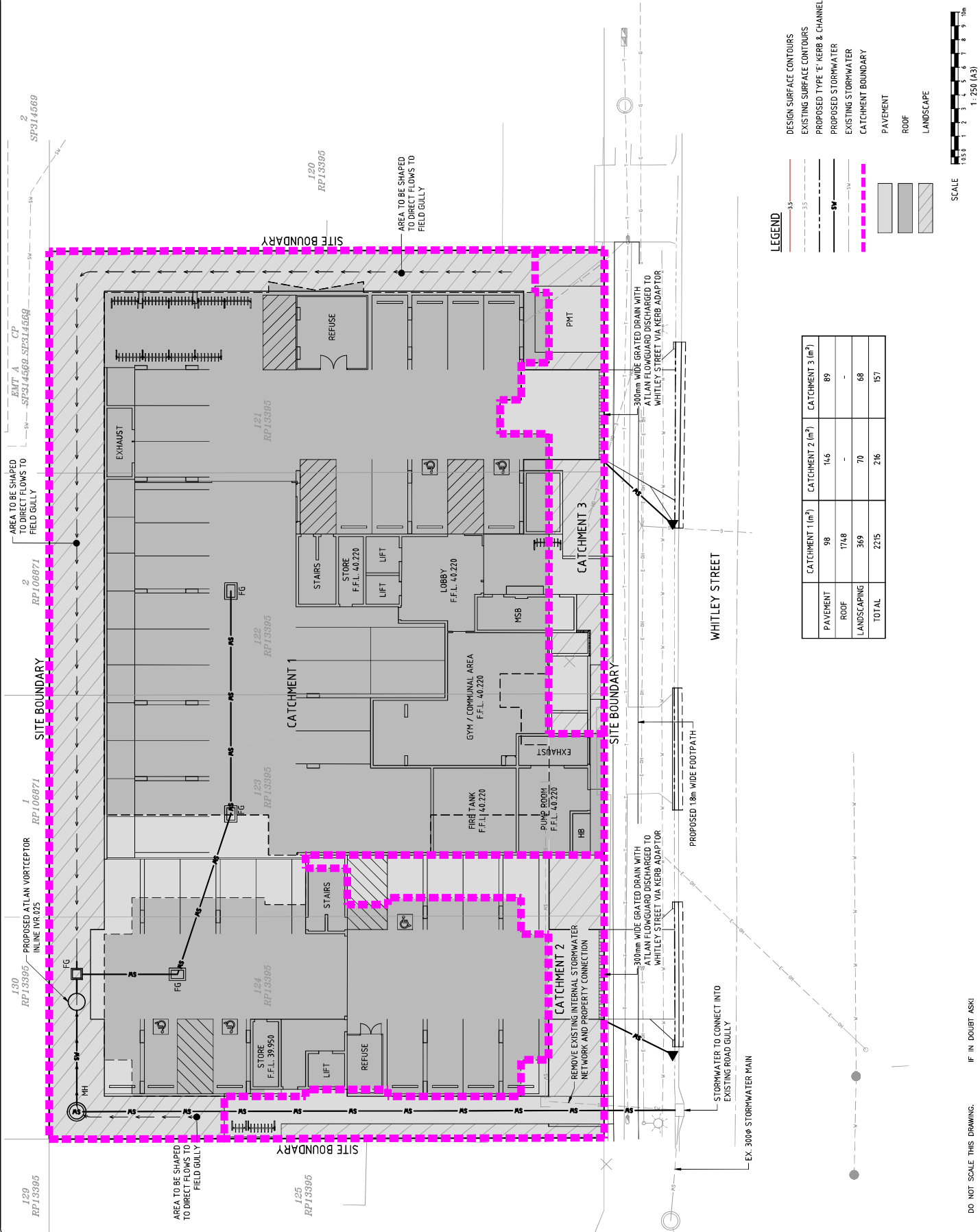
G.B. Nagel
RPEQ 2009

[illegible]

ASSOCIATED CONSULTANTS

CLIENT : LLSH PERSE
TRUST PARTNERSHIP
PROJECT : 121 WHITLEY STEET,
MOUNT GRAVATT EAST
TITLE : STORMWATER MANAGEMENT
PLAN

Local Authority	BRISBANE CITY COUNCIL				
	Drawn SC	Designed LS	Checked GBN	Date MAR '25	Revision B
	Scale AS SHOWN		A3	Sheet 5 of 6	
	Drawing No 24-125-P05				



Vortceptor

Hydrodynamic GPT



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Atlan
STORMWATER



Overview

The Vortceptor Gross Pollutant Trap (GPT) is a non-blocking vortex style separator that has a unique screen and treatment action producing low vortex conditions resulting in excellent pollution removal performance and resulting high water quality outcomes.

It separates and captures gross pollutants, sediments, silt, total suspended solids, some nutrients and oil and grease.

The single piece Vortceptor GPT is delivered to site fully assembled saving on installation time and crane costs. The fibreglass design can be installed in all types of trafficable zones, including vehicular truck (Class D).[^]

The Vortceptor is designed to meet requirements for a diverse range of applications. Designed with versatility in mind, these fibreglass reinforced polymer (FRP) GPTs are available in inline and offline configurations to meet your project specifications.

An offline configuration places the separation chamber adjacent to the diversion chamber. This allows bypass to occur and is beneficial in high flow rate applications.

In an inline treatment configuration, the diversion chamber and separation chamber are integrated – with the device situated ‘inline’ with incoming and outgoing flows. This is often beneficial for retrofit applications in existing drainage systems.

TESTED TREATMENT EFFICIENCIES*

POLLUTANT	EFFICIENCY
Gross Pollutants (GP)	99%
Total Suspended Solids (TSS)	70%
Total Phosphorus (TP)	30%
Total Nitrogen (TN)*	0%
Petroleum Hydrocarbon*	94%

*Contact Atlan to confirm approved performance for the project LGA Organic/particulate component of the nutrient only.

[^] Subject to the installation of an engineered cast in situ concrete slab.

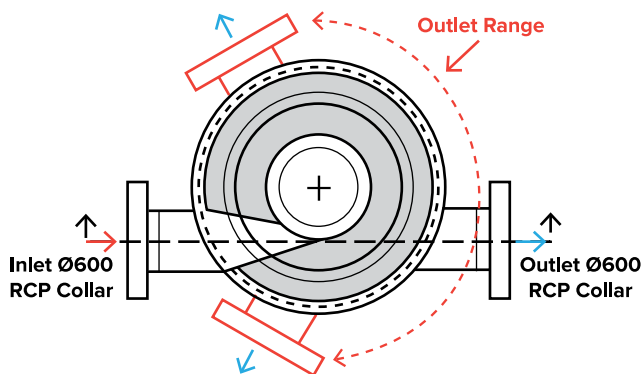
Applications

- Shopping Precinct
- Commercial Zones
- Recreational Grounds
- Industrial Areas
- Beaches & Park
- Residential Development



Inline Model

The Vortceptor Inline series is useful for constrained sites with a treatment flow rate that is relative to the bypass flow rates. The Inline Vortceptor has a flexible pipe configuration with the outlet pipe being able to rotate in excess of 180° around the system. The Inline Vortceptor is available with or without internal bypass to suit installation on low flow diversions.

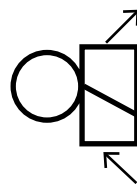


Offline Model

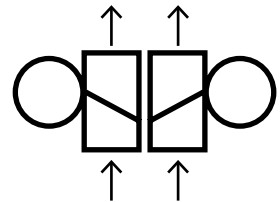
The Vortceptor Offline series is used when the bypass flows are high, or greater than the flows required to pass through the Inline range. There are various advantages of the Offline series including the ability to divert treated flow water to a tertiary asset independently to the bypassed stormwater and the ability to adjust the system to cater for trailwater and external catchments.

You can also include:

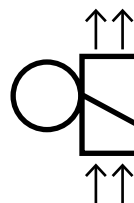
1. Angled inlet/outlet connections
2. Multiple pipes or culverts
3. Back to back twin units - for greater treatment flow requirements
4. Bifurcation or splitting of flows



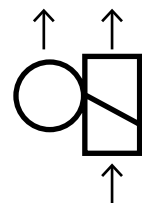
1. Angled up to 45°



3. Back to back units



2. Multiple pipes or culverts



4. Split treated/
bypass flow



Vortex Style GPT Inline Series

The Inline series is manufactured from the standard single tank dia below. Custom systems are also available.

Models	Dimensions (mm)					Capacities			
	Internal Diameter	Overall Width	Depth Below Invert	Manhole Size (mm)	Max Pipe Size (mm)	Sump Capacity (m ³)	Floatables Volume (m ³)	Treatable Flow Rate (L/s)	Max Flow Rate (L/s)
INLINE SERIES									
SVI.025 (L/R)	1200	1370	1400	600x 600	450	1.2	0.06	26	280
SVI.055 (L/R)	1800	1970	1650	900x 900	525	2.7	0.22	55	380
SVI.055.M (L/R)	2200	2370	1585		525	3.2	0.22	55	750
SVI.100/15 (L/R)	1500	1670	1900	1000 DIA Internal 600x 600	600	3.1	0.20	100	700
SVI.160/22 (L/R)	2200	2370	2400		750	3.4	0.39	160	940
SVI.200/22 (L/R)	2200	2370	2900		750	3.1	0.39	200	990
SVI.300/22 (L/R)	2200	2370	3100		750	4.5	0.83	300	1050
SVI.400/22 (L/R)	2200	2370	3000		750	3.4	0.83	400	1180
SVI.400/25 (L/R)	2500	2670	2900		900	5.5	0.83	400	1650
SVI.400/30 (L/R)	3000	3170	3500		900	10	1.5	400	2500
SVI.500/30 (L/R)	3000	3170	3500		1050	10	1.5	500	1650
SVI.500/35 (L/R)	3500	3670	4000		1050	10	1.5	500	1900



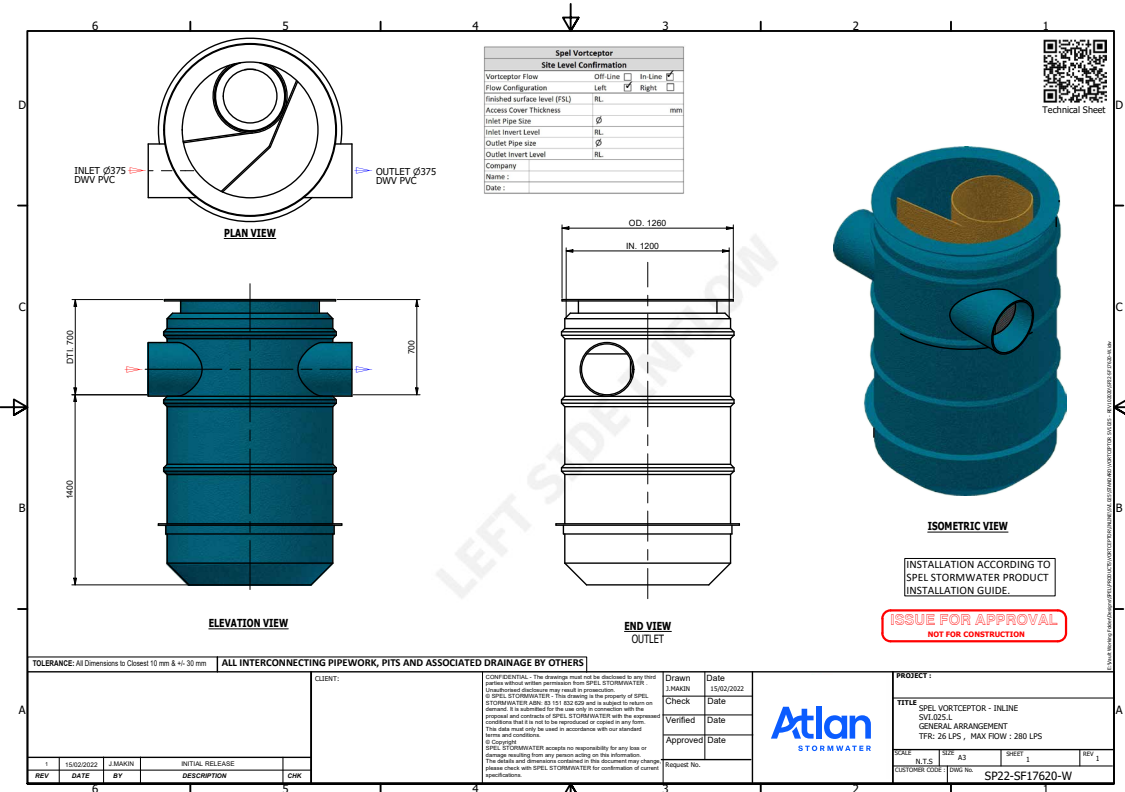
Vortex Style GPT Offline Series

The Offline series is manufactured from the standard single tank dia below. Custom systems are also available.

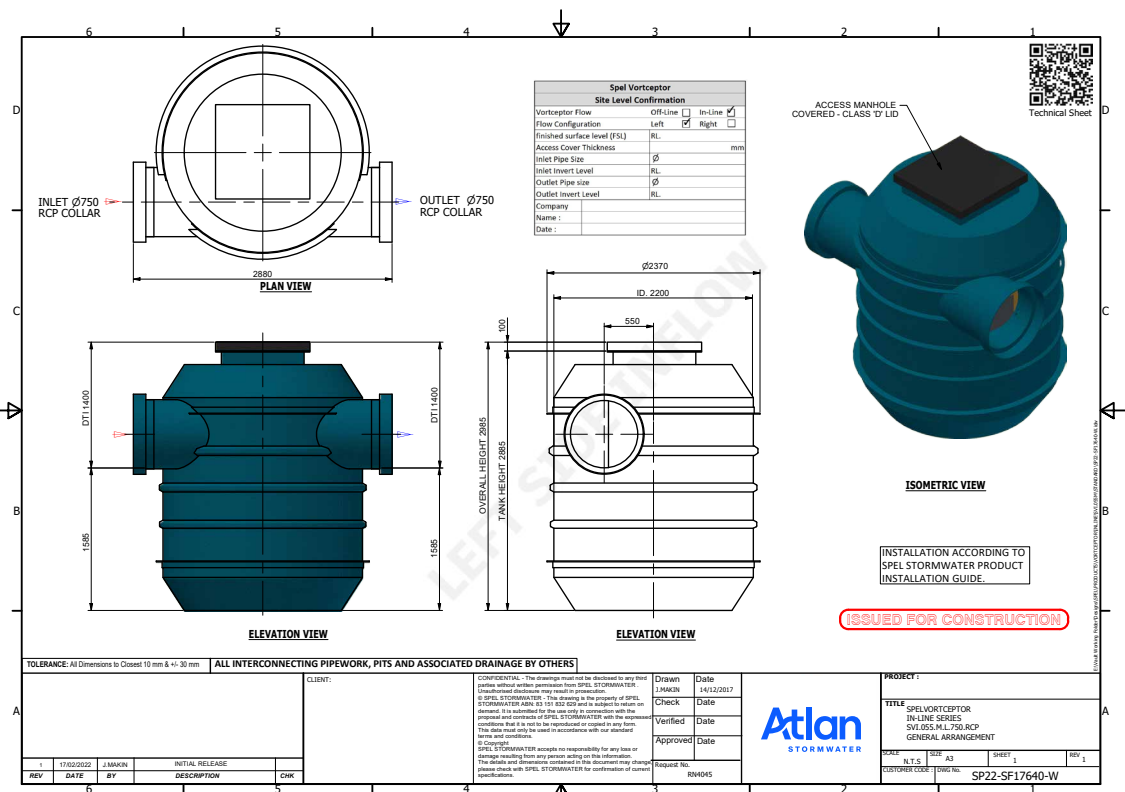
Models	Dimensions (mm)				Capacities			
	Internal Diameter	Overall Width	Depth below invert	Manhole Size (mm)	Sump Capacity (m³)	Floatables Volume (m³)	Treatable Flow Rate (L/s)	Bypass Flow Rate (L/s)
OFFLINE SERIES								
SVO.096 (L/R)	1500	1670	1725	1000 DIA Internal 600x600	2.0	0.35	96	PROJECT SPECIFIC DESIGN
SVO.140 (L/R)	1500	1670	2025		2.3	0.35	140	
SVO.180 (L/R)	1500	1670	2325		3.0	0.35	180	
SVO.220 (L/R)	2200	2350	2800		4.5	1.1	220	
SVO.360 (L/R)	2200	2350	3080		6.0	1.1	360	
SVO.530 (L/R)	3000	3150	3200		8.5	2.8	530	
SVO.800 (L/R)	3000	3150	4200		8.5	2.8	800	
SVO.810 (L/R)	4000	4150	3400		19.3	5.65	800	
SVO.1200 (L/R)	4000	4150	4000		19.3	5.65	1200	
SVO.1600 (L/R)	4000	4150	4600		19.3	5.65	1600	

