



Our ref: PS125923-SN-LTR-Civil Amended DA response

Your ref: PS125923

By email
brent.griffiths@walkercorp.com.au

14 February 2024

For internal use

Brent Griffin
Senior Project Manager
Walker Corporation
Level 6, Unit 602
8 Market Lane, Maroochydore QLD 4558

Dear Brent

Lot 50, First Avenue - DA Change - Update to Civil Engineering Services and Site Based Storm Water Management Report

With reference to your .Aconex correspondence (ref Walkerco-RFI-000025) DA minor change application to EDQ to increase the NLA on Level 14 from 308m2 to 1151m2 and relocate the plant and communal rooftop terrace onto Level 15, WSP can confirm that the current **Civil Engineering Services and Site Based Stormwater Management Plan** ref (PS125933-CIV-REP-001 Rev E Dated 02/03/23) is not affected by the proposed changes associated with the amendments to the Level 14 and Level 15 layouts.

We therefore confirm no changes are permitted to the currently Civil Engineering Services and Site Based Stormwater Report (Rev E) for the amended DA submission intended by Walker Corporation

Yours sincerely

Steve Novak
Director
RPEQ 12760

Level 12, 900 Ann Street
Fortitude Valley QLD 4006
GPO Box 2907
Brisbane QLD 4001

Tel: +61 7 3854 6200
Fax: +61 7 3854 6500
www.wsp.com

WSP acknowledges that every project we work on takes place on First Peoples lands.
We recognise Aboriginal and Torres Strait Islander Peoples as the first scientists and engineers and pay our respects to Elders past and present.

Design for a better *future /*

WALKER MAROOCHYDORE
DEVELOPMENTS PTY LTD

**50 FIRST AVENUE,
MAROOCHYDORE**

CIVIL ENGINEERING
SERVICES AND SITE
BASED STORMWATER
MANAGEMENT REPORT



PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL



Approval no: DEV2021/1249/7

Date: 18 July 2024

FEBRUARY 2023

CONFIDENTIAL

Question today *Imagine tomorrow* Create for the future

50 First Avenue, Maroochydore
Civil Engineering Services and Site Based Stormwater Management Report

Walker Maroochydore Developments Pty Ltd

WSP

Level 12, 900 Ann Street
Fortitude Valley QLD 4006
GPO Box 2907
Brisbane QLD 4001

Tel: +61 7 3854 6200
Fax: +61 7 3854 6500
wsp.com

REV	DATE	DETAILS
A	11.08.2021	Draft Issue
B	28.10.2021	Issue for Comment
C	15.11.2021	Final Issue
D	22.11.2021	Final Issue
E	03.02.2023	Basement Revision

	NAME	DATE	SIGNATURE
Prepared by:	Jared Falkenhagen	03.02.2023	
Reviewed by:	Steve Novak	03.02.2023	
Approved by:	Steve Novak	03.02.2023	

This document may contain confidential and legally privileged information, neither of which are intended to be waived, and must be used only for its intended purpose. Any unauthorised copying, dissemination or use in any form or by any means other than by the addressee, is strictly prohibited. If you have received this document in error or by any means other than as authorised addressee, please notify us immediately and we will arrange for its return to us.



TABLE OF CONTENTS

1	PURPOSE OF DOCUMENT.....	4
2	INTRODUCTION.....	5
2.1	PROJECT DESCRIPTION.....	5
2.2	LOCALITY.....	5
2.3	PROPOSAL DETAILS.....	6
2.3.1	DENSITY.....	6
3	EXISTING INFRASTRUCTURE.....	7
3.1	EXISTING WATER.....	7
3.2	EXISTING SEWER.....	7
3.3	EXISTING STORMWATER.....	7
4	PROPOSED INFRASTRUCTURE.....	8
4.1	PROPOSED WATER.....	8
4.2	PROPOSED SEWER.....	8
4.3	PROPOSED STORMWATER.....	9
4.3.1	STORMWATER QUANTITY.....	9
4.3.2	STORMWATER QUALITY.....	9
4.3.3	LEGAL POINT OF DISCHARGE.....	10
4.3.4	FLOODING.....	10
5	ENGINEERING.....	12
5.1	SITE GRADING AND VEHICLE ACCESS.....	12
6	EROSION AND SEDIMENT CONTROL.....	13
6.1	SITE CONTROLS.....	13
6.2	GENERAL REQUIREMENTS.....	13
6.3	CONSTRUCTION PHASE STORMWATER QUALITY MANAGEMENT.....	13
7	CONCLUSIONS.....	14
8	LIMITATIONS.....	15
8.1	PERMITTED PURPOSE.....	15
8.2	QUALIFICATIONS AND ASSUMPTIONS.....	15
8.3	USE AND RELIANCE.....	15

8.4	DISCLAIMER	16
-----	------------------	----

LIST OF TABLES

TABLE 2.1	LAND DETAILS	5
TABLE 2.2	EQUIVALENT PERSONS (EP'S) SEWER AND WATER SUPPLY DEMAND CALCULATIONS	6
TABLE 3 -	POST-DEVELOPMENT MUSIC MODELLING RESULTS	10

LIST OF APPENDICES

APPENDIX A	ARCHITECTURAL PLANS
APPENDIX B	CONCEPT EROSION AND SEDIMENT CONTROL PLAN
APPENDIX C	CONCEPT BULK EARTHWORKS PLAN
APPENDIX D	CONCEPT SITE SERVICES LAYOUT
APPENDIX E	MUSIC MODELLING
APPENDIX F	UNITYWATER SAN
APPENDIX G	STORMWATER QUALITY PROPRIETARY DEVICES
APPENDIX H	SCC INFRASTRUCTURE MAPPING
APPENDIX I	FLOOD TECHNICAL MEMO
APPENDIX J	DIAL BEFORE YOU DIG

1 PURPOSE OF DOCUMENT

This document has been prepared by WSP as part of the Development Application submission for the 50 First Avenue, Maroochydore development.

The purpose of this report is to address the engineering considerations and infrastructure that will be required to service the proposed development.

This report was prepared using information obtained from the following sources:

- Architectural Plans of the proposed development prepared by Cox Architecture;
- Contour and Detail Survey prepared by Project Urban;
- Sunshine Coast Council MyMaps
- Dial-Before-You-Dig (DBYD) services;
- Cornmeal Creek Flood Study, prepared November 6, 2013, by Cardno;
- Maroochydore City Centre – Flooding and Stormwater Management Considerations for Stage 1, prepared August 26, 2015, by Cardno; and
- Maroochydore City Centre – Stage 1 Local Flooding Technical Memorandum, prepared 29 October 2015 by Cardno.

2 INTRODUCTION

2.1 PROJECT DESCRIPTION

The proposed development is situated on a freehold lot of approximately 1,407m² of land, impacting the following real property lots:

Table 2.1 Land Details

STREET ADDRESS	50 FIRST AVENUE, MAROOCHYDORE QLD 4558
Real Property Description	Lot 71 on SP308184

Source: Sunshine Coast Council MyMaps

The proposed development is located in the newly developed Maroochydore City Centre, just to the west of the main access road First Avenue. The site is bounded to the south by South Sea Islander Way, and Lightning Lane to the west. Another freehold property, Lot 74, bounds the site to the north and has recently had a new development constructed.

The proposed site is currently undeveloped and falls within the Maroochydore/Kuluin Local Plan Area and the Priority Development Area (subject to the Economic Development Act 2012).

2.2 LOCALITY

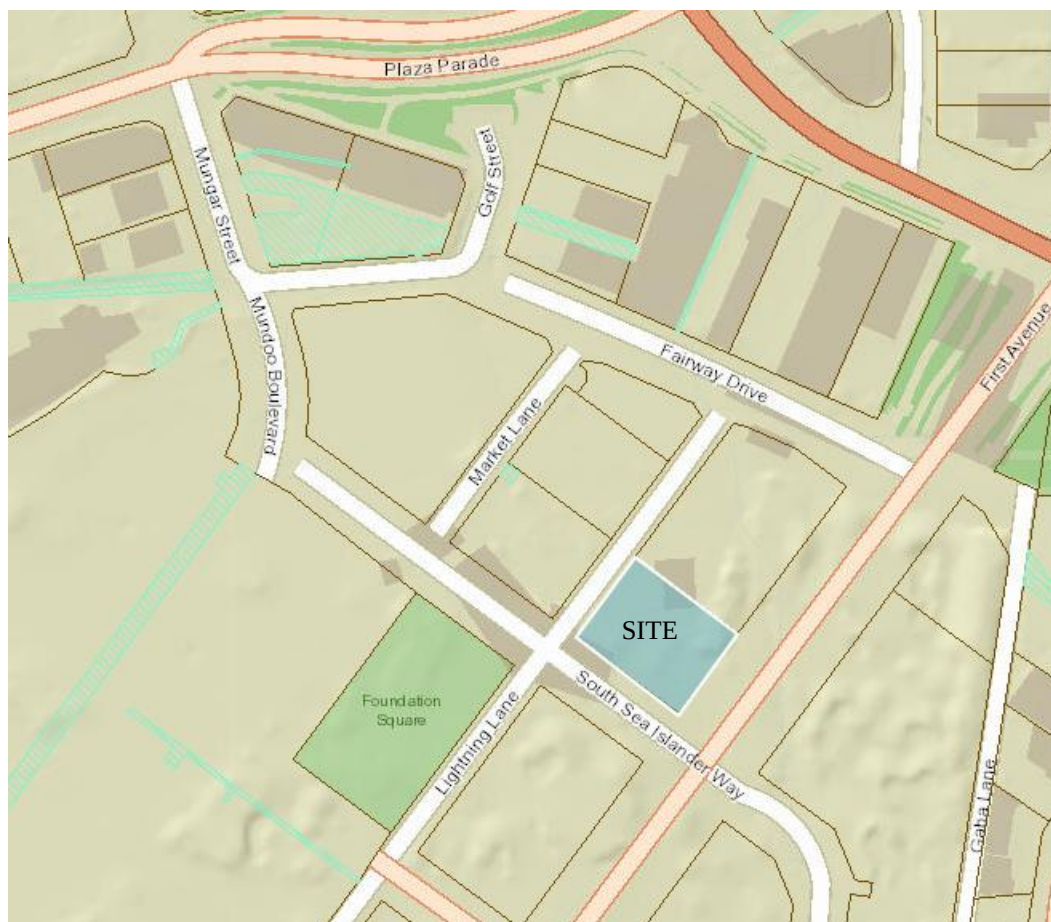


Figure 1 – 50 First Avenue, Maroochydore Locality Plan (Source: SCC MyMaps)

2.3 PROPOSAL DETAILS

The proposed development is to be comprised of a 14-storey building, primarily for commercial office use. The ground floor will house retail space and an integrated lobby café space. The site has one proposed basement level accessed from Lightning Lane. The proposed development also has loading dock access via the western boundary on Lightning Lane, while pedestrian traffic is directed to the First Avenue frontage for lobby access, and South Sea Islander Way for ground floor tenancy access.

2.3.1 DENSITY

The expected commercial and retail floor areas have been calculated based on the architectural layouts provided by Cox Architecture, Rev 36 received 31st January 2023.

The following tables detail the expected densities of the proposed development, and calculations for an estimate of the Equivalent Persons (EP's) to assist in determining the water and sewer demands created by the proposed land uses. Ground floor tenancies are yet to be determined, and therefore the more conservative land use type of food and drink outlet has been utilised, rather than general retail or commercial.

Table 2.2 Equivalent Persons (EP's) Sewer and Water Supply Demand Calculations

LAND USE TYPE	GFA	GFA TO EP CONVERSION RATE	TOTAL EP'S
Commercial	14,126	0.8/100m2 GFA	113
Food and Drink Outlet	460	5.4EP/100m2 GFA	25
Total	14,586	N/A	138

Note: EP's have been calculated using UnityWater Netserv Appendix B – Schedule of Works Table 2.

3 EXISTING INFRASTRUCTURE

3.1 EXISTING WATER

There is existing water reticulation in Lightning Lane available for connection to the proposed development. The water reticulation main is a 150mm PVC-O pipe, which turns into a 200mm PVC-O on the First Ave frontage, forms a ring around lot 71 and 74.

There is an existing 150mm stub stemming from the reticulation main in Lightning Lane ready for connection to the proposed development. This property connection currently meets the UnityWater requirements for a commercial building.

3.2 EXISTING SEWER

There is existing sewer reticulation in Lightning Lane available for connection to the proposed development. The reticulation main is a 150mm PVC-U pipe that drains to a 225mm reticulation main in South Sea Islander Way that then heads west to the trunk main in Golf Street.

There is an existing 150mm stub stemming from a manhole on the western side of Lightning Lane ready for connection to the proposed development. This property connection currently meets the UnityWater requirements for a commercial building.

3.3 EXISTING STORMWATER

Existing stormwater infrastructure can be found surrounding the site. There are two field inlets currently draining the undeveloped site, via separate 375mm RCP's. The western field inlet drains to a 525mm pipe in Lightning Lane. The south-east field inlet drains to a 750mm pipe in South Sea Islander Way. Both pipes connect to a 1200mm pipe that heads south via Lightning Lane and discharges directly to Maud Drain at the intersection of Lightning Lane and Sunshine Coast Parade.

3.4 OTHER SERVICES

The site survey and Dial Before You Dig information suggests electrical and NBN services are available for connection. Further design and documentation of these connections and correspondence with service providers will be required during detailed design by relevant Services Engineer. The Dial Before You Dig information and site survey is available in Appendix J.

4 PROPOSED INFRASTRUCTURE

4.1 PROPOSED WATER

An existing 150mm PVC-O reticulation main is present in the adjacent Lightning Lane and has a suitable 150mm stub ready for connection to Lot 71. This stub is appropriately sized for the proposed development. However, the position of the Water Meter Assembly within the property boundary and the other plant space has not permitted using the existing connection point. A new connection on the First Ave frontage is proposed to connect into the existing 200mm PVC-O main that is available on the eastern side of the building.

A Service Advice Notice (SAN) application was submitted to UnityWater, dated August 4, 2021. The request has detailed the expected permissible connection location for the proposed development, considering the proposed GFA and floor plans. Discussions with UnityWater personnel suggested the SAN response is expected to be supportive of the development and able to supply the required water demands.

Due to the multiple architectural drawing updates, a revised SAN was submitted to UnityWater on October 26, 2021, to reflect the increased GFA. On this basis it is assumed that there is sufficient capacity of the water demand of the proposed development which will need to be confirmed upon receipt of the SAN from UnityWater, due to the extended period of time, it is unlikely this will be received before initiating the Registered Certifier process .

The response from UnityWater regarding the requested SAN advice is currently outstanding, correspondence with UnityWater is included in Appendix F.

4.2 PROPOSED SEWER

An existing 150mm PVC-U sewer reticulation main is present in the adjacent Lightning Lane and has a 150mm stub stemming from a manhole on the western side of Lightning Lane ready for connection to Lot 71. This stub is appropriately sized for the proposed development. The proposed connection fall in a location that will be internal to the building with the current ground floor layout and will therefore not be supported by UnityWater. As such, a new sewer connection is proposed at the north west corner of the building.

A Service Advice Notice (SAN) application was submitted to UnityWater, dated August 4, 2021. The request has detailed the expected permissible connection location for the proposed development, considering the proposed GFA and floor plans. The response has not yet been received. However, the SAN response is expected to be supportive of the development and able to meet the required sewer demands.

Due to the multiple architectural drawing updates, a revised SAN was submitted to UnityWater on October 26, 2021, to reflect the increased GFA. On this basis it is assumed that there is sufficient capacity of the water demand of the proposed development which will need to be confirmed upon receipt of the SAN from UnityWater, due to the extended period of time, it is unlikely this will be received before initiating the Registered Certifier process .

The response from UnityWater regarding the requested SAN advice is currently outstanding, correspondence with UnityWater is included in Appendix F.

4.3 PROPOSED STORMWATER

4.3.1 STORMWATER QUANTITY

As part of the proposed development, additional impervious area will be created, increasing the expected stormwater runoff generated by the site. In accordance with Sunshine Coast Council Flooding and Stormwater Management Guidelines, this additional runoff is to be attenuated to prevent adverse impacts to public stormwater infrastructure, unless the stormwater infrastructure has been adequately sized to incorporate the additional runoff generated by the development or the site discharges directly to a tidal waterway.

The Cornmeal Creek Flood Study, prepared November 6, 2013, by Cardno, states that the Stage 1 catchment areas have been assessed based on their future land use. Section 4.4.2 states an impervious area for a commercial lot is expected to be 90% impervious. Due to the flood study assumptions, the public infrastructure has been adequately sized to allow for the additional post development flows, and therefore no attenuation is required for this development.

Rainwater harvesting for stormwater re-use is not required for this development however it is being implemented as part of best practices for Water Sensitive Urban Design and water conservation strategies and will be considered under the Greenstar assessment process.

4.3.2 STORMWATER QUALITY

As per the technical memo “Maroochydore City Centre – Flooding and Stormwater Management Considerations for Stage 1”, prepared August 26, 2015, by Cardno, the treatment of internal lots for Stage 1 is the responsibility of the developer, and this development has therefore not been accounted for in an end of line treatment device. Section 3.2 of the Sunshine Coast Council Flooding and Stormwater Management Guidelines states the following requirements are therefore applicable for pollutant load reductions relative to an unmitigated development case:

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

The performance of the proposed stormwater quality treatment train has been modelled via MUSIC software. The compliance of the proposed stormwater quality treatment train to the requirements as set out in SCC’s guidelines for the stormwater quality has then been assessed.

4.3.2.1 PROPOSED STORMWATER QUALITY TREATMENT TRAIN

Due to the fully developed nature of the proposed site, consisting almost entirely of roof area, a proprietary treatment system is proposed to meet the abovementioned pollution reduction targets. The roof water runoff captured in the drainage system will be discharged to rainwater harvesting tank within the building for re-use in internal water systems and for irrigation of landscape features.

Stormwater pollution reduction will be accomplished by utilising a variety of proprietary products. Total Suspended Solids will be targeted by filtration bags, while phosphorous and nitrogen pollutants are to be handled by a cartridge filter system stored in a tank.

Stormwater TSS filtration bags are to be located prior to the cartridge filter tank in a pipe flow configuration (refer to Appendix G for further information on Ocean Protect OceanGuard arrangements). The proposed cartridge filter system and associated storage tank is proposed to be located on the mezzanine level above the loading bay, accessed via stairs within the loading bay from the western boundary of the site. The storage chamber has been optimized to a 1.6m² manhole containing three (3) PSORB Ocean Protect filter cartridges. An access lid for cartridge maintenance will be required, in accordance with the proprietary device suppliers’ details (refer to Appendix G).

4.3.2.2 MUSIC MODELLING

Utilising the abovementioned treatment train, a stormwater quality model was produced utilising the MUSIC software package. The water quality pollution reduction targets outlined in Section 4.3.2 have been met by the proposed treatment train. The MUSIC model inputs can be found in Appendix E. The following table details the resulting outputs of the proposed treatment train methodology.

Table 3 - Post-Development MUSIC Modelling Results

POLLUTANT	REQUIRED POLLUTANT REDUCTION (%)	ACHIEVED REDUCTION (%)
Total Suspended Solids	80	83.7
Total Phosphorous	60	66.9
Total Nitrogen	45	49.2
Gross Pollutants	90	100

The results outlined in Table 7 demonstrate that the proposed development will achieve the required pollutant reduction targets as required by SCC and are in line with the Water by Design: WSUD Technical Design Guidelines in SEQ 2006.

4.3.2.3 STORMWATER MAINTENANCE PLANS

Maintenance for the stormwater quality treatment devices proposed for the development is to be consistent with the requirements of this report and the manufacturer's advice regarding the proprietary devices. The devices used for the purposes of the MUSIC model are proprietary devices supplied by Ocean Protect, but similar approved products from other suppliers may be used. The general requirement of maintenance during the operational phase will be in accordance with the Ocean Protect OceanGuard and Stormfilter recommendations and operational manual. Refer to Appendix G for further details.

The ownership of the stormwater quality treatment train is intended to remain under private ownership as part of the proposed development and will not become a Sunshine Coast Council asset.

4.3.3 LEGAL POINT OF DISCHARGE

There are two existing field inlets installed as part of the previously completed subdivision works that currently drain Lot 71. One inlet borders the western boundary adjacent Lightning Lane, the other is in the southeast corner of the lot. Each are drained to public street infrastructure by 375mm RCP, then both flowing to the 1200mm RCP that heads south from the intersection of Lightning Lane and South Sea Islander Way.

It is proposed to drain the site via the infrastructure on the western frontage, primarily for ease of construction with the proposed stormwater quality treatment tank to be located on this side. The available 375mm RCP connection is suitably sized to take the developed 1% AEP flow from the site, but is not located in an achievable location for the internal hydraulics to utilise. A new connection and grated inlet pit is proposed to accommodate the drainage connection directly east of the water quality tank.

4.3.4 FLOODING

A technical memorandum, Maroochydore City Centre – Stage 1 Local Flooding, was prepared by Cardno on October 29, 2015. The memo encompasses the proposed development site and provides flood extents and minimum floor levels for Lot 71. The modelling as stated within the memo has incorporated climate change factors associated with the rainfall data, and a tailwater of 2.35 mAHD was introduced at the outlet location in accordance with the 1% AEP storm tide level. Wave impacts are not included as the outlet is in Maud Drain, which is a protected waterway. The results detailed

in the report gives a minimum floor level of 3.82 mAHD for Lot 71, providing 297mm freeboard (for a worst-case scenario of 1% AEP storm with complete blockage of stormwater gullies and inlets).

Therefore, the development should adopt a minimum floor level of 3.82 mAHD. No further flood risk management should be required for this development. Appendix I includes copies of the Cardno Flood Technical Memo, dated October 29, 2015.

5 ENGINEERING

5.1 SITE GRADING AND VEHICLE ACCESS

The site is proposed to be graded to tie in with the existing street levels, while maintaining the minimum flood immune floor level of 3.82 mAHD. The existing street levels range from a low point of 3.42 mAHD at the south-east boundary of Lot 71, to a high point of 3.82 mAHD at the north-east corner

An existing concrete driveway has been constructed at the north-west corner of the site from Lightning Lane, as part of the previous subdivision works, which is proposed to be partial access to the basement level. Another street access is proposed just to the south along Lightning Lane to give access to the proposed loading dock, which will result in the removal of existing parallel car parking.

6 EROSION AND SEDIMENT CONTROL

6.1 SITE CONTROLS

The erosion and sediment control measures will be designed during the detail design stage to include in the building contract. The contractor will engage a RPEQ or CPESC engineer to design and certify the required erosion and sediment control mitigation measures. It will be the responsibility of the contractor to implement and maintain an erosion and sediment control plan during the construction and on-maintenance period.

6.2 GENERAL REQUIREMENTS

All erosion and sediment control measures are required to be installed and functional prior to works commencing. The following implementation sequence shall be adopted where practicable with the construction program. Plans shall be updated, and measures moved and reinstated to reflect the progression of the works.

A site-based Erosion and Sediment Control Management Plan will be required and implemented under the direct supervision of a Registered Professional Engineer of Queensland. Indicative ESC measures will be required on the detailed design drawings and a final Erosion and Sediment Control Management Plan (ESCMP) shall be prepared by the Contractor as part of the Construction Management Plan for the information of the relevant parties prior to the Pre-start Meeting. The ESCMP to be generally in accordance with Best Practice Erosion & Sediment Control Document published by International Erosion Control Association (Australasia) 2008.

The contractor is, at all times, responsible for the establishment, management and maintenance of the erosion and sediment control measures, to ensure minimal environmental harm and to comply with Council's standards.

Once the site is stripped, the contractor will need to ensure that sediment is not washed into drains and that the loose dense silty sand and clays are not eroded away and bypass the site. Sediment fencing around the area of works and to direct the flows needs to be provided.

6.3 CONSTRUCTION PHASE STORMWATER QUALITY MANAGEMENT

Before construction activities begin, and throughout the construction process the following water quality management measures need to be in place to ensure minimal disturbance and pollution to stormwater runoff.

- Sediment fences constructed to the perimeter of the construction area as required;
- Designation of areas for plant and construction material storage;
- Diversion of upstream stormwater runoff around disturbed areas of the development as required;
- Immediate stabilisation of disturbed areas where possible;
- Monitoring of stormwater quality discharging from the development and the implementation of additional measures or improvement of existing measures if the quality of stormwater discharging from the site is adversely affected;
- Protection of drainage structures within the site, and within the roadways adjacent to the site;
- Regular inspection and maintenance of the erosion control measures. Following rainfall events greater than 20 mm, inspection of erosion control measures and removal of collected material shall be undertaken. Replacement of any damaged equipment shall be performed immediately.
- Education of site personnel to the sediment and erosion control measures implemented on site.

7 CONCLUSIONS

The site is currently appropriately serviced by existing public utilities. All information discussed in this report is inferred from Sunshine Coast Council MyMaps underground services information, site survey, Dial-Before-You-Dig records, and Nearmap satellite imagery.

Existing water and sewer services are located within the immediate vicinity of the site, both with appropriately sized stubs ready for connection to the proposed development, but in locations that do not suit the building layout and are therefore proposed to be replaced by new similar connections in more appropriate locations. The stormwater from the site is proposed to be connected to existing stormwater infrastructure in Lightning Lane via a new grated inlet in the loading dock driveway area. A water quality treatment train comprising of proprietary cartridges located on the mezzanine level above the loading bay within the building and inlet filters located prior to the cartridges has been proposed to meet the SCC targets.

The minimum floor level of 3.82 mAHD has been provided by Cardno, as a previously conducted technical memo reviewing the flood impacts of the Maroochydore City Centre Stage 1, utilising stormwater modelling and incorporating climate change factors and storm tide tailwaters.

With one basement level proposed, the earthworks required for the development will be relatively minor associated with achieving the proposed basement level, resulting in approximately 3.5m of excavation.

It is unlikely any of the surrounding services require an upgrade, but this will be confirmed and addressed by the relevant service consultants at the detailed design stage of the project and upon instruction from the accredited certifying consultant.

8 LIMITATIONS

This Report is provided by WSP Australia Pty Limited (*WSP*) for Walker Maroochydhore Developments Pty Ltd (*Client*) in response to specific instructions from the Client and in accordance with WSP's proposal dated July 2021.

8.1 PERMITTED PURPOSE

This Report is provided by WSP for the purpose described in the Agreement and no responsibility is accepted by WSP for the use of the Report in whole or in part, for any other purpose (*Permitted Purpose*).

8.2 QUALIFICATIONS AND ASSUMPTIONS

The services undertaken by WSP in preparing this Report were limited to those specifically detailed in the Report and are subject to the scope, qualifications, assumptions, and limitations set out in the Report or otherwise communicated to the Client.

Except as otherwise stated in the Report and to the extent that statements, opinions, facts, conclusion and / or recommendations in the Report (*Conclusions*) are based in whole or in part on information provided by the Client and other parties identified in the report (*Information*), those Conclusions are based on assumptions by WSP of the reliability, adequacy, accuracy, and completeness of the Information and have not been verified. WSP accepts no responsibility for the Information.

WSP has prepared the Report without regard to any special interest of any person other than the Client when undertaking the services described in the Agreement or in preparing the Report.

8.3 USE AND RELIANCE

This Report should be read in its entirety and must not be copied, distributed or referred to in part only. The Report must not be reproduced without the written approval of WSP. WSP will not be responsible for interpretations or conclusions drawn by the reader. This Report (or sections of the Report) should not be used as part of a specification for a project or for incorporation into any other document without the prior agreement of WSP.

WSP is not (and will not be) obliged to provide an update of this Report to include any event, circumstance, revised Information, or any matter coming to WSP's attention after the date of this Report. Data reported and Conclusions drawn are based solely on information made available to WSP at the time of preparing the Report. The passage of time; unexpected variations in ground conditions; manifestations of latent conditions; or the impact of future events (including (without limitation) changes in policy, legislation, guidelines, scientific knowledge; and changes in interpretation of policy by statutory authorities); may require further investigation or subsequent re-evaluation of the Conclusions.

This Report can only be relied upon for the Permitted Purpose and may not be relied upon for any other purpose. The Report does not purport to recommend or induce a decision to make (or not make) any purchase, disposal, investment, divestment, financial commitment or otherwise. It is the responsibility of the Client to accept (if the Client so chooses) any Conclusions contained within the Report and implement them in an appropriate, suitable, and timely manner.

In the absence of express written consent of WSP, no responsibility is accepted by WSP for the use of the Report in whole or in part by any party other than the Client for any purpose whatsoever. Without the express written consent of WSP, any use which a third party makes of this Report or any reliance on (or decisions to be made) based on this Report is at the sole risk of those third parties without recourse to WSP. Third parties should make their own enquiries and obtain independent advice in relation to any matter dealt with or Conclusions expressed in the Report.