INLINE DRAWINGS

Inline Model SVI.025

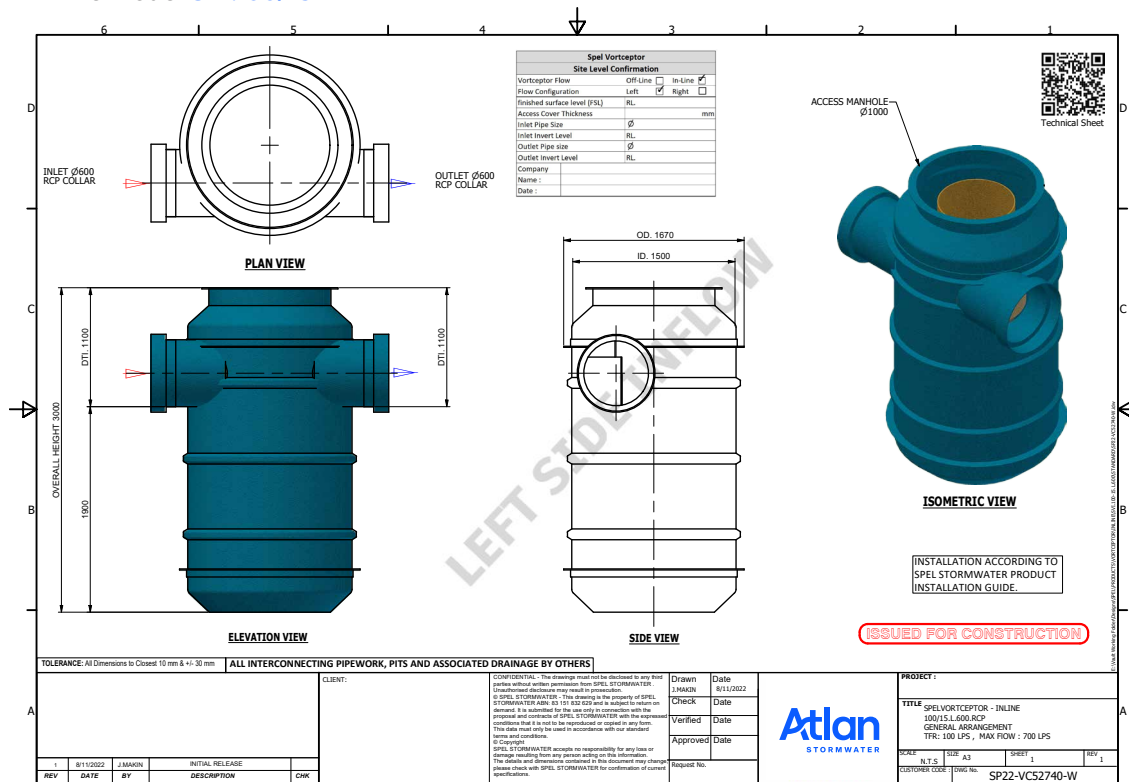


Inline Model SVI.055

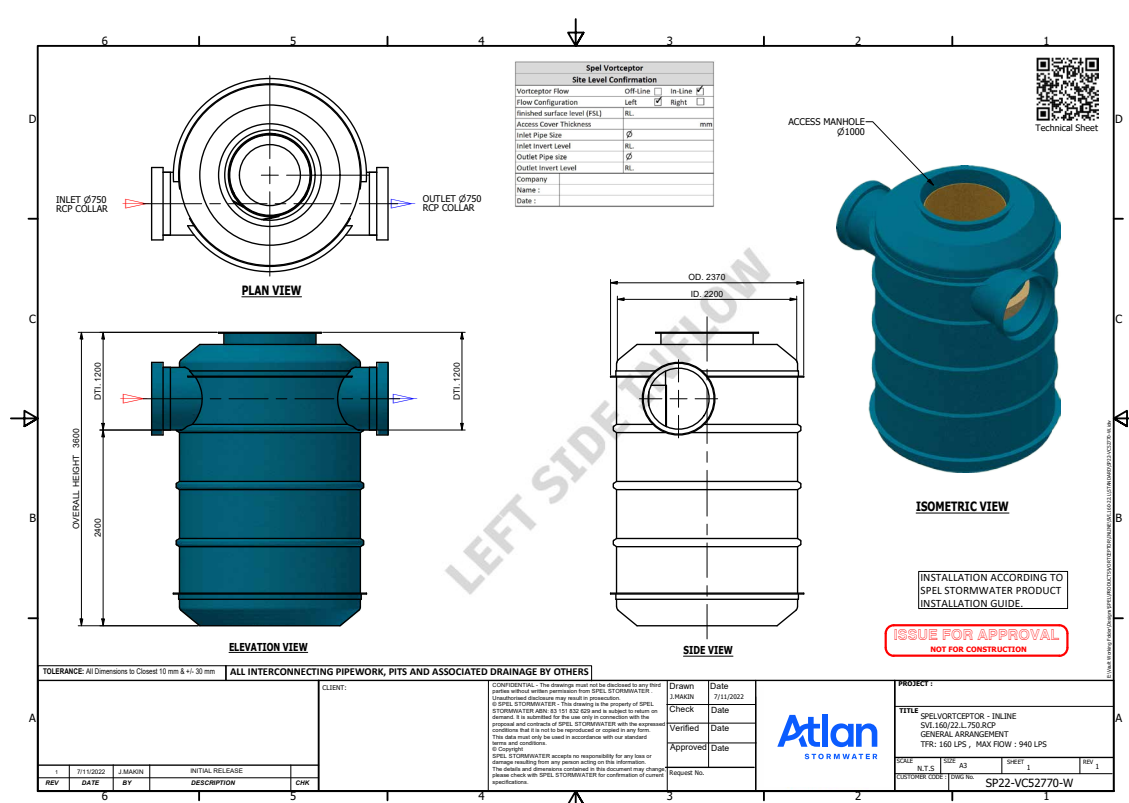


INLINE DRAWINGS

Inline Model SVI.100/15

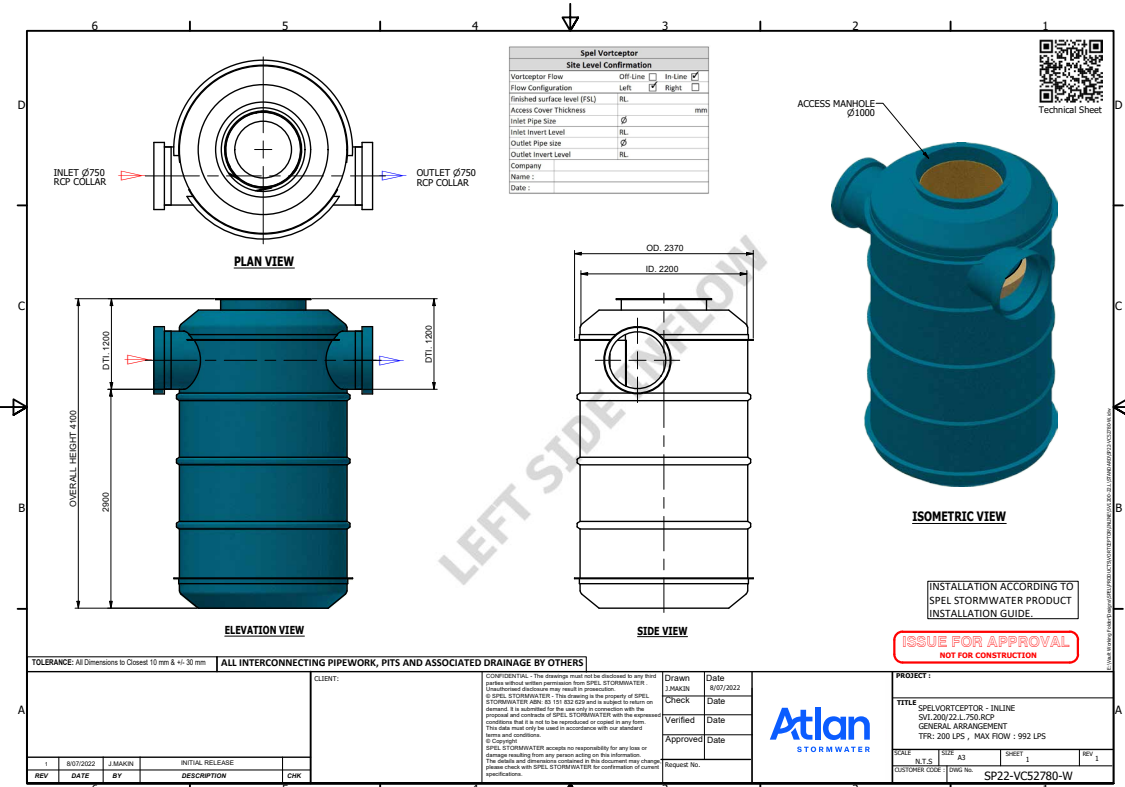


Inline Model SVI.160/22

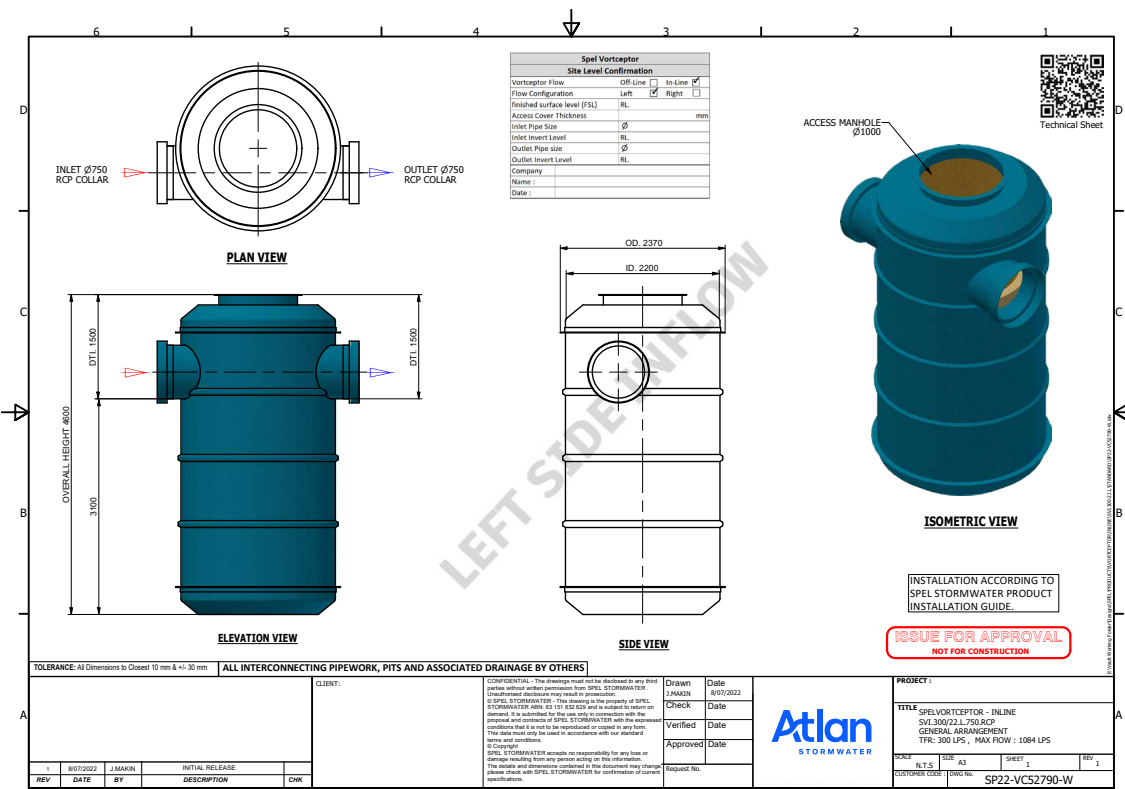


INLINE DRAWINGS

Inline Model SVI.200/22

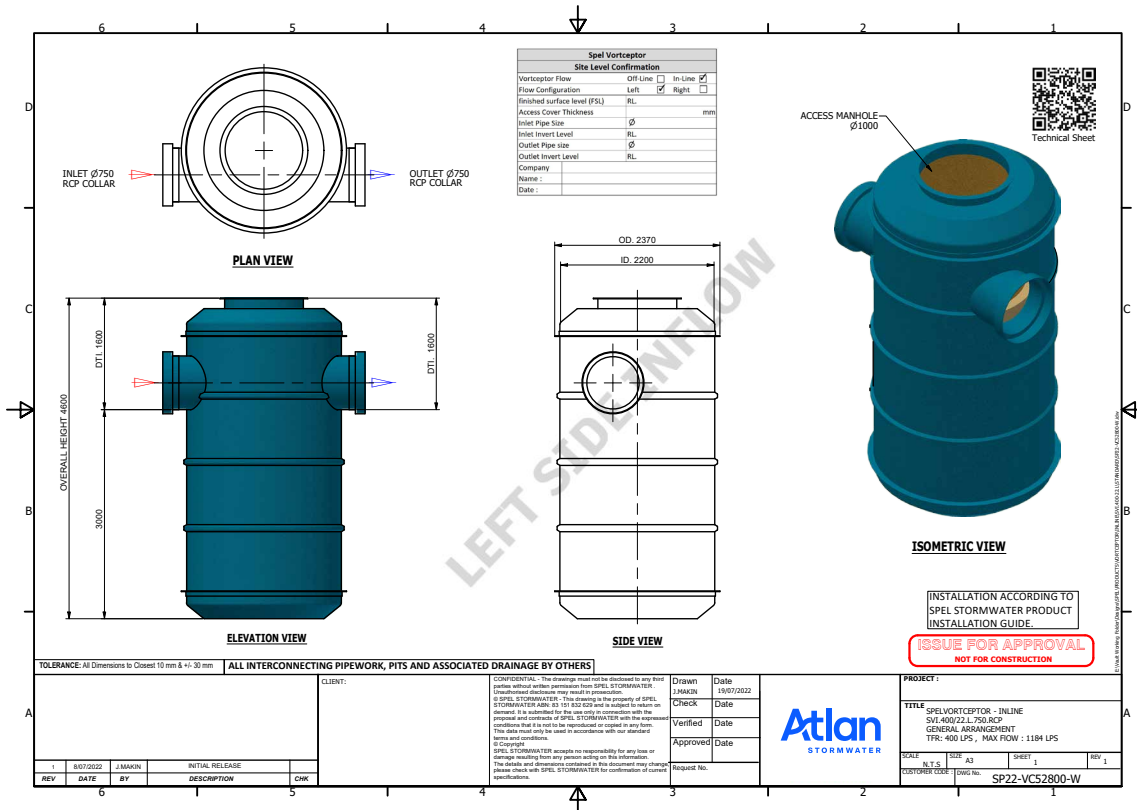


Inline Model SVI.300/22

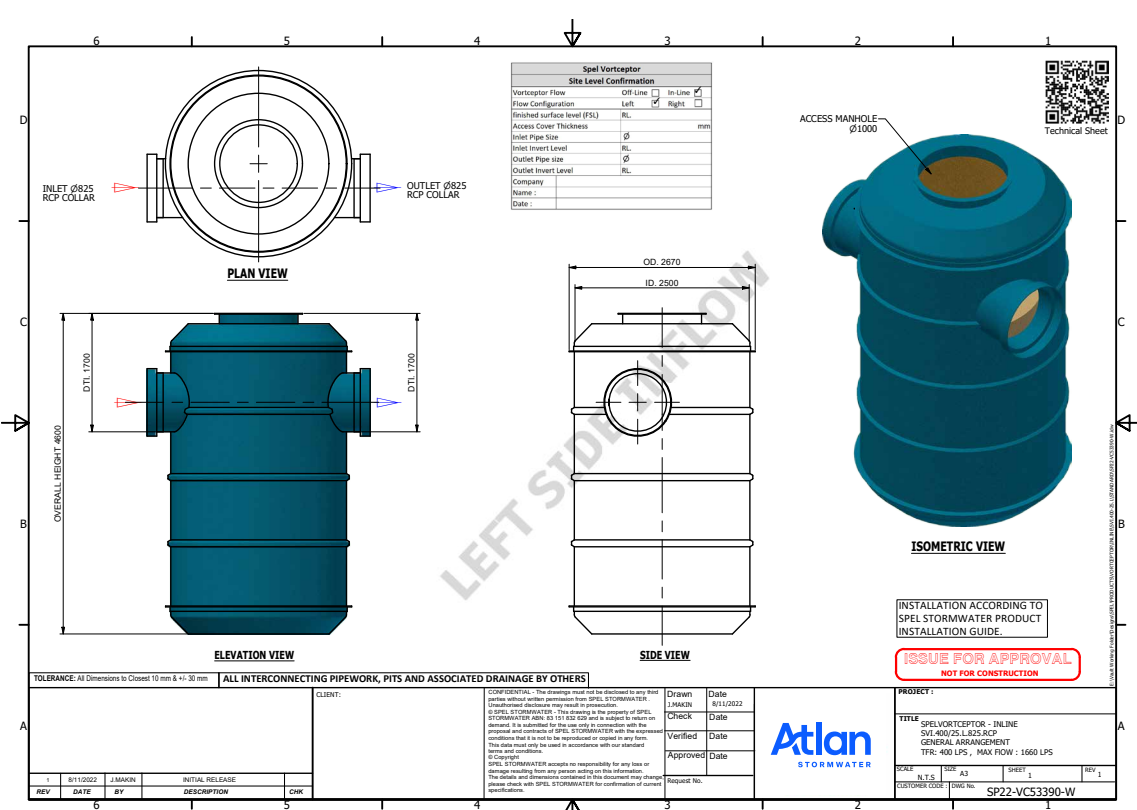


INLINE DRAWINGS

Inline Model SVI.400/22

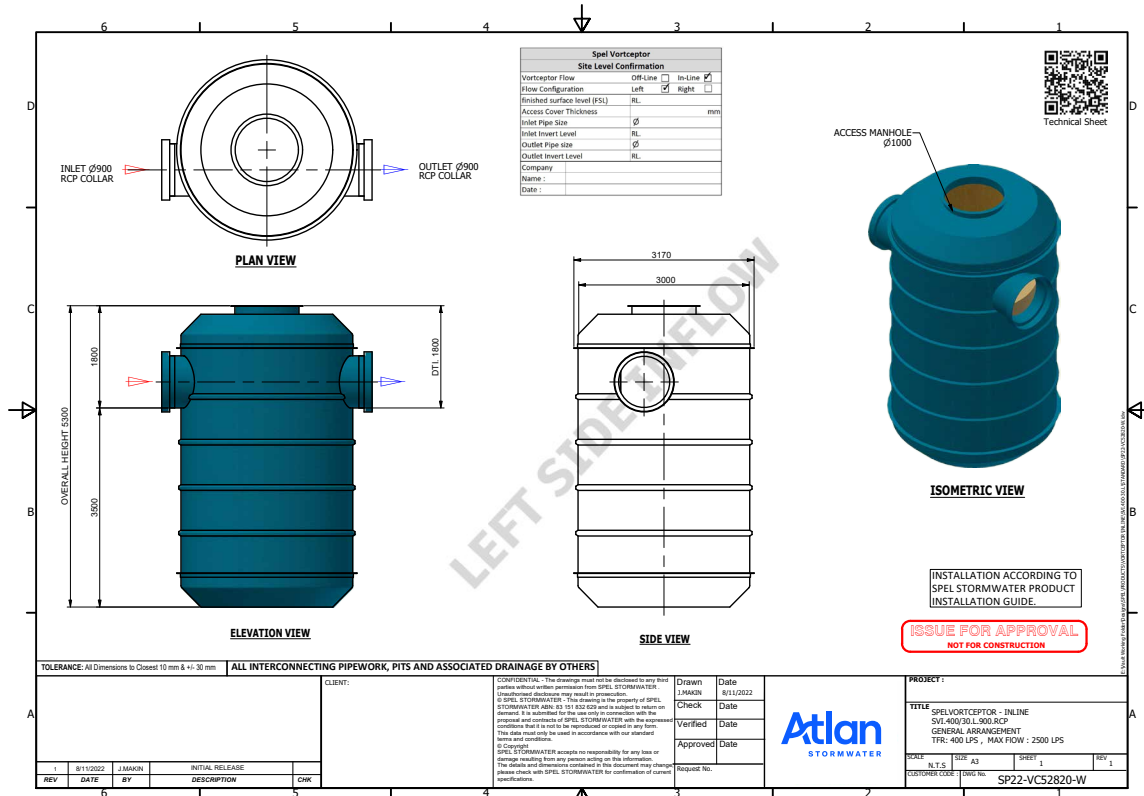


Inline Model SVI.400/25

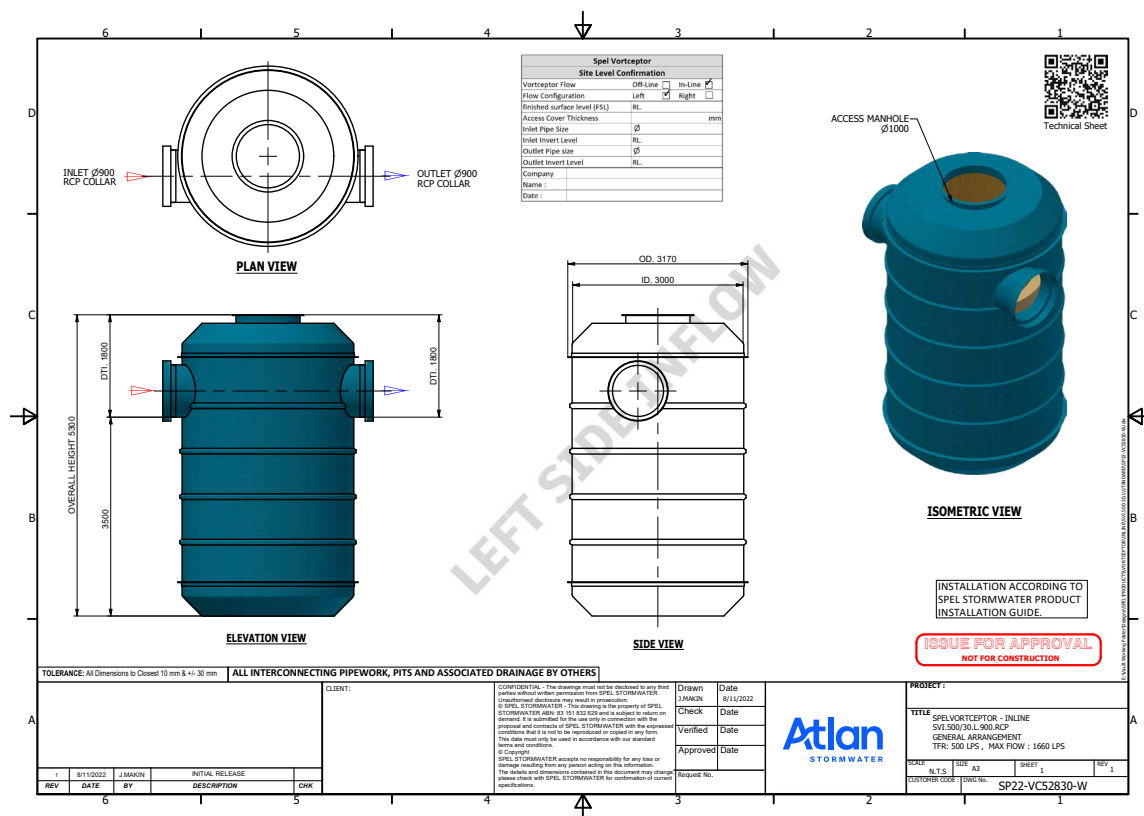


INLINE DRAWINGS

Inline Model SVI.400/30

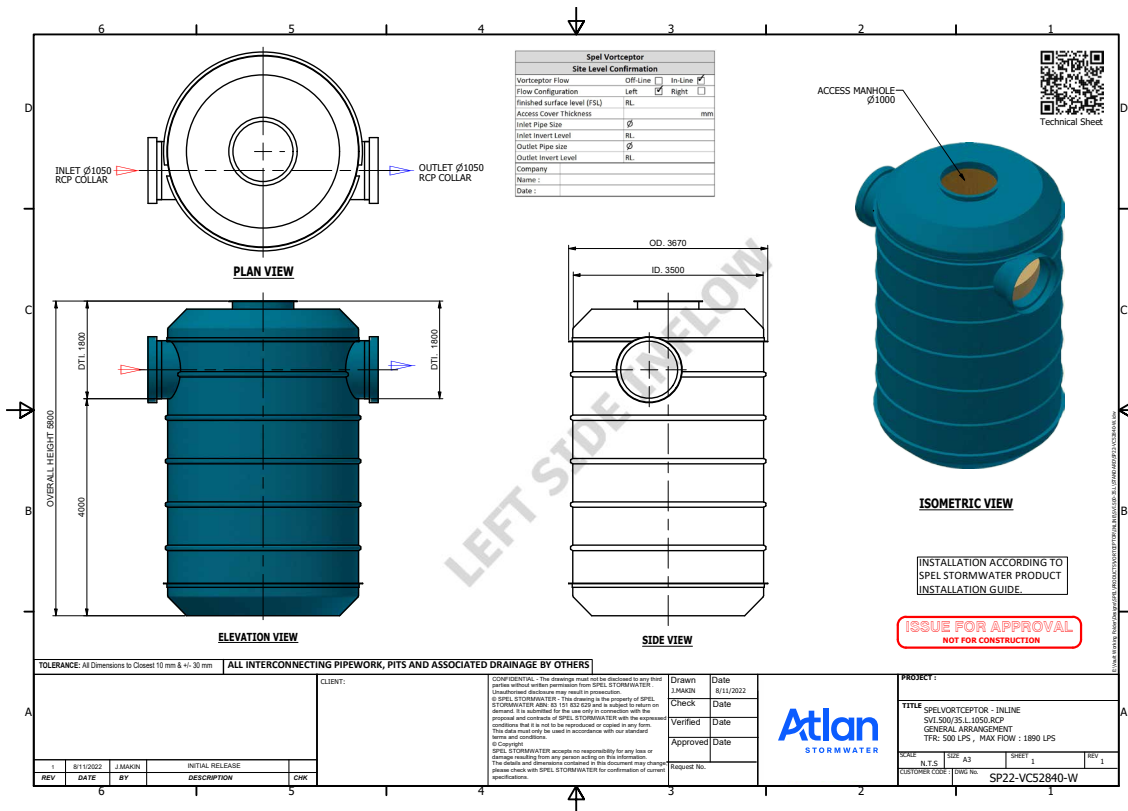


Inline Model SVI.500/30



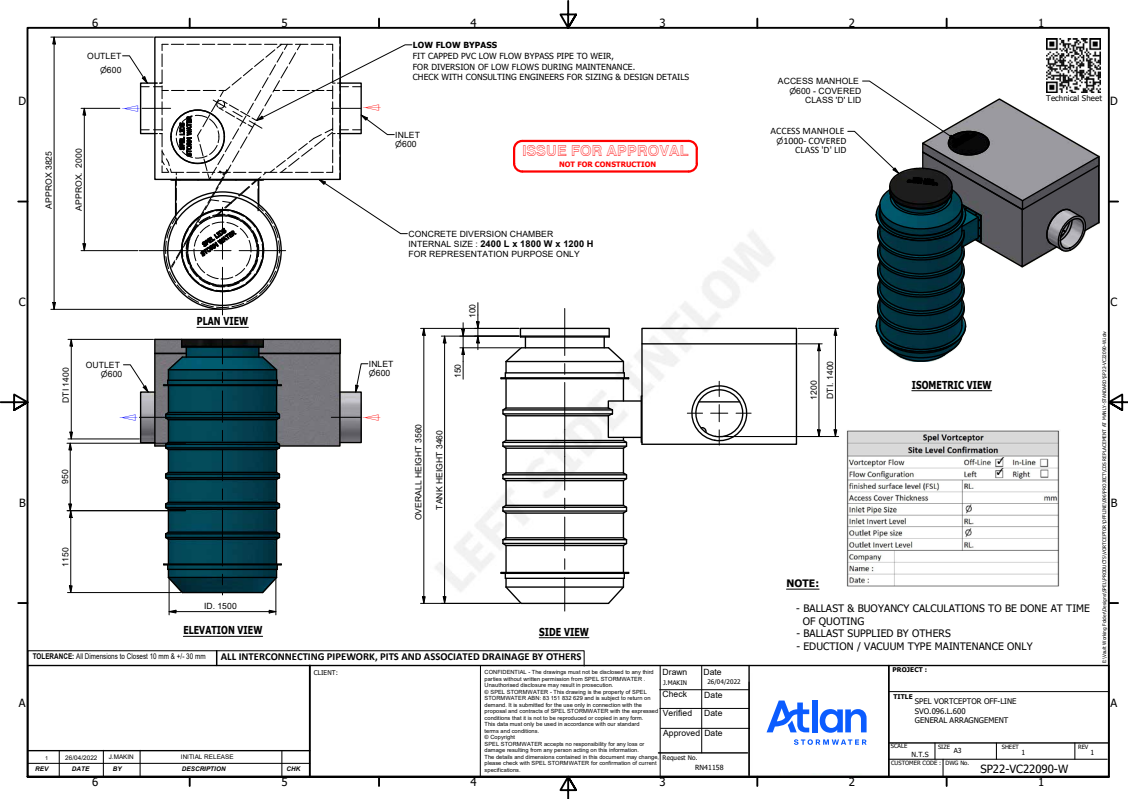


Inline Model SVI.500/35

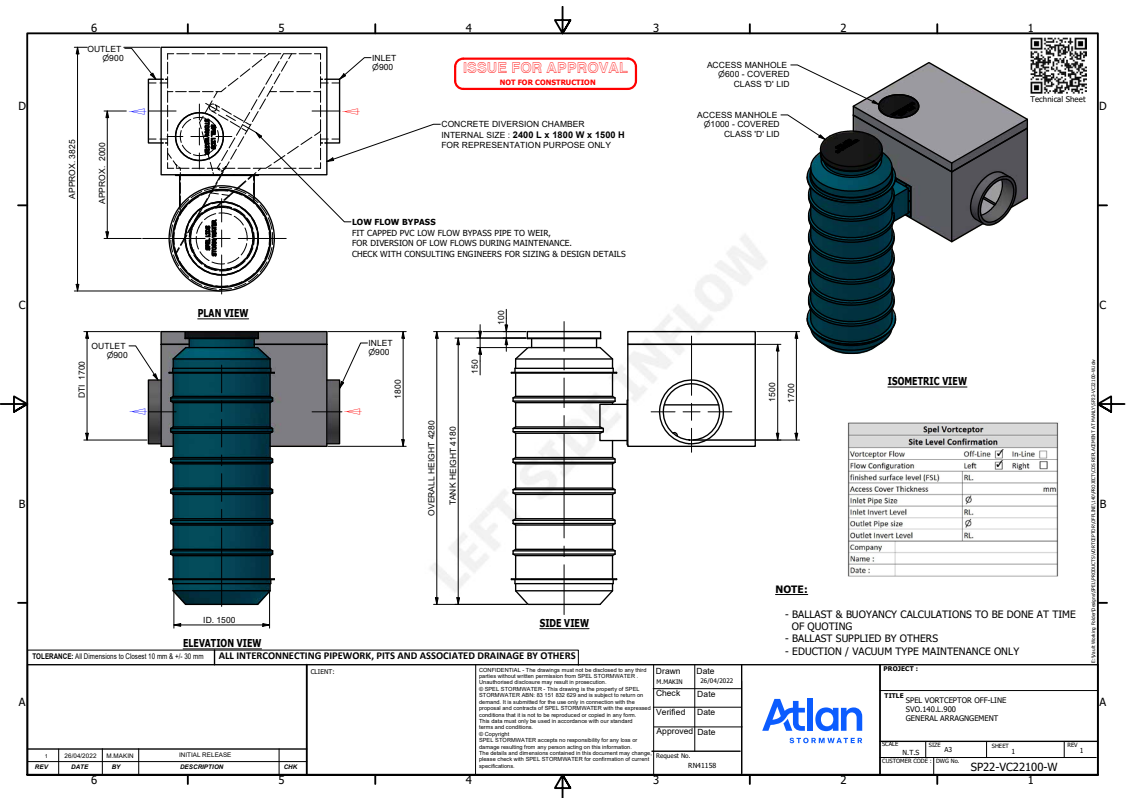


OFFLINE DRAWINGS

Offline Model SVO.096

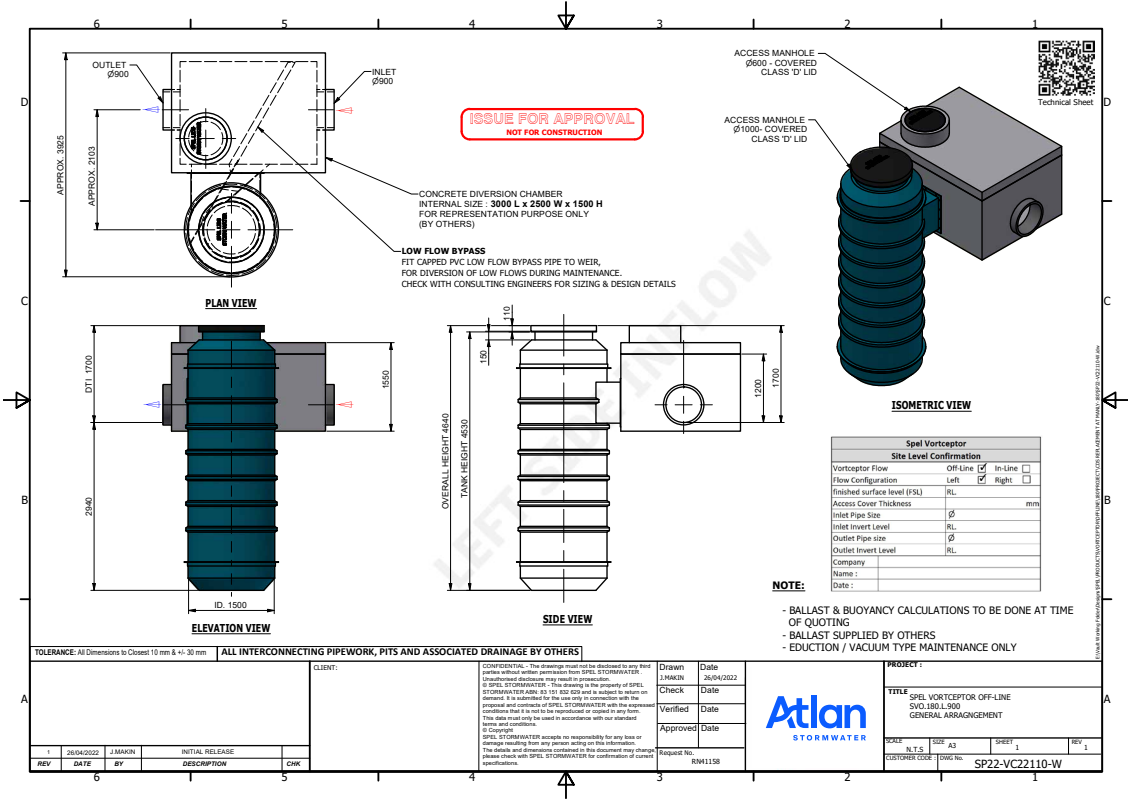


Offline Model SVO.140

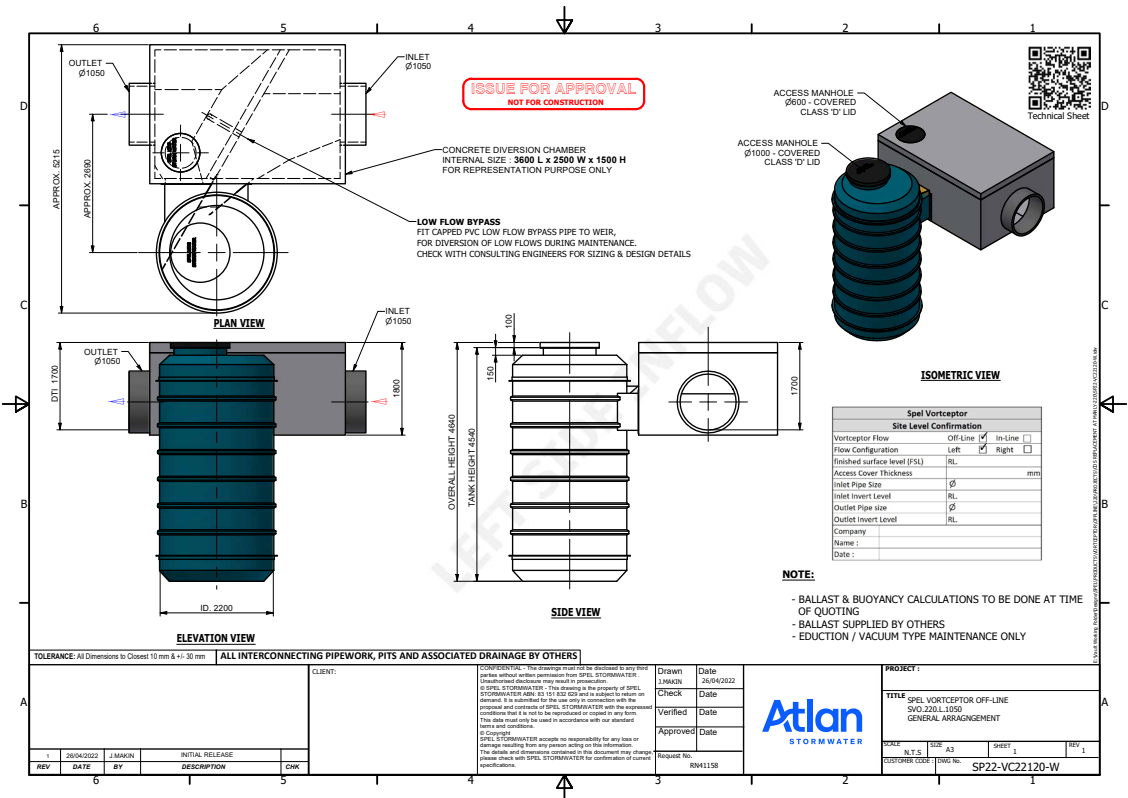


OFFLINE DRAWINGS

Offline Model SVO.180

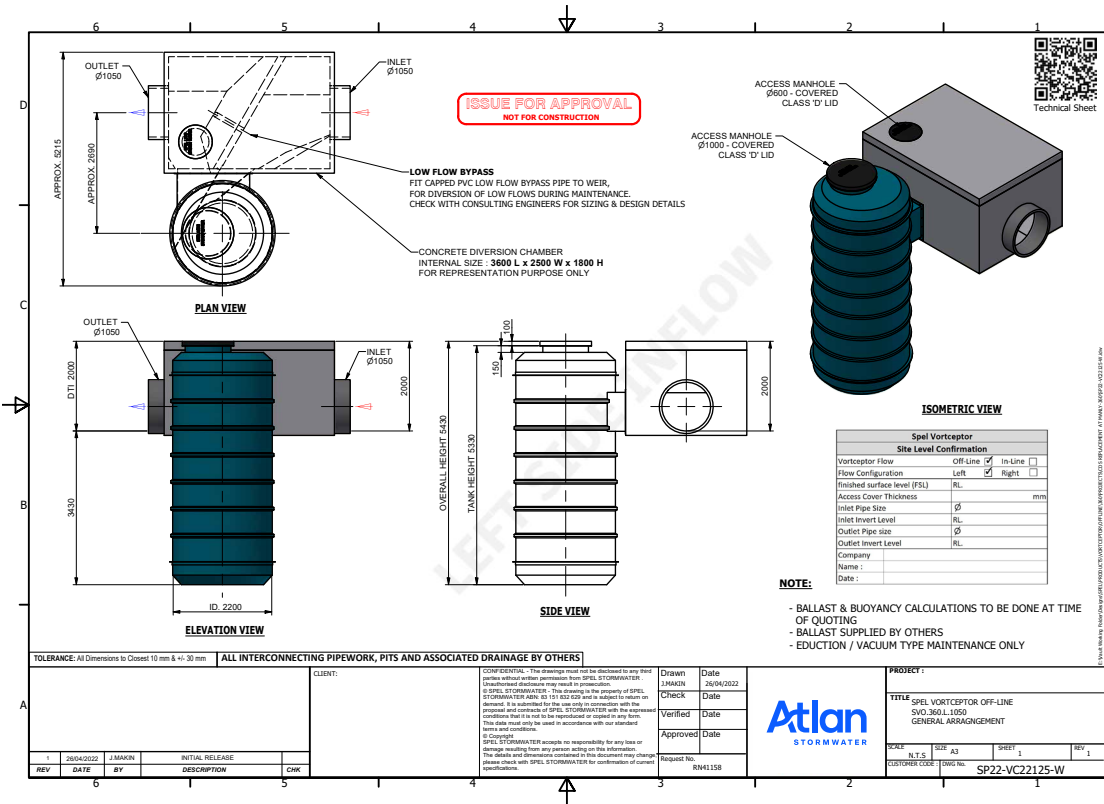


Offline Model SVO.220

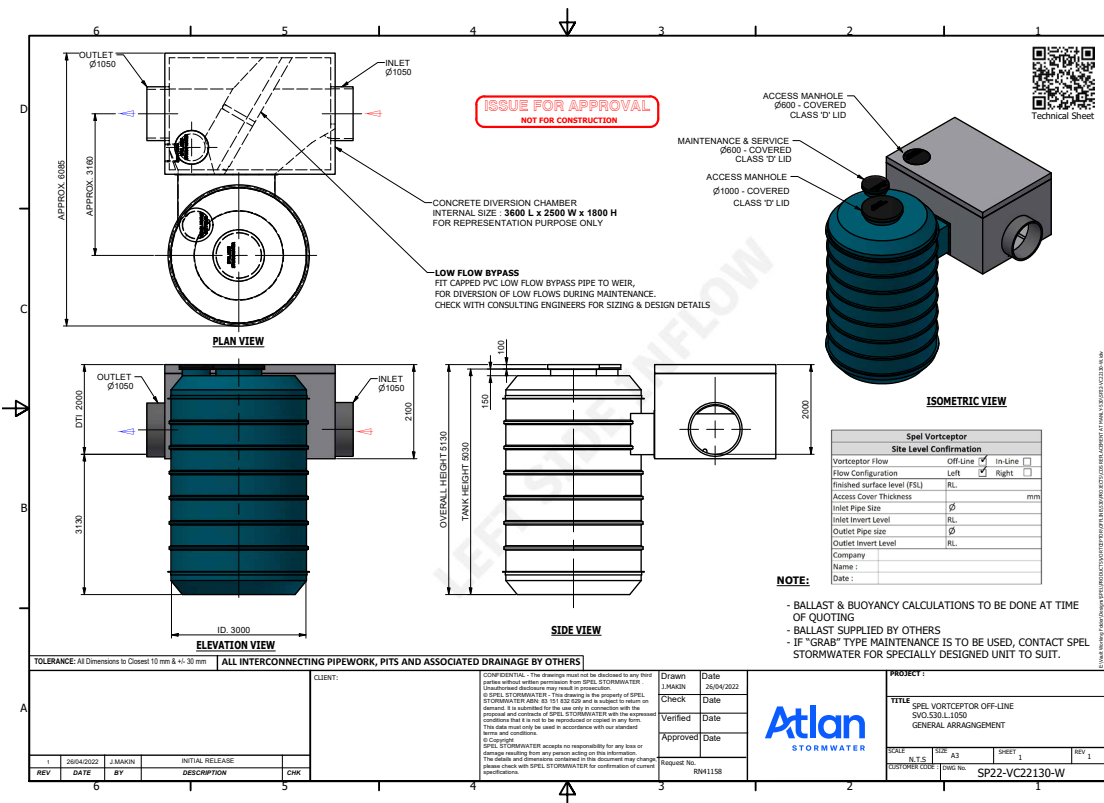


OFFLINE DRAWINGS

Offline Model SVO.360

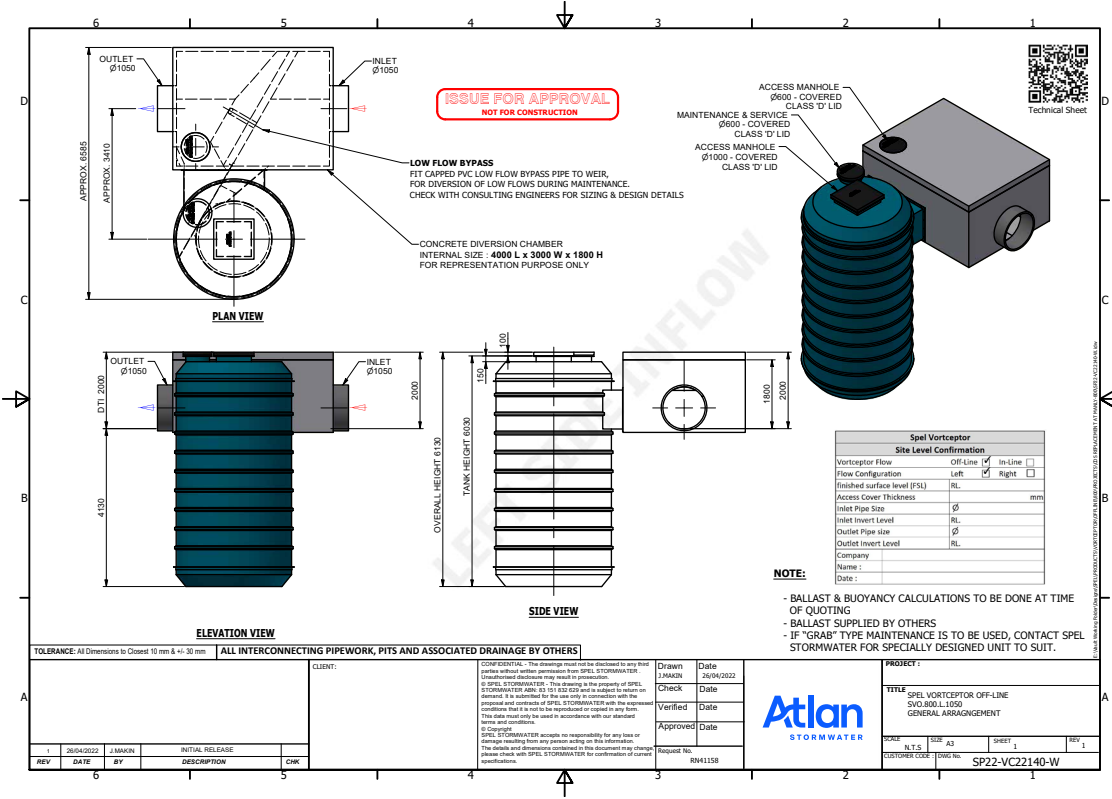


Offline Model SVO.530

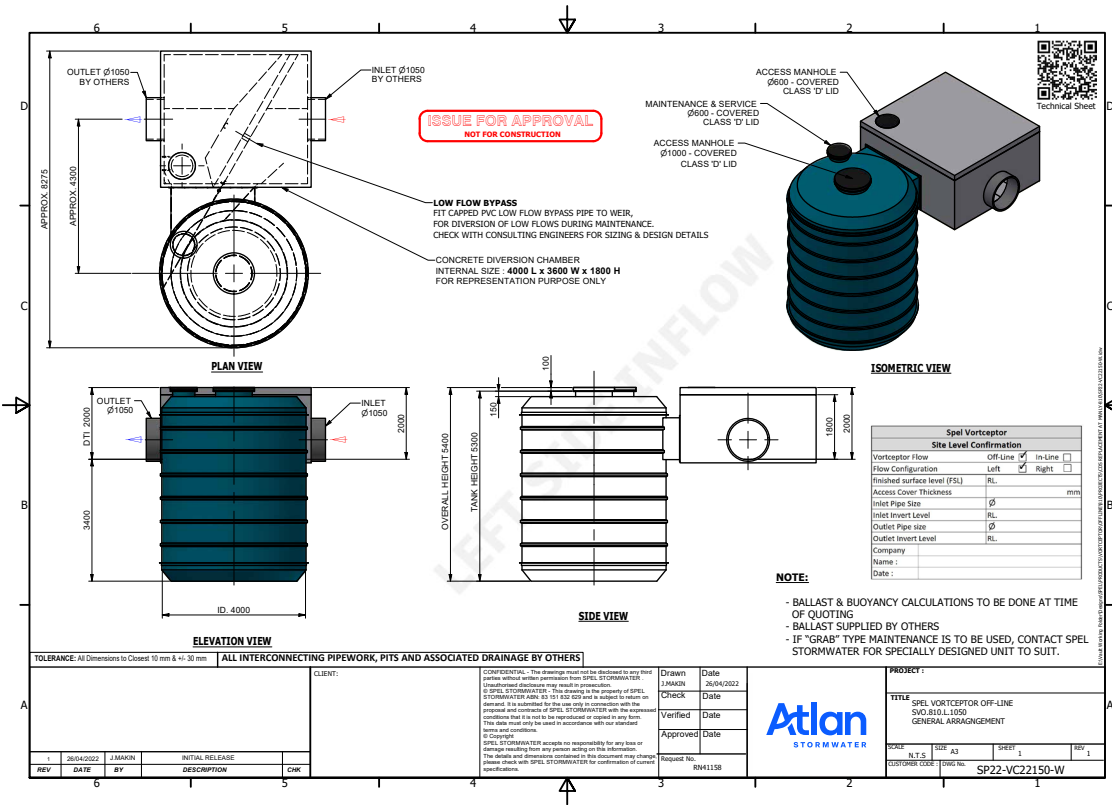


OFFLINE DRAWINGS

Offline Model SVO.800

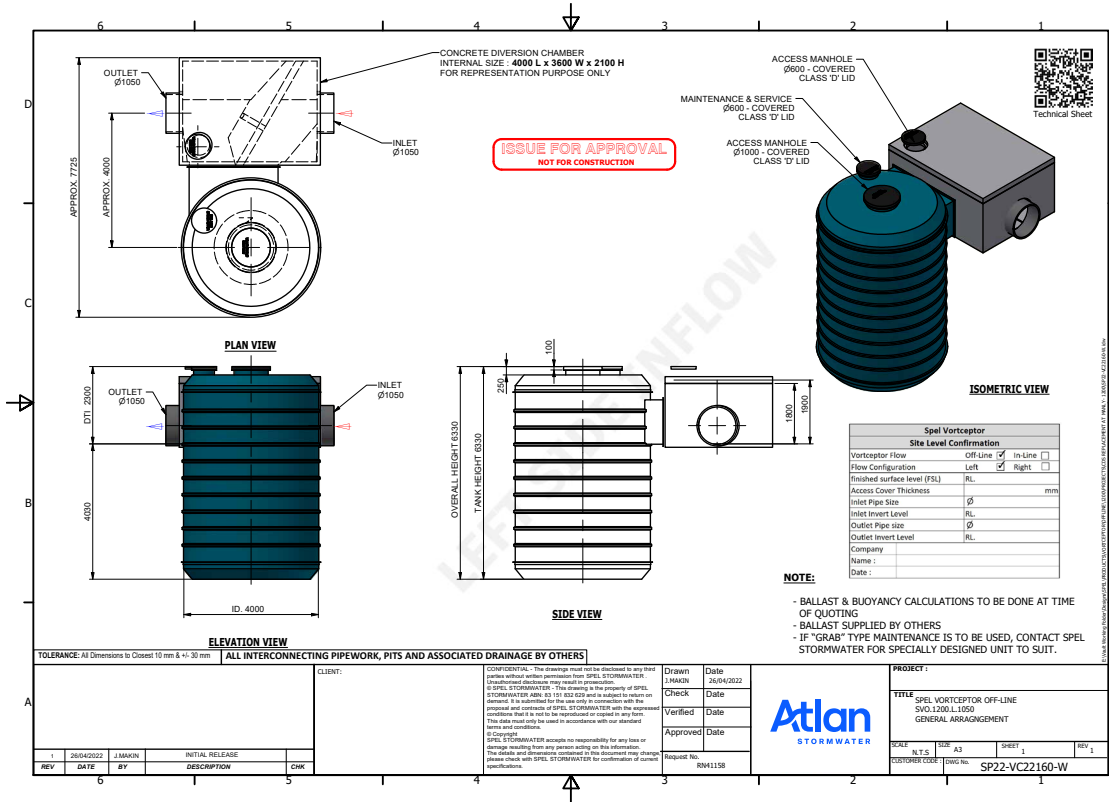


Offline Model SVO.810

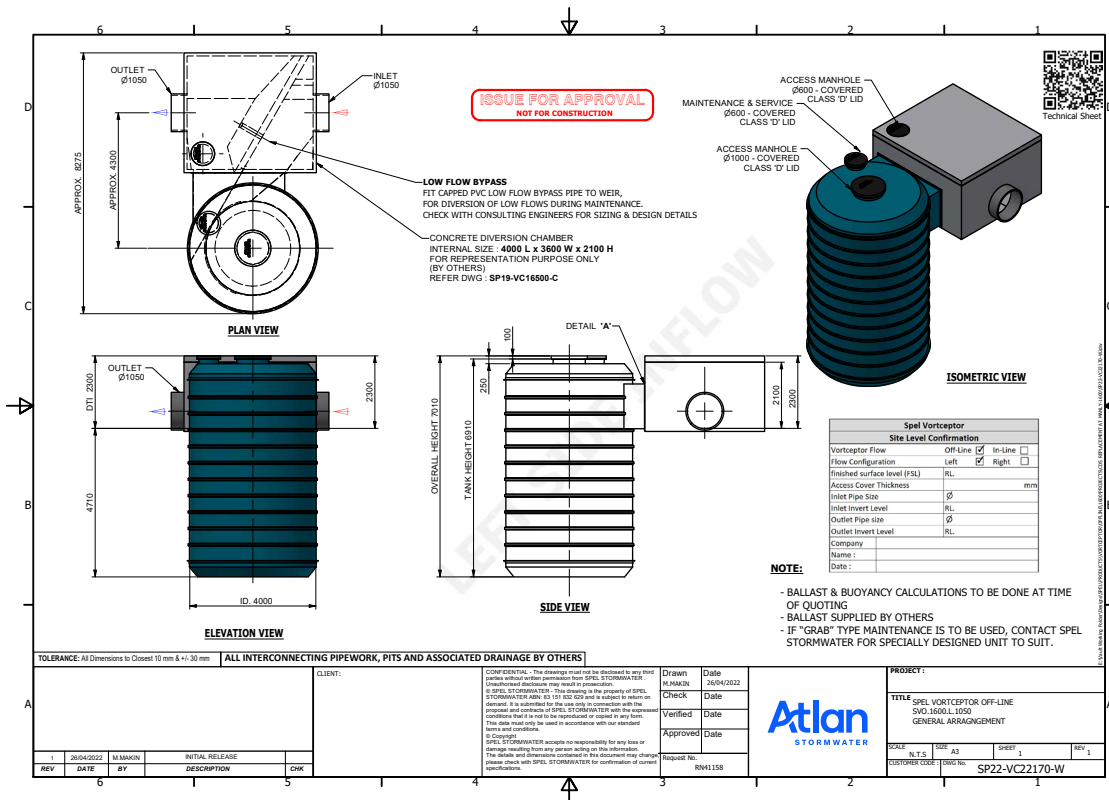


OFFLINE DRAWINGS

Offline Model SVO.1200



Offline Model SVO.1600





Vortceptor

Hydrodynamic GPT



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Joy in water

'We believe clean waterways are a right not a privilege and we work to ensure a joy in water experience for you and future generations.'

Andy Hornbuckle



Stormwater Quality Improvement Device Evaluation Protocol (SQIDEP)

VERIFICATION CERTIFICATE

Applicant Information

Applicant Name	Atlan Stormwater
Applicant Address	130 Sandstone Place, Parkinson, QLD 4115
Website	www.atlan.com.au
Contact Email	Andy.hornbuckle@atlan.com.au

Verified Technology

Product Title	Atlan Vortceptor
SQIDEP Pathway	Body of Evidence submission with local field test data
Reviewed Documents	The following documents form the basis of this independent evaluation: 1) Vortceptor Body of Evidence report (Vortceptor BoE) (Issue 2) Drapper, D.; Nyakas, L.; Waldron, S. Field Monitoring of Atlan Vortceptor (Offline) SQIDEP Body of Evidence Submission; Drapper Environmental Consultants: Crestmead, Queensland, Australia, 2024. 2) Atlan Vortceptor sizing chart 09/08/2019 (SPEL Vortceptor Summary 09082019.pdf) – Spreadsheet data 3) Vortceptor working capacities (VORTCEPTOR WORKING CAPACITIES.pdf) – spreadsheet data 4) Letter from Optimal Stormwater Pty Ltd to Blacktown City Council dated 11 May 2020 – 'RE: Equivalency of the Vortceptor to the CDS Unit Gross Pollutant Trap' 5) Various documents from the water quality analysis laboratory, ALS Laboratories, including chain of custody forms, sample receipt notices, certificates of analysis quality control reporting and QA/QC Compliance Assessments There were several other documents and reviewed which related to the sizing of the Vortceptor and applicable treatment flow rates including computational fluid dynamics modelling output. There was also information provided by direct correspondence with the applicant.

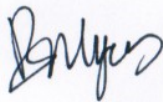
Applicant's Verified Performance Claims (ER)	<table border="1" data-bbox="480 136 1121 360"> <tr> <th colspan="2">Parameter</th></tr> <tr> <td>Total suspended solids</td><td>93%</td></tr> <tr> <td>Total phosphorus</td><td>86%</td></tr> <tr> <td>Total nitrogen</td><td>49%</td></tr> <tr> <td>Total petroleum hydrocarbons</td><td>Not claimed</td></tr> <tr> <td>Gross pollutants</td><td>100 %</td></tr> </table> IEP's comments: The verified claims are contingent on maintenance being undertaken, which includes regular and episodic checks and emptying once device storage capacities are reached. The specified device should have a shear cone fitted as part of manufacture. Gross pollutants have been assessed as those 5 mm or greater in size IEP's recommendations: All performance claims were considered compliant up to the treatment flow rate for the applicable device. Verified flow rates for each available Atlan Vortceptor model are included in the table below: <table border="1" data-bbox="480 730 1102 1050"> <tr> <th>Model of Vortceptor (mm)</th><th>TFR (m³/s)</th></tr> <tr><td>SVO.096</td><td>0.096</td></tr> <tr><td>SVO.140</td><td>0.136</td></tr> <tr><td>SVO.180</td><td>0.180</td></tr> <tr><td>SVO.220</td><td>0.270</td></tr> <tr><td>SVO.360</td><td>0.373</td></tr> <tr><td>SVO.530</td><td>0.530</td></tr> <tr><td>SVO.800</td><td>0.800</td></tr> <tr><td>SVO.810</td><td>0.810</td></tr> <tr><td>SVO.1200</td><td>1.150</td></tr> <tr><td>SVO.1600</td><td>1.600</td></tr> </table>	Parameter		Total suspended solids	93%	Total phosphorus	86%	Total nitrogen	49%	Total petroleum hydrocarbons	Not claimed	Gross pollutants	100 %	Model of Vortceptor (mm)	TFR (m ³ /s)	SVO.096	0.096	SVO.140	0.136	SVO.180	0.180	SVO.220	0.270	SVO.360	0.373	SVO.530	0.530	SVO.800	0.800	SVO.810	0.810	SVO.1200	1.150	SVO.1600	1.600