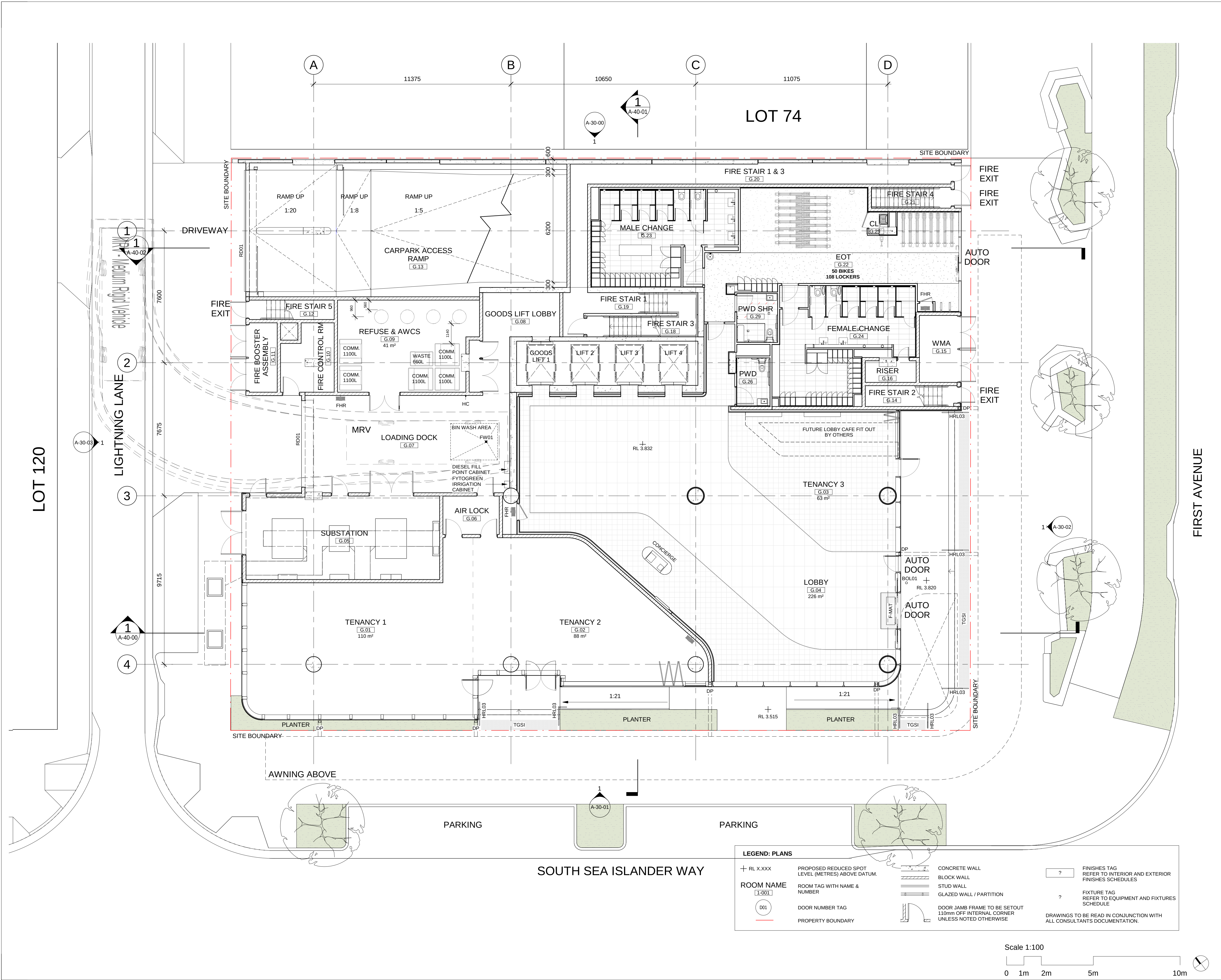
8.4 DISCLAIMER

No warranty, undertaking or guarantee whether expressed or implied, is made with respect to the data reported or the Conclusions drawn. To the fullest extent permitted at law, WSP, its related bodies corporate and its officers, employees and agents assumes no responsibility and will not be liable to any third party for, or in relation to any losses, damages or expenses (including any indirect, consequential or punitive losses or damages or any amounts for loss of profit, loss of revenue, loss of opportunity to earn profit, loss of production, loss of contract, increased operational costs, loss of business opportunity, site depredation costs, business interruption or economic loss) of any kind whatsoever, suffered on incurred by a third party.

APPENDIX A

ARCHITECTURAL PLANS





© COPYRIGHT COX ARCHITECTURE PTY LTD ACN 002 535 891

ANY FORM OF REPRODUCTION OF THIS DRAWING IN FULL OR IN PART WITHOUT THE WRITTEN PERMISSION OF COX ARCHITECTURE PTY LTD CONSTITUTES AN INFRINGEMENT OF COPYRIGHT

Rev	Description	By	Date
29	FOR COORDINATION	AM	14.06.22
T1	ISSUE FOR TENDER	AM	20.06.22
T2	ISSUED FOR TENDER	MS	04.07.22
30	WORK IN PROGRESS	AM	02.12.22
31	FOR INFORMATION	MS	06.12.22
32	WORK IN PROGRESS	MS	12.12.22
33	CURRENT DRAWINGS	MS	10.01.23
34	FOR COORDINATION	MS	24.01.23
35	FOR INFORMATION	AM	25.01.23
36	FOR INFORMATION	AM	30.01.23

Structural and Civil Engineers	WSP
L12, 900 Ann Street, Fortitude Valley QLD 4006	
07 3854 6200	
Town Planning	Adams and Sparkes
L1, 69 Abchurch Lane, Mountain Creek QLD 4557	
07 5332 7705	
Service Engineers	LCI Consultants
L9/490 Upper Edward Street, Spring Hill QLD 4000	
07 3831 3300	
Traffic and Waste Consultants	TTM Group
L1, 300 Ann Street, Brisbane QLD 4000	
07 3327 9500	
AWCS Consultant	Lucid Consulting
L17, 288 Edward Street, Brisbane QLD 4000	
07 3922 1544	
Certifier	Knisco
L1, 680 Ann Street, Fortitude Valley QLD 4006	
07 3852 2080	
Fire Consultant	Ommi
L1, 2 Gardner Close, Milton QLD 4064	
07 3232 7370	
Landscape Architect	Place Design Group
L1, 24 Dugorth Avenue, Maroochydore QLD 4558	
07 5499 6188	

ABBREVIATION LEGEND	
ABBREVIATION	DESCRIPTION
BOL01	
DP	
F-MAT	
FHR	
FW01	
HC	
HLR03	
RD01	
TGSI	

Cox Architecture

Level 2, 2 Edward Street,
Brisbane, QLD 4000, Australia
T + 61 7 3210 0844
F + 61 7 3210 0541

www.coxarchitecture.com.au



Client Walker Corporation

Project No. 421022.00

Project 50 First Avenue
Lot 71, Maroochydore City Centre

Drawing Title GROUND FLOOR PLAN

Document Control Status:

WORK IN PROGRESS

Co-ordinated:	Drawn:
PF	MS/AM
Project Architect:	Scale:
PF	1 : 100 @ A1
Project Director:	Date:
BG	26/04/21
Drawing Number:	Revision:
A-21-00	36

Rev	Description	By	Date
T1	ISSUE FOR TENDER	AM	20.06.22
T2	ISSUED FOR TENDER	MS	04.07.22
9	FOR COORDINATION	AM	29.11.22
10	WORK IN PROGRESS	AM	02.12.22
11	WORK IN PROGRESS	MS	05.12.22
12	FOR INFORMATION	MS	06.12.22
13	WORK IN PROGRESS	MS	12.12.22
14	CURRENT DRAWINGS	MS	10.01.23
15	FOR COORDINATION	MS	24.01.23
16	FOR INFORMATION	AM	30.01.23

Structural and Civil Engineers WSP
L12, 900 Ann Street, Fortitude Valley QLD 4006
07 3854 6200

Town Planning Adams and Sparkes
L1, 69 Abchurch Lane, Mountain Creek QLD 4557
07 5332 7705

Service Engineers LCI Consultants
L9/490 Upper Edward Street, Spring Hill QLD 4000
07 3893 3300

Traffic and Waste Consultants TTM Group
L8, 369 Ann Street, Brisbane QLD 4000
07 3327 9500

AWCS Consultant Lucid Consulting
L17, 288 Edward Street, Brisbane QLD 4000
07 3922 1544

Certifier Knisco
L1, 680 Ann Street, Fortitude Valley QLD 4006
07 3852 2080

Fire Consultant Omnil
L1, 2 Gardner Close, Milton QLD 4064
07 3232 7370

Landscape Architect Place Design Group
L1, 24 Dugorth Avenue, Maroochydore QLD 4558
07 5499 6188

ABBREVIATION LEGEND	
ABBREVIATION	DESCRIPTION

ALS02	
FHR	
FT07	

Cox Architecture
Level 2, 2 Edward Street,
Brisbane, QLD 4000, Australia
T + 61 7 3210 0844
F + 61 7 3210 0541
www.coxarchitecture.com.au

COX

Client Walker Corporation

Project No. 421022.00

Project 50 First Avenue
Lot 71, Maroochydore City Centre

Drawing Title MEZZANINE LEVEL

Document Control Status:

WORK IN PROGRESS

Co-ordinated: PF **Drawn:** MS/AM

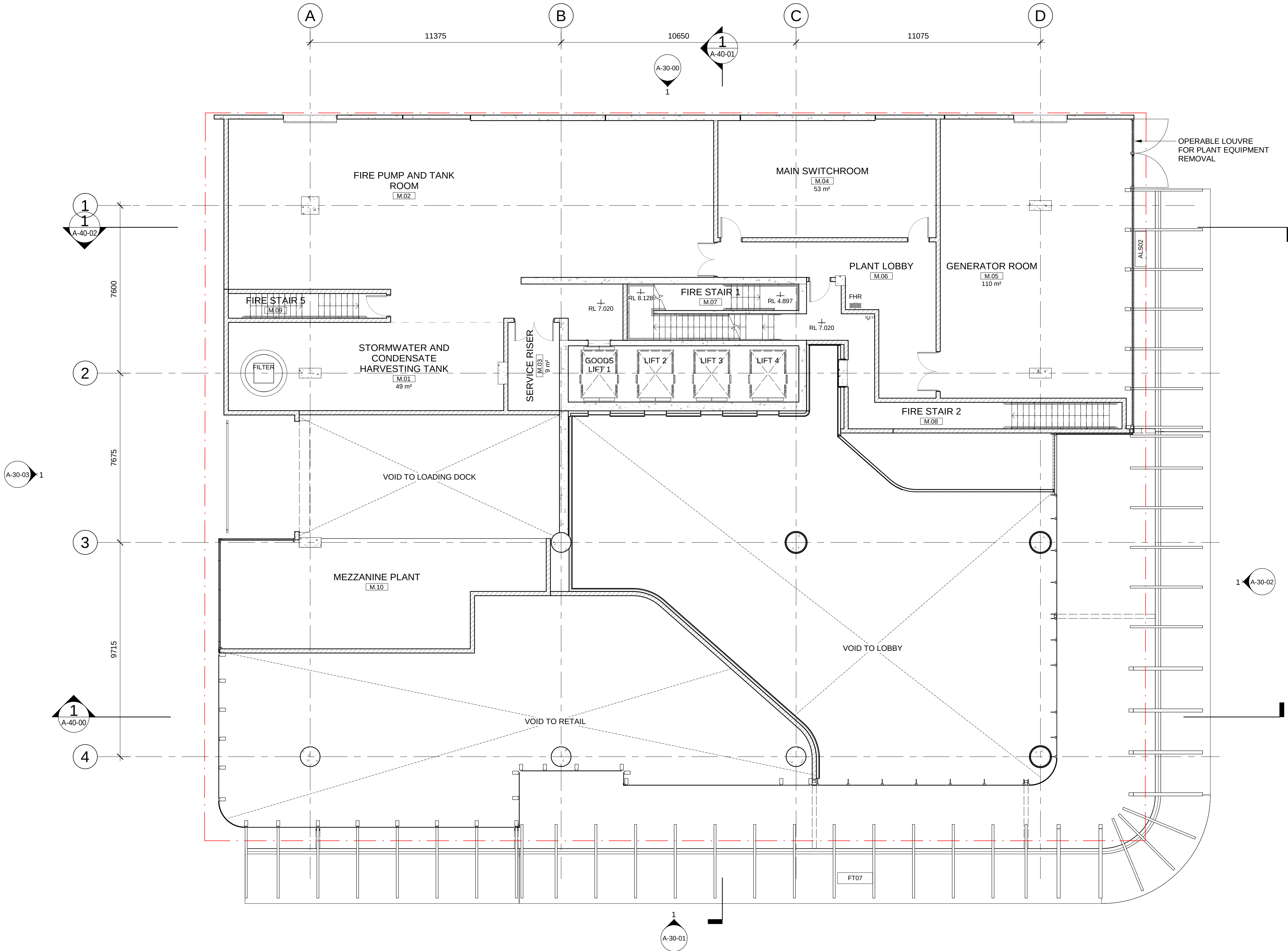
Project Architect: PF **Scale:** 1:100 @ A1

Project Director: BG **Date:** 07/26/21

Drawing Number: **Revision:**

A-21-01 16

PLOT STAMP DATE: 30/01/2023 1:56:30 PM



LEGEND: PLANS			
RL X.XXX	PROPOSED REDUCED SPOT LEVEL (METRES) ABOVE DATUM.	CONCRETE WALL	FINISHES TAG REFER TO INTERIOR AND EXTERIOR FINISHES SCHEDULES
ROOM NAME	ROOM TAG WITH NAME & NUMBER	BLOCK WALL	?
D01	DOOR NUMBER TAG	STUD WALL	?
PROPERTY BOUNDARY	PROPERTY BOUNDARY	GLAZED WALL / PARTITION	FIXTURE TAG REFER TO EQUIPMENT AND FIXTURES SCHEDULE
		DOOR JAMB FRAME TO BE SETOUT 110mm OFF INTERNAL CORNER UNLESS NOTED OTHERWISE	DRAWINGS TO BE READ IN CONJUNCTION WITH ALL CONSULTANTS DOCUMENTATION.

Scale 1:100

0 1m 2m 5m 10m

Rev	Description	By	Date
1	WORK IN PROGRESS	AM	02.12.22
2	FOR INFORMATION	MS	06.12.22
3	WORK IN PROGRESS	MS	12.12.22
4	CURRENT DRAWINGS	MS	10.01.23
5	FOR COORDINATION	AM	19.01.23
6	FOR REVIEW	AM	23.01.23
7	FOR INFORMATION	AM	25.01.23
8	FOR INFORMATION	AM	30.01.23

Structural and Civil Engineers L12, 900 Ann Street, Fortitude Valley QLD 4006 07 3854 6200	WSP
Town Planning L1, 69 Abbatia Dr., Mountain Creek QLD 4557 07 5323 7370	Adams and Sparkes
Service Engineers L6/490 Upper Edward Street, Spring Hill QLD 4000 07 3831 3300	LCI Consultants
Traffic and Waste Consultants L17, 288 Edward Street, Brisbane QLD 4000 07 3327 9500	TTM Group
AWCS Consultant L17, 288 Edward Street, Brisbane QLD 4000 07 3922 1544	Lucid Consulting
Certifier L1, 690 Ann Street, Fortitude Valley QLD 4006 07 3232 7370	Knisco
Fire Consultant L1, 2 Gardner Close, Milton QLD 4064 07 3232 7370	Ommi
Landscape Architect L1, 24 Ogden Avenue, Maroochydore QLD 4558 07 5499 6188	Place Design Group

ABBREVIATION LEGEND	
ABBREVIATION	DESCRIPTION
BKR02	
BOL02	
BOL03	
FHR	

Cox Architecture
Level 2, 2 Edward Street,
Brisbane, QLD 4000, Australia
T + 61 7 3210 0844
F + 61 7 3210 0541
www.coxarchitecture.com.au

COX

Client **Walker Corporation**

Project No. **421022.00**

Project **50 First Avenue**

Lot 71, Maroochydore City Centre

Drawing Title **BASEMENT LEVEL PLAN**

Document Control Status:

WORK IN PROGRESS

Co-ordinated:	Drawn:
PF	MS
Project Architect:	Scale:
PF	1 : 100 @ A1
Project Director:	Date:
BG	25/11/22
Drawing Number:	Revision:

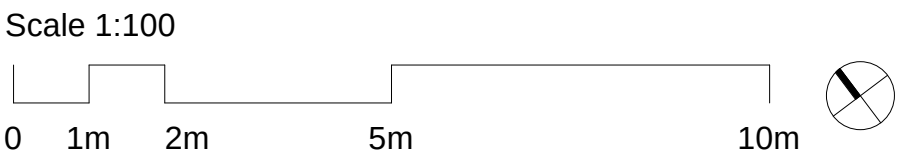
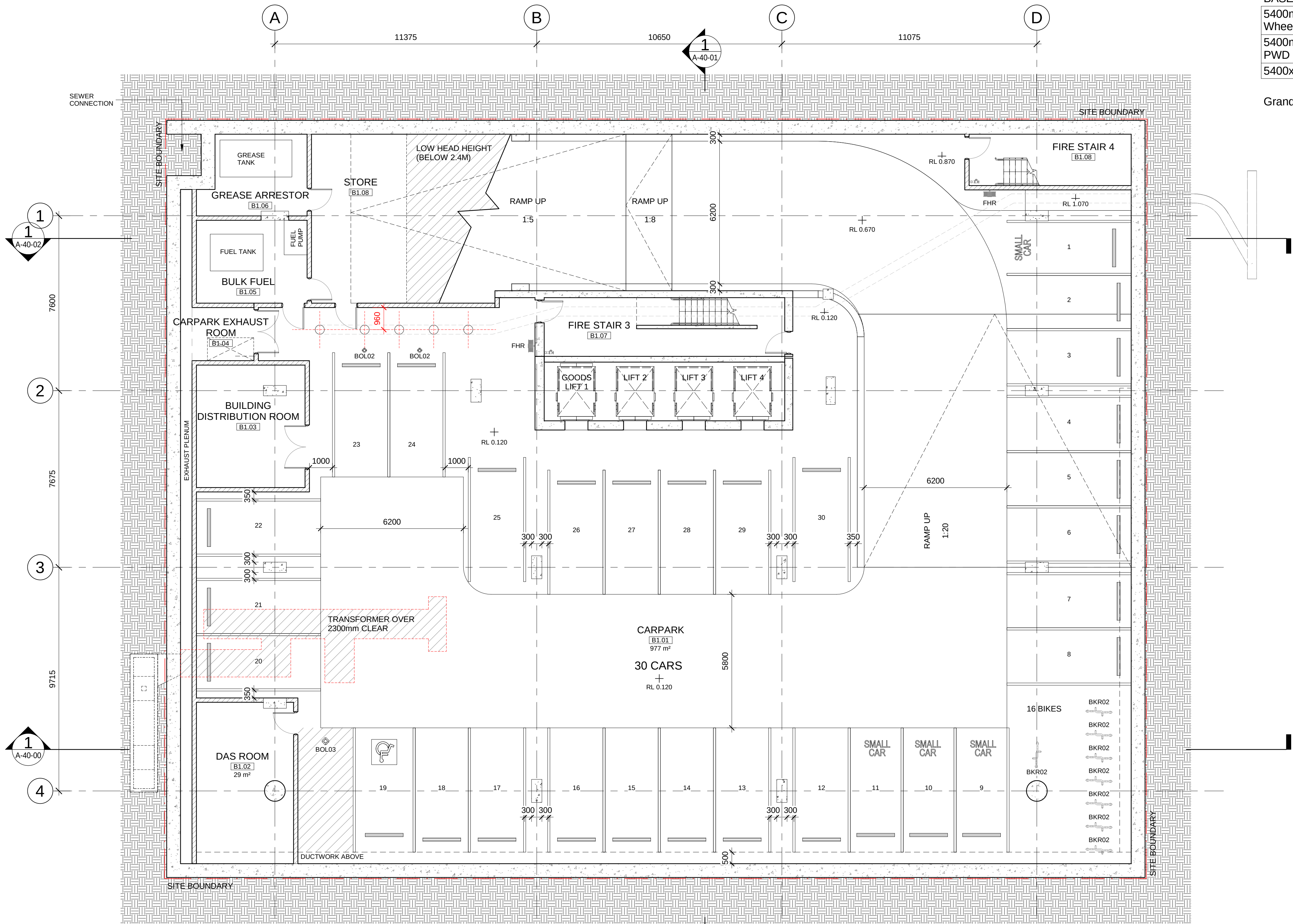
A-21-13 **8**

PARKING SCHEDULE

CAR PARK TYPE	NUMBER OF SPACES
---------------	------------------

BASEMENT 1	
5400mm x 2400mm with Wheelstop	25
5400mm x 2600mm PWD Bay	1
5400x2300 Small Car	4
	30

Grand total **30**



APPENDIX B

EROSION AND SEDIMENT CONTROL PLAN





LEGEND

FFL XX.XX

PROPOSED FINISHED FLOOR LEVEL

PROPOSED BUILDING AREA/OUTLINE

PROPOSED PAVEMENT TYPE 3
HEAVY DUTY CONCRETE - REFER DWG 5000

PROPOSED PAVEMENT TYPE 4
PEDESTRIAN CONCRETE PAVEMENT - REFER DWG 5000

PROPOSED CONCRETE CROSSOVER
REFER IPWWAQ RS-051

PROPOSED STABILISED SITE ENTRY/EXIT
FINAL LOCATION TO BE DETERMINED BY
CONTRACTOR

PROPOSED LANDSCAPE AREA (RAISED PLANTERS)
REFER LANDSCAPE PLANS FOR DETAILS

PROPOSED INLET SEDIMENT TRAP

PROPOSED SEDIMENT FENCE

PROPOSED TEMPORARY DIVERSION DRAIN

PROPOSED FINISHED MAJOR CONTOUR

PROPOSED FINISHED MINOR CONTOUR

PROPOSED BULK EARTHWORKS MAJOR CONTOUR

PROPOSED BULK EARTHWORKS MINOR CONTOUR

22.0

EXISTING CONTOUR MAJOR

E

EXISTING CONTOUR MINOR

SW

EXISTING ELECTRICAL

W

EXISTING STORMWATER

S

EXISTING WATER

T

EXISTING SEWER

EXISTING COMMUNICATIONS

EXISTING SURFACE LEVEL

EXISTING TREE

- NOTES
1.

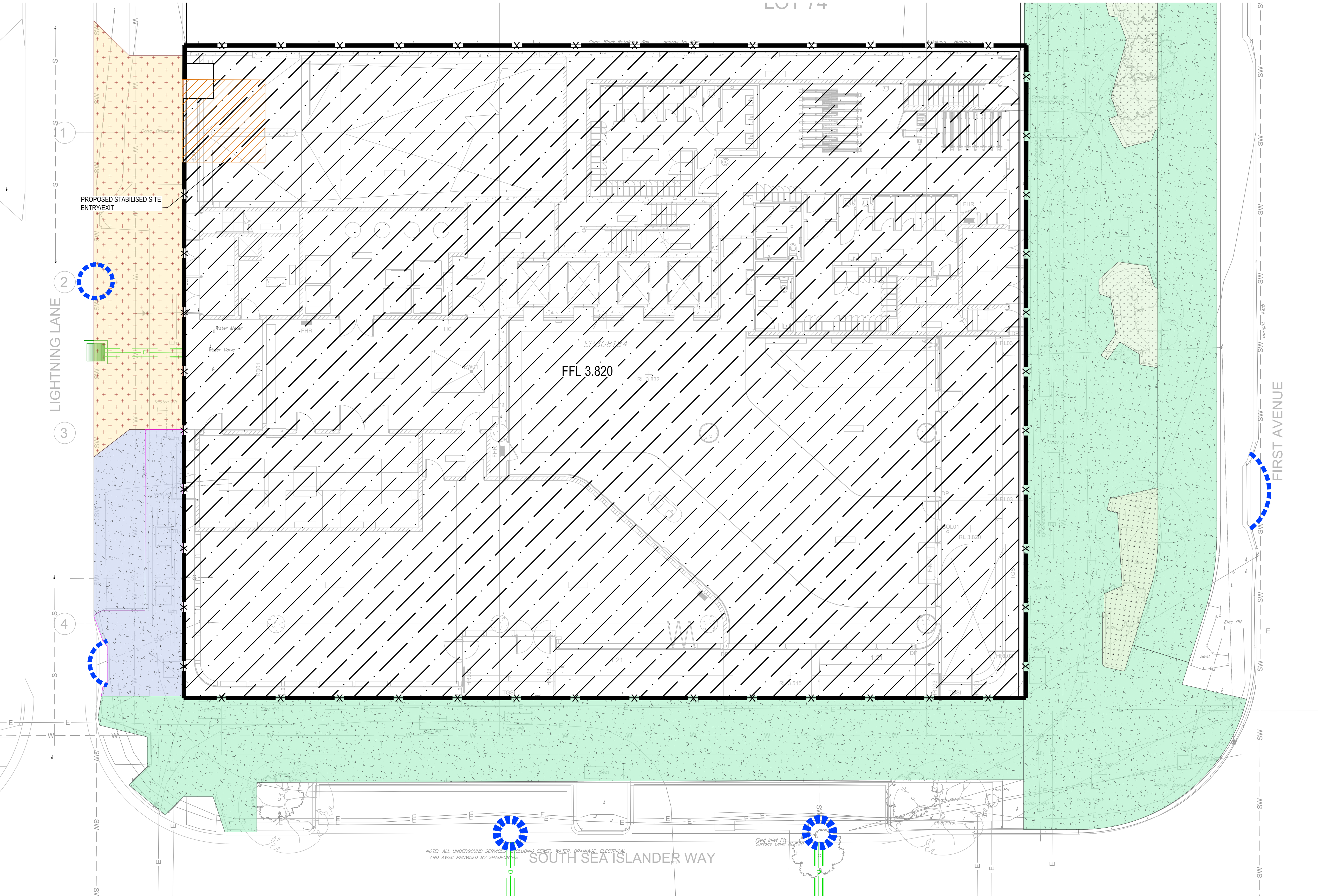
GRAVEL SHAKE DOWN AND WASH DOWN AREA.
DISCHARGE TO SUITABLE SEDIMENT CAPTURE DEVICE.
FINAL LOCATION TO BE DETERMINED BY THE
CONTRACTOR.
2.

SEDIMENT FENCES MUST BE LOCATED PARALLEL TO SUIT
CONTOURS AT A MAXIMUM LENGTH OF 50m.
3.

TURNOUTS ARE TO BE INCORPORATED TO PREVENT
CONCENTRATION OF FLOWS.
4.

INSTALL FILTER FABRIC OVER TRENCH GRATE
5.

FOR EROSION AND SEDIMENT CONTROL NOTES AND
DETAILS REFER DWG 2001, 2002 AND 2003.



SCALE:

1:100@ A1

1:200@ A3

0 1 2 3 4 5 6 m

SCALE INDICATED FOR REFERENCE ONLY. DO NOT SCALE DRAWING.

F	31/01/2023	RO	TENDER REISSUE	JF	JF
E	27/06/2022	RO	ISSUE FOR TENDER	SN	SN
D	27/05/2022	RO	DETAILED DESIGN	SN	SN
C	22/11/2021	FM	FOR INFORMATION	SN	SN
B	15/11/2021	RO	FOR INFORMATION	SN	SN
A	28/10/2021	RO	FOR INFORMATION	SN	SN
REV	DATE	BY	DESCRIPTION	CHK	APD

DRAWING STATUS:

INFORMATION ONLY

NOT TO BE USED FOR CONSTRUCTION

wsp

Level 12, 900 Ann Street, Fortitude Valley QLD 4006, Australia
Tel: +61 7 3368 6600 Fax: +61 7 3368 6699
www.wsp.com

CLIENT:

WALKER MAROOCHYDORE
DEVELOPMENTS PTY LTD

PROJECT:

LOT 71 MAROOCHYDORE CITY CENTRE
50 FIRST AVENUE, MAROOCHYDORE

TITLE:

EROSION AND SEDIMENT CONTROL PLAN

SCALE @ A1:

AS ABOVE

CHECKED:

SN

APPROVED:

SN

PROJECT NUMBER:

PS125923

DRAWN:

RAO

DATE:

31.01.2023

DRAWING No:

2000

REV:

F

© WSP Australia Pty Ltd

EROSION AND SEDIMENT CONTROL NOTES

GENERAL INSTRUCTIONS

1. THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE ENGINEERING PLANS, LANDSCAPING PLANS AND WRITTEN INSTRUCTIONS RELATING TO THE SUBJECT DEVELOPMENT.
2. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO CONTROL EROSION AND DOWNSTREAM SEDIMENTATION DURING ALL STAGES OF CONSTRUCTION INCLUDING THE MAINTENANCE PERIOD.
3. THE EXTENT AND POSITION OF THE EROSION AND SEDIMENT CONTROL MEASURES TO BE DETERMINED ON SITE BY THE CONTRACTOR TO SUIT THE CONSTRUCTION PROGRAM.
4. THESE PLANS PRESENT CONCEPTS ONLY AND THE MEASURES SHOWN ON THIS DRAWING(S) ARE MINIMUM REQUIREMENTS ONLY.
5. THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE ESTABLISHMENT, MANAGEMENT AND MAINTENANCE OF THE EROSION AND SEDIMENT CONTROL MEASURES TO MEET COUNCIL STANDARDS.
6. LARGE OPEN AREAS OR STEEP BATTERS SHOULD NOT BE LEFT EXPOSED/UNSTABILISED FOR MORE THAN 10 DAYS OR IF WET WEATHER IS FORECAST.
7. EXPOSED AREAS INCLUDING BATTERS WHICH REMAIN UN-WORKED FOR MORE THEN 10 DAYS SHOULD BE STABILISED USING TEMPORARY HYDROMULCHING, HYDROSEEDING OR MULCHING, EVEN IF AREAS WILL BE WORKED AT A LATER TIME.
8. ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST VERSION OF THE INSTITUTION OF ENGINEERS AUSTRALIA, 'SOIL EROSION AND SEDIMENT CONTROL - ENGINEERING GUIDELINES FOR QUEENSLAND CONSTRUCTION SITES
9. THE CONTRACTOR SHALL BE AWARE OF ITS RESPONSIBILITIES FOR PROTECTING THE DOWNSTREAM ENVIRONMENT AND RECEIVING WATER FROM POLLUTION AND ENVIRONMENTAL HARM, UNDER THE ENVIRONMENTAL PROTECTION ACT. 1994.
10. ADDITIONALLY THE CONTRACTOR SHALL BE AWARE OF ITS DUTY TO NOTIFY THE LOCAL AUTHORITY AND THE ENVIRONMENTAL PROTECTION AGENCY (QLD) OF A POTENTIAL OR ACTUAL INCIDENT OF ENVIRONMENTAL HARM, UNDER THE ENVIRONMENTAL PROTECTION ACT. 1994.