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SVO.1600	1.600																																		
Test Stormwater Runoff	31 compliant stormwater events. Water chemistry was compliant with Table 1 in SQIDEP v1.3. The minimum number of aliquots was collected, and samples were representative. 90% confidence in the results was assessed, including removal of certain events of concern to ensure that significance was still valid, and the dataset complied.																																		
Test Catchment	The field testing was carried out on a new residential development in Cranbourne South, Victoria, Australia. The device was located on Dynasty Drive (near Authentic Avenue) within the Brompton Lodge Estate, Cranbourne South. The catchment draining to the device was reported to be approximately 7.5 ha, of which approximately 85% was impervious area consisting of roofs, driveways and roads. Pervious areas included street verges and back and front gardens. Field testing in the performance claim was collected from January 2023 through to January 2024.																																		
Maintenance Performed during monitoring	Maintenance was performed during monitoring due to the excessive sediment loads that occurred during construction of the nearby residential development. This included removing sediment accumulated in the stormwater pipe system upstream of the device. This was considered to have been reasonable – by removing this sediment, it is likely that this was effectively removing larger, heavier particles of sediment that would have been removed by the Vortceptor anyway due to being larger and heavier (as they were settling in the drainage system while subject to flow events). The Vortceptor submission also indicates that the retained sludge within the Vortceptor was inspected every six months, with the system emptied by vacuum immediately prior to the trial, and in February 2024 (after the cessation of the reported monitoring). The reviewers accept that the device performance was not overstated because of the maintenance that occurred.																																		

Verified method:

The Reviewers have verified that the method undertaken complies with the intent and specifics of SQIDEP v1.3. A more detailed Independent Evaluators Report is available and should be read in conjunction with his certificate to gain a full appreciation of assessments undertaken as part of this verification process.

Conditions/Notes	MUSIC modelling shall be carried out as follows:																								
	A generic node is to be used in MUSIC with a high flow bypass set to the applicable TFR (see table below) for the size of the Atlan Vortceptor proposed and with inlet and outlet concentrations as follows:																								
	<table><tr><th>Pollutant</th><th>Inlet concentration</th><th>Outlet Concentration</th></tr><tr><td>TSS</td><td>100</td><td>7</td></tr><tr><td>TP</td><td>100</td><td>14</td></tr><tr><td>TN</td><td>10</td><td>5.1</td></tr></table>			Pollutant	Inlet concentration	Outlet Concentration	TSS	100	7	TP	100	14	TN	10	5.1										
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Independent Reviewers

Evaluator Name	Evaluator Signature
Andrew Allan	
Baden Myers	

Issue of Verification Certificate

Acceptance by SQIDEP Governance Panel	26 September 2024
Acceptance by Stormwater Australia Board of Directors	26 September 2024
Verification Issued	19 September 2024
Stormwater Australia Verification Certificate Number Reference	SA-2024/11-VC

Verified under SQIDEP Version 1.3

Body of Evidence Pathway



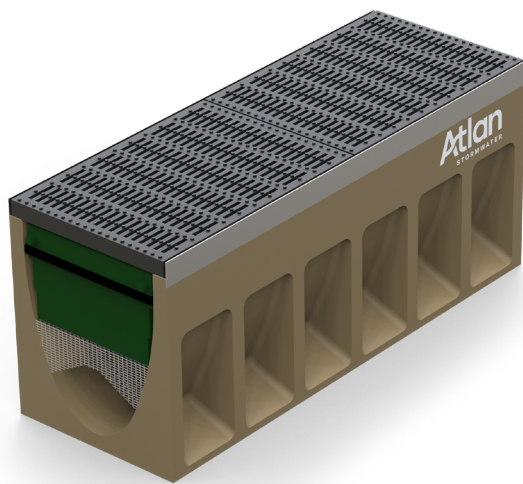
FlowGuard

Stormwater filtration treatment in grated drains



atlan.com.au

Atlan
STORMWATER



The FlowGuard is an insert that can be placed inside a channel grated drain of 300mm wide, and at least 450mm deep. It is designed for areas that would benefit from at source stormwater treatment, which would otherwise be bypassed.

This allows stormwater from high traffic areas (car parks and roads), industrial areas and metal roofs to be cleaned at site level, and then discharged safely to ground or surface water bodies locally.

The FlowGuard's modular design means that the stormwater is treated in two steps:

1. Solids and particulates are settled in the first step.
2. Dissolved contaminants are then absorbed in the filter matrix.

FEATURES

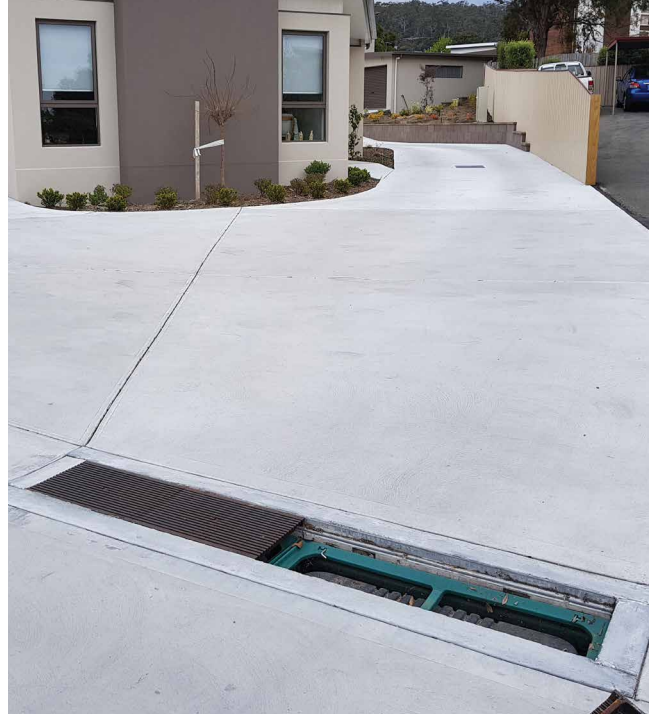
The FlowGuard filters and binds pollutants such as hydrocarbons, heavy metals, total phosphorus (TP) and total nitrogen (TN). These pollutants can then be disposed of safely and easily during routine maintenance

- Stormwater treatment of surface levels
- Gross pollutant sediment, and nutrient capture
- Insert into 300mm wide channel drain
- Sites with little CR flat grade
- No underground vault for cartridges
- Quick and easy installation and maintenance



TECHNICAL DATA

Module Length:
1000mm
Module Width:
300mm
Minimum Depth;
450mm



Tested Treatment Efficiencies*

POLLUTANT	EFFICIENCY
Gross Pollutants (GP)	100%
Total Suspended Solids (TSS)	88%
Total Phosphorus (TP)	69%
Total Nitrogen (TN)	67%
Petroleum Hydrocarbon	0%

*Contact Atlan to confirm approved performance for the project LGA

HOW IT WORKS

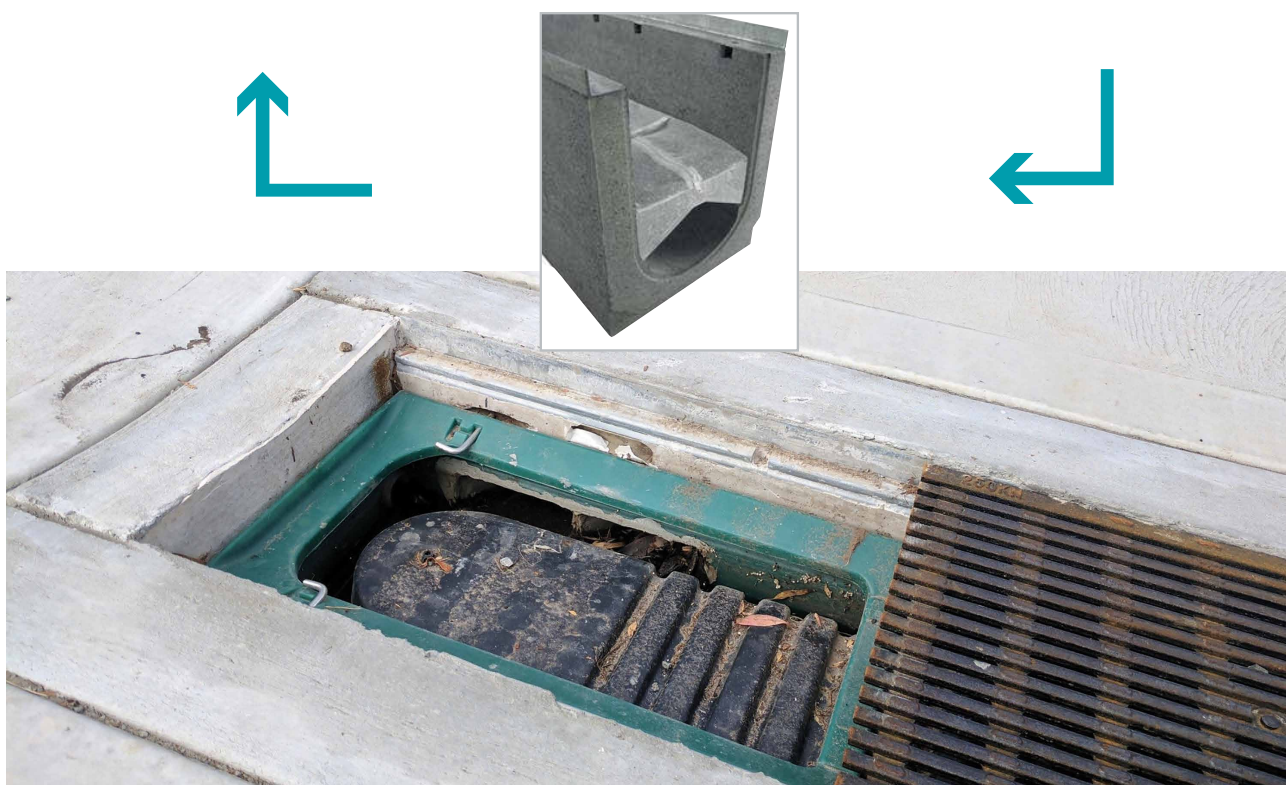
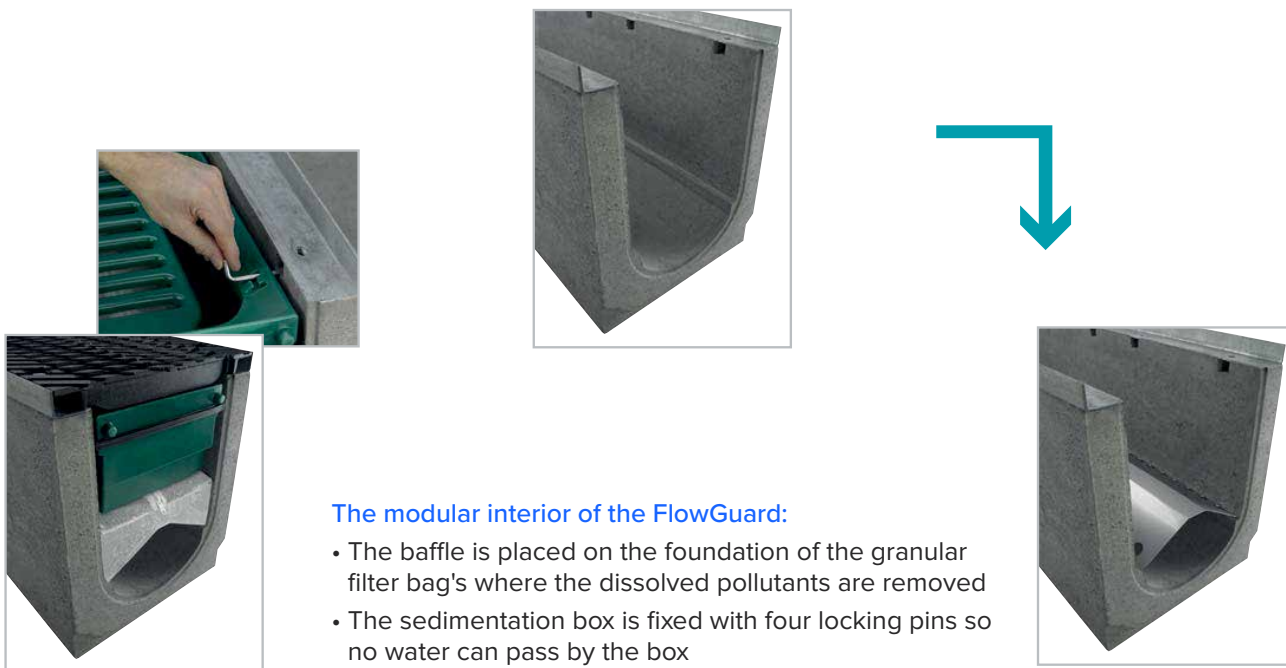
Modular design for ecological line drainage

The innovative modular design is based on a standard 300mm channel & trench grate width.

There is no need to make site specific or bespoke design amendments to the channel drainage runs.

The modular interior of the HydroChannel:

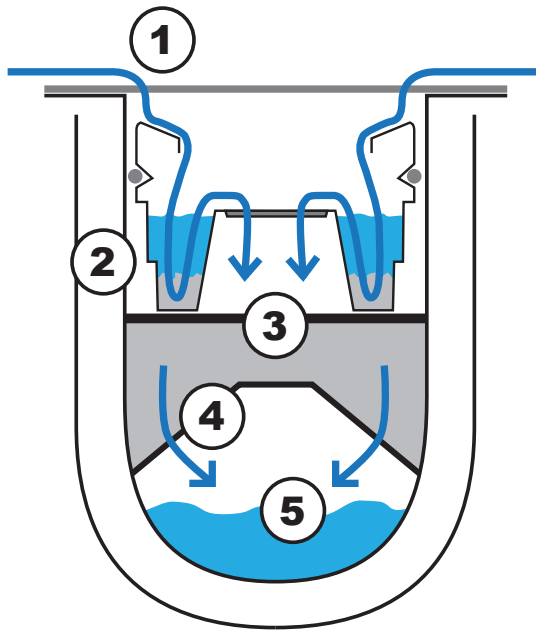
The Sedimentation Chamber removes coarse constituents, such as gravel, leaves and other solids. The rubber seal to the outside ensures no waters can by-pass this chamber within the channel.



HOW IT WORKS

SECTIONS OF THE FLOWGUARD

- 1) Water comes from the surface to the FlowGuard
- 2) The sedimentation chamber removes coarse solids, such as gravels, chippings, leaves and other solids. The rubber seal ensures a water tight seal is maintained.
- 3-4) The pre-treated water pass through the granular filter bag, and the organic and inorganic pollutants are removed.
- 5) The filtered water flows over the baffle into the free flow area of the channel. It can then be re-used, or discharged to surface or ground water via infiltration.

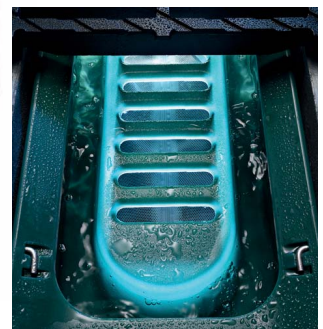
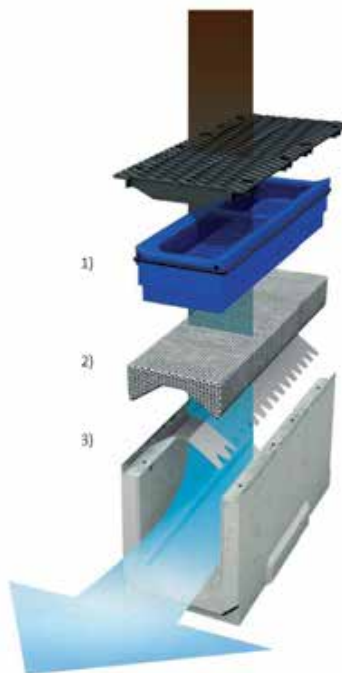


MODULAR DESIGN

An innovative filtration solution, the FlowGuard is designed to meet a concrete nominal width of 300mm. Planners are not required to make any alternations in the drainage plan if they want to treat the water with the FlowGuard.

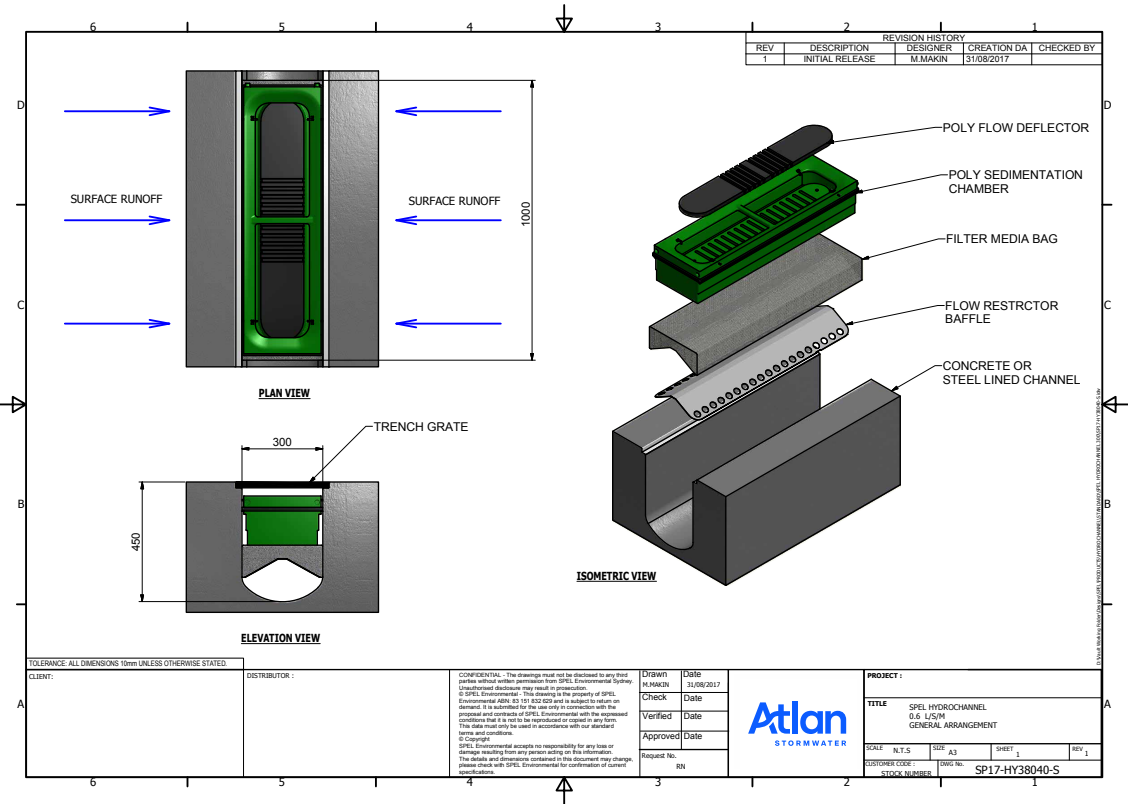
The modular interior of the FlowGuard:

- 1) The sedimentation box is primary treatment capturing solids such as stones, leaves, and suspended particles on. The rubber lip ensures sealing around the edges – for the reliable differentiation for subsequent filtration.
- 2) The pretreated rainwater passes through the granular-filter-pad and the organic and inorganic pollutants will be filtered from the water.
- 3) The filtered water flows over the baffle into the free flow area of the channel and is discharged per normal site requirements.

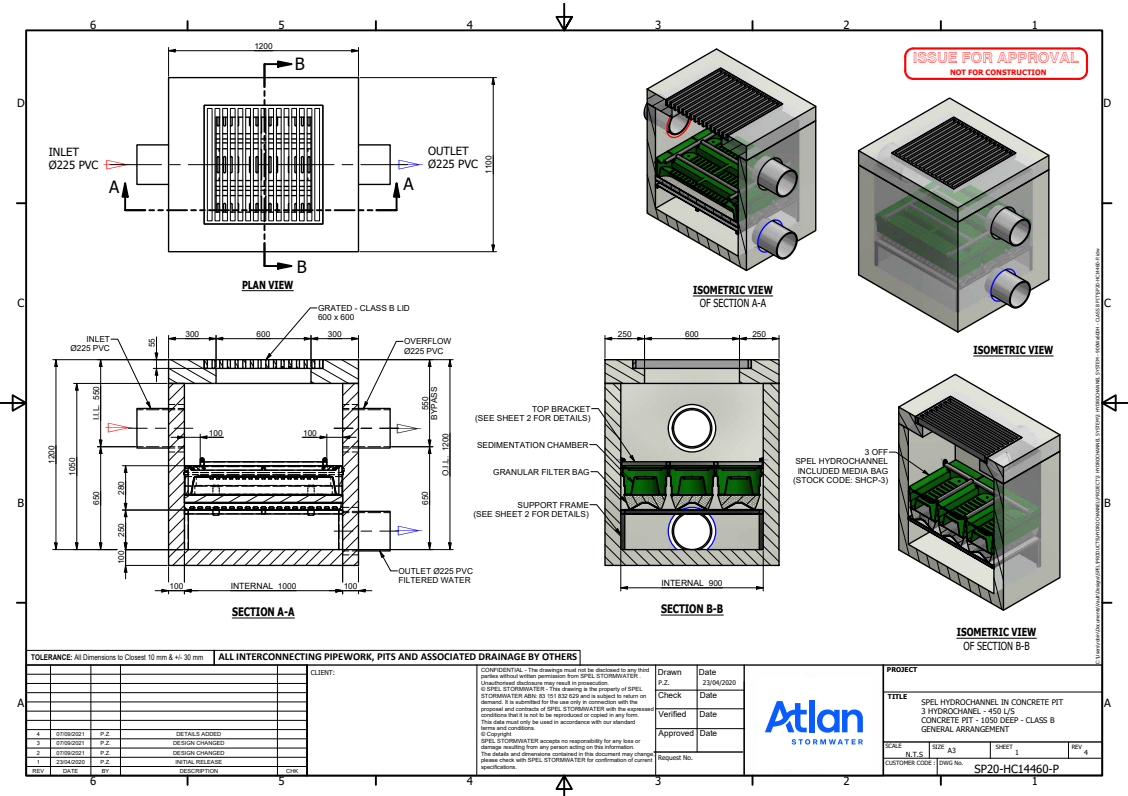


DRAWINGS

FlowGuard



FlowGuard in a pit



FlowGuard

Stormwater filtration treatment in grated drains



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Joy in water

'We believe clean waterways are a right not a privilege and we work to ensure a joy in water experience for you and future generations.'