RECOMMENDED IMPLEMENTATION SEQUENCE:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO WORKS COMMENCING AND IN THE FOLLOWING SEQUENCE.
 - a. CONSTRUCT TEMPORARY STABILISED SITE ACCESS, ENSURING ADJACENT STORMWATER RUN OFF IS DIVERTED AWAY FROM ACCESS
 - b. INSTALL SEDIMENT FENCING AND/OR BARRIER FENCING TO CONFINE INGRESS TO AND EGRESS FROM THE SITE TO STABILISED ACCESS POINT(S) ONLY.
 - c. PROVIDE INLET PROTECTION TO STORMWATER INLETS AND GULLIES ON ALL ROADS ADJOINING THE SITE.
 - d. CONSTRUCT BARRIER FENCING AROUND RESTRICTED 'NO-GO' ZONES OF RETAINED VEGETATION, AREAS NOT TO BE DISTURBED AND AREAS WHICH WILL REMAIN UN-WORKED.
 - e. CONSTRUCT UPSTREAM DIVERSION CHANNELS TO DIVERT CLEAN WATER AROUND WORKSITE, AND INSTALL APPROPRIATE CHANNEL STABILISATION.
 - f. CONSTRUCT LOW FLOW EARTH BANKS AS CATCH DRAINS PARALLEL TO CONTOURS TO LIMIT LARGE SLOPE LENGTHS (SLOPES SHOULD BE LESS THEN 80M IN LENGTH).
 - g. INSTALL ALL TEMPORARY SEDIMENT FENCES.
 - h. CONSTRUCT ANY NOMINATED SEDIMENT BASINS AND SEDIMENT TRAPS
 - i. STABILISE ALL DISTURBED AREAS ASAP AND PROGRESSIVELY AS WORKS ARE COMPLETED. TEMPORARY STABILISATION TO BE DONE USING MULCHING, HYDROMULCHING, HYDROSEEDING OR DIRECT SEEDING TO GIVE A 70% COVERAGE OF GROUND SURFACE WITHIN 14 DAYS OF WORKS COMPLETING (EVEN IF WORKS MAY CONTINUE LATER).
2. UNDERTAKE SITE DEVELOPMENT WORKS SO THAT LAND DISTURBANCE IS CONFINED TO MINIMUM WORKABLE AREAS.
3. DISTURBED AREAS TO EXTEND NO MORE THAN 5 METRES (PREFERABLY 2 METRES) FROM ESSENTIAL WORKS AREAS.
4. WORK AREAS TO BE DELINEATED BY BARRIER FENCING AND DIVERSION CHANNEL UPSLOPE AND SEDIMENT FENCING DOWNSLOPE.
5. THE CONTRACTOR SHALL ENSURE THAT THE EXISTING VEGETATION AND GROUND COVER IS RETAINED AS MUCH AS POSSIBLE.
6. TOPSOIL SHALL BE STRIPPED AND STOCKPILED FOR LATER USE ONSITE.
7. NATIVE SITE VEGETATION REQUIRED AND APPROVED FOR CLEARING SHOULD BE MULCHED AND STOCKPILED FOR LATER USE IN LANDSCAPING, STABILISATION AND/OR SITE REHABILITATION WORKS.
8. AT ALL TIMES THE CONTRACTOR SHALL MONITOR THE PREVAILING WEATHER CONDITIONS AND PROTECT ANY DOWNSTREAM CONSTRUCTION AND RECEIVING ENVIRONMENTS.
9. EROSION AND SEDIMENT CONTROL PROTECTION MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT CONTRACT.
10. PLANS AND CONTROL MEASURES FOR LARGE SITES WILL NEED TO BE REVISED AND UPDATED TO REFLECT THE SITE STAGES AND PROGRESSION OF WORKS.
11. MEASURES INCLUDING SEDIMENT FENCES SHOULD BE MOVED AND REINSTATED AS WORKS PROGRESS.
12. FOOT AND VEHICULAR TRAFFIC TO BE RESTRICTED IN RECENTLY STABILISED AREAS INCLUDING THOSE HYDROSEDED, TURFED OR SEEDED.

CONTROL MEASURES

1. FINAL SITE LANDSCAPING SHALL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS OF CONSTRUCTION COMPLETION
2. SEDIMENT LADEN WATER SHALL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM BY USING INLET PROTECTION.
3. ALL PERIMETER BANKS AND CHANNEL DRAINS SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
4. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL ONLY BE REMOVED ONCE SITE IS STABILISED AND UPSTREAM WORKS HAVE BEEN COMPLETED.
5. AT CONSTRUCTION COMPLETION ALL TEMPORARY EARTH STRUCTURES, INCLUDING SOIL STOCKPILES ARE TO BE TRACK ROLLED AND SEEDED. THE CONTRACTOR IS TO ENSURE A 70% COVERAGE WITHIN 14 DAYS.

DUST CONTROL

1. DURING WINDY AND DRY WEATHER ANY UNPROTECTED AREAS SHALL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL. WHERE WATER IS NOT AVAILABLE IN SUFFICIENT QUANTITIES, SOIL BINDERS OR DUST RETARDANTS TO BE USED FOR DUST SUPPRESSION.
2. EXPOSED SURFACES INCLUDING BATTERS SHOULD BE LEFT ROUGH TO REDUCE WIND SPEEDS AND POTENTIAL FOR WIND EROSION.
3. USE OPEN WEAVE BARRIER FENCING ON WINDWARD SIDE OF SITE IF REQUIRED (REFER DETAIL). FENCING IS GENERALLY REQUIRED WHERE AREA OF DISTURBANCE IS >5000m².

OTHER MATTERS

1. ACCEPTABLE RECEPTORS AND DISPOSAL PRACTICES WILL BE USED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHERS, LITTER AND GENERAL WASTE MATERIALS.
2. ANY EXISTING TREES WHICH ARE NOT REQUIRED OR APPROVED TO BE CLEARED FOR THE WORKS AND/OR FORM PART OF THE FINAL LANDSCAPING PLAN SHOULD BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY:
 - a. PROTECTING THEM WITH BARRIER FENCING OR MARKERS.
 - b. ENSURING NOTHING IS NAILED TO THEM
 - c. PROHIBITING PAVING, GRADING OR PLACING OF STOCKPILES WITHIN DRIP LINE.
3. ALL VEHICLE AND EQUIPMENT WASHING SHOULD BE CONTAINED IN SPECIFIC BUNDED AREAS, DISCONNECTED FROM CONCENTRATED FLOW PATHS AND THE STORMWATER SYSTEM.
4. ANY NECESSARY VEHICLE OR EQUIPMENT REFUELING SHOULD BE UNDERTAKEN AWAY FROM CONCENTRATED FLOW PATHS AND PREFERABLY WITHIN A BUNDED AREA.
5. ANY ONSITE FUEL STORAGE AREAS SHOULD BE COVERED AND BUNDED.

MAINTENANCE OF PUBLIC ROADS

1. ALL CONSTRUCTION VEHICLES DEPARTING FROM THE SITE SHALL HAVE THEIR TYRES WASHED DOWN OR SEDIMENT REMOVED BY A STABILISED SITE ACCESS DEVICE.
2. THE STABILISED SITE ACCESS AREAS SHALL BE LOCATED SUCH THAT SILTED WATER IS FILTERED THROUGH A SUITABLE SEDIMENT TRAP (SUCH AS A SEDIMENT FENCE) INSTALLED DOWNSTREAM OF ACCESS.
3. THE CONTRACTOR SHALL INSPECT THE PUBLIC ROADS ADJACENT TO THE SITE DAILY AND MANUALLY REMOVE ANY SEDIMENT DEPOSITS (BY SWEEPING NOT WASH DOWN).

SITE INSPECTION AND MAINTENANCE

1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED REGULARLY, IMMEDIATELY BEFORE SITE CLOSURE, PRIOR TO PREDICTED LARGE STORM EVENTS AND AFTER EVERY SIGNIFICANT (> 5MM) RAINFALL EVENT OR AT LEAST ON A WEEKLY BASIS.
2. THE CONTRACTOR WILL AS A MINIMUM CONDUCT EACH INSPECTION IN LINE WITH THE FOLLOWING
 - a. RECORD TYPE OF DEVICE/CONTROL MEASURE BEING INSPECTED AND ITS LOCATION;
 - b. RECORD THE CONDITION OF EVERY CONTROL MEASURE;
 - c. RECORD MAINTENANCE REQUIREMENTS FOR EVERY CONTROL DEVICE;
 - d. RECORD SEDIMENT VOLUMES REMOVED FROM SEDIMENT TRAPPING DEVICES;
 - e. RECORD DETAILS OF SEDIMENT BASIN TREATMENT, FLOCCULANT DOSAGE AND CLEANOUT;
 - f. RECORD SEDIMENT DISPOSAL PROCEDURES AND LOCATION.
3. REPAIRS AND MAINTENANCE OF ALL DEVICES AND MEASURES INCLUDING DIVERSION CHANNELS SHALL BE UNDERTAKEN AS REQUIRED, ENSURING ALL MEASURES ARE FULLY FUNCTIONAL AT ALL TIMES.
4. ENSURE SEDIMENT LADEN WATER HAS NOT BEEN DIVERTED AROUND DEVICES.
5. REPAIR SCOUR DAMAGE TO SEDIMENT CONTROL MEASURES AFTER RAINFALL EVENTS AND REINSTATE DEVICES AS NECESSARY.
6. SEDIMENT FENCES WILL REQUIRE CLEANING WHEN SEDIMENT REACHES 300MM DEPTH OR ONE-HALF THE HEIGHT OF THE FILTER FABRIC AND ALL OTHER SEDIMENT TRAPS WILL REQUIRE CLEANING OUT WHEN 30% OF DESIGN CAPACITY IS REACHED.
7. ALL INLET AND GULLY TRAPS TO BE CLEANED NOT HOSED AFTER EVERY RAINFALL EVENT, (1>5mm) OR AT LEAST ON A WEEKLY BASIS.
8. SEDIMENT REMOVED FROM ANY TRAPPING DEVICE TO BE RELOCATED, ENSURING FURTHER POLLUTION TO DOWNSTREAM ENVIRONMENTS WILL NOT OCCUR.
9. ALL SEEDING, HYDROSEEDING AND TURFING REQUIRES REGULAR WATERING, UNTIL EFFECTIVE COVER ESTABLISHED AND PLANTS ARE GROWING VIGOROUSLY. WATERING SHOULD VARY DEPENDING ON WEATHER AND SOIL CONDITIONS.

10. WATERING SHOULD START IMMEDIATELY AFTER PLANTING AND SHOULD COMPLY WITH THE FOLLOWING AS A MINIMUM:

WEEK 1	3 WATERINGS/WEEK
WEEK 2-6	2 WATERINGS/WEEK
WEEK 7-12	1 WATERING/WEEK
11. EXCESSIVE VEGETATION GROWTH WILL BE CONTROLLED THROUGH MOWING OR SLASHING.
12. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE INSPECTION, MAINTENANCE AND TESTING OF DEVICES IS UNDERTAKEN ON SITE.
13. THE CONTRACTOR TO KEEP DETAILED AND LEGIBLE RECORDS OF ALL INSPECTION AND MAINTENANCE UNDERTAKEN ON THE EROSION AND SEDIMENT CONTROL DEVICES.
14. ALL SITE WASTE INCLUDING GENERAL RUBBISH TO BE DISPOSED OF IN AN ENVIRONMENTALLY RESPONSIBLE MANNER IN ACCORDANCE WITH THE ENVIRONMENTAL PROTECTION (WASTE MANAGEMENT) POLICY 2000 AND ENVIRONMENTAL PROTECTION (WASTE MANAGEMENT) REGULATION 2000.
15. THE CONTRACTOR SHALL CONSTRUCT AND IMPLEMENT ADDITIONAL MEASURES AS NECESSARY TO ENSURE PROTECTION OF DOWNSTREAM ENVIRONMENTS.

SEDIMENT BASIN MAINTENANCE

1. THE CONTRACTOR SHALL KEEP DETAILED AND ACCURATE RECORDS OF THE MONITORING, TREATMENT, TESTING AND MAINTENANCE OF THE SEDIMENT BASIN INCLUDING RECORDED RAINFALL VOLUME, FLOCCULATING AGENTS USED AND TEST RESULTS PRIOR TO DEWATERING.
2. THE STORMWATER RUNOFF COLLECTED IN THE SEDIMENT BASIN SHALL BE MONITORED, TREATED AND TESTED PRIOR TO DISCHARGE, INCLUDING WATER TO BE REUSED ON SITE.
3. WATER TESTING TO BE UNDERTAKEN BY A SUITABLY QUALIFIED PERSON.
4. ALL LABORATORY TESTING TO BE UNDERTAKEN BY A NATA ACCREDITED LABORATORY.
5. ALL WATER PUMPED FROM THE SEDIMENT BASIN SHALL BE TESTED FOR ENVIRONMENTAL COMPLIANCE AGAINST THE RELEASE CRITERIA IN THE TABLE BELOW (AS A MINIMUM), UNLESS ALTERNATIVE (MORE STRINGENT) STANDARDS ARE SPECIFIED BY THE LOCAL AUTHORITY PRIOR TO RELEASE.

PARAMETER	RELEASE CRITERIA
SUSPENDED SOLIDS	50mg/l MAX
pH	WITHIN RANGE 6.5-8.5
VISUAL AMENITY	NO VISUAL PLUME

6. WATER TESTING TO BE UNDERTAKEN USING EITHER A HANDHELD PH/TURBIDITY METER OR SAMPLES COLLECTED FOR LABORATORY TESTING PRIOR TO BASIN DEWATERING.
7. THE SEDIMENT BASIN SHALL BE TREATED BY FLOCCULATION AFTER ALL RAINFALL EVENTS (> 5MM) USING GYPSUM OR ALUM. MANUAL DOSAGE OF BASIN SHALL BE UNDERTAKEN USING A MINIMUM RATE OF 32kg/100m3 FOR GYPSUM AND 1.5-8kg/100m3 FOR ALUM. HIGHER DOSAGE MAY BE REQUIRED DEPENDING ON SOIL TYPE AND APPLICATION TECHNIQUE.
8. THE CHOSEN FLOCCULENT SHALL BE SPREAD EVENLY OVER THE BASIN SURFACE AREA. THE BASIN WILL REQUIRE A PUMP SYSTEM TO SPRAY SLURRY OF FLOCCULANTS OVER SURFACE AT AN ANGLE OF 10 - 20 DEGREES.
9. THE TREATED BASIN SHALL BE DEWATERED WITH A PUMP SYSTEM WITH A FLOATING INLET TO ENSURE SETTLED SEDIMENT IS NOT ENTRAINED AND DISCHARGED.
10. BASIN DEWATERING SHALL OCCUR WITHIN 5 DAYS FROM CONCLUSION OF RAINFALL EVENT.
11. SEDIMENT BASINS WILL REQUIRE DEWATERING AND SEDIMENT CLEANOUT ONCE STORAGE CAPACITY REACHES 70%.
12. CAPTURED SEDIMENT WILL BE DISPOSED OF IN AN ENVIRONMENTALLY RESPONSIBLE MANNER AS TO NOT CAUSE FURTHER CONTAMINATION OR DOWNSTREAM POLLUTION. SEDIMENT SHOULD NOT BE DISPOSED OF IN CONCENTRATED FLOWS, WHERE IT CAN BE RE-ENTRAINED OR WHERE THE RECEIVING WATER HAS A PH OF < 5.5.
13. THE BASIN AND ALL OTHER CONTROL DEVICES WILL BE MAINTAINED IN AN OPERATIONAL STATE UNTIL SITE STABILISED.
14. REPAIR ANY SCOUR DAMAGE TO THE SEDIMENT BASIN BATTERS AND EMERGENCY SPILLWAY FOLLOWING RAINFALL EVENTS.
15. SEDIMENT BASIN SHOULD NOT BE CONSTRUCTED WITH SMOOTH INTERNAL SLOPES AND BASIN BATTERS SHOULD NOT BE STEEPER THEN 3(H):1(V).
16. BASINS SHOULD BE APPROPRIATELY FENCED AND MARKED BY WARNING SIGNS IF UNSUPERVISED PUBLIC ACCESS IS LIKELY AND PUBLIC SAFETY IS AT RISK.

SCALE:						
SCALE INDICATED FOR REFERENCE ONLY. DO NOT SCALE DRAWING.						
C	31/01/2023	RO	TENDER REISSUE		JF	JF
B	27/06/2022	RO	ISSUE FOR TENDER		SN	SN
A	27/05/2022	RO	DETAILED DESIGN		SN	SN
REV	DATE	BY	DESCRIPTION		CHK	APD

DRAWING STATUS: **INFORMATION ONLY**
NOT TO BE USED FOR CONSTRUCTION



Level 12, 900 Ann Street, Fortitude Valley QLD 4006, Australia
Tel: +61 7 3368 6600 Fax: +61 7 3368 6699
www.wsp.com

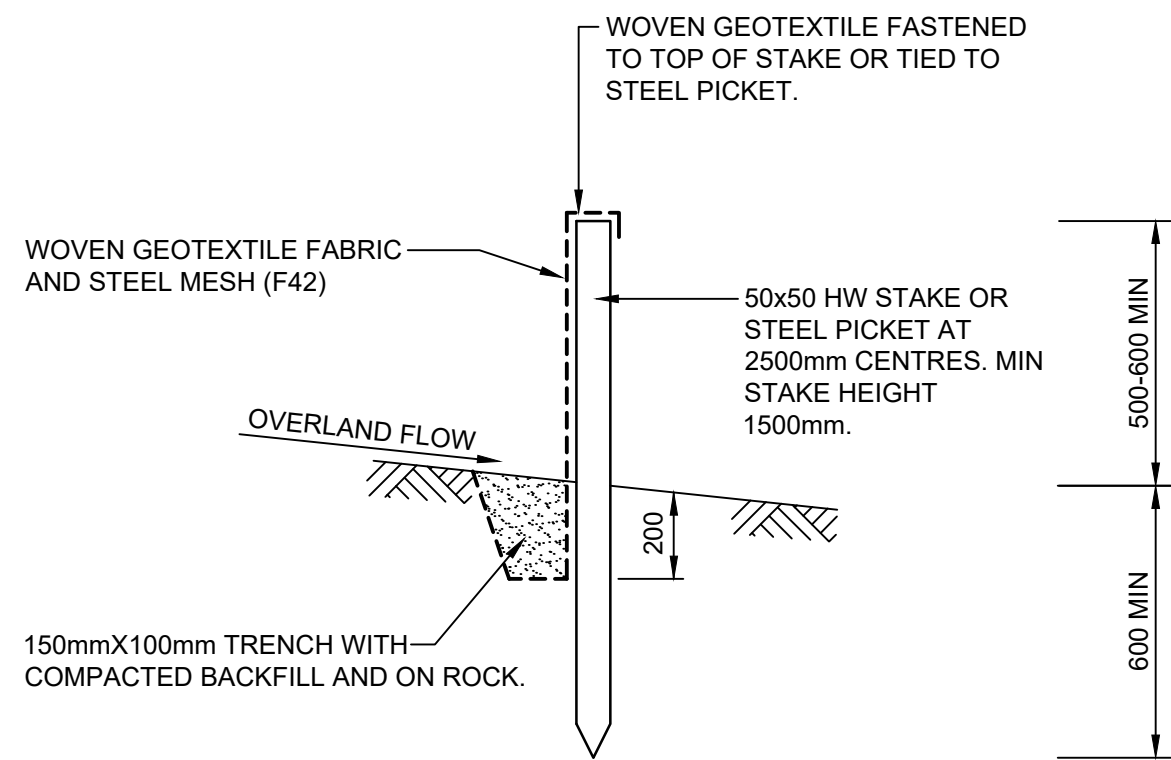
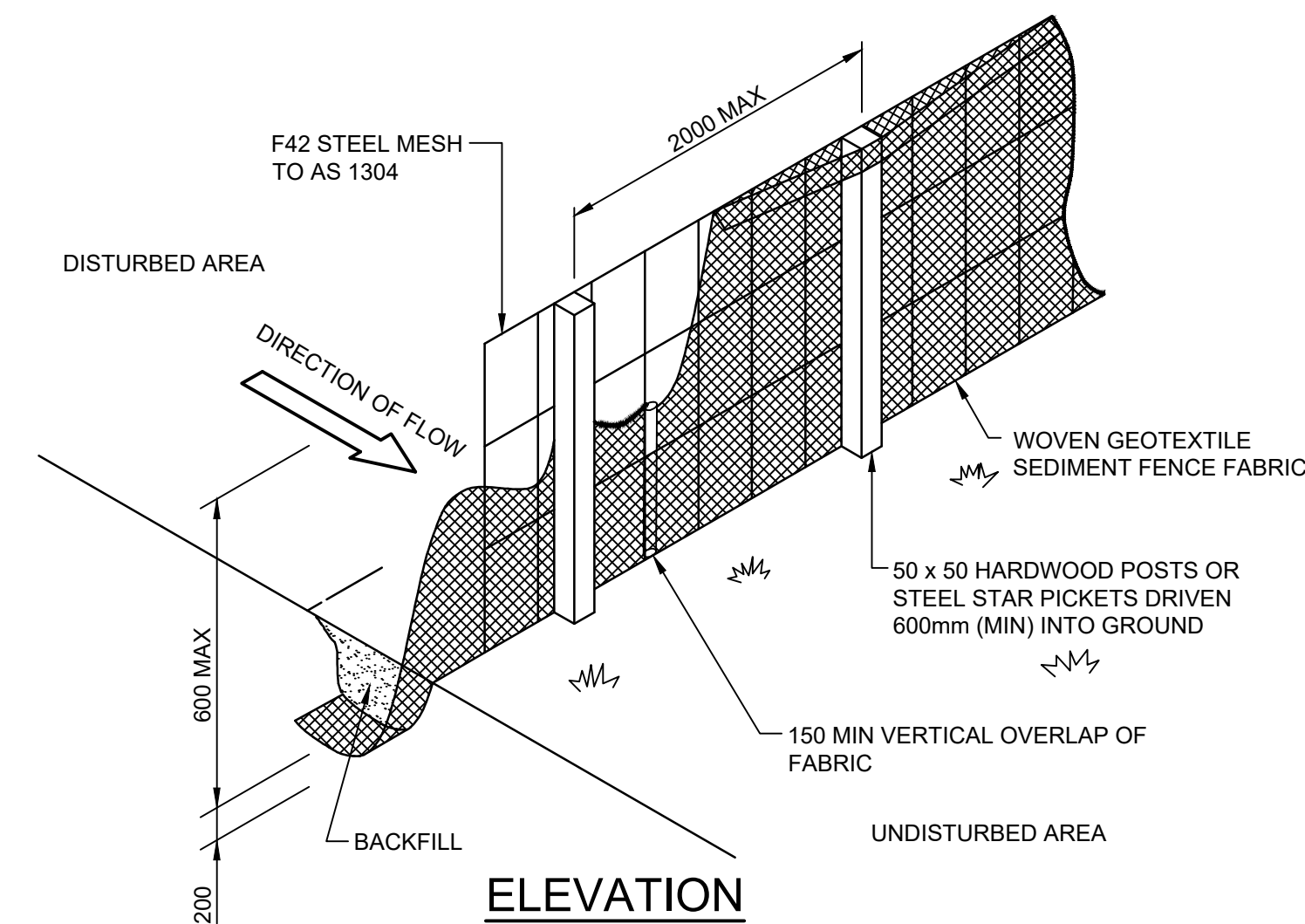
CLIENT:
WALKER MAROOCHYDORE DEVELOPMENTS PTY LTD

PROJECT:
LOT 71 MAROOCHYDORE CITY CENTRE
50 FIRST AVENUE, MAROOCHYDORE

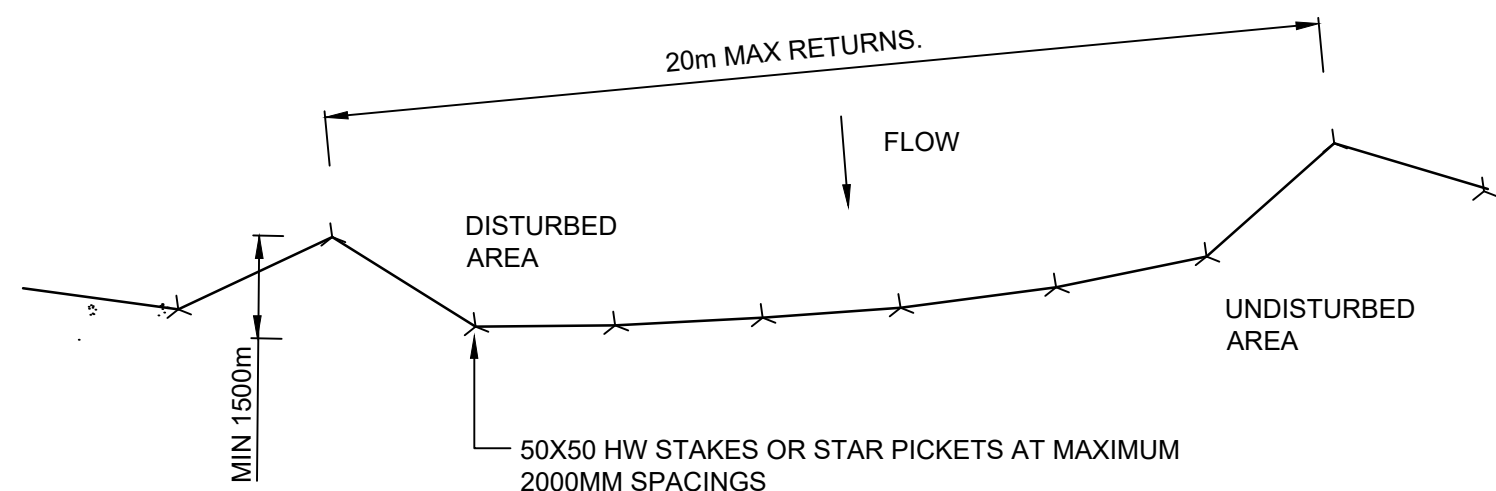
TITLE:
EROSION AND SEDIMENT CONTROL NOTES

SCALE @ A1: AS ABOVE	CHECKED: SN	APPROVED: SN
PROJECT NUMBER: PS125923	DRAWN: RAO	DATE: 31.01.2023

DRAWING No: 2001	REV: C
---------------------	-----------



SECTION DETAIL



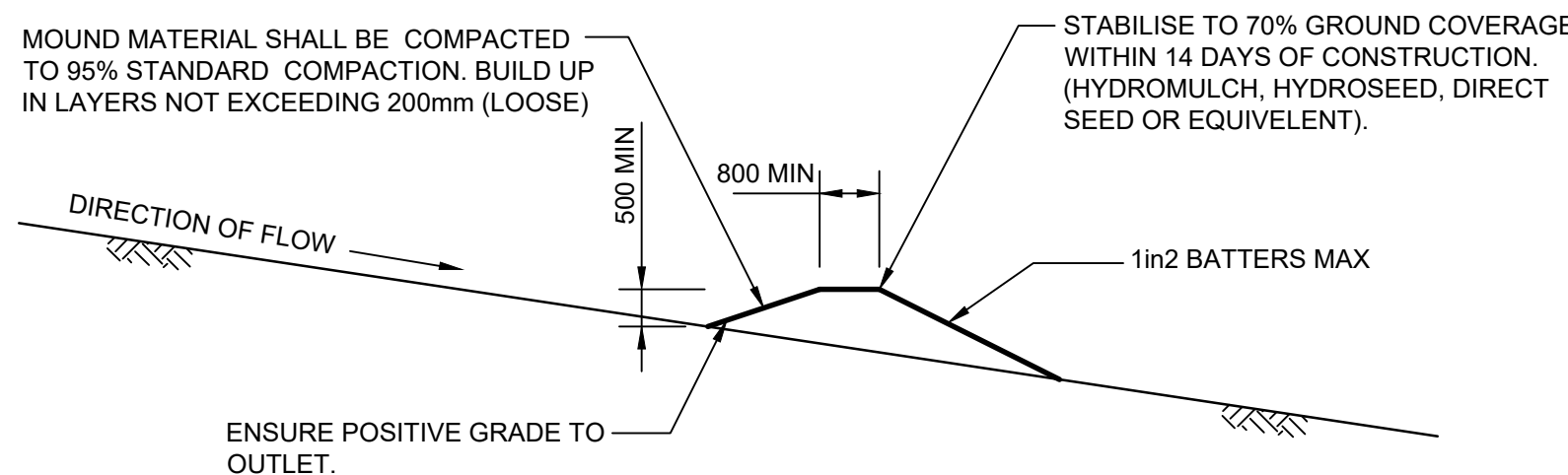
PLAN

SEDIMENT FENCE DETAIL

SCALE N.T.S.

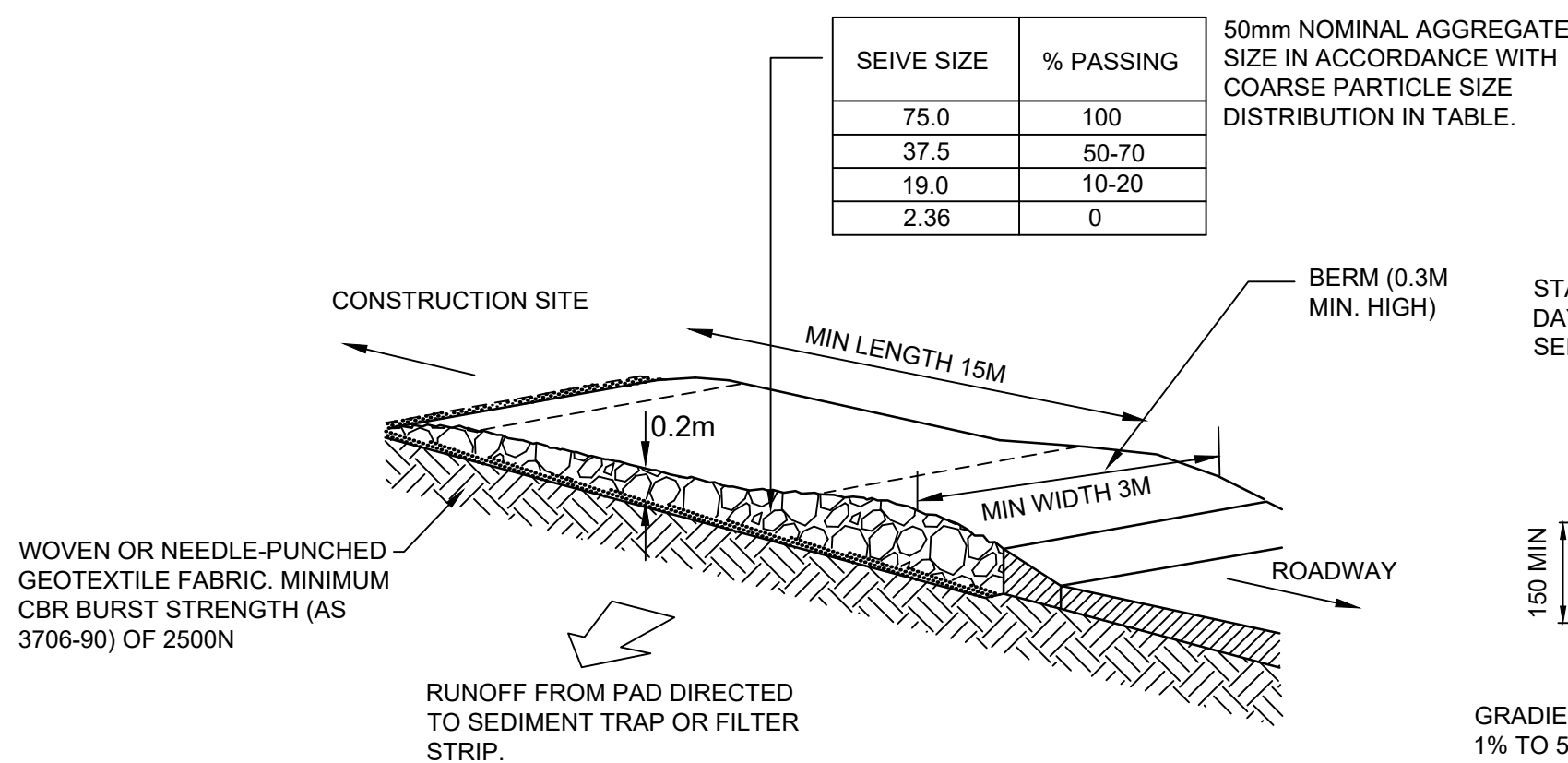
NOTES:

1. HORIZONTAL BAR STEEL MESH TO BE FLUSH WITH TOP OF GEOTEXTILE FABRIC WITH NO VERTICAL BARS PROTRUDING PAST TOP OF SEDIMENT FENCE.
2. NO SHADE CLOTH TO BE USED FOR SEDIMENT FENCING.
3. CATCHMENT DRAINING TO SEDIMENT FENCE SHOULD BE MAX 0.6ha.
4. UPSTREAM SLOPE TO BE 1:2 max AND SLOPE LENGTH 60m MAX.
5. SEDIMENT FENCES ARE TO BE INSTALLED PARALLEL TO CONTOURS WHERE POSSIBLE AND HAVE RETURNS EVERY 20 METRES, TO LIMIT CONTRIBUTING CATCHMENT AND ENCOURAGE PONDING
6. SEDIMENT FENCES TO BE INSTALLED NO MORE THAN 5 METRES FROM DISTURBED AREAS OR STOCKPILES.



DIVERSION MOUND / BUNDWALL DETAIL

SCALE N.T.S.

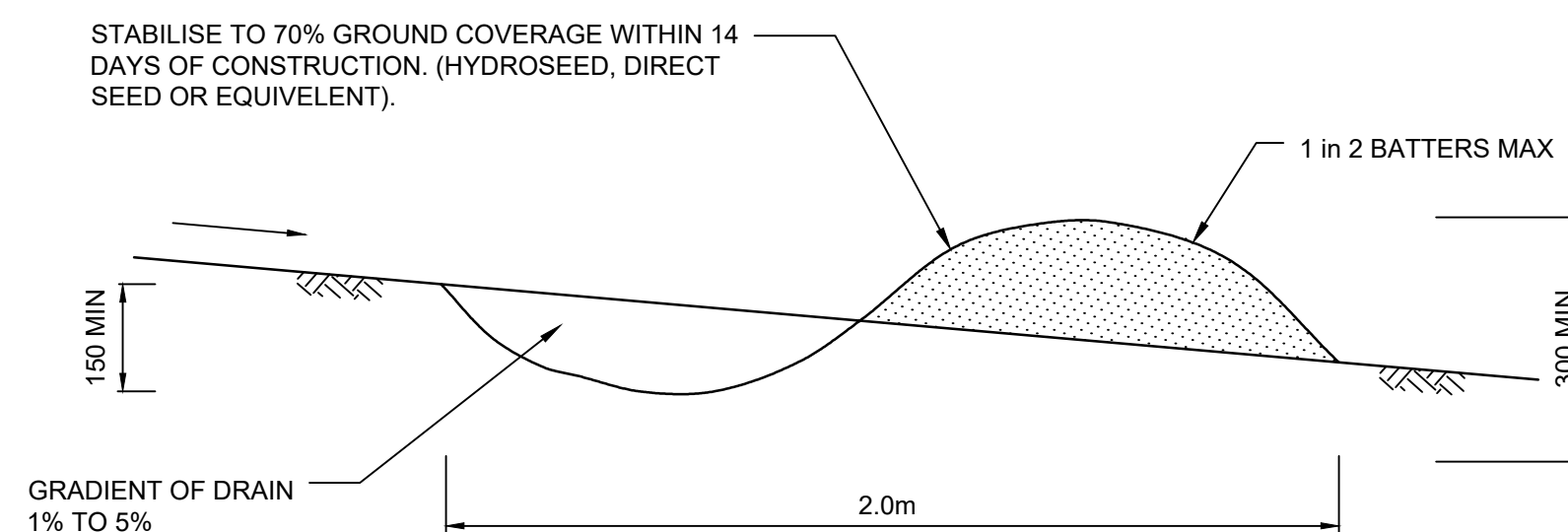


TEMPORARY STABILISED SITE ENTRY/EXIT (ROCK)

SCALE N.T.S.

NOTES:

1. STABILISED ACCESS SHOULD BE CLEANED AND MAINTAINED AFTER EVERY RAINFALL EVENT (>5mm) AND WHEN SEDIMENT ACCUMULATION IS NOTED.
2. FINE ACCUMULATED SEDIMENTS SHOULD BE REMOVED FROM AGGREGATE REGULARLY.



CATCH DRAIN / EARTH BANK DETAIL

NOTES:

1. ONLY TO BE USED AS TEMPORARY BANK WHERE MAXIMUM UPSLOPE LENGTH IS 80 METRES
2. BUILD DRAINS WITH CIRCULAR, PARABOLIC OR TRAPEZOIDAL CROSS SECTIONS RATHER THAN V SHAPED

SCALE:					
SCALE INDICATED FOR REFERENCE ONLY. DO NOT SCALE DRAWING.					
C	31/01/2023	RO	TENDER REISSUE	JF	JF
B	27/06/2022	RO	ISSUE FOR TENDER	SN	SN
A	27/05/2022	RO	DETAILED DESIGN	SN	SN
REV	DATE	BY	DESCRIPTION	CHK	APD

DRAWING STATUS: **INFORMATION ONLY**
NOT TO BE USED FOR CONSTRUCTION



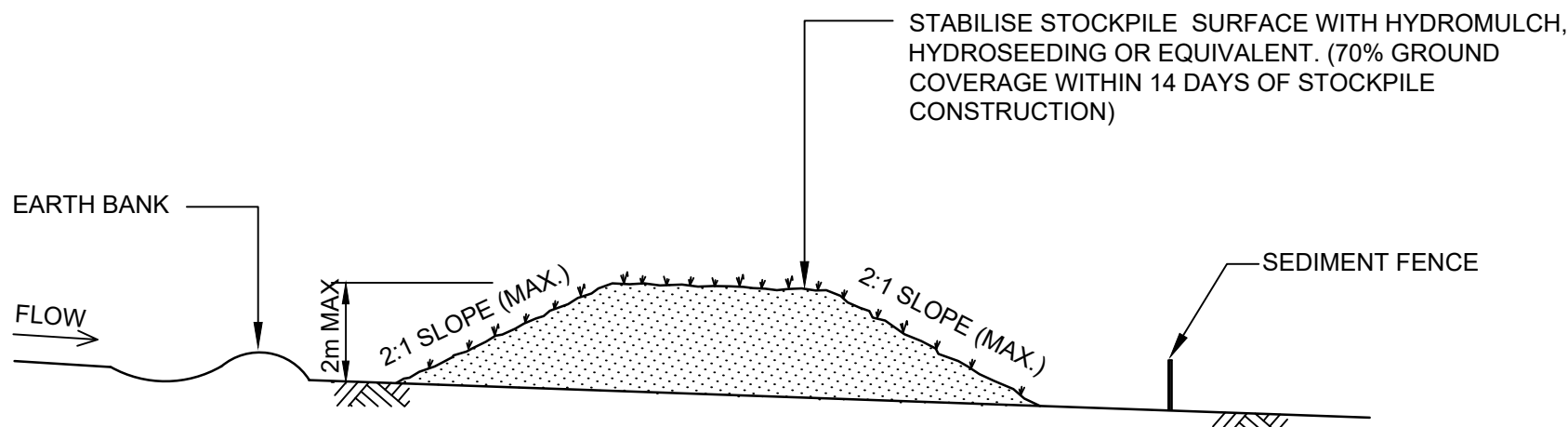
Level 12, 900 Ann Street, Fortitude Valley QLD 4006, Australia
Tel: +61 7 3368 6600 Fax: +61 7 3368 6699
www.wsp.com

CLIENT:
WALKER MAROOCHYDORE
DEVELOPMENTS PTY LTD

PROJECT:
LOT 71 MAROOCHYDORE CITY CENTRE
50 FIRST AVENUE, MAROOCHYDORE

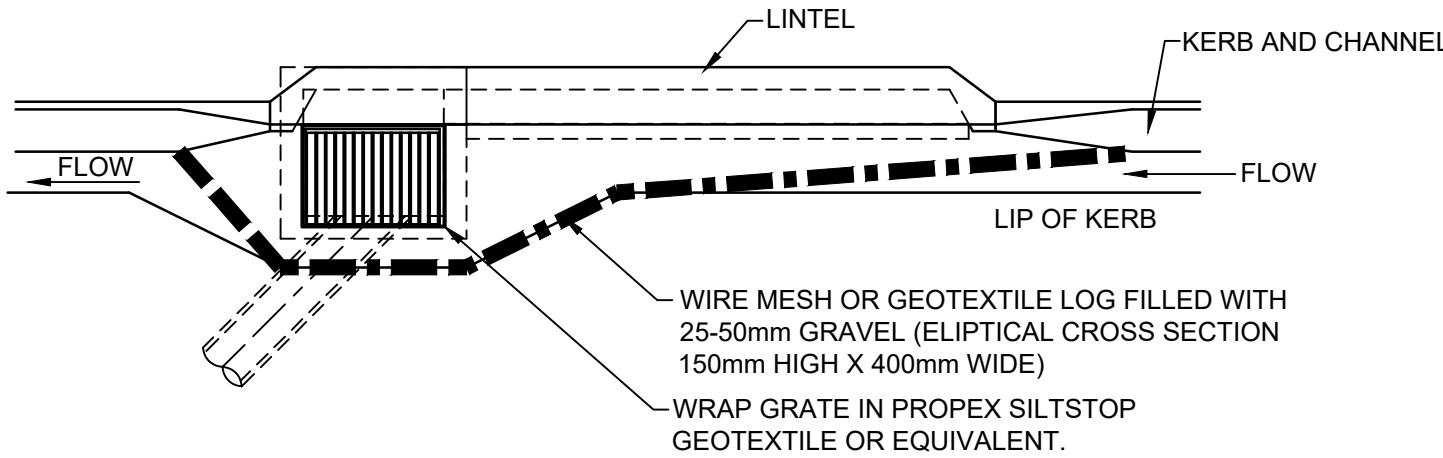
TITLE:
EROSION AND SEDIMENT CONTROL DETAILS
SHEET 1 OF 2

SCALE @ A1: AS ABOVE	CHECKED: SN	APPROVED: SN
PROJECT NUMBER: PS125923	DRAWN: RAO	DATE: 31.01.2023
DRAWING No: 2002	REV: C	



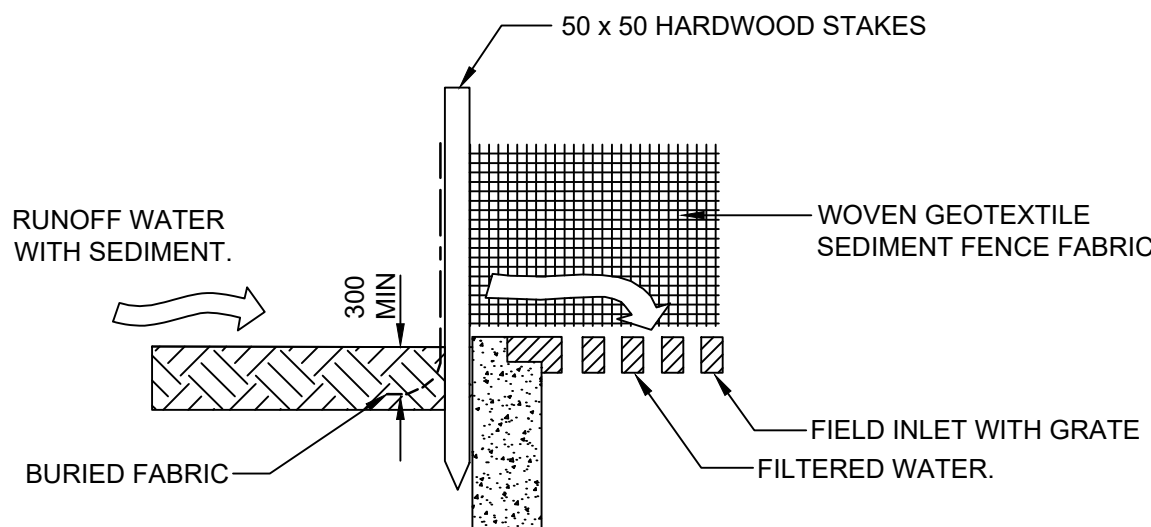
TYPICAL STOCKPILE CONFIGURATION

- SCALE N.T.S.
- NOTES:
- 1. LOCATE STOCKPILES AT TOP OF CATCHMENT ON FLAT GROUND AND NOT WITHIN 5m OF CONCENTRATED FLOW PATHS.
 - 2. STOCKPILES SHOULD HAVE EARTHBANKS UPSLOPE FOR DIVERSION OF UPSTREAM WATER AROUND STOCKPILE AND SEDIMENT FENCES PLACED 1-2m DOWNSLOPE.

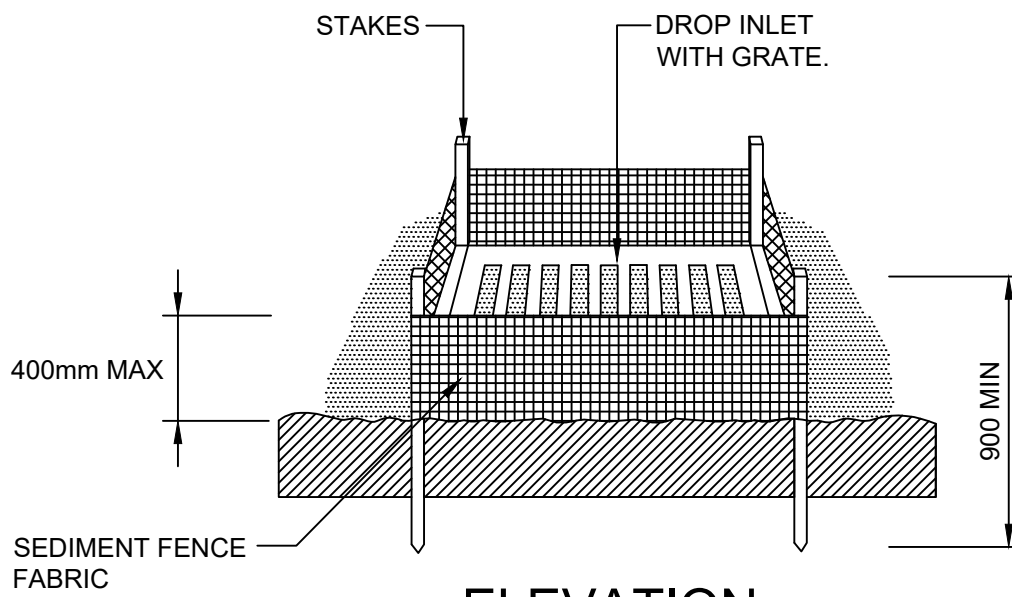


TEMPORARY GULLY TRAP DETAIL

SCALE N.T.S.

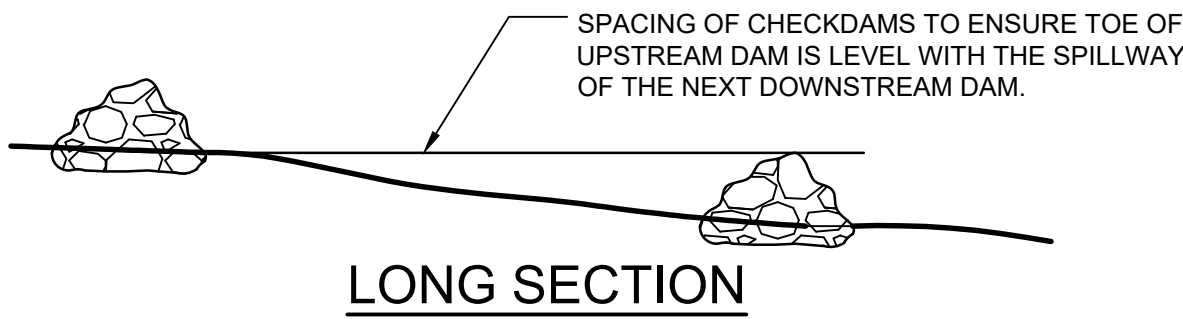


SECTION

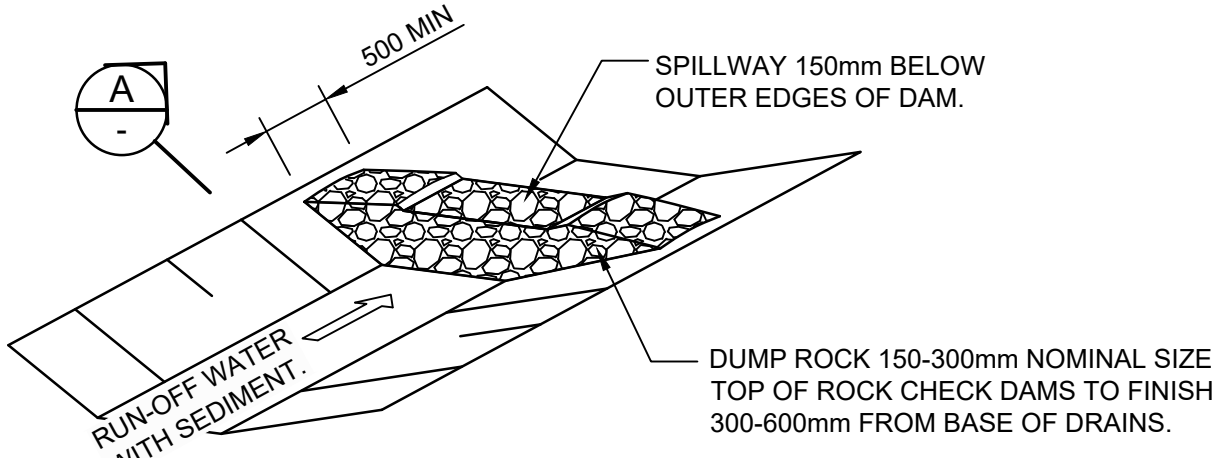


ELEVATION

GEOTEXTILE FILTER FABRIC
DROP INLET SEDIMENT TRAP



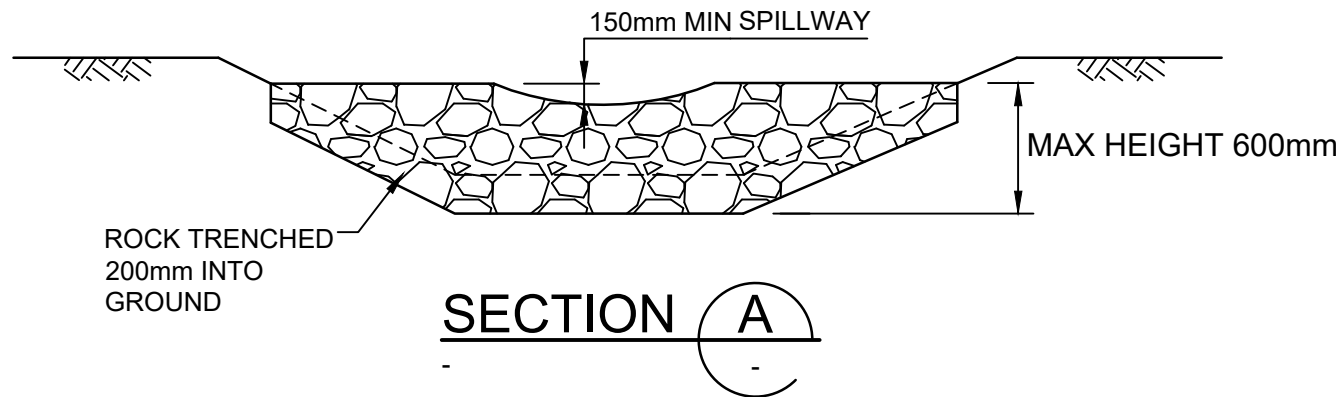
LONG SECTION



ELEVATION

ROCK CHECK DAM DETAIL

- NOTES
- 1. INSPECT DAMS REGULARLY FOR SIGNS OF SCOUR, UNDERCUTTING AND SEDIMENT BUILD-UP.
 - 2. MAINTAIN THE DAM SO THAT RUNOFF WILL FLOW THOUGH WASHED ROCK OR OVER SPILLWAY AND NOT ERODE STREAM BANKS.
 - 3. REMOVE SEDIMENT ACCUMULATED BEHIND DAM WHEN NOTED.
 - 4. MAXIMUM SPACING OF ROCK CHECK DAMS TO BE 50m INTERVALS.



SECTION A

SCALE:					
SCALE INDICATED FOR REFERENCE ONLY. DO NOT SCALE DRAWING.					
C	31/01/2023	RO	TENDER REISSUE	JF	JF
B	27/06/2022	RO	ISSUE FOR TENDER	SN	SN
A	27/05/2022	RO	DETAILED DESIGN	SN	SN
REV	DATE	BY	DESCRIPTION	CHK	APD

DRAWING STATUS: **INFORMATION ONLY**
NOT TO BE USED FOR CONSTRUCTION

wsp

Level 12, 900 Ann Street, Fortitude Valley QLD 4006, Australia
Tel: +61 7 3368 6600 Fax: +61 7 3368 6699
www.wsp.com

CLIENT:
WALKER MAROOCHYDORE
DEVELOPMENTS PTY LTD

PROJECT:
LOT 71 MAROOCHYDORE CITY CENTRE
50 FIRST AVENUE, MAROOCHYDORE

TITLE:
EROSION AND SEDIMENT CONTROL DETAILS
SHEET 2 OF 2

SCALE @ A1: AS ABOVE	CHECKED: SN	APPROVED: SN
PROJECT NUMBER: PS125923	DRAWN: RAO	DATE: 31.01.2023
DRAWING No: 2003	REV: C	

APPENDIX C

BULK EARTHWORKS PLAN



LEGEND

EARTHWORKS
PLATFORM BE.XX.XX

BULK EARTHWORKS PLATFORM LEVEL
(BELOW SLAB = FFL-200mm)

BUILDING EXTENT/BULK EARTHWORKS TO BUILDING AREA
(2.0m OFFSET FROM BUILDING OUTLINE UNO). ALLOW TO
CARRY OUT THE WORKS IN ACCORDANCE WITH EARTHWORKS
NOTES ON GENERAL NOTES DRAWING 9002 INCLUDING
STRIPPING, PROOF ROLLING AND FILLING WITH IMPORTED
SELECT FILL MATERIAL TO ACHIEVE THE NOMINATED BULK
EARTHWORKS LEVELS AS SPECIFIED. ALLOW TO PROVIDE
150mm THICK TYPE 2.3 (CBR45%) MATERIAL.

PROPOSED BULK EARTHWORKS LEVEL FOLLOWING
CARRYING OUT WORKS IN ACCORDANCE WITH
EARTHWORKS NOTES ON GENERAL NOTES DRAWING
INCLUDING STRIPPING, PROOF ROLLING AND FILLING.

PROPOSED TOP OF BATTER

PROPOSED TOE OF BATTER

PROPOSED EDGE OF BITUMEN

REFER NOTES FOR DETAILS

PROPOSED BULK EARTHWORKS MAJOR CONTOUR

PROPOSED BULK EARTHWORKS MINOR CONTOUR

22.0

EXISTING CONTOUR MAJOR

EXISTING CONTOUR MINOR

EXISTING ELECTRICAL

EXISTING STORMWATER

EXISTING WATER

EXISTING SEWER

EXISTING COMMUNICATIONS

EXISTING SURFACE LEVEL

NOTES

1. ALLOW 2V:1H BATTERS TO ALL RAFT EXCAVATIONS (SUBJECT TO CONFIRMATION FROM GEOTECHNICAL ENGINEER).

2. EXISTING STRUCTURES AND TREES SHOWN ON THESE DRAWINGS ARE FEATURES EXISTING PRIOR TO ANY SEDIMENT AND DEMOLITION WORKS.

3. BULK EARTHWORKS SLOPE PER GEOTECHNICAL ENGINEERS ADVICE. CONTRACTOR TO ALLOW FOR ANY REQUIRED SHORING OR PROTECTION TO EXISTING SERVICES AND/OR ADJACENT PROPERTIES DURING EXCAVATION FOR PROPOSED BULK EARTHWORKS AND ANY REQUIRED RETAINING WALLS. CONTRACTOR TO ALLOW TO REINSTATE OR RECTIFY ANY SERVICES AND/OR ADJACENT PROPERTIES DAMAGED DURING EXCAVATION FOR PROPOSED BULK EARTHWORKS AND ANY REQUIRED RETAINING WALLS.

4. LEVEL 1' SUPERVISION IS REQUIRED FOR ALL EARTHWORKS OPERATIONS AND CERTIFICATION IS TO BE PROVIDED BY THE NOMINATED GEOTECHNICAL TESTING AUTHORITY FOR THE FOLLOWING ITEMS:

- CERTIFICATION THAT ALL GENERAL EARTHWORKS OPERATIONS (ie. STRIPPING PROOF ROLLING OF SUBGRADE, etc.) HAVE BEEN CARRIED OUT IN ACCORDANCE WITH THE DRAWINGS AND EARTHWORKS SPECIFICATION.
- CERTIFICATION THAT THE CONTROLLED FILL IS SUITABLE FOR SUPPORT OF CONVENTIONAL HIGH LEVEL FOOTINGS AND HAS A MINIMUM BEARING CAPACITY OF 150kPa.
- CERTIFICATION THAT THE CONTROLLED FILL MATERIAL IS SUITABLE TO SUPPORT A CONVENTIONAL SLAB ON GROUND FLOOR (SLAB LOADS OF 5kPa ARE EXPECTED).
- CERTIFICATION THAT FILL HAS BEEN PLACED AND COMPACTED TO THE REQUIRED MINIMUM DENSITY IN ACCORDANCE WITH THE DRAWINGS AND EARTHWORKS SPECIFICATION.
- CERTIFICATION THAT THE QUALITY OF ANY IMPORTED FILL COMPLIES WITH DRAWINGS AND THE EARTHWORKS SPECIFICATION REQUIREMENTS.