Andy Hornbuckle

Atlan
STORMWATER

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atlan.com.au

Stormwater Quality Improvement Device Evaluation Protocol (SQIDEP)

VERIFICATION CERTIFICATE

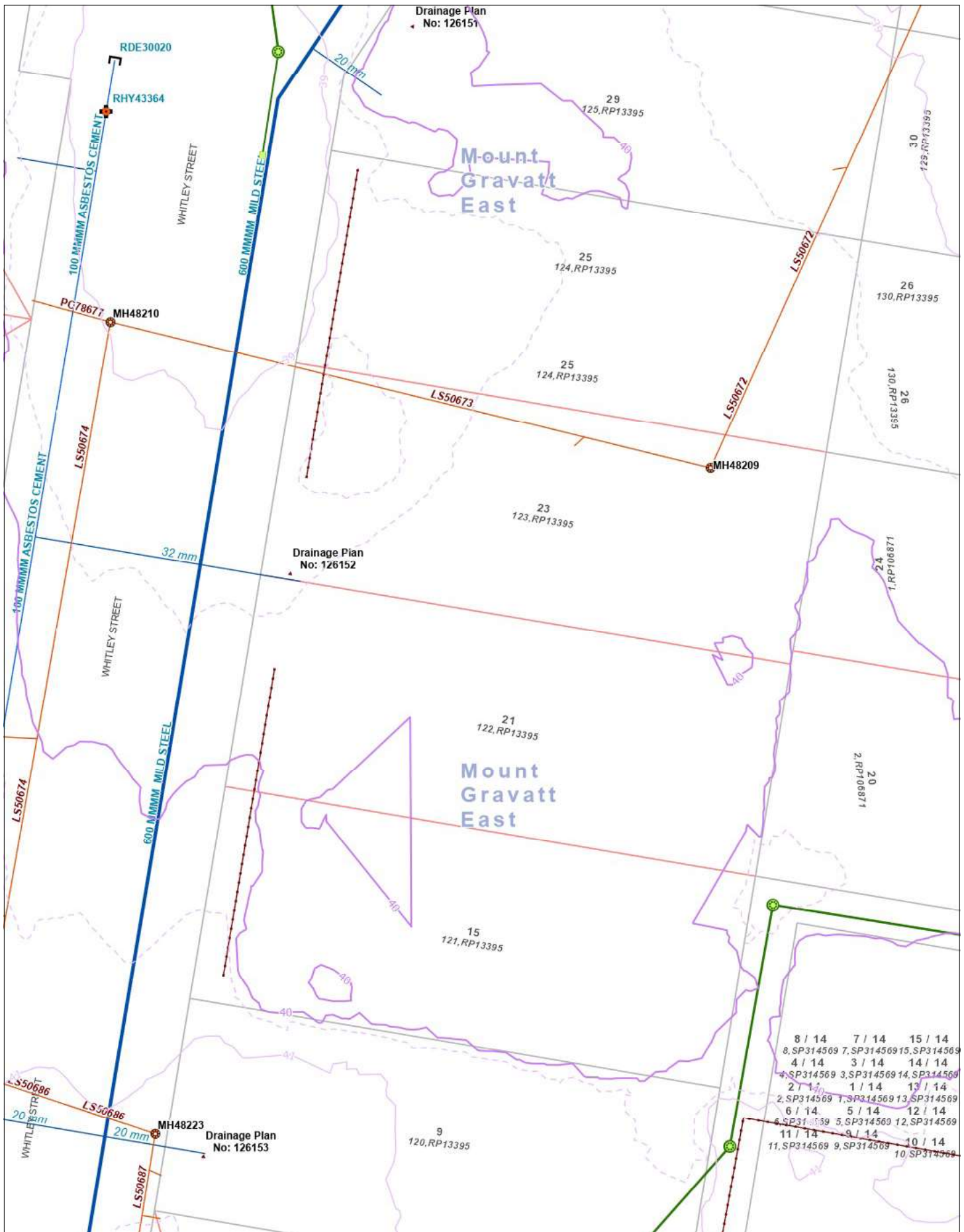
Applicant Information

Applicant Name	SPEL Stormwater Pty Ltd
Applicant Address	130 Sandstone Pl, Parkinson QLD, 4115
Phone Number	+61 1300 773 500
Email	sales@spel.com.au
Website	www.spel.com.au

Verified Technology	SPEL Hydrochannel
Issue Date	22 nd June 2021
Reviewed Documents	- University of the Sunshine Coast, Stormwater Research Group, Evaluation of Treatment Performance of SPEL Hydrochannel at Sippy Down, Final report May 2018 - Dr Darren Drapper, R. Biggins, SPEL Stormwater, Field Monitoring of a SPEL Hydrochannel at University of Sunshine Coast 90 Sippy Downs Dr, Sippy Downs QLD 4556, SQIDEP Supporting Information, Issue 1, 19th March 2021. - Dr Darren Drapper, R. Biggins, B. Jedras, SPEL Stormwater, Field Monitoring of a SPEL Hydrochannel at University of Sunshine Coast 90 Sippy Downs Dr, Sippy Downs QLD 4556, SQIDEP Supporting Information, Issue 2, 23rd March 2020. - Drapper Environmental Consultants, USC SPELBasin & Hydrochannel Sample Collection Procedure - SPEL Hydrochannel setup (device and sampling) (digital video) - Chain of Custody documentation and Results certificates for the duration of the monitoring periods - Statutory Declaration made by Dr Darren Drapper confirming role in monitoring data, maintaining field equipment, co-ordinating sample collection, identifying qualifying events and calibration of monitoring equipment

	- The Hydrochannel media is estimated to have an effective life of 1 year. It is suggested that a 12 month maintenance cycle include replacement of the media. - Performance is contingent upon the installation being similar to that shown in this trial. Alternative installations may result in different outcomes.
Independent Reviewers	Mr Andrew Allan, Afflux Consulting Mr Damian McCann, Australian Wetlands Consulting
Accepted by Governance Panel	17 th June 2021
Accepted by Stormwater Australia Board	22 nd June 2021

Appendix E – BCC EBimap and Existing Survey



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Notes:

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 Road Network © State of Queensland (Department of Resources) 2023



Dedicated to a better Brisbane

Projection:
Web Mercator Auxiliary Sphere

Print Date:
15/05/2024 - 10:31 AM

Map Title

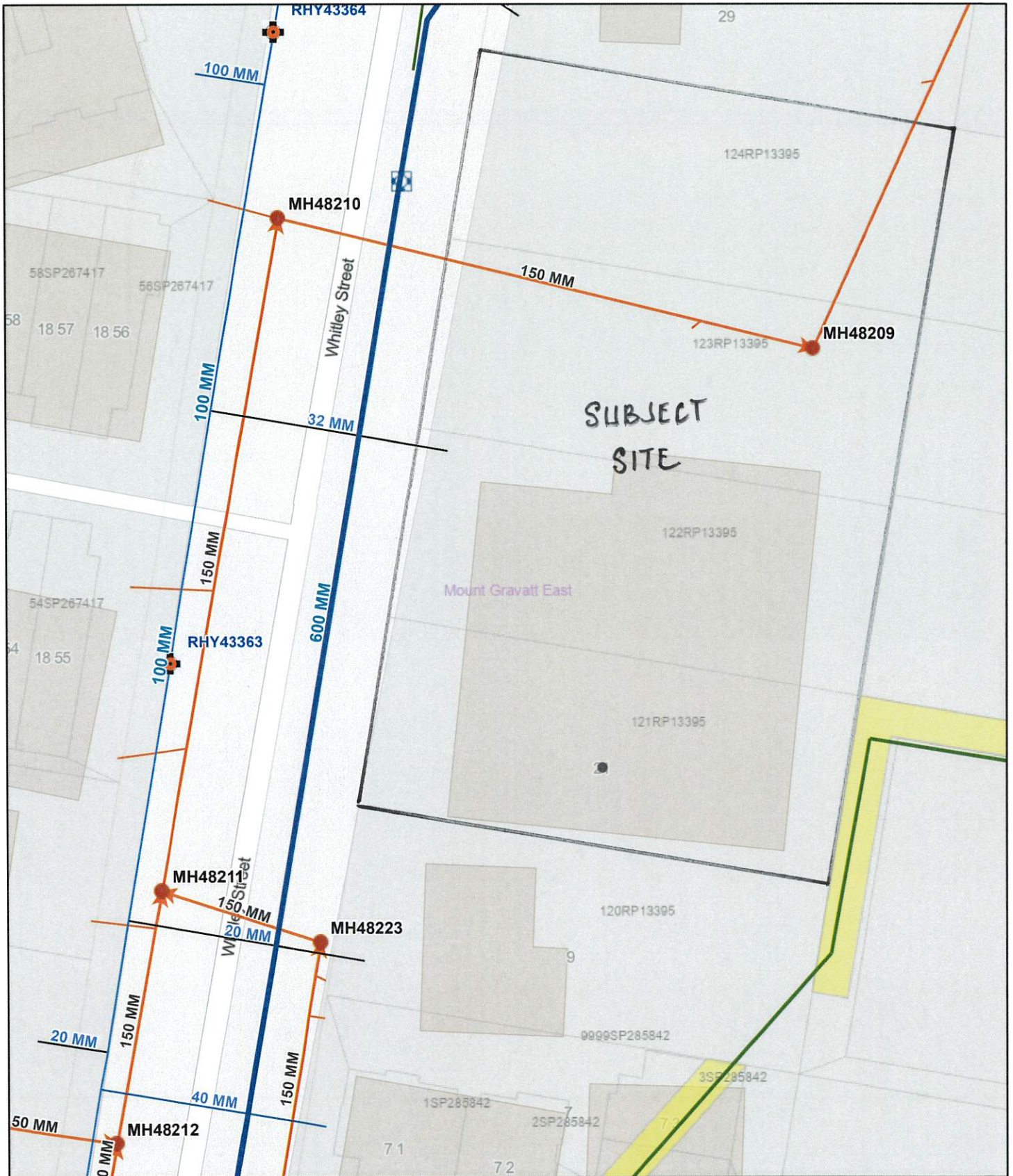
13.0 0 6.0 9.4 13.0



Metres

Scale: 1:250

Urban Utilities GIS

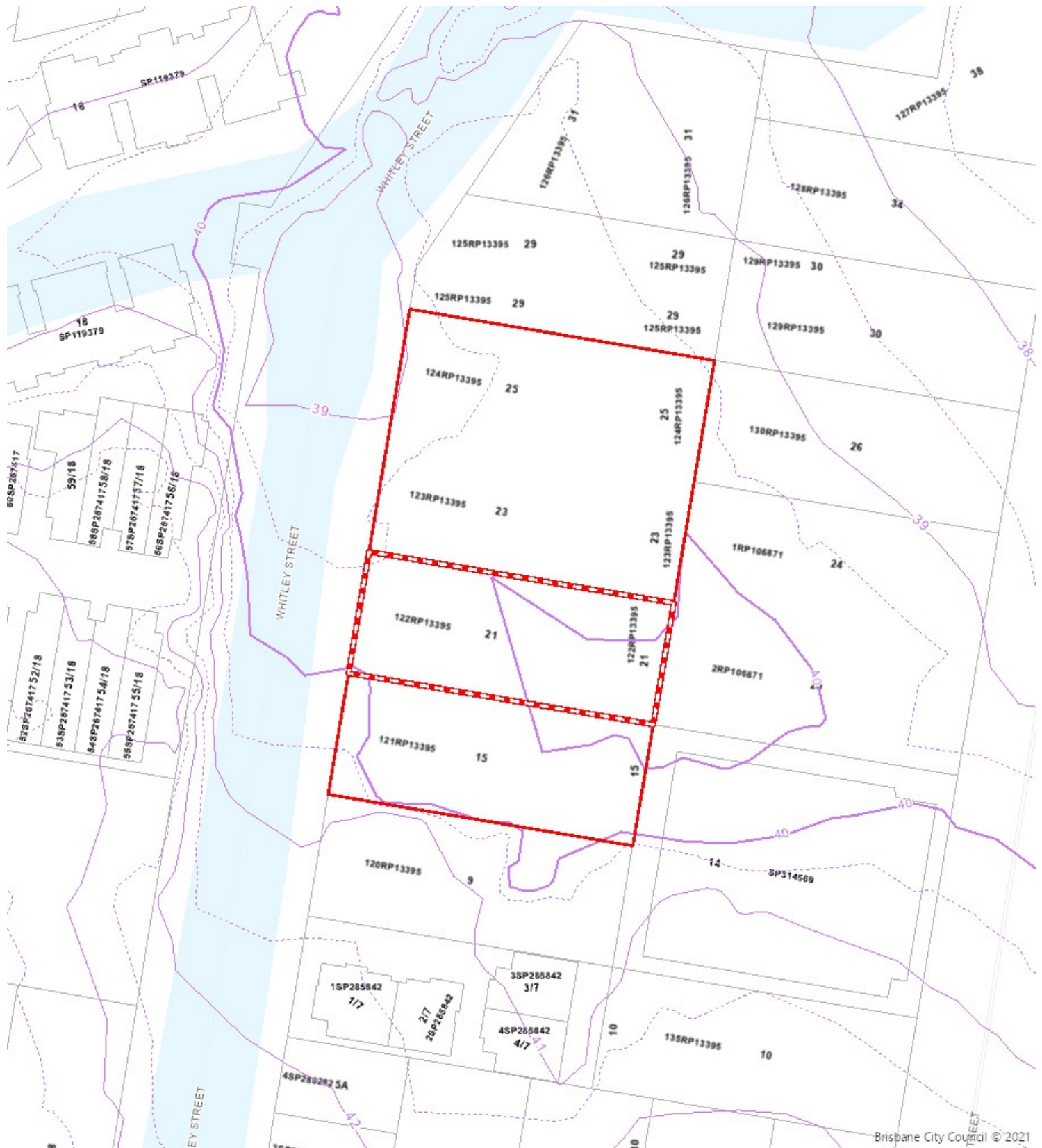


05/03/2025, 12:44:34 pm

Water Control Valve	Water Service	Brisbane Stormwater — Pipe — Existing
Scour	Service - Indicative Location	DRAIN
Water Hydrant	Service - ASCON Location	GULLY CONNECT
INGROUND HYDRANT	Sewer Manholes	Locality Boundaries
Water Pressure Main	MANHOLE	Locality Boundaries
Reticulation Main	Sewer Gravity Main	Cadastral Parcels - All
Trunk Main	RETICULATION MAIN	Base
	Sewer Service	Easement
	SERVICE	

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Appendix F – BCC Overland Flow Overlay and FloodWise Property Reports



FloodWise Property Report

21 WHITLEY ST, MOUNT GRAVATT EAST 4122

Multiple Lots (refer to Appendices)



Dedicated to a better Brisbane

THE PURPOSE OF THIS REPORT IS FOR BUILDING AND DEVELOPMENT

Brisbane City Council's FloodWise Property Report provides technical flood planning information including estimated flood levels, habitable floor level requirements and more. This report uses the adopted flood planning information in Brisbane City Plan 2014, that guides how land in Brisbane is used and developed for the future. Find out more about [planning and building](#). To understand how to be resilient and prepare for floods, visit Council's [Be Prepared](#) web page. Find more information about [how to read a FloodWise Property Report](#).

This property has no flood levels

Brisbane City Council has not assigned flood level information for this property however it may be affected by one or more flood or property development flags. Please refer to the Flood Planning and Development Information below for details. The property may have 0.2% AEP flood level which will appear on the Flood Planning Information table if applicable. For professional advice or detailed assessment of a property contact a Registered Professional Engineer of Queensland.

Visit the [Be Prepared](#) page to find more information on how to prepare your home or business for potential flooding.

 **Combined** 1% AEP for river, creek and storm tide flood extent (if applicable) from the adopted Brisbane City Plan 2014.

Read more about [Brisbane City Plan 2014](#).



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Are you resilient and ready for flood?

- Sign up to the Brisbane Severe Weather Alert at brisbane.qld.gov.au/beprepared
- Visit bom.gov.au for the latest weather updates.
- Have an evacuation plan, emergency kit and important phone numbers ready.
- Observe where water flows from and to during heavy rain.
- Consider how flood-resilient building techniques will have you home faster and with less damage.

Life threatening emergencies
000 Police/fire/ambulance
(mobiles **000** and **112**)

State Emergency Service (SES) **132 500**
Energex **13 19 62**
Brisbane City Council **3403 8888**

Technical Summary

This section of the FloodWise Property Report contains more detailed flood information for this property so **surveyors, builders, certifiers, architects, and engineers can plan and build** in accordance with Council's planning scheme.

Find more information about [planning and building](#) in Brisbane or talk to a Development Services Planning Information Officer via Council's Contact Centre on (07) 3403 8888.

Property Information Summary

The following table provides a summary of flood information for this property. More detailed flood level information is provided in the following sections of this report.

Property Summary	Level (mAHD) / Comment	Data Quality Code
Minimum ground level	38.8	C
Maximum ground level	41.0	C
Indicative existing floor level	40.3	C

Flood Planning and Development Information

This section of the FloodWise Property Report contains information about Council's planning scheme overlays. Overlays identify areas within the planning scheme that reflect distinct themes that may include constrained land and/or areas sensitive to the effects of development.

Flood overlay code

The Flood overlay code of Council's planning scheme uses the following information to provide guidelines when developing properties. The table below summarises the flood planning areas (FPAs) that apply to this property. Development guidelines for the FPAs are explained in [Council's planning scheme](#).

Flood planning areas (FPA)		
River	Creek / waterway	Overland flow
		Not Applicable

To find more information about Council's flood planning areas (FPAs) for Brisbane River and Creek/waterway flooding to guide future building and development in flood prone areas, please review [Council's Flood Planning Provisions](#).

Coastal hazard overlay code

The Coastal hazard overlay code of Council's planning scheme uses the following information to provide guidelines when conducting new developments. The table below summarises the coastal hazard categories that apply to this property. Development guidelines for the following Coastal hazard overlay sub-categories are explained in Council's [planning scheme](#).

Coastal hazard overlay sub-categories
There are currently no Coastal hazard overlay sub-categories that apply to this property.

Note: Where land is identified within one for more flood planning areas on the Flood overlay or is identified within one of the Storm tide inundation area sub-categories on the Coastal hazard overlay, the assessment criteria that provides the highest level of protection from any source of flooding applies.

Property development flags

Large allotment - This property is either a Large Allotment of over 1000 square metres or is located within a Large Allotment. Flood levels may vary significantly across allotments of this size. Further investigations may be warranted in determining the variation in flood levels and the minimum habitable floor level across the site.

For more information or advice, please consult a Registered Professional Engineer of Queensland (RPEQ).

Useful Flood Information Definitions

Australian Height Datum (AHD) - The reference level for defining ground levels in Australia. The level of 0.0m AHD is approximately mean sea level.

Annual Exceedance Probability (AEP) - The probability of a flood event of a given size occurring in any one year, usually expressed as a percentage annual chance.

- **0.2% AEP** - A flood event of this size is considered rare but may still occur. A flood of size or larger has a 1 in 500 chance or a 0.2% probability of occurring in any year.
- **1% AEP** - A flood of this size or larger has a 1 in 100 chance or a 1% probability of occurring in any year.
- **2% AEP** - A flood of this size or larger has a 1 in 50 chance or a 2% probability of occurring in any year.
- **5% AEP** - A flood of this size or larger has a 1 in 20 chance or a 5% probability of occurring in any year.
- **20% AEP** - A flood of this size or larger has a 1 in 5 chance or a 20% probability of occurring in any year.