4. CONTRACTOR TO PROVIDE AN EARTHWORKS METHODOLOGY STATEMENT FOR APPROVAL BY SUPERINTENDENT PRIOR TO COMMENCING WORK ON SITE. THE METHODOLOGY STATEMENT SHALL DEMONSTRATE THE TREATMENT OF EXISTING FILL, SITE TRAFFICABILITY AND INCORPORATION OF REQUIRED SEDIMENT AND EROSION WORKS. CONTRACTOR TO ALLOW TO ATTEND AN ON SITE PRE-START MEETING AND TO EXCAVATE TEST PITS AS REQUIRED TO DEMONSTRATE THE APPROPRIATENESS OF THE METHODOLOGY STATEMENT.

5. CONTRACTOR TO ENSURE PRESERVATION AND AVOID DISTURBANCE OF EXISTING SURVEY MARKS.

6. UNLESS NOTED AS AN EXISTING TREE TO BE RETAINED ON ARCHITECTURAL DRAWINGS REMOVE OFF SITE ALL EXISTING TREES AND ALLOW TO DEEP RIP TO REMOVE ANY TREE ROOTS.

7. UNLESS NOTED AS AN EXISTING TREE TO BE RETAINED ON ARCHITECTURAL DRAWINGS CONTRACTOR TO ENGAGE A QUALIFIED ARBORIST TO CUTBACK ALL FOLIAGE OVERHANGING THE BOUNDARY LINE FROM ADJOINING PROPERTIES.

8. REFER TO ARCHITECTURAL DRAWINGS FOR EXISTING BUILDING DEMOLITION DETAILS.

9. WHERE EXISTING SUBGRADE LEVELS ARE BELOW BULK EARTHWORKS LEVELS, FILL TO BULK EARTHWORKS LEVELS WITH MATERIAL NOMINATED IN EARTHWORKS NOTE 7 ON GENERAL NOTES DRAWING.

SCALE:
1:100@ A1
1:200@ A3

SCALE INDICATED FOR REFERENCE ONLY. DO NOT SCALE DRAWING.

F	31/01/2023	RO	TENDER REISSUE	JF	JF
E	27/06/2022	RO	ISSUE FOR TENDER	SN	SN
D	27/05/2022	RO	DETAILED DESIGN	SN	SN
C	22/11/2021	FM	FOR INFORMATION	SN	SN
B	15/11/2021	RO	FOR INFORMATION	SN	SN
A	28/10/2021	RO	FOR INFORMATION	SN	SN
REV	DATE	BY	DESCRIPTION	CHK	APD

DRAWING STATUS:

INFORMATION ONLY
NOT TO BE USED FOR CONSTRUCTION

Level 12, 900 Ann Street, Fortitude Valley QLD 4006, Australia
Tel: +61 7 3368 6600 Fax: +61 7 3368 6699
www.wsp.com

CLIENT:

WALKER MAROOCHYDORE
DEVELOPMENTS PTY LTD

PROJECT:

LOT 71 MAROOCHYDORE CITY CENTRE
50 FIRST AVENUE, MAROOCHYDORE

TITLE:

BULK EARTHWORKS PLAN

SCALE @ A1: AS ABOVE	CHECKED: SN	APPROVED: SN
PROJECT NUMBER: PS125923	DRAWN: RAO	DATE: 31.01.2023
DRAWING No: 1000	REV: F	

© WSP Australia Pty Ltd

APPENDIX D

SITE SERVICES LAYOUT





LEGEND

FFL XX.XX

PROPOSED FINISHED FLOOR LEVEL

PROPOSED STORMWATER PIPE AND PIT

PROPOSED WATER MAIN WITH VALVE

PROPOSED SEWER

PROPOSED HIGH VOLTAGE ELECTRICAL

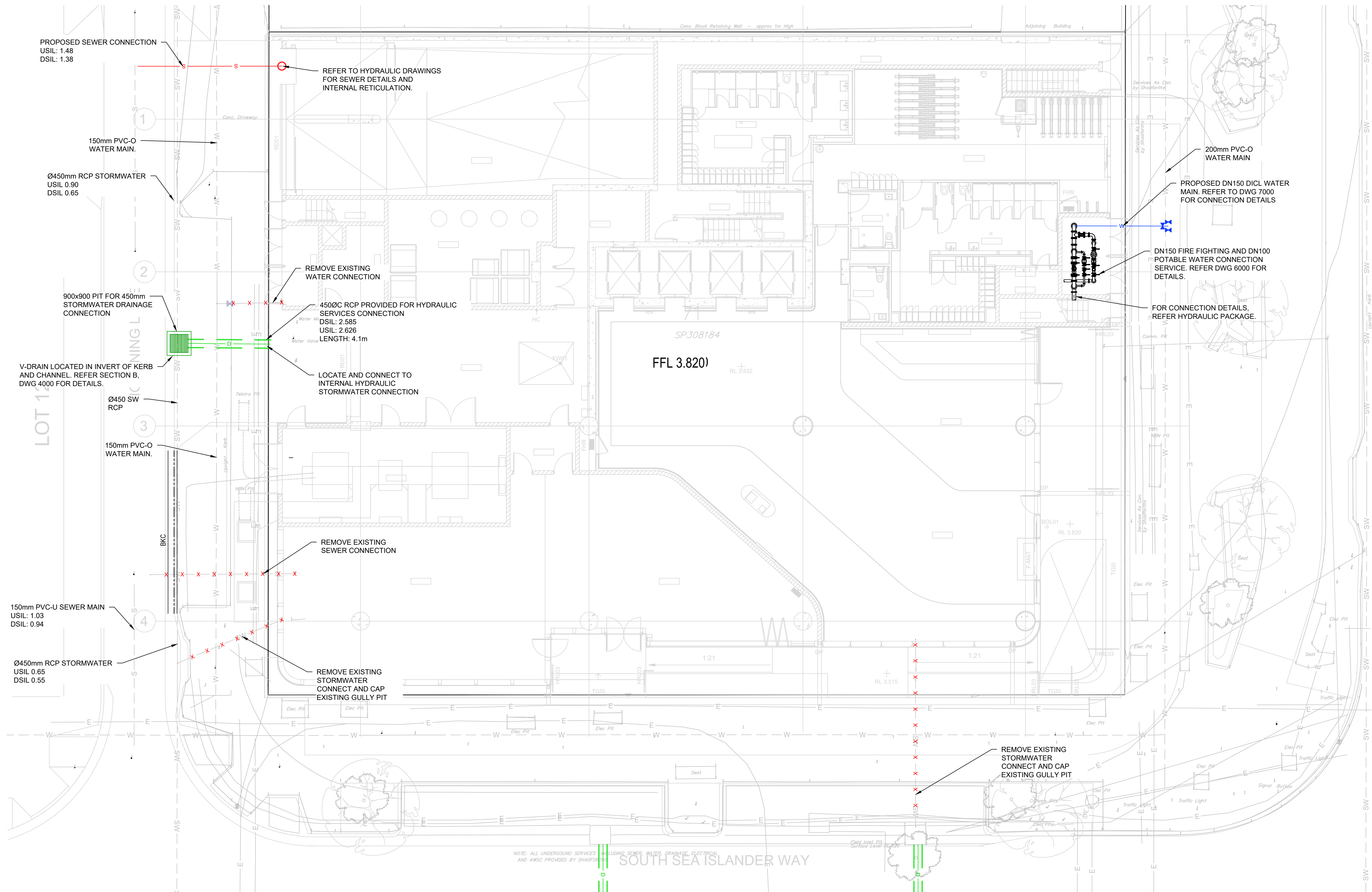
EXISTING ELECTRICAL

EXISTING STORMWATER

EXISTING WATER

EXISTING SEWER

EXISTING COMMUNICATIONS



SCALE:					
1:100 @ A1					
1:200 @ A3					
SCALE INDICATED FOR REFERENCE ONLY. DO NOT SCALE DRAWING.					
H	31/01/2023	RO	TENDER REISSUE	JF	JF
G	27/06/2022	RO	ISSUE FOR TENDER	SN	SN
F	27/05/2022	RO	DETAILED DESIGN	SN	SN
E	2/03/2022	RO	MINOR AMENDMENTS	SN	SN
D	22/02/2022	FM	FOR INFORMATION	SN	SN
C	22/11/2021	FM	FOR INFORMATION	SN	SN
B	15/11/2021	RO	FOR INFORMATION	SN	SN
A	28/10/2021	RO	FOR INFORMATION	SN	SN
REV	DATE	BY	DESCRIPTION	CHK	APD

DRAWING STATUS: **INFORMATION ONLY**
NOT TO BE USED FOR CONSTRUCTION

Level 12, 900 Ann Street, Fortitude Valley QLD 4006, Australia
Tel: +61 7 3368 6600 Fax: +61 7 3368 6699
www.wsp.com

CLIENT:
WALKER MAROOCHYDORE
DEVELOPMENTS PTY LTD

PROJECT:
LOT 71 MAROOCHYDORE CITY CENTRE
50 FIRST AVENUE, MAROOCHYDORE

TITLE:
SITE SERVICES PLAN
GROUND FLOOR PLAN

SCALE @ A1: AS ABOVE	CHECKED: SN	APPROVED: SN
PROJECT NUMBER: PS125923	DRAWN: RAO	DATE: 31.01.2023

DRAWING No: 3000	REV: H
---------------------	-----------

LEGEND

FFL XX.XX

PROPOSED FINISHED FLOOR LEVEL

E

EXISTING ELECTRICAL

SW

EXISTING STORMWATER

W

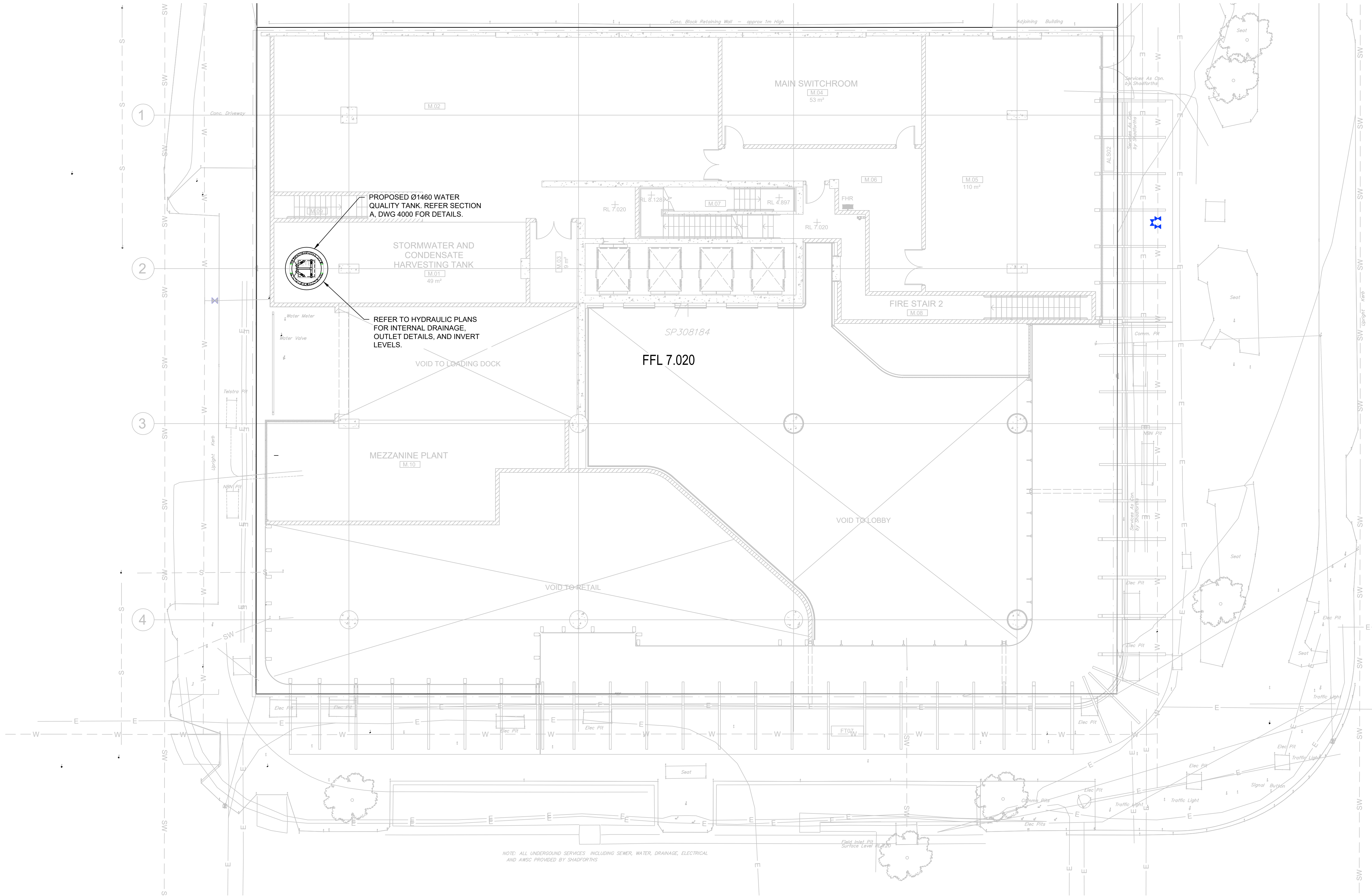
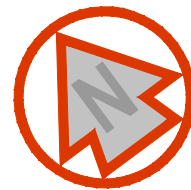
EXISTING WATER

S

EXISTING SEWER

T

EXISTING COMMUNICATIONS



NOTE: ALL UNDERGROUND SERVICES INCLUDING SEWER, WATER, DRAINAGE, ELECTRICAL AND AWS/C PROVIDED BY SHADFORTH'S

SCALE:

1:100 @ A1

1:200 @ A3

0 1 2 3 4 5 6

m

SCALE INDICATED FOR REFERENCE ONLY. DO NOT SCALE DRAWING.

A	31/01/2023	RO	TENDER REISSUE	JF	JF
REV	DATE	BY	DESCRIPTION	CHK	APD

DRAWING STATUS:

INFORMATION ONLY

NOT TO BE USED FOR CONSTRUCTION



Level 12, 900 Ann Street, Fortitude Valley QLD 4006, Australia
Tel: +61 7 3368 6600 Fax: +61 7 3368 6699
www.wsp.com

CLIENT:

WALKER MAROOCHYDORE DEVELOPMENTS PTY LTD

PROJECT:

LOT 71 MAROOCHYDORE CITY CENTRE
50 FIRST AVENUE, MAROOCHYDORE

TITLE:

SITE SERVICES PLAN
MEZZANINE LEVEL

SCALE @ A1:	CHECKED:	APPROVED:
AS ABOVE	SN	SN
PROJECT NUMBER:	DRAWN:	DATE:
PS125923	RAO	31.01.2023

DRAWING No:	REV:
3500	A

© WSP Australia Pty Ltd

APPENDIX E

MUSIC MODELLING





1 x 100kL RWT



Roof - 1650m² (100% Imp.) [Commercial]



1 x OceanGuard



SF Chamber 1.6m²



3 x 690 PSORB Stormfilter (MCC Brisbane)



Receiving Node

Treatment Train Effectiveness - Receiving Node

	Sources	Residual Load	% Reduction
Flow (ML/yr)	1.77	1.77	0
Total Suspended Solids (kg/yr)	51.9	8.86	82.9
Total Phosphorus (kg/yr)	0.304	0.0955	68.6
Total Nitrogen (kg/yr)	5.64	2.86	49.3
Gross Pollutants (kg/yr)	41.2	0	100



APPENDIX F

UNITYWATER SAN





Unitywater

ABN: 89 791 717 472

F9289 - Services Advice Notice Request Form

Postal Address

PO Box 953
Caboolture QLD 4510

Unitywater

Ph: 1300 0 UNITY (1300 086 489)
Fax: 07 5431 8288

Internet

www.unitywater.com
Development.Services@unitywater.com

Please note:

A Service Advice Notice does not currently attract a fee. The quality of advice provided is dependent on the quality of the information submitted.

Generally, it will take 20 business days to process an application.

A Service Advice Notice is advisory only and does not represent approval of the connection or any associated works.

A Services Advice Notice is not for requesting general advice or enquires. The intention of a Services Advice Notice is to provide advice in relation to development proposals prior to lodging a formal connection application with Unitywater.

A Service Advice Notice does not include a detailed assessment of any related documents (including drawings and technical reports).

A Service Advice Notice does not include a hydraulic model analysis by Unitywater to determine the network capacities where the proposed development demand is determined to be greater than Unitywater's demand allocation for the site.

Applicant Details

Name (individual or Company name in full): WSP

Contact Person: Jared Falkenhagen

Email: Jared.Falkenhagen@WSP.com

Daytime Contact Number: 0433 013 006

Mobile Number: 0433 013 006

Postal address: Level 12, 900 Ann Street, Fortitude Valley 4006

Subject Property Details

Street address: Lot 71, Maroochydore City Centre

Real Property Description – Lot / Plan: 71 SP308184

Proposed Connection Application information

Service Type: (Please tick appropriate box/es)

☒ Water Supply ☒ Sewerage

What is the application for? (Please tick appropriate box/es)

☒ New Connection ☐ Alteration to a Connection
☐ Disconnection ☐ Alterations to Unitywater network

Provide a brief description of the development proposal, including the use and number of buildings or structures where applicable (e.g. six unit apartment building, 30 lot residential subdivision etc.).

a new 12-level commercial building with site area of 1407sqm, the development is primarily commercial with levels 4 – 11 proposed for office space. The project also includes a Lobby, retail tenancies, end of trip facilities, a loading bay and bike parking on the ground floor. Remaining levels will be occupied with podium car parks and storage

Development Type (Planning scheme definition of the proposed development e.g. Reconfiguring a lot, Material change of use, Residential, commercial, retail, mixed, industrial, other). Primarily Commercial

Provide any specific enquiries relating to the development proposal.

Demand availability, site EP allocation for water and sewer, and connection points for water and sewer

Do you have a proposed / preliminary layout for the development proposal? ☒ Yes ☐ No
(If yes Please attach)

Are there any existing approvals, applications or infrastructure agreements on the property (if yes please detail / attach). ☐ Yes ☐ No

What is the current lawful use of the property? _____
New commercial development on old golf course

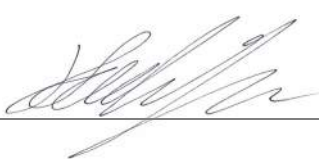
Is the property connected to Unitywater's water and sewer infrastructure? ☐ Water ☐ Sewer

List below all of the forms and supporting information that accompanies this request (Include design plans, reports, etc.)

Please ensure your request has all relevant supporting documentation attached. Failure to provide suitable or adequate information may affect the quality of the response to this request.

Description of Attachment or Title of Attachment:	Method of Lodgement to Unitywater
Floor Plans	Email (attached to SAN request form)
Survey	Email (attached to SAN request form)

Applicant Signature

Signature:  Date: 04/08/2021

Privacy statement

Unitywater is collecting your personal information for the purpose of providing the requested service. The collection of this information is authorised under the South East Queensland Water (Distribution and Retail Restructuring) Act 2009. Your information will not be given to any other person or agency unless required by law or we have your permission in writing.

McLauchlan, Fraser

From: McLauchlan, Fraser
Sent: Monday, 25 October 2021 3:20 PM
To: Development Services
Cc: Falkenhagen, Jared
Subject: DA#2021020267 - SAN for Lot 71 Maroochydore City Centre (SP308184)
Attachments: Services Advice Notice Request Form - Lot 71, Maroochydore City Centre.pdf; Lot 71 Arch Drawings.pdf

Hi Jarred,

I spoke with Megan this morning regarding the status of the SAN for Lot 71, Maroochydore City Centre (SP308184) submitted on August 4, 2021. Can you please provide an update?

Please find the original SAN application attached issued by my colleague Jared.

In addition, please find updated drawings to accompany the SAN attached separately to the email. Please note that the building height is now increasing from 12 levels to 15 levels. This increases the GFA however the site area remains the same as the original SAN application. The ground floor is to be retail and an integrated lobby café, levels 1-4 to be car park and storage, levels 5-14 to be office space. Total GFA = 10,648 sqm.

Please let me know if you have any issues or require any further information.

Thanks,



Fraser McLauchlan
Civil Engineer

T: +61 7 3854 6064

Fraser.McLauchlan@wsp.com

WSP Australia Pty Limited
900 Ann Street, Level 12
Fortitude Valley, QLD, 4006
Australia

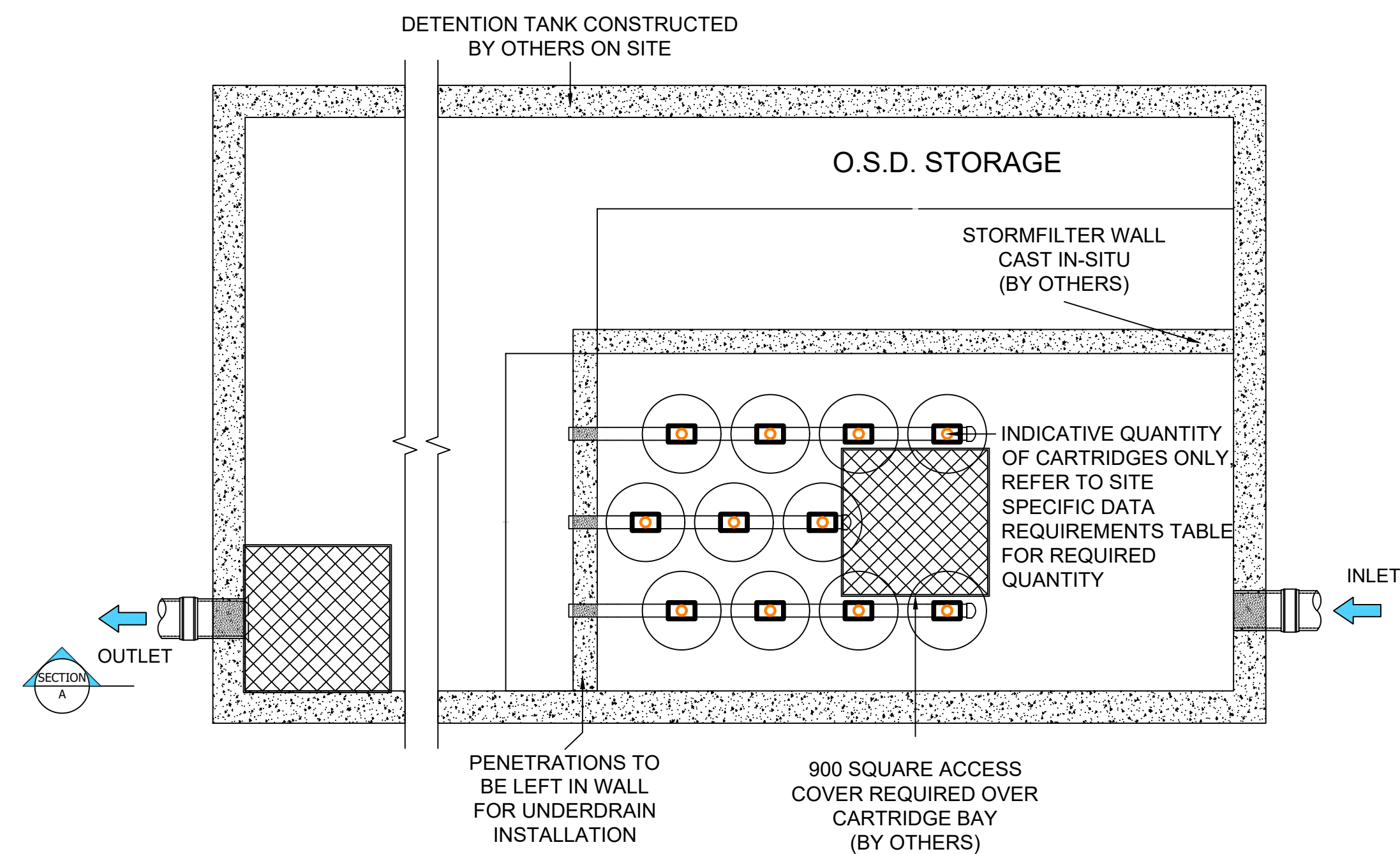
wsp.com/au

WSP acknowledges that every project we work on takes place on First Peoples lands. We recognise Aboriginal and Torres Strait Islander Peoples as the first scientists and engineers and pay our respects to Elders past and present.

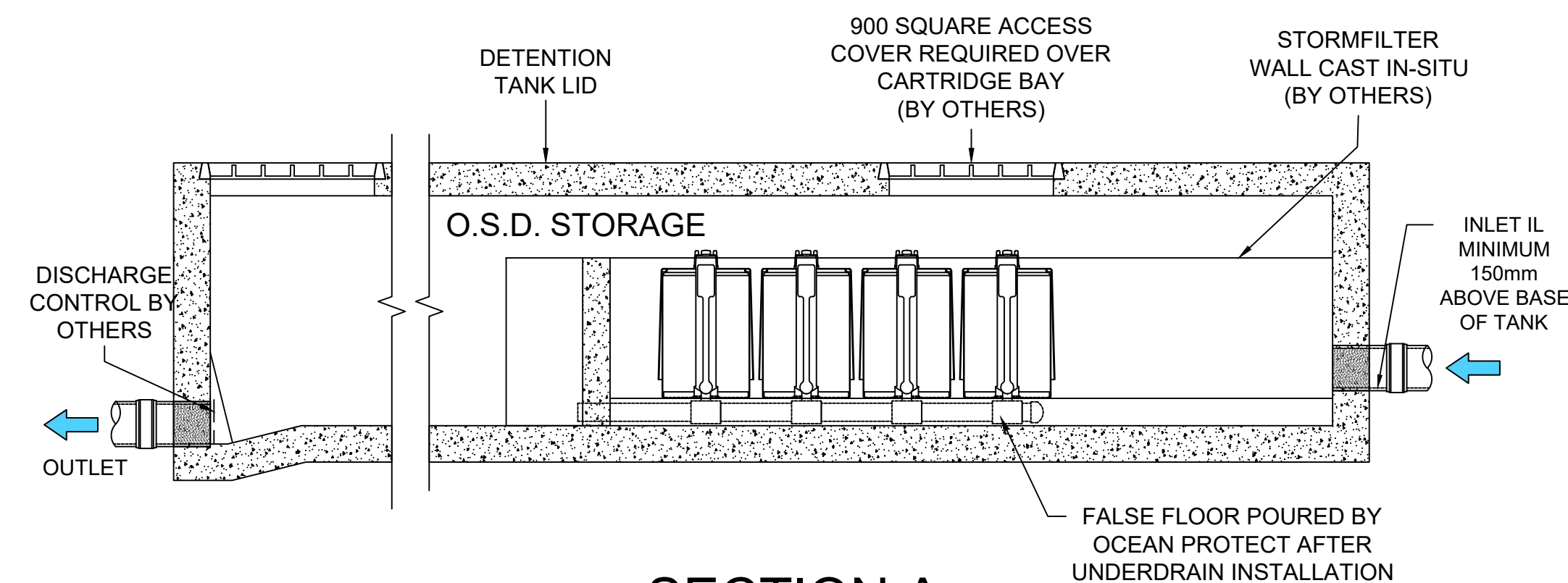
APPENDIX G

STORMWATER QUALITY PROPRIETARY DEVICES

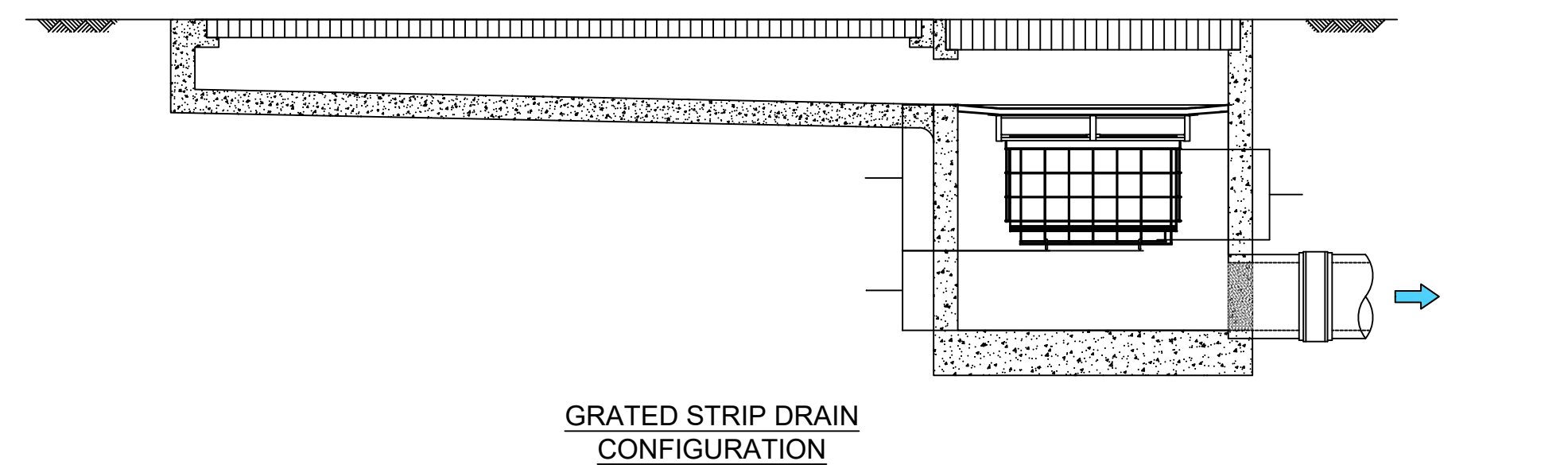
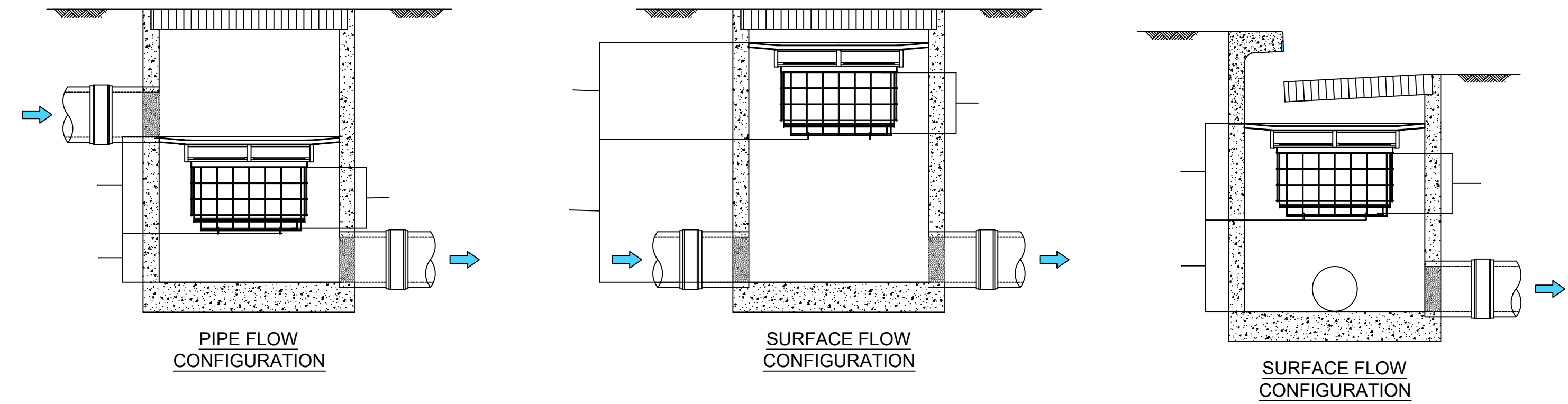