Data quality

- **Data Quality Code A** - Level data based on recent surveyor report or approved as-constructed drawings.
- **Data Quality Code B** - Level data based on ground-based mobile survey or similar.
- **Data Quality Code C** - Level data derived from Airborne Laser Scanning or LiDAR information.

Defined Flood Level (DFL) - The DFL is used for commercial and industrial development. The Defined flood level (DFL) for Brisbane River flooding is a level of 3.7m AHD at the Brisbane City Gauge based on a flow of 6,800 m/s. DFL is only applicable for non-residential uses affected by Brisbane River flooding.

Flood planning area (FPA) - Council has developed five Flood planning areas (FPAs) as part of Brisbane City Plan 2014 Flood overlay mapping for Brisbane River, Creek/waterway flooding and Overland flow to guide future building and development in flood prone areas. Storm tide flooding is mapped separately. The FPAs are designed to recognise the flood hazard for different flooding types. Flood hazard is a combination of frequency of flooding, the flood depth, and the speed at which the water is travelling. [Find more information here.](#)

Maximum and minimum ground level - Highest and lowest ground levels on the property based on available ground level information. A Registered Surveyor can confirm exact ground levels.

Minimum habitable floor level (dwelling house) - The minimum level in metres AHD at which habitable areas of development (generally including bedrooms, living rooms, kitchen, study, family, and rumpus rooms) must be constructed as required by the Brisbane City Plan 2014.

Indicative existing floor level - The approximate level in metres AHD of the lowest habitable floor in the existing building (excluding apartments). The data is sourced from a range of sources with varying accuracy levels.

Property - A property will contain 1 or more lots. The multiple lot warning is shown if you have selected a property that contains multiple lots.

Residential flood level (RFL) - This flood level for the Brisbane River equates to the 1% annual exceedance probability (AEP) flood level.

To learn more, visit [Brisbane City Council's Flood Information Hub](#)

Brisbane City Council's Online Flood Tools

Council provides several online flood tools:

- to guide planning and development
- to help residents and businesses understand their flood risk and prepare for flooding.

Council's online flood tools for planning and development purposes include:

- **FloodWise Property Report**
- **Flood Overlay Code**

For more information on Council's planning scheme and online flood tools for planning and development:

- phone (07) 3403 8888 and ask to talk to a Development Services Planning Information Officer

- visit brisbane.qld.gov.au/planning-building

Council's Planning Scheme - The Brisbane City Plan 2014 (planning scheme) has been prepared in accordance with the Sustainable Planning Act as a framework for managing development in a way that advances the purpose of the Act. In seeking to achieve this purpose, the planning scheme sets out the Council's intention for future development in the planning scheme area, over the next 20 years.

Disclaimer

1. Defined flood levels and residential flood levels, minimum habitable floor levels and indicative existing floor levels are determined from the best available information to Council at the date of issue. These levels, for a particular property, may change if more detailed information becomes available or changes are made in the method of calculating levels.
2. Council makes no warranty or representation regarding the accuracy or completeness of a FloodWise Property Report. Council disclaims any responsibility or liability in relation to the use or reliance by any person on a FloodWise Property Report.



Planning to build or renovate?

For information, guidelines, tools and resources to help you track, plan or apply for your development visit brisbane.qld.gov.au/planning-building

You can also find the Brisbane City Plan 2014 and Neighbourhood Plans as well as other information and training videos to help, with your building and development plans.

Appendices

Lot Details
Lot 124 on RP13395, Lot 121 on RP13395, Lot 123 on RP13395, Lot 122 on RP13395

Appendix G – Filling and Excavation Code

FILLING AND EXCAVATION CODE

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTION	COMMENTS
PO1 Development for filling or excavation minimises visual impacts from retaining walls and earthworks.	AO1 Development ensures that the total height of any cut and fill, whether or not retained, does not exceed: (a) 2.5m in a zone in the Industry zones category; (b) 1m in all other zones, or if adjoining a sensitive zone.	N/A ✓	Excavation over 1.0 metres will be required within the majority of the site to construct the basement retaining walls.
PO2 Development of a retaining wall proposed as a result of filling or excavation: (a) is designed and constructed to be fit for purpose; (b) does not impact adversely on significant vegetation; (c) is capable of easy maintenance. Editor's note—A retaining wall also needs to comply with the Building Regulation and embankment gradients will need to comply with the Building Regulation. Note—Guidance on the protection of native vegetation is included in the Biodiversity areas planning scheme policy.	AO2.1 Development of a retaining structure, including footings, surface drainage and subsoil drainage: (a) is wholly contained within the site; (b) if the total height to be retained is greater than 1m, then: (i) the retaining wall at the property boundary is no greater than 1m above the ground level; (ii) all further terracing from the 1m high boundary retaining wall is 1 vertical unit:1 horizontal unit; (iii) the distance between each successive retaining wall (back of lower wall to face of higher wall) is no less than 1m horizontally to incorporate planting areas.	✓ N/A N/A N/A	
	AO2.2 Development of a retaining wall over 1m in height protects significant vegetation on the site and on adjoining land and is designed and constructed in accordance with the structures standards in the Infrastructure design planning scheme policy and certified by a Registered Professional Engineer Queensland.	N/A	

FILLING AND EXCAVATION CODE

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTION	COMMENTS
	AO2.3 Development provides a retaining wall finish that presents to adjoining land that is maintenance free if the setback is less than 750mm from the boundary.	N/A	
	AO2.4 Development for filling only uses clean fill that does not include any construction rubble or debris.	N/A	
PO3 Development ensures that a rock anchor is designed and constructed to be fit for purpose.	AO3 Development ensures that a rock anchor: (a) is constructed in accordance with the standards in the Infrastructure design planning scheme policy; (b) where it extends beyond the property boundary, is supported by a letter of consent from the adjoining land and building owners.	N/A N/A	
			Existing sewer main to be realigned to suit the new proposed development in accordance with Urban Utilities standards.
PO4 Development protects all services and public utilities.	AO4 Development protects services and public utilities and ensures that any alteration or relocation of services or public utilities meets the standard design specifications of the responsible service authorities.	✓	
PO5 Development provides surface and sub-surface drainage to prevent water seepage, concentration of run-off or ponding of stormwater on adjacent land.	AO5 Development ensures all flows and subsoil drainage are directed to a lawful point of discharge of a surface water diversion drain, including to the top or toe of a retaining wall in accordance with the stormwater drainage section of the Infrastructure design planning scheme policy.	✓	

FILLING AND EXCAVATION CODE

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTION	COMMENTS
PO6 Development ensures that the design and construction of all open drainage works is undertaken in accordance with natural channel design principles, being the development of a stormwater conveyance system for major flows, by using a vegetated open channel or drain that approximates the features and functions of a natural waterway to enhance or improve riparian values of those stormwater conveyance systems. Editor's note—Guidance on natural channel design principles can be found in the Council's publication Natural channel design guidelines.	AO6 No acceptable outcome is prescribed.	N/A	
PO7 Development for filling or excavation: (a) does not degrade water quality or adversely affect environmental values in receiving waters; (b) ensures site sediment and erosion control standards are best practice.	AO7.1 Development for filling or excavation provides water quality treatment that complies with the stormwater drainage section of the Infrastructure design planning scheme policy.	✓	
	AO7.2 Development provides erosion and sediment control standards that are in accordance with the stormwater drainage section of the Infrastructure design planning scheme policy.	✓	Erosion and Sediment Control will be designed and documented in the Compliance Assessment phase.

FILLING AND EXCAVATION CODE

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTION	COMMENTS
PO8 Development for filling or excavation is conducted such that adverse impacts at a sensitive use due to noise and dust are prevented or minimised. Note—A noise and dust impact management plan prepared in accordance with the Management plans planning scheme policy can assist in demonstrating achievement of this performance outcome.	AO8.1 Development ensures that no dust emissions extend beyond the boundary of the site, including dust from construction vehicles entering and leaving the site.	✓	
PO9 Development ensures that vibration generated by the filling or excavation operation does not exceed the vibration criteria in Table 9.4.3.3.D, Table 9.4.3.3.E, Table 9.4.3.3.F and Table 9.4.3.3.G. Note—A noise management report prepared in accordance with the Noise impact assessment planning scheme policy can assist in demonstrating achievement of this performance outcome.	AO8.2 Development for filling or excavation activity only occurs between the hours of 6:30am and 6:30pm Monday to Saturday, excluding public holidays.	✓	
	AO9 Development involving filling or excavation does not cause a ground-borne vibration beyond the boundary of the site.	✓	To be addressed by others. This can be Conditioned.
PO10 Development ensures that heavy trucks hauling material to and from the site do not affect the amenity of established areas and limits environmental nuisance impact on adjacent land.	AO10 Development ensures that heavy trucks hauling material to and from the site: (a) occur for a maximum of 3 weeks; (b) use a major road to access the site; (c) only use a minor road for the shortest-most-direct route that has the least amount of environmental nuisance if there is no major road alternative.	✓ ✓ ✓	To be addressed by others. This can be Conditioned.

FILLING AND EXCAVATION CODE

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTION	COMMENTS
PO11 Development for filling or excavation protects the environment and community health and wellbeing from exposure to contaminated land and contaminated material.	AO11 Development does not involve: (a) excavation on land previously occupied by a notifiable activity or on land listed on the Environmental Management Register or the Contaminated Land Register; (b) filling with material containing a contaminant.	✓	
	AO12.1 Development provides landscaping which is designed using the standards in the Landscape design guidelines for water conservation planning scheme policy.	✓	
PO12 Development provides for: (a) landscaping for water conservation purposes; (b) water sensitive urban design measures which are employed within the landscape design to maximise stormwater use and to reduce any adverse impacts on the landscape; (c) stormwater harvesting to be maximised and any adverse impacts of stormwater minimised.	AO12.2 Development ensures that the design and requirements for irrigation are in compliance with the standards in the Landscape design guidelines for water conservation planning scheme policy.	✓	
	AO12.3 Development provides areas of pavement, turf and mulched garden beds which are drained. Note—This may be achieved through the provision and/or treatment of swales, spoon drains, field gullies, sub-surface drainage and stormwater connections.	✓	

FILLING AND EXCAVATION CODE

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTION	COMMENTS
PO13 Development ensures cutting and filling for the development of canals or artificial waterways avoids adverse impacts on coastal resources and processes.	AO13 Development does not involve the creation of canals or artificial waterways.	N/A	

Appendix H – Infrastructure Design Code

INFRASTRUCTURE DESIGN CODE

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTION	COMMENTS
PO1 Development provides roads, pavement, edging and landscaping which: (a) are designed and constructed in accordance with the road hierarchy; (b) provide for safe travel for pedestrians, cyclists and vehicles; (c) provide access to properties for all modes; (d) provide utilities; (e) provide high levels of aesthetics and amenity, improved liveability and future growth; (f) provide for the amelioration of noise and other pollution; (g) provide a high-quality streetscape; (h) provide a low-maintenance asset with a minimal whole-of-life cost. Note—This can be demonstrated in an engineering report prepared and certified by a Registered Professional Engineer Queensland in accordance with the Infrastructure design planning scheme policy.	AO1 Development provides roads and associated pavement, edging and landscaping which are designed and constructed in compliance with the road corridor design standards in the Infrastructure design planning scheme policy.	✓	External roads will be retained as existing. Two new crossovers to be provided for the development
PO2 Development provides road pavement surfaces which:	AO2 Development provides road pavement surfaces which are designed and constructed in compliance	✓	

INFRASTRUCTURE DESIGN CODE

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTION	COMMENTS
(a) are well designed and constructed; (b) durable enough to carry the wheel loads of the intended types and numbers of travelling and parked vehicles; (c) ensures the safe passage of vehicles, pedestrians and cyclists, the discharge of stormwater run-off and the preservation of all-weather access; (d) allows for reasonable travel comfort.	with the road corridor design standards in the Infrastructure design planning scheme policy.		
PO3 Development provides a pavement edge which is designed and constructed to: (a) control vehicle movements by delineating the carriageway for all users; (b) provide for people with disabilities by allowing safe passage of wheelchairs and other mobility aids.	AO3 Development provides pavement edges which are designed and constructed in compliance with the road corridor design standards in the Infrastructure design planning scheme policy.	✓	
PO4 Development provides verges which are designed and constructed to: (a) provide safe access for pedestrians clear of obstructions and access areas for vehicles onto properties; (b) provide a sufficient area for public utility services; be maintainable by the Council.	AO4 Development provides verges which are designed and constructed in compliance with the road corridor design and streetscape locality advice standards in the Infrastructure design planning scheme policy.	✓	The proposed development will replace the existing 1.2m wide concrete footpath where required.
PO5 Development provides a lane or laneway identified in a neighbourhood plan which:	AO5 Development provides a lane or laneway identified in a neighbourhood plan which is embellished in	N/A	

INFRASTRUCTURE DESIGN CODE

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTION	COMMENTS
(a) allows equitable access for all modes; (b) is safe and secure; (c) has 24-hour access; (d) is a low-speed shared zone environment; (e) has a high-quality streetscape.	compliance with the streetscape locality advice standards in the infrastructure design planning scheme policy.		
PO6 Development of an existing premises provides at the frontage to the site, if not already provided, the following infrastructure to an appropriate urban standard: (a) an effective, high-quality paved roadway; (b) an effective, high-quality roadway kerb and channel; (c) safe, high-quality vehicle crossings over channels and verges; (d) safe, accessible, high-quality verges compatible and integrated with the surrounding environment; (e) safe vehicle access to the site that enables ingress and egress in a forward gear; (f) provision of and required alterations to public utilities; (g) effective drainage; (h) appropriate conduits to facilitate the provision of required street-lighting systems and traffic signals.	A06 Development of an existing premises provides at the frontage of the site, if not already existing, the following infrastructure to the standard that would have applied if the development involved new premises as stated in the road corridor design standards in the infrastructure design planning scheme policy: (a) concrete kerb and channel; (b) forming and grading to verges; (c) crossings over channels and verges; (d) a constructed bikeway; (e) a constructed verge or reconstruction of any damaged verge; (f) construction of the carriageway; (g) payment of costs for required alterations to public utility mains, services or installations; (h) construction of and required alterations to public utility mains, services or installations; (i) drainage works; (j) installation of electrical conduits.	✓	Development to maintain existing road infrastructure with addition of two new vehicular crossings in accordance with Council standards.
PO7 Development provides both cycle and walking routes which:	A07 Development provides cycle and walking routes which are located, designed and constructed in	N/A	

INFRASTRUCTURE DESIGN CODE

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTION	COMMENTS
(a) are located, designed and constructed to their network classification (where applicable); (b) provide safe and attractive travel routes for pedestrians and cyclists for commuter and recreational purposes; (c) provide safe and comfortable access to properties for pedestrians and cyclists; (d) incorporate water sensitive urban design into stormwater drainage; (e) provide for utilities; (f) provide for a high level of aesthetics and amenity, improved liveability and future growth; (g) are a low-maintenance asset with a minimal whole-of-life cost; (h) minimise the clearing of significant native vegetation. Note—This can be demonstrated in an engineering report prepared and certified by a Registered Professional Engineer Queensland in accordance with the Infrastructure design planning scheme policy.	compliance with the road corridor design and off-road pathway design standards in the Infrastructure design planning scheme policy.		
PO8 Development provides refuse and recycling collection, separation and storage facilities that are located and managed so that adverse impacts	A08.1 Development provides refuse and recycling collection and storage facilities in accordance with the Refuse planning scheme policy.	✓	

INFRASTRUCTURE DESIGN CODE

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTION	COMMENTS
on building occupants, neighbouring properties and the public realm are minimised.	AO8.2 Development ensures that refuse and recycling collection and storage location and design do not have any adverse impact including odour, noise or visual impacts on the amenity of land uses within or adjoining the development. Note—Refer to the Refuse planning scheme policy for further guidance.	✓	
PO9 Development ensures that: (a) land used for an urban purpose is serviced adequately with regard to water supply and waste disposal; (b) the water supply meets the stated standard of service for the intended use and fire-fighting purposes.	AO9.1 Development ensures that the reticulated water and sewerage distribution system for all services is in place before the first use is commenced.	✓	
	AO9.2 Development provides the lot with reticulated water supply and sewerage to a standard acceptable to the distributor—retailer.	✓	
PO10 Development provides public utilities and street lighting which are the best current or alternative technology and facilitate accessibility, easy maintenance, minimal whole-of-life costs, and minimal adverse environmental impacts.	AO10.1 Development provides public utilities and street lighting which are located and aligned to: (a) avoid significant native vegetation and areas identified within the Biodiversity areas overlay map; (b) minimise earthworks; (c) avoid crossing waterways, waterway corridors and wetlands or if a crossing is unavoidable, tunnel-boring techniques are used to minimise disturbance, and a disturbed area is reinstated and restored on completion of the work.	N/A ✓ N/A	No new public utilities or street lighting are proposed for the development. All existing infrastructure will be retained.

INFRASTRUCTURE DESIGN CODE

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTION	COMMENTS
	Note—Guidance on the restoration of habitat is included in the Biodiversity areas planning scheme policy.		
	AO10.2 Development provides compatible public utility services and street-lighting services which are co-located in common trenching for underground services.	N/A	
	AO10.3 Development provides public utilities and street lighting which are designed and constructed in compliance with the public utilities standards in the Infrastructure design planning scheme policy.	N/A	
PO11 Development ensures that land used for urban purposes is serviced adequately with telecommunications and energy supply.	AO11 Development provides land with the following services to the standards of the approved supplier: (a) electricity; (b) telecommunications services; (c) gas service where practicable.	✓	
PO12 Development ensures that major public projects promote the provision of affordable, high-	AO12 Development provides conduits which are provided in all major Council and government works projects	N/A	

INFRASTRUCTURE DESIGN CODE

PERFORMANCE OUTCOMES		ACCEPTABLE OUTCOMES	SOLUTION	COMMENTS
bandwidth	telecommunications services throughout the city.	to enable the future provision of fibre optic cabling, if: (a) the additional expense is unlikely to be prohibitive; or (b) further major work is unlikely or disruption would be a major concern, such as where there is a limited capacity road; or (c) there is a clear gap in the telecommunications network; or (d) there is a clear gap in the bandwidth available to the area. Editor's note—An accurate, digital 'as built' three-dimensional location plan is to be supplied for all infrastructure provided in a road.		
PO13	Development provides public art identified in a neighbourhood plan or park concept plan which: (a) is provided commensurate with the status and scale of the proposed development; (b) is sited and designed: (i) as an integrated part of the project design; (ii) as conceptually relevant to the context of the location; (iii) to reflect and respond to the cultural values of the community; (iv) to promote local character in a planned and informed manner	AO13 Development provides public art identified in a neighbourhood plan or park concept plan which is sited and designed in compliance with the public art standards in the infrastructure design planning scheme policy.	N/A	
PO14		AO14 Development provides public signage:	N/A	

INFRASTRUCTURE DESIGN CODE

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTION	COMMENTS
Development provides signage of buildings and spaces which promote legibility to help users find their way.	(a) at public transport interchanges and stops, key destinations, public spaces, pedestrian linkages and at entries to centre developments; (b) which details the location of the key destinations, public spaces and pedestrian linkages in the vicinity, the services available within the development and where they are located. Editor's note—Signage is to be in accordance with Local Law Number 1 (Control of Advertisements Local Law).		
PO15 Development that provides community facilities which form part of the development is functional, safe, low maintenance, and fit for purpose.	AO15 Development that provides community facilities which form part of the development is designed in compliance with the community facilities standards in the Infrastructure design planning scheme policy.	✓	
PO16 Development provides public toilets which: (a) are required as part of a community facility or park; (b) are located, designed and constructed to be: (i) safe; (ii) durable; (iii) resistant to vandalism; (iv) able to service expected demand; (v) fit for purpose.	AO16 Development that provides public toilets is designed and constructed in compliance with the public toilets standards in the Infrastructure design planning scheme policy.	N/A	
PO17	AO17	N/A	

INFRASTRUCTURE DESIGN CODE

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTION	COMMENTS
Development provides bridges, tunnels, elevated structures and water access structures that are designed and constructed using proven methods, materials and technology to provide for: (a) safe movement of intended users; (b) an attractive appearance appropriate to the general surroundings and any adjacent structures; (c) functionality and easy maintenance; (d) minimal whole-of-life cost; (e) longevity; (f) current and future services. Note—All bridges and elevated and associated elements must be designed and certified by a Registered Professional Engineer Queensland in accordance with the Infrastructure design planning scheme policy.	Development that provides bridges, tunnels, elevated structures and water access structures is designed and constructed in compliance with the standards in the Infrastructure design planning scheme policy.		
PO18 Development provides culverts which are designed and constructed using proven methods, materials and technology to provide for: (a) safety; (b) an attractive appearance appropriate to the general surroundings; (c) functionality and easy maintenance; (d) minimal whole-of-life cost; (e) longevity; (f) future widening; (g) current and future services; (h) minimal adverse impacts, such as increase in water levels or flow velocities, and significant change of flood patterns.	AO18 Development that provides culverts is designed and constructed in compliance with the structures standards in the Infrastructure design planning scheme policy.	N/A	
PO19	AO19		

INFRASTRUCTURE DESIGN CODE

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTION	COMMENTS
Development provides batters, retaining walls, and seawalls and river walls which are designed and constructed using proven methods, materials and technology to provide for: (a) safety; (b) an attractive appearance appropriate to the surrounding area; (c) easy maintenance; (d) minimal whole-of-life cost; (e) longevity; (f) minimal water seepage. Note—All retaining walls and associated elements are to be designed and certified by a Registered Professional Engineer Queensland in accordance with the applicable design standards.	Development that provides batters, retaining walls, seawalls and river walls is designed and constructed in compliance with the structures standards in the Infrastructure design planning scheme policy.	✓	
If for development with a gross floor area greater than 1,000m²			
PO20 Development ensures that construction is managed so that use of public spaces and movement on pedestrian, cyclist and other traffic routes is not unreasonably disrupted and existing landscaping is adequately protected from short- and long-term impacts. Note—The preparation of a construction management plan can assist in demonstrating achievement of this performance outcome. Note—The Transport, access, parking and servicing planning scheme policy provides advice on the management of vehicle parking and deliveries during construction.	AO20 Development ensures that during construction: (a) the ongoing use of adjoining and surrounding parks and public spaces, such as malls and outdoor dining, is not compromised; (b) adjoining and surrounding landscaping is protected from damage; (c) safe, legible, efficient and sufficient pedestrian, cyclist and vehicular accessibility and connectivity to the wider network are maintained.	N/A ✓ ✓	

INFRASTRUCTURE DESIGN CODE

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTION	COMMENTS
PO21 Development ensures that construction and demolition activities are guided by measures that prevent or minimise adverse impacts including sleep disturbance at a sensitive use, due to noise and dust, including dust from construction vehicles entering and leaving the site. Note—A noise and dust impact management plan prepared in accordance with the Management plans planning scheme policy can assist in demonstrating achievement of this performance outcome.	AO21.1 Development ensures that demolition and construction: (a) only occur between 6:30am and 6:30pm Monday to Saturday, excluding public holidays; (b) do not occur over periods greater than 6 months. AO21.2 Development including construction and demolition does not release dust emissions beyond the boundary of the site. AO21.3 Development construction and demolition does not involve asbestos-containing materials. AO22 Development ensures that the nature and scale of construction and demolition do not generate noticeable levels of vibration.	✓ ✓ ✓ ✓	
PO22 Development ensures that: (a) construction and demolition do not result in damage to surrounding property as a result of vibration; (b) vibration levels achieve the vibration criteria in Table 9.4.4.3.B, Table 9.4.4.3.C, Table 9.4.4.3.D and Table 9.4.4.3.E. Note—A vibration impact assessment report prepared in accordance with the Noise impact assessment planning scheme policy can assist in demonstrating achievement of this performance outcome.			

Appendix I – Stormwater Code

STORMWATER CODE

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTION	COMMENTS
Section A—If for a material change of use, reconfiguring a lot, operational work or building work Note—Compliance with the performance outcomes and acceptable outcomes in this section should be demonstrated by the submission of a site-based stormwater management plan for high risk development only.			
PO1 Development provides a stormwater management system which achieves the integrated management of stormwater to: (a) minimise flooding; (b) protect environmental values of receiving waters; (c) maximise the use of water sensitive urban design; (d) minimise safety risk to all persons; (e) maximise the use of natural waterway corridors and natural channel design principles. Editor's note—The stormwater management system to be developed to address PO1 is not intended to require management of stormwater quality.	AO1 Development provides a stormwater management system designed in compliance with the Infrastructure design planning scheme policy.	✓	
PO2 Development ensures that the stormwater management system and site work does not adversely impact flooding or drainage characteristics of premises which are up slope, down slope or adjacent to the site.	AO2.1 Development does not result in an increase in flood level or flood hazard on up slope, down slope or adjacent premises. AO2.2 Development provides a stormwater management system which is designed in compliance with the standards in the Infrastructure design planning scheme policy.	✓ ✓	

STORMWATER CODE

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTION	COMMENTS
PO3 Development ensures that the stormwater management system does not direct stormwater run-off through existing or proposed lots and property where it is likely to adversely affect the safety of, or cause nuisance to properties.	AO3.1 Development ensures that the location of the stormwater drainage system is contained within a road reserve, drainage reserve, public pathway, park or waterway corridor.	N/A	
	AO3.2 Development provides a stormwater management system which is designed in compliance with the standards in the Infrastructure design planning scheme policy.	✓	
	AO3.3 Development obtains a lawful point of discharge in compliance with the standards in the Infrastructure design planning scheme policy.	✓	Lawful point of discharge for the site will be Whitley St.
	AO3.4 Where on private land, all underground stormwater infrastructure is secured by a drainage easement.	N/A	
PO4 Development provides a stormwater management system which has sufficient capacity to safely convey run-off taking into account increased run-off from impervious surfaces and flooding in local catchments.	AO4.1 Development provides a stormwater conveyance system which is designed to safely convey flows in compliance with the standards in the Infrastructure design planning scheme policy.	✓	
	AO4.2 Development provides sufficient area to convey run-off which will comply with the standards in the Infrastructure design planning scheme policy.	✓	

STORMWATER CODE

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTION	COMMENTS
PO5 Development designs stormwater channels, creek modification works, bridges, culverts and major drains to protect and enhance the value of the waterway corridor or drainage path for fauna movement.	AO5 Development ensures the design of stormwater channels, creek modifications or other infrastructure, permits terrestrial and aquatic fauna movement.	N/A	
PO6 Development ensures that location and design of stormwater detention and water quality treatment: (a) minimises risk to people and property; (b) provides for safe access and maintenance; (c) minimises ecological impacts to creeks and waterways.	AO6.1 Development locates stormwater detention and water quality treatment: (a) outside of a waterway corridor; (b) offline to any catchment not contained within the development. AO6.2 Development providing for stormwater detention and water quality treatment devices are designed in compliance with the standards in the Infrastructure design planning scheme policy.	✓	Stormwater detention not required. Water Quality addressed by Atlan Vortceptor and Atlan Flow Guards.
PO7 Development is designed, including any car parking areas and channel works to: (a) reduce property damage; (b) provide safe access to the site during the defined flood event.	AO7.1 Development (including any ancillary structures and car parking areas) is located above minimum flood immunity levels in Table 9.4.9.3.B, Table 9.4.9.3.C, Table 9.4.9.3.D, Table 9.4.9.3.E and Table 9.4.9.3.F. Note—Compliance with this acceptable outcome can be demonstrated by the submission of a hydraulic and hydrology report identifying flood levels and development design levels (as part of a site-based stormwater management plan).	✓	Stormwater detention not required. Water Quality addressed by approved Atlan Vortceptor and Atlan Flow Guards.

STORMWATER CODE

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTION	COMMENTS
	A07.2 Development including the road network provides a stormwater management system that provides safe pedestrian and vehicle access in accordance with the standards in the Infrastructure design planning scheme policy.	✓	
P08 Development designs stormwater channels, creek modification works and the drainage network to protect and enhance the environmental values of the waterway corridor or drainage path.	A08.1 Development ensures natural waterway corridors and drainage paths are retained.	N/A	
	A08.2 Development provides the required hydraulic conveyance of the drainage channel and floodway, while maximising its potential to maximise environmental benefits and minimise scour.	N/A	
	A08.3 Development provides stormwater outlets into waterways, creeks, wetlands and overland flow paths with energy dissipation to minimise scour in compliance with the standards in the Infrastructure design planning scheme policy.	N/A	
	A08.4 Development ensures that the design of modifications to the existing design of new stormwater channels, creeks and major drains is in compliance with the standards in the Infrastructure design planning scheme policy.	N/A	

STORMWATER CODE

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTION	COMMENTS
P09 Development is designed to manage run-off and peak flows by minimising large areas of impervious material and maximising opportunities for capture and re-use.	AO9 No acceptable outcome is prescribed.	✓	Complies with P09
P010 Development ensures that there is sufficient site area to accommodate an effective stormwater management system. Note—Compliance with the performance outcome should be demonstrated by the submission of a site-based stormwater management plan for high-risk development only.	AO10 No acceptable outcome is prescribed.	✓	Complies with P10
P011 Development provides for the orderly development of stormwater infrastructure within a catchment, having regard to the existing capacity of stormwater infrastructure within and external to the site, and any planned stormwater infrastructure upgrades; (a) safe management of stormwater discharge from existing and future up-slope development; (b) implication for adjacent and down-slope development.	AO11.1 Development with up-slope external catchment areas provides a drainage connection sized for ultimate catchment conditions that is directed to a lawful point of discharge.	N/A	No external catchment upslope of subject site.

STORMWATER CODE

	AO11.2 Development ensures that existing stormwater infrastructure that is undersized is upgraded in compliance with the Priority infrastructure plan and the standards in the Infrastructure design planning scheme policy.	N/A	
PO12 Development provides stormwater infrastructure which: (a) remains fit for purpose for the life of the development and maintains full functionality in the design flood event; (b) can be safely accessed and maintained cost effectively; (c) ensures no structural damage to existing stormwater infrastructure.	AO12.1 The stormwater management system is designed in compliance with the Infrastructure design planning scheme policy. AO12.2 Development provides a clear area with a minimum of 2m radius from the centre of an existing manhole cover and with a minimum height clearance of 2.5m.	✓ N/A	
PO13 Development ensures that all reasonable and practicable measures are taken to manage the impacts of erosion, turbidity and sedimentation, both within and external to the development site from construction activities, including vegetation clearing, earthworks, civil construction, installation of services, rehabilitation, revegetation and landscaping to protect: (a) the environmental values and water quality objectives of waters; (b) waterway hydrology; (c) the maintenance and serviceability of stormwater infrastructure.	AO13 No acceptable outcome is prescribed.	✓	Detailed Erosion and Sediment Control measures will be documented in the Compliance Assessment phase to ensure compliance with PO13.

STORMWATER CODE

Note—The Infrastructure design planning scheme policy outlines the appropriate measures to be taken into account to achieve the performance outcome.				
PO14 Development ensures that: (a) unnecessary disturbance to soil, waterways or drainage channels is avoided; (b) all soil surfaces remain effectively stabilised against erosion in the short and long term.	AO14 No acceptable outcome is prescribed.	✓		Erosion and Sediment Control will be designed and documented in the Compliance Assessment phase.
PO15 Development does not increase: (a) the concentration of total suspended solids or other contaminants in stormwater flows during site construction; (b) run-off which causes erosion either on site or off site.	AO15 No acceptable outcome is prescribed.	✓		Erosion and Sediment Control will be designed and documented in the Compliance Assessment phase.
Section B—Additional criteria which apply to high-risk development, being one or more of the following: (a) a material change of use for an urban purpose which involves greater than 2,500m² of land that: (i) will result in an impervious area greater than 25% of the net developable area; or (ii) will result in 6 or more dwellings. (b) reconfiguring a lot for an urban purpose that involves greater than 2,500m² of land and will result in 6 or more lots; (c) operational work for an urban purpose which involves disturbing greater than 2,500m² of land.				
PO16 Development ensures that the entry and transport of contaminants into stormwater is avoided or minimised to protect receiving water environmental values. Note—Prescribed water contaminants are defined in the Environmental Protection Act 1994. Note—Compliance with the performance outcome should be demonstrated by the submission of a site-based stormwater management plan for high-risk development only.	AO16 Development provides a stormwater management system which is designed in compliance with the standards in the Infrastructure design planning scheme policy.	✓		

STORMWATER CODE

PO17 Development ensures that: (a) the discharge of wastewater to a waterway or external to the site is avoided; or (b) if the discharge cannot practicably be avoided, the development minimises wastewater discharge through re-use, recycling, recovery and treatment. Note—The preparation of a wastewater management plan can assist in demonstrating achievement of this performance outcome. Editor's note—This code does not deal with sewerage which is the subject of the Wastewater code.	AO17 No acceptable outcome is prescribed.	N/A	
Section C—Additional performance outcomes and acceptable outcomes for assessable development for a material change of use or reconfiguring a lot			
PO18 Development protects stormwater infrastructure to ensure the following are not compromised: (a) the long term infrastructure for the stormwater network in the Long term infrastructure plans; (b) the existing and planned infrastructure for the stormwater network in the Local government infrastructure plan; (c) the provision of long term, existing and planned infrastructure for the stormwater network which: (d) (i) is required to service the development or an existing and future urban development in the planning scheme area; or (ii) is in the interests of rational development or the efficient and orderly planning of the general area in which the site is situated. Editor's note—A condition which requires a proposed development to keep permanent improvements and structures associated with the approved development clear of the area of long term infrastructure, may be imposed.	AO18 Development protects stormwater infrastructure in compliance with the following: (a) for long term infrastructure for the stormwater network, the Long term infrastructure plans; (b) for existing and planned infrastructure for the stormwater network, the Local government infrastructure plan; (c) the standards for stormwater drainage in the Infrastructure design planning scheme policy.	✓	

STORMWATER CODE

PO19 Development provides for the payment of extra trunk infrastructure costs for the following: (a) for development completely or partly outside the priority infrastructure area in the Local government infrastructure plan; (b) for development completely inside the priority infrastructure area in the Local government infrastructure plan involving: (i) trunk infrastructure that is to be provided earlier than planned in the Local government infrastructure plan; (ii) long term infrastructure for the stormwater network which is made necessary by development that is not assumed future urban development; (iii) other infrastructure for the stormwater network associated with development that is not assumed future urban development which is made necessary by the development. Editor's note—The payment of extra trunk infrastructure costs for development completely inside the priority infrastructure area in the Local government infrastructure plan is to be worked out in accordance with the Charges Resolution. Editor's note—See section 130 Imposing Development conditions (Conditions for extra trunk infrastructure costs) of the Planning Act 2016.	AO19 No acceptable outcome is prescribed	N/A	
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Appendix J – BCC EHA Form



Erosion Hazard Assessment

Brisbane City Council (BCC), *Erosion Hazard Assessment* form must be read in conjunction with the *Erosion Hazard Assessment- Supporting Technical Notes* (June 2014 or later version) for explanatory terms and Certification information.

What is an Erosion Hazard Assessment?

Soil erosion and sediment from urban development, particularly during construction activities, is a significant source of sediment pollution in Brisbane's waterways. The Erosion Hazard Assessment determines whether the risk of soil erosion and sediment pollution to the environment is 'low', 'medium' or 'high'.

When is the EHA required?

An Erosion Hazard Assessment form must be completed and lodged with BCC for any Development Application (ie MCU or ROL) that will result in soil disturbance OR Operational Works or Compliance Assessment Application for 'Filling' or Excavation.

Failure to submit this form during lodgement of an application may result in assessment delays or refusal of the application.

Privacy Statement

The personal information collected on this form will be used by Brisbane City Council for the purposes of fulfilling your request and undertaking associated Council functions and services. Your personal information will not be disclosed to any third party without your consent, unless this is required or permitted by law.

Assessment Details

1 Please turn over and complete the erosion hazard assessment.

2 Based on the erosion hazard assessment overleaf, is the site:

☐ A 'low' risk site

Best practice erosion and sediment control (ESC) must be implemented but no erosion and sediment control plans need to be submitted with the development application. Factsheets outlining best practice ESC can be found at <https://waterbydesign.com.au/download/erosion-sediment-control-for-small-construction-sites>

☒ A 'medium' risk site

If the development is approved, the applicant will need to engage a Registered Professional Engineer (RPEQ) or Certified Professional in Erosion and Sediment Control (CPESC) to prepare an ESC Program and Plan and supporting documentation — in accordance with the requirements of the Infrastructure Design Planning Scheme Policy.

☐ A 'high' risk site

If the development is approved, the applicant will need to engage a RPEQ and CPESC to prepare an ESC Program and Plan and supporting documentation — in accordance with the requirements of the Infrastructure Design Planning Scheme Policy. The plans and program will need to be certified by a CPESC.

3 Site Information and Certification

Application number (if known)

Site address

15-25 WHITLEY STREET

MOUNT GRAVATT EAST

Postcode 4122

I certify that:

- ☒ I have made all relevant enquiries and am satisfied no matters of significance have been withheld from the assessment manager.
- ☒ I am a person with suitable qualifications and/or experience in erosion and sediment control.
- ☒ The Erosion Hazard Assessment was completed in accordance with the Erosion Hazard Assessment Supporting Technical Notes and the BCC Infrastructure Design Planning Scheme Policy.
- ☒ The Erosion Hazard Assessment accurately reflects the site's overall risk of soil erosion and sediment pollution to the environment.
- ☒ I acknowledge and accept that the BCC, as assessment manager, relies, in good faith, on this certification as part of its development assessment process and the provision of false or misleading information to the BCC constitutes an offence for which BCC may take punitive steps/ action against me/ enforcement action against me.

Certified by (Print name)

GARY BRIAU NAGU

Certifier's signature

Date

10 / 03 / 2025

Table 1: Low Risk Test

		Yes	No
1.1	is the area of land disturbance > 1000 m2?	☒	☐
1.2	does any land disturbance occur in a BCC mapped waterway corridor?	☐	☒
1.3	is there any slope on site (longer than three metres in length) before, during or after construction that is steeper than 5%?	☐	☒
1.4	does any land disturbance occur below 5 m AHD?	☐	☒
1.5	does development involve endorsement of a staging plan?	☐	☒
1.6	is there an upstream catchment passing through the site > 1 hectare?	☐	☒

If you answered '**No**' to **ALL** of these questions, then the site is **low risk** with respect to erosion and sediment control.
(Do not continue to Table 2)

If you answered '**Yes**' to **ANY** of these questions, then proceed to **Table 2**

Table 2: Medium Risk Test

		Yes	No
2.1	is the area of land disturbance > 1 hectare?	☐	☒

If '**No**' then the site is **medium risk** with respect to erosion and sediment control.
(Do not continue to Table 3)

If '**Yes**' then proceed to **Table 3**

Table 3: High Risk Test

		Yes	No
3.1	is there an upstream catchment passing through the site > 1 hectare?	☐	☐
3.2	does any land disturbance occurs in a BCC mapped waterway corridor?	☐	☐
3.3	is there any slope on site (longer than three metres in length) before, during or after construction that is steeper than 15%?	☐	☐

If you answered '**No**' to **ALL** of these questions, then the site is also **medium risk** with respect to erosion and sediment control.

If you answered '**Yes**' to **ANY** of these questions, then the site is **high risk** with respect to erosion and sediment control.