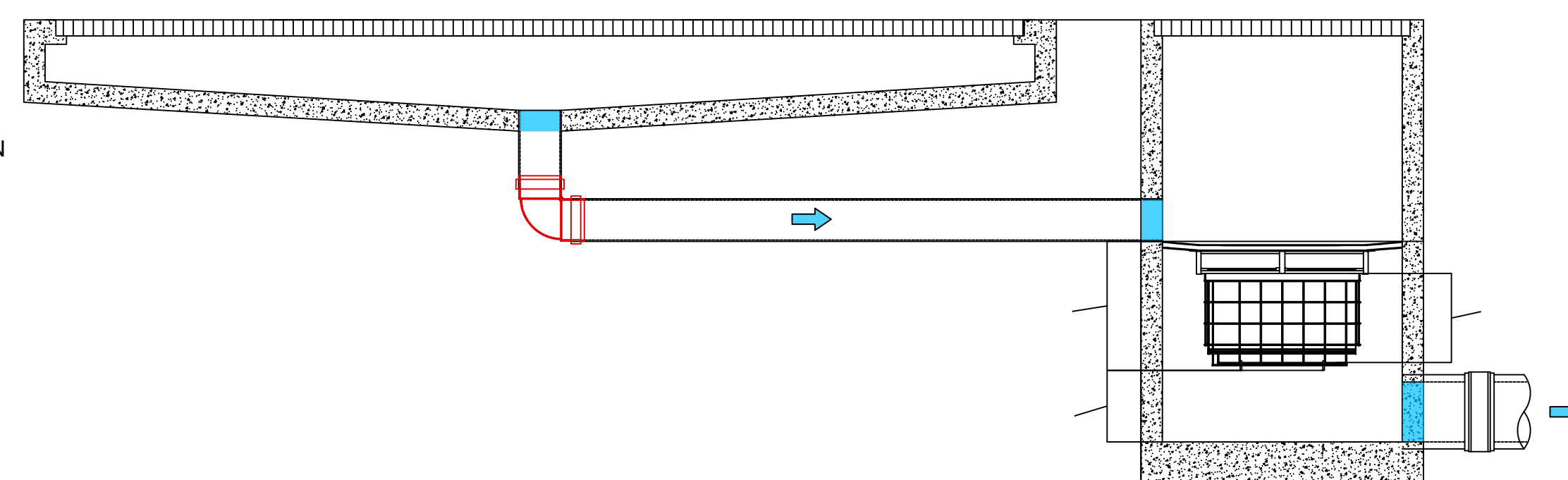
PLAN LAYOUT



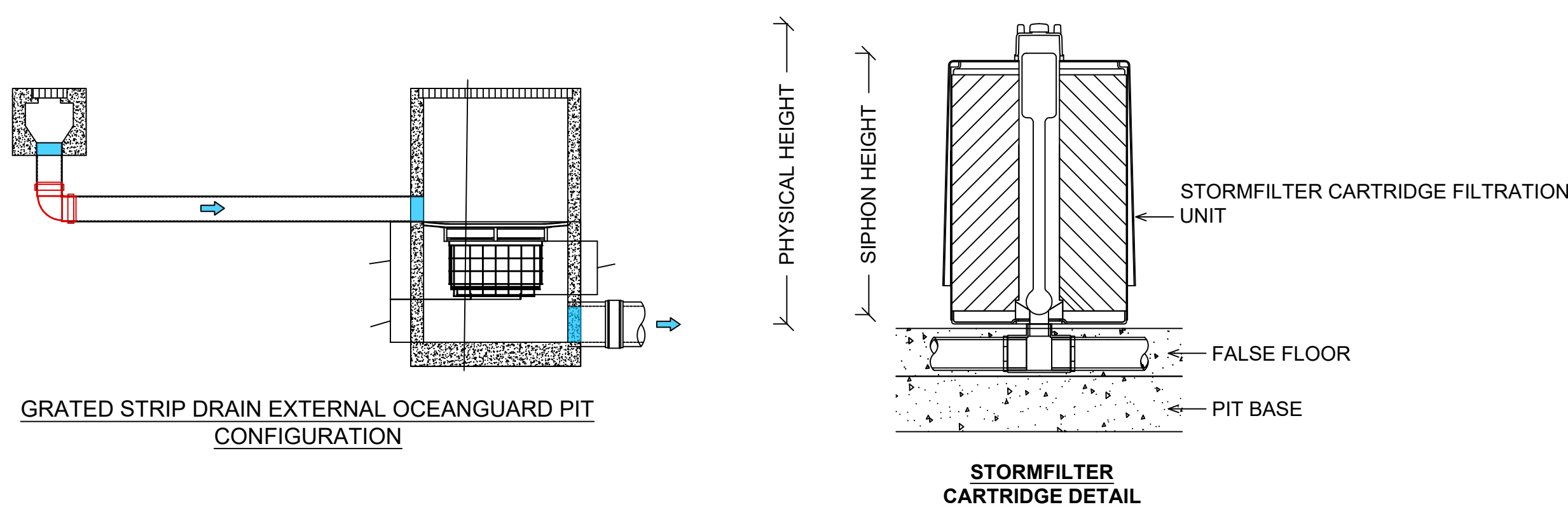
SECTION A



GRATED STRIP DRAIN INTERNAL OCEANGUARD CONFIGURATION



GRATED STRIP DRAIN EXTERNAL OCEANGUARD PIT CONFIGURATION



GRATED STRIP DRAIN EXTERNAL OCEANGUARD PIT CONFIGURATION

STORMFILTER CARTRIDGE DETAIL

SCALE:					
SCALE INDICATED FOR REFERENCE ONLY. DO NOT SCALE DRAWING.					
A	28/10/2021	RO	FOR INFORMATION	SN	SN
REV	DATE	BY	DESCRIPTION	CHK	APD

DRAWING STATUS: **INFORMATION ONLY**
NOT TO BE USED FOR CONSTRUCTION



Level 12, 900 Ann Street, Fortitude Valley QLD 4006, Australia
Tel: +61 7 3368 6600 Fax: +61 7 3368 6699
www.wsp.com

CLIENT:
WALKER MAROOCHYDORE
DEVELOPMENTS PTY LTD

PROJECT:
LOT 71 MAROOCHYDORE CITY CENTRE
50 FIRST AVENUE, MAROOCHYDORE

TITLE:
WATER QUALITY DETAILS

SCALE @ A1: NTS	CHECKED:	APPROVED:
PROJECT NUMBER: PS125923	DRAWN: RAO	DATE:
DRAWING No: 4000	REV: A	

APPENDIX H

SCC INFRASTRUCTURE MAPPING





ArcGIS Web Map



Sunshine Coast Council
Locked Bag 72
Sunshine Coast Mail Centre QLD 4560



1:1,128

0 0.025 0.05 0.1 km

Printed on A3 paper

8/11/2021, 2:43:33 PM

Author : ArcGIS Web AppBuilder

Disclaimer
While every care is taken to ensure the accuracy of this product, neither the Sunshine Coast Regional Council nor the State of Queensland makes any representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs that may occur as a result of the product being inaccurate or incomplete in any way or for any reason.

© Crown & Council Copyright Reserved.

8QLW\ZDWHU 0DS



30

✂ :DWHU 6\VWHFPHU 7UXQN 0DLQDVWUH

:DWHU +\GUDQW 7UXQN 0DLQ %DVH

• +\GUDQW 5HWLFXODV QDWHPHQW

8QLW\ZDWHU 2SHUDWLRQDO \$UHD

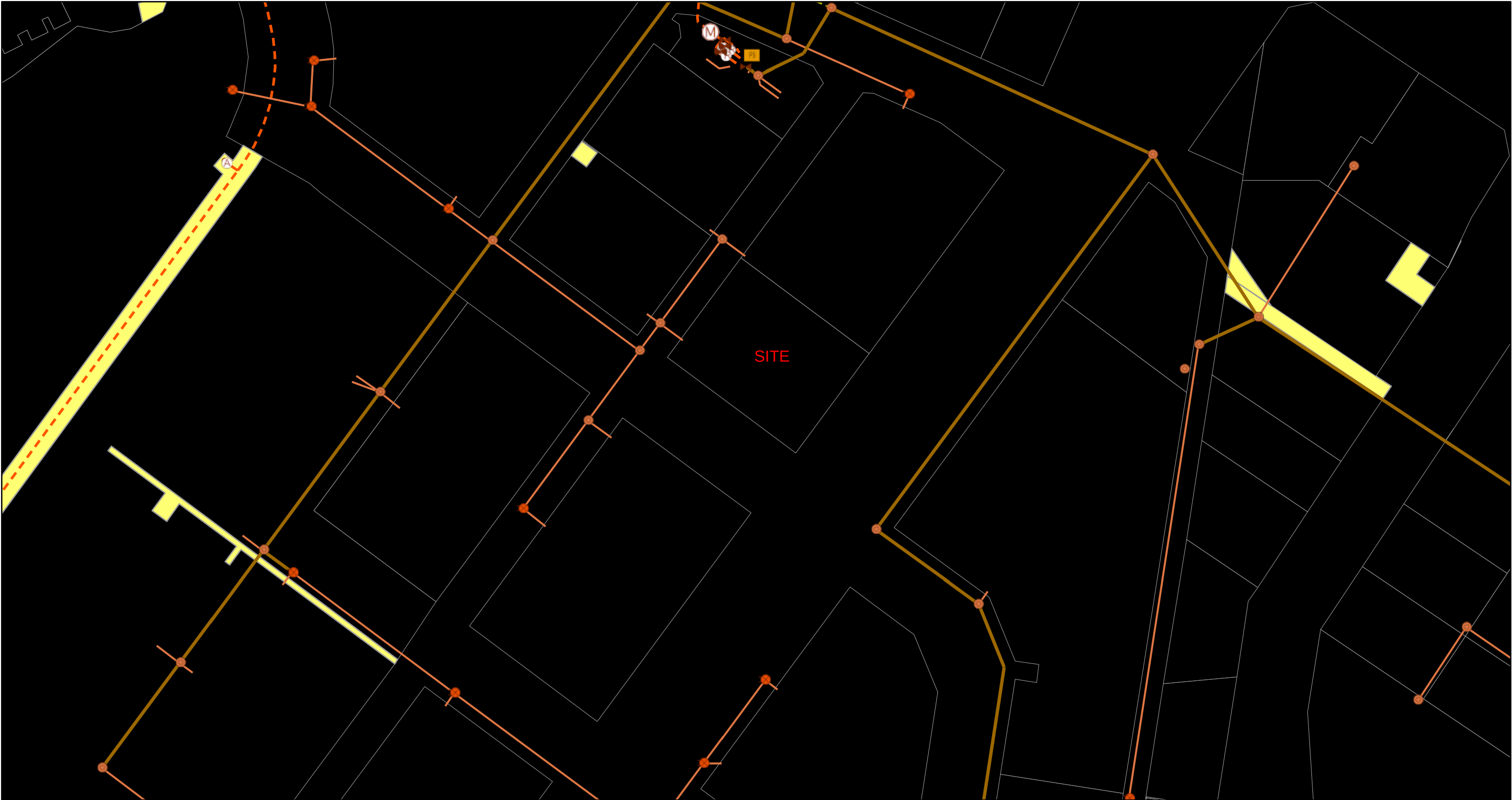
~PL

~NP

1365 (VUL K 2SHQ6WUHHW0DS FRQWULEXWRU

8QLW\ZDWHU

8QLW\ZDWHU 0DS



30

3XPS 6WDWLRQ 6HZHU \$X[LOLDU 92QYHORZ QDVHPPHQW

1HWZRUN 0HWHU 6HZHU 3UHVX 0DLQ 0DLQ\ZDWHU 2SHUDWLRQDO \$UHD

6HZHU 0DQKROH 5HIOX[5LVLQJ 0DLQ

0DLQWHQDQFH 6KDIW 0RFHVV &KDPEHU

0DQKROH 7UXQN 0DLQDGDVWUH

6WRS 5HWLFXOD 0DWHQ

PL

NP

1365 (VUL K 2SHQ6WUHHW0DS FRQWULEXWRU

8QLW\ZDWHU

APPENDIX I

FLOOD TECHNICAL MEMO



Technical Memorandum

Title	Maroochydore City Centre Stage 1 Local Flooding		
Client	Suncentral Maroochydore	Project No	249402
Date	29 October 2015	Status	Preliminary
Author	Nadia Guterres	Discipline	Civil Engineering
Reviewer	Darryl Hone	Office	Sunshine Coast

1. Summary

Given the flat nature of the Stage 1 works and the locations of raised intersections which would block overland flow paths, detailed two-dimensional flood analysis was conducted to ensure that the proposed road and internal drainage design would be sufficient to convey stormwater flows during major flood events. The purpose of this analysis was to:

- > Determine the 100 year ARI local flood levels throughout Stage 1 and the corresponding floor levels for each lot.
- > Determine the impact of complete blockage of stormwater gully and field inlets to ensure that the freeboard provided to minimum floor levels was sufficient.
- > Determine whether the peak depths within the road reserve during major flood events complied with the requirements of QUDM.
- > Determine if any areas required additional drainage infrastructure.

The proposed stormwater drainage has been designed to have 5% Annual Exceedance Probability (AEP) capacity using 12d. This drainage design was then transferred into TUFLOW for analysis of the major 1% AEP storm event.

2. Methodology

The TUFLOW model was set up using the following methodology:

- > The 1% AEP rainfall was increased by 20% to account for the potential impact of climate change.
- > The Duration Independent Storm (DIS) was used, with a time step of 5 minutes. The DIS method converts peak rainfall intensities from various storm duration into the one temporal pattern.
- > A 0.5m grid size was adopted so that the road reserve was captured in sufficient detail.
- > The road reserve areas were modelled using rainfall on grid. No rainfall losses were assumed.
- > The runoff from the surrounding lots was directed towards the underground drainage network. As the roof drainage is likely to have 5% AEP capacity, flows in excess of this capacity were directed as inflows onto the road surface. No rainfall losses were assumed.
- > The tailwater level in the canal was assumed to be 2.35m AHD. This is the 1% AEP storm tide level with potential climate change included. Storm tide levels are to be used in preference to

storm surge levels as wave runup is not included as it is not a factor in protected waterways such as Maud Canal.

- > The tailwater level for the existing northern drainage system was assumed to be equal to the invert of the existing pipe.
- > The road reserve was modelled with a Manning's roughness of 0.02.
- > For the design scenario the blockage factors for field and gully inlets as specified by QUDM were assumed.
- > For the blockage scenario all inlets were blocked by 100%. Roof water drainage (to 5% AEP capacity) was still assumed to be able to enter the drainage network.
- > The manhole losses were automatically calculated by TUFLOW using the Engelund Method.

3. **Results**

The preliminary results of the analysis identified areas where additional inlets would be required. Once these modifications were made to the design the results showed that:

- > The depth of flooding in the 1% AEP climate change design event was less than 250mm in all areas of the proposed development.
- > Once complete blockage of inlets was included the increase in peak water levels was less than 300mm in all areas of the site. As freeboard of 300mm above the 1% AEP local flood level is required for minimum floor levels based on the requirements of QUDM, this confirmed that all lots would have sufficient flood immunity for the major local flood event. For the majority of the site the increase was less than 100mm, with 95% of impacts being less than 200mm.
- > The peak depth-velocity (dV) product for the 1% AEP design flood event was extremely low in all areas, with a maximum of around $0.05\text{m}^2/\text{s}$. This indicates that flood hazards to motorists and pedestrians will be minimal.

The preliminary proposal for drainage design within Stage 1 nominated that areas where overland flow paths were blocked would have a duplicate drainage network with 1% AEP capacity. The results of this analysis have shown that even if all inlets are completely blocked that the peak water levels will not be increased by more than the specified minimum freeboard of 300mm. This is because there are some alternate flow paths available for areas around the raised intersections. It has therefore been deemed not necessary to provide a dual drainage network for these areas.

The results of the TUFLOW modelling are shown in the attached figures.

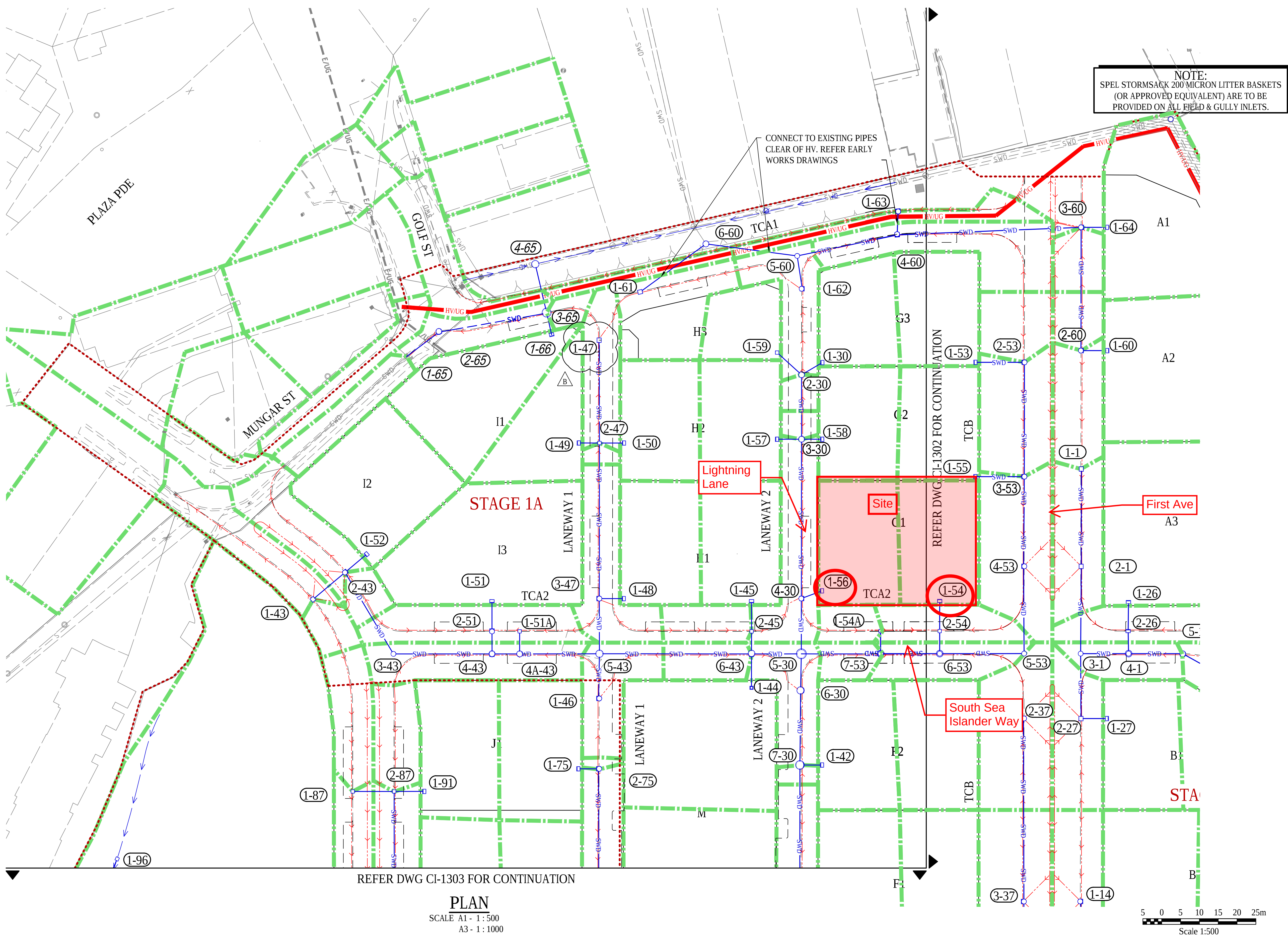
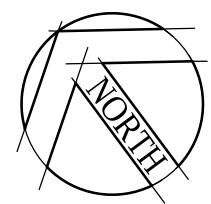
The minimum floor level for each lot, as specified by the manhole number relating to the roof drainage inlet point, is summarised in Table 1. A freeboard of 300mm above the 1% AEP flood level with climate change has been specified to comply with QUDM. The minimum floor levels required are all higher than those obtained using the 1% AEP climate change storm surge level, i.e. 3.32m AHD. The minimum floor levels in Table 1 were obtained by adding 300mm to the maximum design flood level along the street frontage of each lot.

Addendum to Table 1 in Maroochydore City Centre Stage 1 Local Flooding Technical Memo 2015

Table 1 Minimum Floor Levels for each lot

LOT No.	PIT No.	MINIMUM FLOOR LEVEL (mAHD)	FREEBOARD WITH COMPLETE BLOCKAGE (mm)	LOT No.	PIT No.	MINIMUM FLOOR LEVEL (mAHD)	FREEBOARD WITH COMPLETE BLOCKAGE (mm)
A1	1-64	3.89	299	G2	1-55	3.86	292
A2	1-60	3.89	299	G2	1-58	3.87	300
A3	1-26	3.74	248	G3	1-30	3.85	397
A4	1-25	3.70	222	G3	1-53	3.90	300
A5	1-24	3.70	244	H1	1-45	3.86	290
A6	1-22	3.66	248	H1	1-48	3.89	285
B1	1-23	3.69	206	H2	1-50	3.88	294
B1	1-27	3.69	203	H2	1-57	3.87	300
B2	1-15	3.60	179	H3	1-59	3.92	300
B2	1-18	3.68	213	H3	1-61	3.87	284
C1	1-12	3.67	258	I1	1-49	3.88	296
C2	1-12A	3.56	159	I1	1-65	3.32*	590
C3	1-3	3.71	300	I1	1-66	3.79	294
D1	1-11	3.60	187	I2	1-52	3.74	300
D1	1-16	3.59	175	I3	1-51	3.97	300
D2	1-6	3.58	237	J1	1-75	3.80	215
D2	1-7	3.52	263	J1	1-91	3.97	300
D3	1-17	3.66	238	J2	1-90	3.78	267
D3	1-8	3.67	257	J2	1-92	3.70	186
E1	1-31	3.66	215	K1	1-81	3.77	245
E1	1-33	3.60	184	K1	1-85	3.63	118
E2	1-35	3.63	162	K2	1-80	3.70	175
E2	1-39	3.70	227	K2	1-83	3.63	180
F1	1-38	3.69	210	L1	1-32	3.60	182
F1	1-41	3.70	226	L1	1-84	3.63	180
F2	1-37	3.70	199	L2	1-34	3.74	254
F2	1-42	3.72	217	L2	1-86	3.72	209
G1	1-54	3.74	245	N	1-76	3.77	247
G1	1-56	3.82	297	N	1-79	3.67	147

* Based on 1% AEP Storm Surge Level



REFER DWG CI-1303 FOR CONTINUATION

PLAN
SCALE A1 - 1 : 500
A3 - 1 : 1000

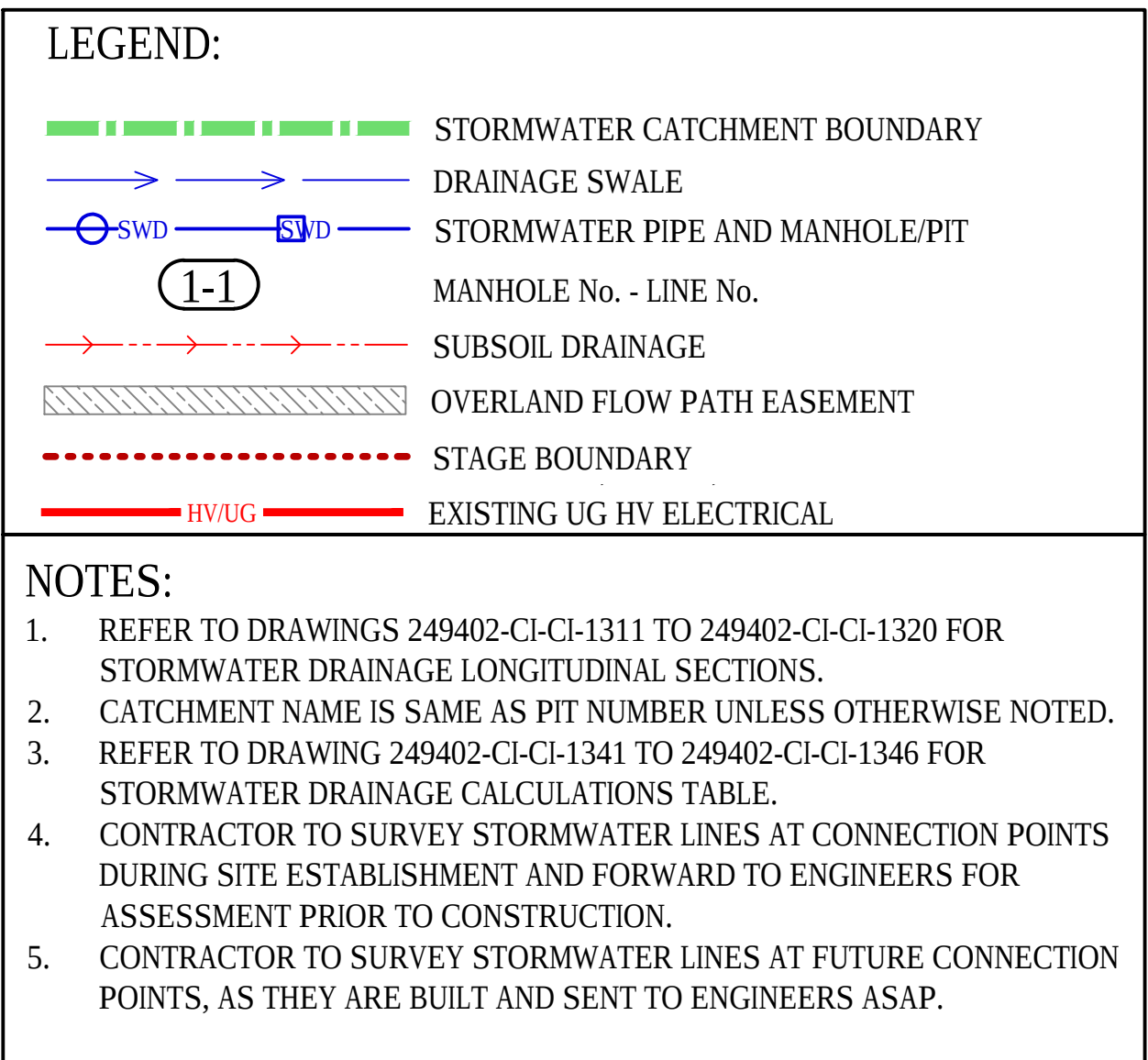
Rev.	Date	Description	Des.	Verif.	Appd.
B	30/05/2018	STRUCTURE 1-47 LOCATION UPDATED	CK	DH	BK
A	24/03/2017	ISSUED FOR CONSTRUCTION	CK	DH	BK



© Cardno Limited All Rights Reserved.
This document is produced by Cardno Limited solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Limited does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.



Drawn PM LC CK 7/10/2015	Checked DH 7/10/2015	Designed CK 7/10/2015	Verified RB 7/10/2015	Approved 7884	DATE: 1/03/2017	Client SUNCENTRAL MAROOCHYDORE PTY LTD	Project MAROOCHYDORE CITY CENTRE CIVIL WORKS - STAGE 1	Title STORMWATER DRAINAGE PLAN - SHEET 1	Status FOR CONSTRUCTION	DATUM AHD	Orig. Date 17/02/2016	Scale AS SHOWN	Size A1	Drawing Number 249402-CI-1301	Revision B
--------------------------------	----------------------------	-----------------------------	-----------------------------	------------------	--------------------	---	--	---	----------------------------	--------------	--------------------------	-------------------	------------	----------------------------------	---------------



PLAN
SCALE A1 - 1:500
A3 - 1:1000

A Rev.	24/03/2017	ISSUED FOR CONSTRUCTION	CK Des.	DH Verif.	BK Appd.
	Date	Description			



© Cardno Limited All Rights Reserved.
This document is produced by Cardno Limited solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Limited does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

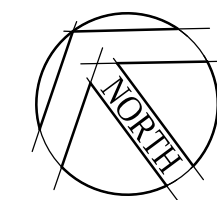


Cardno (Qld) Pty Ltd | ABN 57 051 074 992
Level 1, 9 Maud Street
Maroochydore, QLD 4558
Tel: 07 5443 2555 Fax: 07 5443 5642
Web: www.cardno.com.au

Drawn PM LC CK	Date 7/10/2015	Client SUNCENTRAL MAROOCHYDORE PTY LTD				
Checked DH	Date 7/10/2015	Project MAROOCHYDORE CITY CENTRE CIVIL WORKS - STAGE 1	Status FOR CONSTRUCTION			
Designed CK	Date 7/10/2015	Title STORMWATER DRAINAGE PLAN - SHEET 2	DATUM AHD	Orig. Date 2/17/2016	Scale AS SHOWN	Size A1
Verified RB	Date 7/10/2015		Drawing Number 249402-CI-1302	Revision A		
Approved	7884					
	DATE: 1/03/2017					

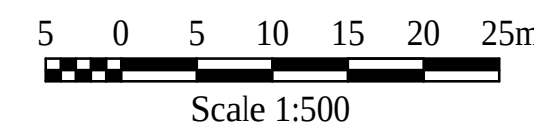


NOTE:
SPEL STORMSACK 200 MICRON LITTER BASKETS
(OR APPROVED EQUIVALENT) ARE TO BE
PROVIDED ON ALL FIELD & GULLY INLETS.



	STORMWATER CATCHMENT BOUNDARY
	DRAINAGE SWALE
	STORMWATER PIPE AND MANHOLE/PIT
	MANHOLE No. - LINE No.
	SUBSOIL DRAINAGE
	OVERLAND FLOW PATH EASEMENT
	STAGE BOUNDARY
	EXISTING UG HV ELECTRICAL

1. REFER TO DRAWINGS 249402-CI-CI-1311 TO 249402-CI-CI-1320 FOR STORMWATER DRAINAGE LONGITUDINAL SECTIONS.
2. CATCHMENT NAME IS SAME AS PIT NUMBER UNLESS OTHERWISE NOTED.
3. REFER TO DRAWING 249402-CI-CI-1341 TO 249402-CI-CI-1346 FOR STORMWATER DRAINAGE CALCULATIONS TABLE.
4. CONTRACTOR TO SURVEY STORMWATER LINES AT CONNECTION POINTS DURING SITE ESTABLISHMENT AND FORWARD TO ENGINEERS FOR ASSESSMENT PRIOR TO CONSTRUCTION.
5. CONTRACTOR TO SURVEY STORMWATER LINES AT FUTURE CONNECTION POINTS, AS THEY ARE BUILT AND SENT TO ENGINEERS ASAP.



PLAN
SCALE A1 - 1:500
A3 - 1:1000

[illegible]

© Cardno Limited All Rights Reserved.
This document is produced by Cardno Limited solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno Limited does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by third party on the content of this document.

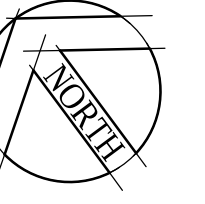
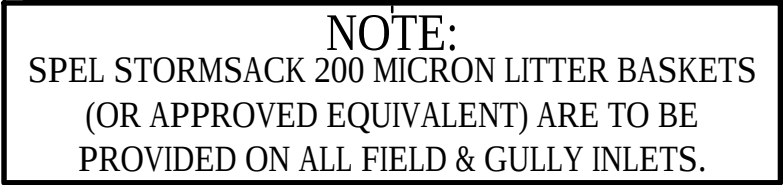


Cardno (Qld) Pty Ltd | ABN 57 051 074 992
Level 1, 9 Maud Street
Maroochydore, QLD 4558
Tel: 07 5443 2555 Fax: 07 5443 5642
Web: www.cardno.com.au

Drawn	Date
PM LC CK	7/10/2017
Checked	Date
DH	7/10/2017
Designed	Date
CK	7/10/2017
Verified	Date
RB	7/10/2017
Approved	788

Client	SUNCENTRAL MAROOCHYDORE PTY LTD
Project	MAROOCHYDORE CITY CENTRE CIVIL WORKS - STAGE 1
Title	STORMWATER DRAINAGE PLAN - SHEET 3

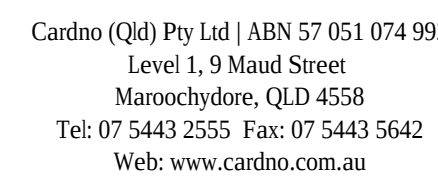
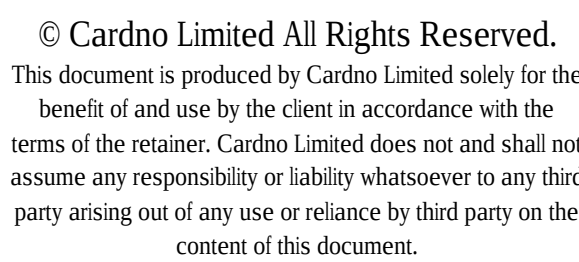
Status			
FOR CONSTRUCTION			
DATUM AHD	Orig. Date 17/02/2016	Scale AS SHOWN	Size A1
Drawing Number 249402-CI-1303			Revision B



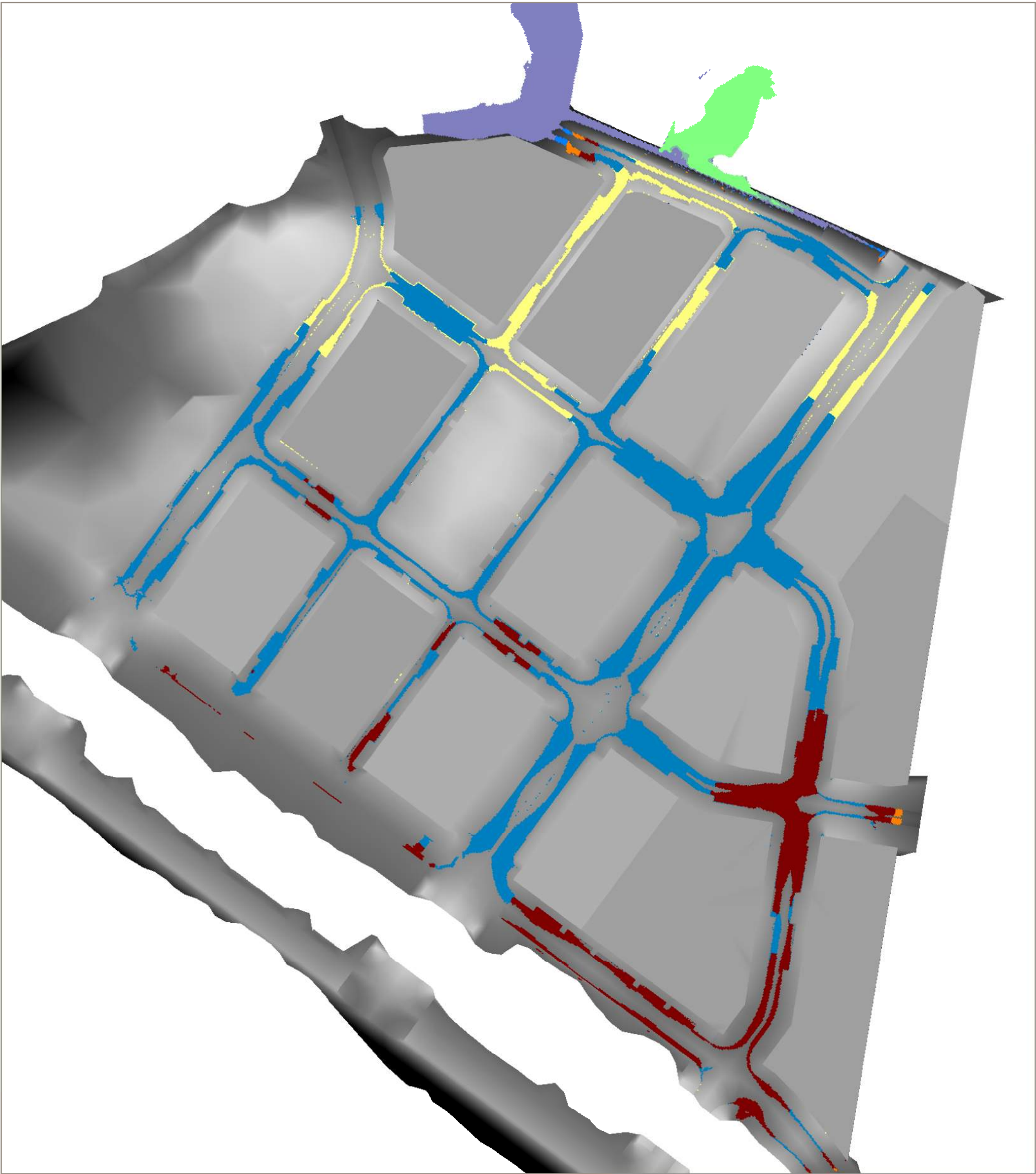
	STORMWATER CATCHMENT BOUNDARY
	DRAINAGE SWALE
	STORMWATER PIPE AND MANHOLE/PIT
	MANHOLE No. - LINE No.
	SUBSOIL DRAINAGE
	OVERLAND FLOW PATH EASEMENT
	STAGE BOUNDARY
	EXISTING UG HV ELECTRICAL

1. REFER TO DRAWINGS 249402-CI-CI-1311 TO 249402-CI-CI-1320 FOR STORMWATER DRAINAGE LONGITUDINAL SECTIONS.
2. CATCHMENT NAME IS SAME AS PIT NUMBER UNLESS OTHERWISE NOTED.
3. REFER TO DRAWING 249402-CI-CI-1341 TO 249402-CI-CI-1346 FOR STORMWATER DRAINAGE CALCULATIONS TABLE.
4. CONTRACTOR TO SURVEY STORMWATER LINES AT CONNECTION POINTS DURING SITE ESTABLISHMENT AND FORWARD TO ENGINEERS FOR ASSESSMENT PRIOR TO CONSTRUCTION.
5. CONTRACTOR TO SURVEY STORMWATER LINES AT FUTURE CONNECTION POINTS, AS THEY ARE BUILT AND SENT TO ENGINEERS ASAP.

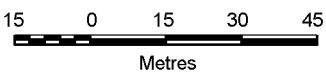
SCALE A1 - 1 : 500
A3 - 1 : 1000



Drawn PM LC CK	Date 7/10/2015	Client SUNCENTRAL MAROOCHYDORE PTY LTD				
Checked DH	Date 7/10/2015	Project MAROOCHYDORE CITY CENTRE CIVIL WORKS - STAGE 1	Status FOR CONSTRUCTION			
Designed CK	Date 7/10/2015					
Verified RB	Date 7/10/2015		DATUM AHD	Orig. Date 2/17/2016	Scale AS SHOWN	Size A1
Approved 7884	Date 10/03/2017		Drawing Number 249402-CI-1304			Revision C
Title STORMWATER DRAINAGE PLAN - SHEET 4						



Scale: 1:1,500



SHEET A3
Project No: 2492-02
Date: 30 October 2015
Revision Number:
Designed by:
Client Name: SunCentral Maroochydore

Peak Water Level (mAHd)

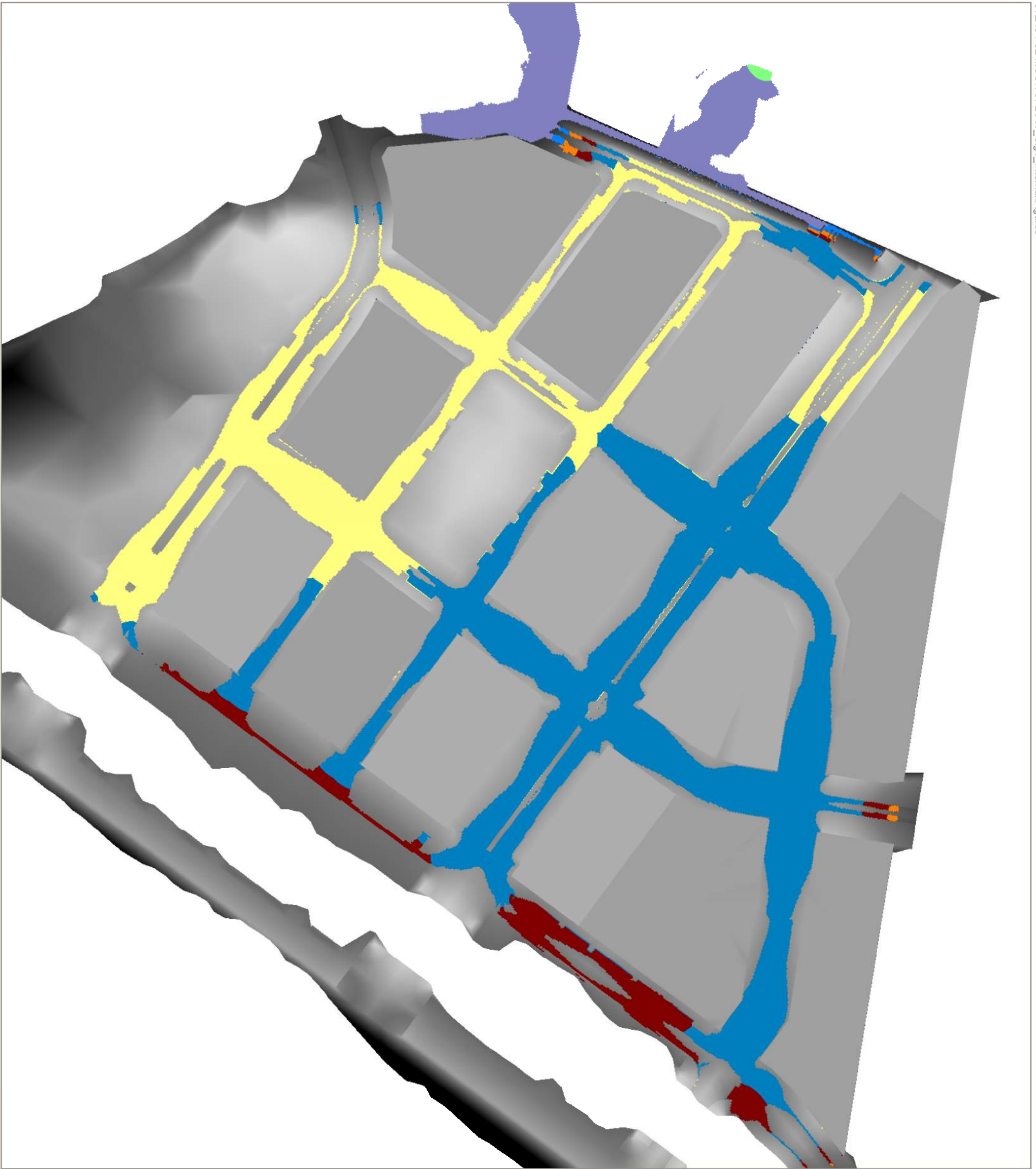
Green	2.00 to 2.25
Blue	2.25 to 2.50
Orange	2.50 to 2.75
Red	2.75 to 3.00
Dark Blue	3.00 to 3.25
Yellow	3.25 to 3.50

Figure 1

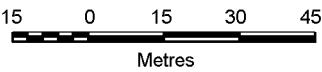
**1% AEP Design
Peak Flood Level
with Climate Change**

Stage 1 Internal Drainage





Scale: 1:1,500



Peak Water Level (mAHD)

- 2.00 to 2.25
- 2.25 to 2.50
- 2.50 to 2.75
- 2.75 to 3.00
- 3.00 to 3.25
- 3.25 to 3.50
- 3.50 to 3.75

Figure 2

**1% AEP Peak Flood Level
with Climate Change
and Complete Inlet Blockage**

Stage 1 Internal Drainage

SHEET A3
Project No: 2492-02
Date: 30 October 2015
Revision Number:
Designed by:
Client Name: SunCentral Maroochydore

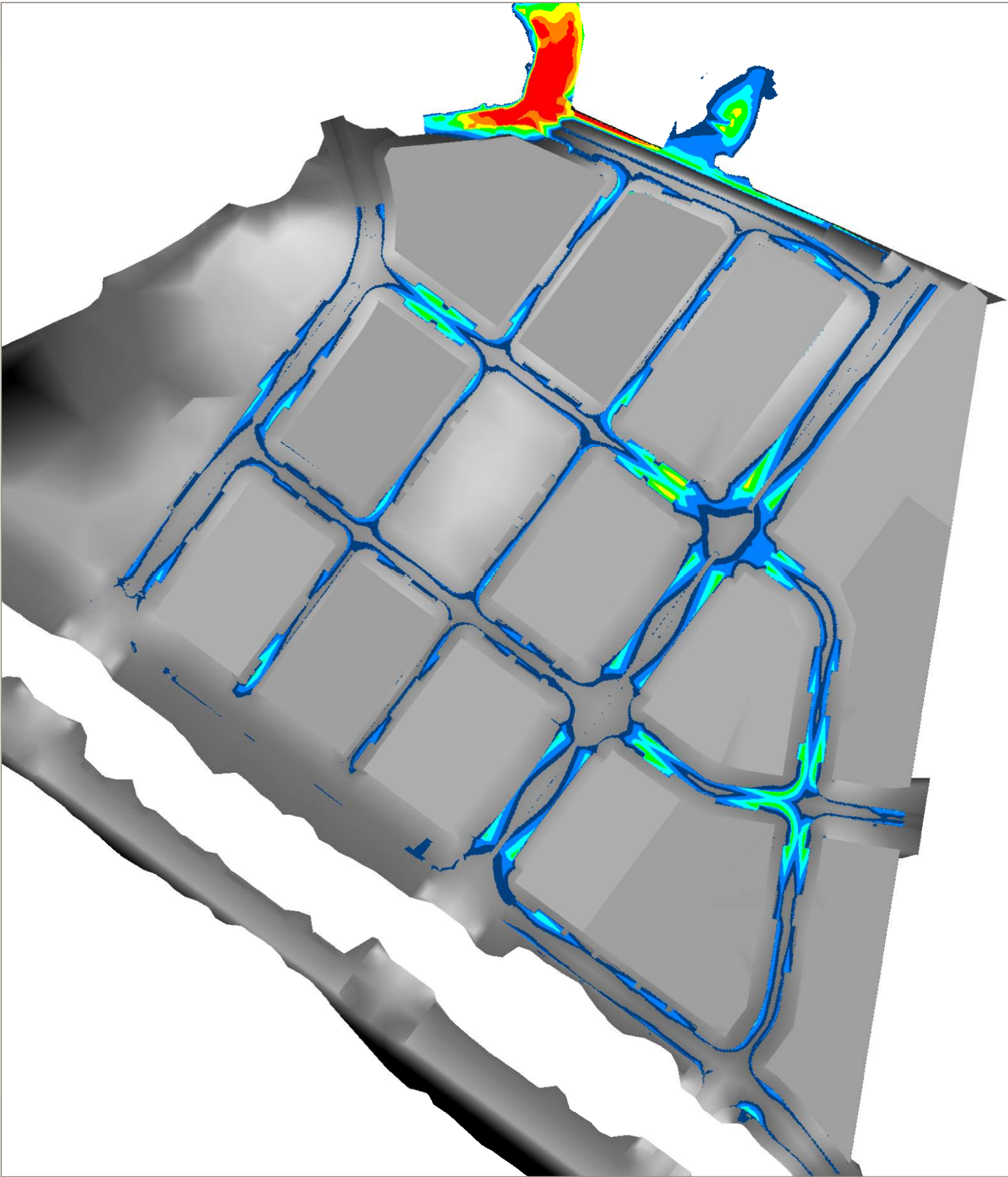


Cardno (QLD) Pty Ltd | ABN 57 051 074 992
Level 11, North Tower, 515 St Pauls Terrace
Locked Bag 4006, Fortitude Valley QLD 4006
Tel: 07 3369 9822 Fax: 07 3369 9722

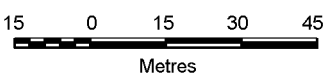
© 2014 Cardno (Qld) Pty Ltd All Rights Reserved. Copyright in the whole and every part of this drawing belongs to Cardno (Qld) Pty Ltd and may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or in or on any media to any person other than by agreement with Cardno (Qld) Pty Ltd.

This document is produced by Cardno (Qld) Pty Ltd solely for the benefit of and use by the client in accordance with the terms of the retainer. Cardno (Qld) Pty Ltd does not and shall not assume any responsibility or liability whatsoever to any third party arising out of any use or reliance by any third party on the content of this document.





Scale: 1:1,500



SHEET A3
Project No: 2492-02
Date: 30 October 2015
Revision Number:
Designed by:
Client Name: SunCentral Maroochydhore

Depth (m)

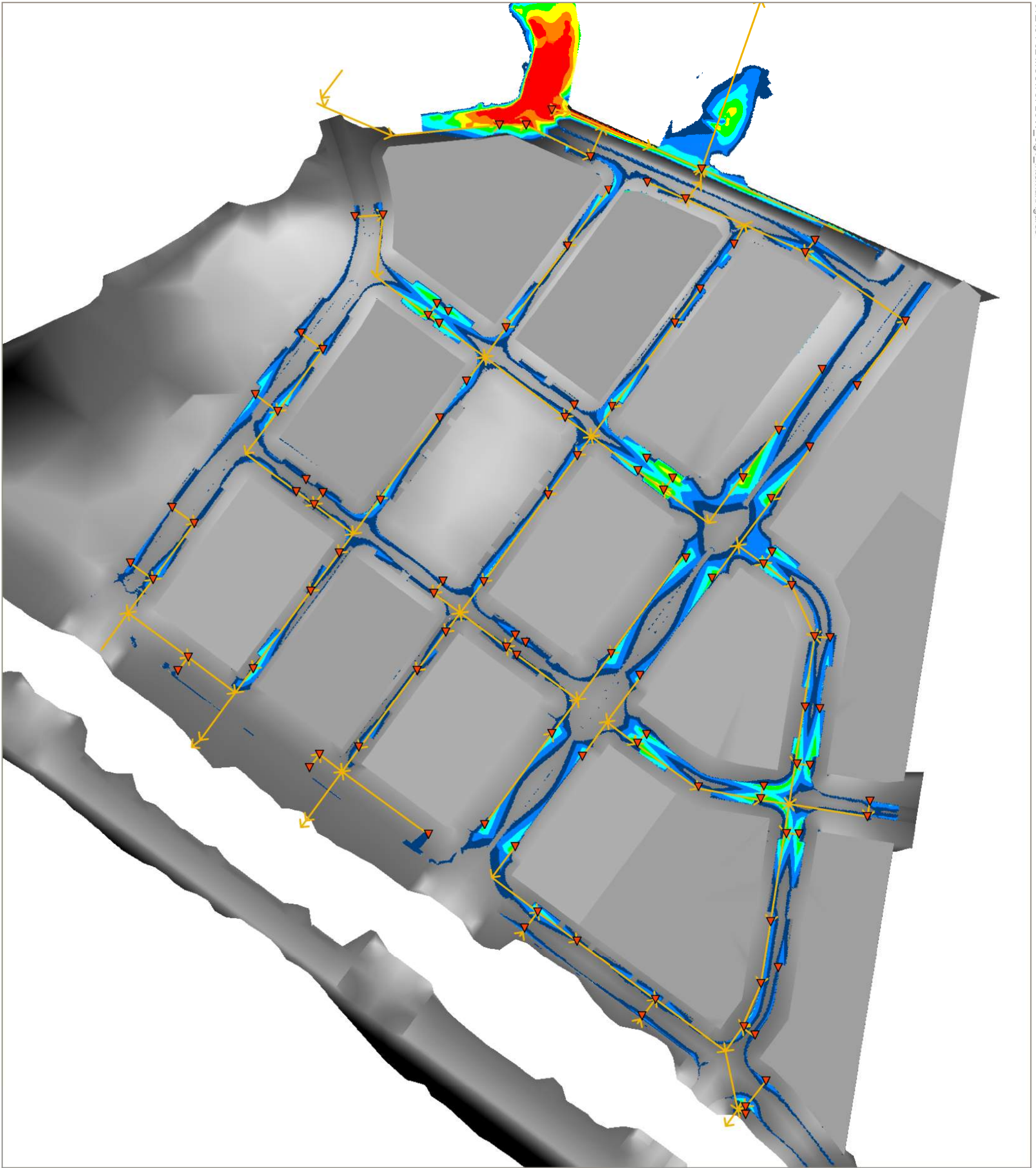
	0.00 to 0.01
	0.01 to 0.05
	0.05 to 0.10
	0.10 to 0.15
	0.15 to 0.20
	0.20 to 0.25
	0.25 to 0.30
	0.30 to 0.50

Figure 3

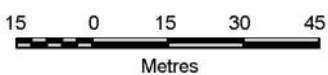
**1% AEP Design Peak Depth
with Climate Change**

Stage 1 Internal Drainage





Scale: 1:1,500



Depth (m)

0.00 to 0.01
0.01 to 0.05
0.05 to 0.10
0.10 to 0.15
0.15 to 0.20
0.20 to 0.25
0.25 to 0.30
0.30 to 0.50



Inlet Pits



Stormwater Drainage

Figure 4

**1% AEP Design Peak Depth
with Climate Change**

Stage 1 Internal Drainage

SHEET A3
Project No: 2492-02
Date: 30 October 2015
Revision Number:
Designed by:
Client Name: SunCentral Maroochydore



APPENDIX J

DIAL BEFORE YOU DIG



Caller Details

Contact: Jared Falkenhagen	Caller Id: 3056573	Phone: 0433 013 006
Company: WSP		
Address: 900 Ann Street Fortitude Valley QLD 4006	Email: jared.falkenhagen@wsp.com	

Dig Site and Enquiry Details

WARNING: The map below only displays the location of the proposed dig site and does not display any asset owners' pipe or cables. The area highlighted has been used only to identify the participating asset owners, who will send information to you directly.



User Reference:	PS125923	
Working on Behalf of:	Private	
Enquiry Date:	Start Date:	End Date:
08/08/2021	31/08/2021	11/09/2021

Address:
Lot 120 Islander Way
Maroochydore QLD 4558

Job Purpose:

Excavation

Location of Workplace:

Both

Onsite Activities:

Non-Destructive Digging

Location in Road:

Road, Nature Strip, Footpath

- Check that the location of the dig site is correct. If not you must submit a new enquiry.
- Should the scope of works change, or plan validity dates expire, you must submit a new enquiry.
- Do NOT dig without plans. Safe excavation is your responsibility. If you do not understand the plans or how to proceed safely, please contact the relevant asset owners.

Notes/Description of Works:

Not supplied

Your Responsibilities and Duty of Care

- The lodgement of an enquiry does not authorise the project to commence. You must obtain all necessary information from any and all likely impacted asset owners prior to excavation.
- If plans are not received within 2 working days, contact the asset owners directly & quote their Sequence No.
- ALWAYS perform an onsite inspection for the presence of assets. Should you require an onsite location, contact the asset owners directly. Please remember, plans do not detail the exact location of assets.
- Pothole to establish the exact location of all underground assets using a hand shovel, before using heavy machinery.
- Ensure you adhere to any State legislative requirements regarding Duty of Care and safe digging requirements.
- If you damage an underground asset you MUST advise the asset owner immediately.
- By using this service, you agree to Privacy Policy and the terms and disclaimers set out at www.1100.com.au
- For more information on safe excavation practices, visit www.1100.com.au

Asset Owner Details

The assets owners listed below have been requested to contact you with information about their asset locations within 2 working days. Additional time should be allowed for information issued by post. It is **your responsibility** to identify the presence of any underground assets in and around your proposed dig site. Please be aware, that not all asset owners are registered with the Dial Before You Dig service, so it is **your responsibility** to identify and contact any asset owners not listed here directly.

** Asset owners highlighted by asterisks ** require that you visit their offices to collect plans.

Asset owners highlighted with a hash # require that you call them to discuss your enquiry or to obtain plans.

Seq. No.	Authority Name	Phone	Status
201539400	Energex	13 12 53	NOTIFIED
201539402	Energex QLD	13 12 53	NOTIFIED
201539403	NBN Co Qld	1800 687 626	NOTIFIED
201539401	Sunshine Coast Regional Council	(07) 5475 8719	NOTIFIED
201539405	Telstra QLD South East	1800 653 935	NOTIFIED
201539404	Unitywater North	1300 086 489	NOTIFIED

END OF UTILITIES LIST

All underground cables shall be treated as being energised. Where a cable is located that is not represented on the ENERGEX DBYD map, then ENERGEX shall be contacted immediately.

For Emergency Situations
please call 13 19 62



DBYD

Sequence: 201539402

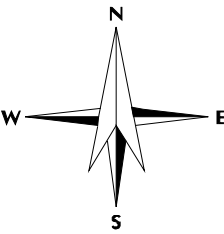
Date: 09/08/2021

Scale: 1:1025

OVERVIEW

- Cross Bonding Link Box
- Disconnect Box
- Ring Main Unit
- Distribution Pad Substation
- Distribution Ground Substation
- Earth
- Remote Earth
- Underground Warning Post
- Fibre Patch Panel/Pilot Cubicle
- Commercial Industrial Pillar
- Distribution Cabinet
- Link Pillar
- Service Pillar
- Pole
- Manhole
- Streetlight
- Handhole
- Communication Pillar
- Underground Cable below 33KV
- Underground Cable 33KV and above
- Pit
- Communication Boundary
- Red halo denotes "Proposed" Network

AS5488 Category "D" Plan



DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither Energex nor PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.

This output provides details of the ENERGEX electrical network. As variations map exist no responsibility is incurred by ENERGEX for the accuracy or completeness of the information provided. Exact positions of cables and electrical connectivity should be confirmed on site.

All underground cables shall be treated as being energised. Where a cable is located that is not represented on the ENERGEX DBYD map, then ENERGEX shall be contacted immediately.

For Emergency Situations
please call 13 19 62



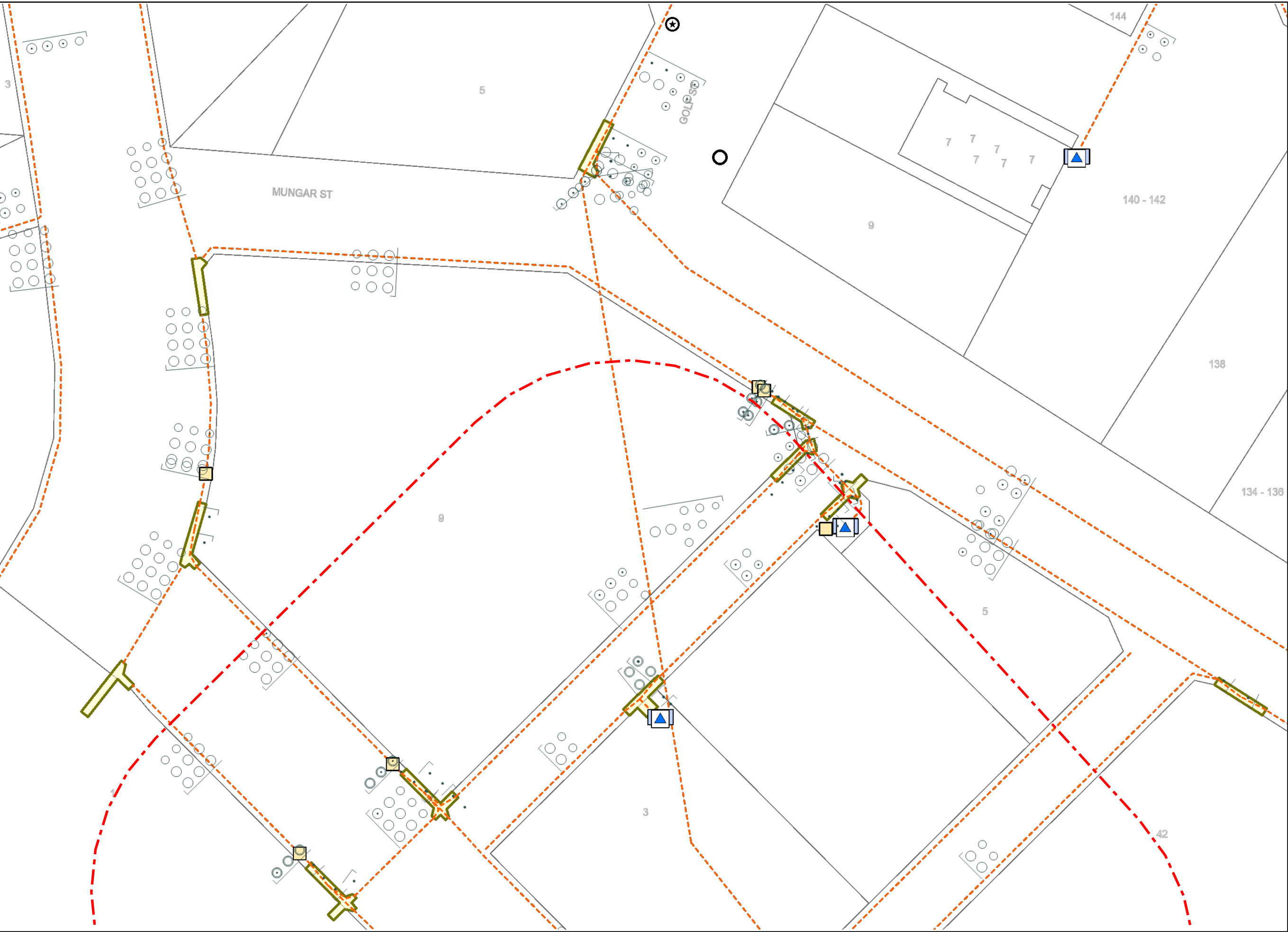
DBYD

Sequence: 201539402

Date: 09/08/2021

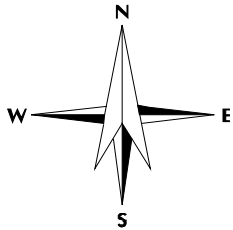
Scale: 1:500

Tile No: 1



- Cross Bonding Link Box
- Disconnect Box
- Ring Main Unit
- Distribution Pad Substation
- Distribution Ground Substation
- Earth
- Remote Earth
- Underground Warning Post
- Fibre Patch Panel/Pilot Cubicle
- Commercial Industrial Pillar
- Distribution Cabinet
- Link Pillar
- Service Pillar
- Pole
- Manhole
- Streetlight
- Handhole
- Communication Pillar
- Underground Cable below 33KV
- Underground Cable 33KV and above
- Pit
- Communication Boundary
- Red halo denotes "Proposed" Network

AS5488 Category "D" Plan



DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither Energex nor PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.

This output provides details of the ENERGEX electrical network. As variations map exist no responsibility is incurred by ENERGEX for the accuracy or completeness of the information provided. Exact positions of cables and electrical connectivity should be confirmed on site.

All underground cables shall be treated as being energised. Where a cable is located that is not represented on the ENERGEX DBYD map, then ENERGEX shall be contacted immediately.

For Emergency Situations
please call 13 19 62



DBYD

Sequence: 201539402

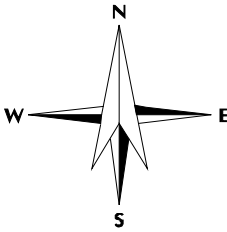
Date: 09/08/2021

Scale: 1:500

Tile No: 2

- Cross Bonding Link Box
- Disconnect Box
- Ring Main Unit
- Distribution Pad Substation
- Distribution Ground Substation
- Earth
- Remote Earth
- Underground Warning Post
- Fibre Patch Panel/Pilot Cubicle
- Commercial Industrial Pillar
- Distribution Cabinet
- Link Pillar
- Service Pillar
- Pole
- Manhole
- Streetlight
- Handhole
- Communication Pillar
- Underground Cable below 33KV
- Underground Cable 33KV and above
- Pit
- Communication Boundary
- Red halo denotes "Proposed" Network

AS5488 Category "D" Plan



DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither Energex nor PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.

This output provides details of the ENERGEX electrical network. As variations map exist no responsibility is incurred by ENERGEX for the accuracy or completeness of the information provided. Exact positions of cables and electrical connectivity should be confirmed on site.

DBYD terms and conditions

Duty of care for everyone



Responsibilities – (When Working in the Vicinity of Energex Electrical Equipment)

Extreme care must be taken during non-mechanical or mechanical excavation as damage to Energex underground electrical equipment can lead to injury or death of workers or members of the public. Electrical equipment includes underground cables, conduits and other associated underground electrical equipment used for controlling, generating, supplying, transforming or transmitting electricity.

A person conducting a business or undertaking (PCBU) must ensure the person's business or undertaking is conducted in a way that is electrically safe. This includes:

- a) ensuring that all electrical equipment used in the conduct of the person's business or undertaking is electrically safe;
- b) if the person's business or undertaking includes the performance of electrical work, ensuring the electrical safety of all persons and property likely to be affected by the electrical work; and
- c) if the person's business or undertaking includes the performance of work, whether or not electrical work, involving contact with, or being near to, exposed parts, ensuring persons performing the work are electrically safe.

In addition, a PCBU at a workplace must ensure, so far as is reasonably practicable, that no person, plant or thing at the workplace comes within an unsafe distance of an underground electric line.

Workers and other persons must also take reasonable care for their own and other person's electrical safety. This includes complying, so far as is reasonably able, with any reasonable instructions given by Energex to ensure compliance with the [Electrical Safety Act 2002](#)

DBYD terms and conditions

Duty of care for everyone

The following matters must be considered when working near Energex electrical equipment:

The PCBU must ensure, so far as is reasonably practicable, that no person, plant or thing at the workplace comes within an unsafe distance of an underground electric line (see section 68 of the [Electrical Safety Regulation 2013](#))

1. It is the responsibility of the architect, consulting engineer, developer, and head contractor in the project planning stages to design for minimal impact and protection of Energex electrical equipment.
2. It is the constructor's responsibility to:
 - a) Anticipate and request plans of Energex electrical equipment for a location at a reasonable time before construction begins.
 - b) Visually locate Energex electrical equipment by hand or vacuum excavation where construction activities may damage or interfere with Energex electrical equipment.
 - c) To notify Energex if the information provided is found to be not accurate or assets are found on site that are not recorded on the Energex DBYD plans.
 - d) Read and understand all the information and disclaimers provided.

Note: A constructor may include but not limited to a PCBU, Designer, Project Manager, Installer, Contractor or a Civil Contractor

3. Comply with applicable work health and safety and electrical safety codes of practice including but not limited to:
 - a) Working near overhead and underground electric lines – [Electrical safety codes of practice 2020](#)
 - b) Managing electrical risk in the workplace – [Electrical safety code of practice 2013](#)
 - c) Managing the risks of plant in the workplace – [Electrical safety code of practice 2013](#)
 - d) Excavation work – [Electrical safety code of practice 2013](#)

IMPORTANT NOTES:

- As the alignment and boundaries of roadways with other properties (and roads within roadways) frequently change, the alignments and boundaries contained within Energex plans and maps will frequently differ from present alignments and boundaries “on the ground”. Accordingly, in every case where it appears that alignments and boundaries have shifted, or new roadways have been added, the constructor should obtain confirmation of the actual position of Energex cables and pipelines under the roadways. In no case should the constructor rely on statements of third parties in relation to the position of Energex cables and pipelines. It is the applicant's responsibility to accurately locate all services as part of the design and/or prior to excavation.
- Energex does not provide information on private underground installations, including consumers' mains that may run from Energex mains onto private property. Assets located on private property are the responsibility of the owner for identification and location.
- Energex plans are circuit diagrams or pipe indication diagrams only and indicate the presence of plant in the general vicinity of the geographical area shown. Exact ground cover and alignments cannot be given with any certainty; as such levels can change over time.
- All underground conduits are presumed to contain asbestos. Refer to “Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018 (2005)] - https://www.safeworkaustralia.gov.au/system/files/documents/1702/codeofpracticeformanagementcontrolofasbestosintheworkplace_nohsc2018-2005
- Plans provided by Energex do not show the presence of any Overhead Network
- In addition to underground cables marked on attached plan there maybe underground Earth Conductors in the vicinity of the nominated work area(s) that are not marked on the plans.
- There may also be other buried assets such as tanks for fluid filled cables that do not appear on GIS plots but are shown on detailed as constructed drawings.
- Being aware of your obligations in [s 304] Excavation work— underground essential services information under the [Work Health and Safety Regulation 2011](#) , Chapter 6 Construction work, Part 6.3 Duties of person conducting business or undertaking. This includes but is not limited to taking reasonable steps to obtain the current information & providing this information to persons engaged to carry out the excavation work. For further information please refer to: - <http://www.legislation.qld.gov.au/LEGISLTN/SL/2011/11SL240.pdf>
- Energex plans are designed to be printed in colour and as an A4 Landscape orientation

DBYD terms and conditions

Duty of care for everyone

Conditions – (When Working in the Vicinity of Energex Electrical Equipment)

Records:

The first step before any excavation commences is to obtain records of Energex plant in the vicinity of the work. For new work, records should be obtained during the planning and design stage. The records provided by Energex must be made available to all construction groups on site. Where plant information is transferred to plans for the proposed work, care must be exercised to ensure that important detail is not lost in the process.

Plans and or details provided by Energex are current for four weeks from the date of dispatch and should be disposed of by shredding or any other secure disposal method after use. A new DBYD enquiry must be made for proposed works/activities to be undertaken outside of the four-week period.

Energex retains copyright of all plans and details provided in connection with your request. Energex plans or other details are provided for the use of the applicant, its servants, or agents, and shall not be used for any unauthorised purpose. On receipt of DBYD plans and before commencing excavation work or similar activities near Energex's plant, check to see that it relates to the area you have requested and carefully locate this plant first to avoid damage. If you are unclear about any information contained in the plan, please contact Energex on the General Enquiries number listed above for further advice.

Energex, its servants or agents shall not be liable for any loss or damage caused or occasioned by the use of plans and or details so supplied to the applicant, its servants and agents, and the applicant agrees to indemnify Energex against any claim or demand for any such loss or damage.

The constructor is responsible for all plant damages when works commence prior to obtaining Energex plans, or failure to follow agreed instructions, or failure to demonstrate all reasonable measures were taken to prevent the damage once plans were received from Energex. Energex reserves all rights to recover compensation for loss or damage caused by interference or damage, including consequential loss and damages to its cable network, or other property.

NOTE: Where your proposed work location contains Energex 33kV or greater Underground cables please access the [Energex Working Near Underground Cables 33kV or Higher web page](#) for more information.

Location of Cables:

Examining the records is not sufficient, as reference points may change from the time of installation. Records must also be physically proven when working in close proximity to them. The exact location of plant likely to be affected shall be confirmed by use of an electronic cable and pipe locator followed by **careful hand or vacuum excavation to the level of cable protection cover strips or conduits**. When conducting locations, please be aware that **no** unauthorised access is permitted to Energex Assets– including Pits, Low Voltage Disconnection Boxes, Low Voltage Pillars or High Voltage Link Boxes.

Hand or vacuum excavation must be used in advance of excavators. In any case, where any doubt exists with respect to interpretation of cable records, contact Energex on the General Enquires number listed above for further advice.

If the constructor is unable to locate Energex underground assets within 5 metres of nominal plan locations, they should contact the Energex General Enquires number listed above for further advice.

If unknown cables or conduits (i.e. not shown on issued DBYD plans) are located during excavation:

1. Call the ELECTRICITY EMERGENCIES number listed above
2. Treat cables as if alive, post a person to keep all others clear of the excavation until Energex crew attend to make safe.
3. All work in the vicinity of damaged plant should cease and the area should be vacated until a clearance to continue work has been obtained from an Energex officer.

Electrical Cable Installation Methods:

Energex cables are installed with a variety of protection devices including:

- | | |
|---|---------------------------------------|
| 1. Clay paving bricks or tiles marked "Electricity" or similar (also unmarked) | 2. Concrete or PVC cover slabs |
| 3. PVC, A/C or fibro conduit, fibre reinforced concrete, iron or steel pipe | 4. Concrete encased PVC or steel pipe |
| 5. Thin plastic marker tape | 6. Large pipes housing multiple ducts |
| 7. Multiple duct systems, including earthenware or concrete 2-, 4-, and 6-way ducts and shamrocks | |

Note: Some cables are known to be buried without covers and cables may change depth or alignment along the route.

Excavating Near Cables:

For all work within 2.5 m of nominal location, the constructor is required to hand or vacuum excavate (pothole) and expose the plant, hence proving its exact location before work can commence.

Cable protection cover strips shall not be disturbed. Excavation below these cover strips, or into the surrounding backfill material is not permitted.

DBYD terms and conditions

Duty of care for everyone

Excavating Parallel to Cables:

If construction work is parallel to Energex cables, then hand or vacuum excavation (potholing) at least every 4 m is required to establish the location of all cables, hence confirming nominal locations before work can commence. *Generally, there is no restriction to excavations parallel to Energex cables to a depth not exceeding that of the cable. **Note: Cable depths & alignment may change suddenly.***

Separation from Cables:

Any service(s) must be located at the minimum separation as per the tables below:

Table 1. Minimum Separation Requirements for Underground Services Running Parallel with Energex Assets

(Minimum Separation required in mm)							
Voltage Level	Gas	Communication or TV	Water		Sanitary drainage		Storm Water
			≤DN 200	>DN200	≤DN 200	>DN 200	
LV	250	100	500	*1000	500	1000	500
HV		300					
*Contact Energex/council to obtain specific separation distances							

Table 2. Minimum Separation Requirements for Underground Services Crossing Energex Assets

(Minimum Separation required in mm)					
Voltage Level	Gas	Communication or TV	Water	Sanitary drainage	Storm Water
LV & HV	100	100	300	300	100

Where the above table does not list a separation requirement for a particular underground service then 300mm shall be used.

Excavating Across Cables:

The standard clearance between services shall be maintained as set down in Table 2 above. If the width or depth of the excavation is such that the cables will be exposed or unsupported, then Energex shall be contacted to determine whether the cables should be taken out of service, or whether they need to be protected or supported. In no case shall a cable cover be removed without approval. A cable cover may only be removed under the supervision of an Energex authorised representative. Protective cover strips when removed must be replaced under Energex supervision. Under no circumstances shall they be omitted to allow separation between Energex cables and other services.

Heavy Machinery Operation Over Cables:

Where heavy "Crawler" or "Vibration" type machinery is operated over the top of cables, a minimum cover of 450 mm to the cable protective cover mains must be maintained using load bearing protection whilst the machinery is in operation. For sensitive cables (i.e. 33 and 110kV fluid and gas filled cables), there may be additional constraints placed on vibration and settlement by Energex.

Directional Boring Near Cables:

When boring parallel to cables, it is essential that trial holes are carefully hand or vacuum excavated at regular intervals to prove the actual location of the conduits/cables before using boring machinery. Where it is required to bore across the line of cables, the actual location of the cables shall first be proven by hand or vacuum excavation. A trench shall be excavated one metre from the side of the cables where the auger will approach to ensure a minimum clearance of 500mm above and below all LV, 11kV, 33kV & 110/132kV cables shall be maintained.

Explosives:

Explosives must not be used within 10 metres of cables, unless an engineering report is provided indicating that no damage will be sustained. Clearances should be obtained from Energex's Planning Engineer for use of explosives in the vicinity of Energex cables.

Damage Reporting:

All damage to cables, conduits and pipes must be reported no matter how insignificant the damage appears to be. Even very minor damage to cable protective coverings can lead to eventual failure of cables through corrosion of metal sheaths and moisture ingress.

If any Damaged conductor is found:

1. Call the ELECTRICITY EMERGENCIES number listed above
2. Treat cables as if alive, post a person to keep all others clear of the excavation until Energex crew attend to make safe.
3. All work in the vicinity of damaged plant should cease and the area should be vacated until a clearance to continue work has been obtained from an Energex officer.

DBYD terms and conditions

Duty of care for everyone

Plant Solutions and Assistance:

If plant location plans or visual location of Energex plant by hand or vacuum excavation reveals that the location of Energex plant is situated wholly or partly where the developer or constructor plans to work, then Energex shall be contacted to assist with your development of possible engineering solutions.

If Energex relocation or protection works are part of the agreed solution, then payment to Energex for the cost of this work shall be the responsibility of the principal developer or constructor. Energex will provide an estimated quotation for work on receipt of the developer's or constructor's order number before work proceeds.

It will be necessary for the developer or constructor to provide Energex with a written Work Method Statement for all works in the vicinity of or involving Energex plant. This Work Method Statement should form part of the tendering documentation and work instruction.

Vacuum Excavations (Hydro Vac)

When operating hydro vac equipment to excavate in vicinity of underground electrical assets (cables/conduits):

Fitted with:

- Nonconductive (neoprene rubber or equivalent) vacuum (suction) hose.
- Oscillating nozzle on pressure wand with water pressure adjusted to not exceeding 2000 psi.

Maintain a minimum distance of 200mm between end of pressure wand and underground electrical assets. DO NOT insert the pressure wand jet directly into subsoil.

Ensure pressure wand is not directly aimed at underground electrical assets (cables/conduits).

Safety Notices (Underground Work)

There is no exclusion zone applicable for underground electrical assets – conduits, cables (unless cable is damaged, or conductors or terminations have been exposed) therefore there is **no requirement for a written Safety Advice** to be obtained provided the work location does not contain overhead electric lines or other exposed live parts.

Further information on Working Safely around Energex assets:

https://www.energex.com.au/_data/assets/pdf_file/0010/211231/Working-near-OH-UG-lines-BS001405R107ver2.pdf

Thank you for your interest in maintaining a safe and secure Electricity Distribution network. Energex welcomes your feedback on this document via email to dbyd@energex.com.au.

General enquiries (7:00am - 5:30pm Mon to Fri)	13 12 53
DBYD enquiries (7:00am - 3:30pm Mon to Fri)	(07) 3664 5400
Life threatening emergencies only triple zero (000) or	13 19 62

E: custserve@energex.com.au

E: dbyd@energex.com.au

W: energex.com.au/lualmap

ABN: 40 078 849 055

To re-submit or change the nominated search area please visit www.1100.com.au



To: Jared Falkenhagen
Phone: Not Supplied
Fax: Not Supplied
Email: jared.falkenhagen@wsp.com

Dial before you dig Job #:	30265184	
Sequence #	201539403	
Issue Date:	08/08/2021	
Location:	Lot 120 Islander Way , Maroochydore , QLD , 4558	

Information

The area of interest requested by you contains one or more assets.

nbn™ Assets	Search Results
Communications	Asset identified
Electricity	No assets

In this notice **nbn™ Facilities** means *underground fibre optic, telecommunications and/or power facilities, including but not limited to cables, owned and controlled by nbn™*

Location of nbn™ Underground Assets

We thank you for your enquiry. In relation to your enquiry at the above address:

- **nbn's** records indicate that there **ARE nbn™** Facilities in the vicinity of the location identified above ("Location").
- **nbn** indicative plan/s are attached with this notice ("Indicative Plans").
- The Indicative Plan/s show general depth and alignment information only and are not an exact, scale or accurate depiction of the location, depth and alignment of **nbn™** Facilities shown on the Plan/s.
- In particular, the fact that the Indicative Plans show that a facility is installed in a straight line, or at uniform depth along its length cannot be relied upon as evidence that the facility is, in fact, installed in a straight line or at uniform depth.
- You should read the Indicative Plans in conjunction with this notice and in particular, the notes below.
- You should note that, at the present time, the Indicative Plans are likely to be more accurate in showing location of fibre optics and telecommunications cables than power cables. There may be a variation between the line depicted on the Indicative Plans and the location of any power cables. As such, consistent with the notes below, particular care must be taken by you to make your own enquiries and investigations to precisely locate any power cables and manage the risk arising from such cables accordingly.
- The information contained in the Indicative Plan/s is valid for 28 days from the date of issue set out above. You are expected to make your own inquiries and perform your own investigations (including engaging appropriately qualified plant locators, e.g DBYD Certified Locators, at your cost to locate **nbn™**

Facilities during any activities you carry out on site).

We thank you for your enquiry and appreciate your continued use of the Dial Before You Dig Service. For any enquiries related to moving assets or Planning and Design activities, please visit the **nbn** [Commercial Works](#) website to complete the online application form. If you are planning to excavate and require further information, please email dbyd@nbnco.com.au or call 1800 626 329.

Notes:

1. You are now aware that there are **nbn**TM Facilities in the vicinity of the above property that could be damaged as a result activities carried out (or proposed to be carried out) by you in the vicinity of the Location.
2. You should have regard to section 474.6 and 474.7 of the *Criminal Code Act 1995* (CoA) which deals with the consequences of interfering or tampering with a telecommunications facility. Only persons authorised by **nbn** can interact with **nbn's** network facilities.
3. Any information provided is valid only for **28 days** from the date of issue set out above.

Referral Conditions

The following are conditions on which **nbn** provides you with the Indicative Plans. By accepting the plans, you are agreeing to these conditions. These conditions are in addition, and not in replacement of, any duties and obligations you have under applicable law.

1. **nbn** does not accept any responsibility for any inaccuracies of its plans including the Indicative Plans. You are expected to make your own inquiries and perform your own investigations (including engaging appropriately qualified plant locators, e.g DBYD Certified Locators, at your cost to locate **nbn**TM Facilities during any activities you carry out on site).
2. You acknowledge that **nbn** has specifically notified you above that the Indicative Plans are likely to be more accurate in showing location of fibre optics and telecommunications cables than power cables. There may be a variation between the line depicted on the Indicative Plans and the location of any power cables.
3. You should not assume that **nbn**TM Facilities follow straight lines or are installed at uniformed depths along their lengths, even if they are indicated on plans provided to you. Careful onsite investigations are essential to locate the exact position of cables.
4. In carrying out any works in the vicinity of **nbn**TM Facilities, you must maintain the following minimum clearances:
 - 300mm when laying assets inline, horizontally or vertically.
 - 500mm when operating vibrating equipment, for example: jackhammers or vibrating plates.
 - 1000mm when operating mechanical excavators.
 - Adherence to clearances as directed by other asset owner's instructions and take into account any uncertainty for power cables.
5. You are aware that there are inherent risks and dangers associated with carrying out work in the vicinity of underground facilities (such as **nbn**TM fibre optic, copper and coaxial cables, and power cable feed to **nbn**TM assets). Damage to underground electric cables may result in:
 - Injury from electric shock or severe burns, with the possibility of death.
 - Interruption of the electricity supply to wide areas of the city.
 - Damage to your excavating plant.
 - Responsibility for the cost of repairs.
6. You must take all reasonable precautions to avoid damaging **nbn**TM Facilities. These precautions may include but not limited to the following:
 - All excavation sites should be examined for underground cables by careful hand excavation. Cable cover slabs if present must not be disturbed. Hand excavation needs to be undertaken with extreme care to minimise the likelihood of damage to the cable, for example: the blades of hand equipment should be aligned parallel to the line of the cable rather than digging across the cable.
 - If any undisclosed underground cables are located, notify **nbn** immediately.

- All personnel must be properly briefed, particularly those associated with the use of earth-moving equipment, trenching, boring and pneumatic equipment.
 - The safety of the public and other workers must be ensured.
 - All excavations must be undertaken in accordance with all relevant legislation and regulations.
7. You will be responsible for all damage to **nbn**TM Facilities that are connected whether directly, or indirectly with work you carry out (or work that is carried out for you or on your behalf) at the Location. This will include, without limitation, all losses expenses incurred by **nbn** as a result of any such damage.
 8. You must immediately report any damage to the **nbn**TM network that you are/become aware of. Notification may be by telephone - 1800 626 329.
 9. Except to the extent that liability may not be capable of lawful exclusion, **nbn** and its servants and agents and the related bodies corporate of **nbn** and their servants and agents shall be under no liability whatsoever to any person for any loss or damage (including indirect or consequential loss or damage) however caused (including, without limitation, breach of contract negligence and/or breach of statute) which may be suffered or incurred from or in connection with this information sheet or any plans (including Indicative Plans) attached hereto. Except as expressly provided to the contrary in this information sheet or the attached plans (including Indicative Plans), all terms, conditions, warranties, undertakings or representations (whether expressed or implied) are excluded to the fullest extent permitted by law.

All works undertaken shall be in accordance with all relevant legislations, acts and regulations applicable to the particular state or territory of the Location. The following table lists all relevant documents that shall be considered and adhered to.

State/Territory	Documents
National	Work Health and Safety Act 2011
	Work Health and Safety Regulations 2011
	Safe Work Australia - Working in the Vicinity of Overhead and Underground Electric Lines (Draft)
	Occupational Health and Safety Act 1991
NSW	Electricity Supply Act 1995
	Work Cover NSW - Work Near Underground Assets Guide
	Work Cover NSW - Excavation Work: Code of Practice
VIC	Electricity Safety Act 1998
	Electricity Safety (Network Asset) Regulations 1999
QLD	Electrical Safety Act 2002
	Code of Practice for Working Near Exposed Live Parts
SA	Electricity Act 1996
TAS	Tasmanian Electricity Supply Industry Act 1995
WA	Electricity Act 1945
	Electricity Regulations 1947
NT	Electricity Reform Act 2005
	Electricity Reform (Safety and Technical) Regulations 2005
ACT	Electricity Act 1971

Thank You,

nbn DBYD

Date: 08/08/2021

This document is provided for information purposes only. This document is subject to the information classification set out on this page. If no information classification has been included, this document must be treated as UNCLASSIFIED, SENSITIVE and must not be disclosed other than with the consent of nbn co. The recipient (including third parties) must make and rely on their own inquiries as to the currency, accuracy and completeness of the information contained herein and must not use this document other than with the consent of nbn co.

Copyright © 2021 nbn co Limited. All rights reserved.

To: Jared Falkenhagen
Phone: Not Supplied
Fax: Not Supplied
Email: jared.falkenhagen@wsp.com

Dial before you dig Job #:	30265184	 DIAL BEFORE YOU DIG www.1100.com.au
Sequence #	201539403	
Issue Date:	08/08/2021	
Location:	Lot 120 Islander Way , Maroochydore , QLD , 4558	

Indicative Plans



LEGEND



	Parcel and the location
	Pit with size "5"
	Power Pit with size "2E". Valid PIT Size: e.g. 2E, 5E, 6E, 8E, 9E, E, null.
	Manhole
	Pillar
	Cable count of trench is 2. One "Other size" PVC conduit (PO) owned by Telstra (-T-), between pits of sizes, "5" and "9" are 25.0m apart. One 40mm PVC conduit (P40) owned by NBN, between pits of sizes, "5" and "9" are 20.0m apart.
	2 Direct buried cables between pits of sizes, "5" and "9" are 10.0m apart.
	Trench containing any INSERVICE/CONSTRUCTED (Copper/RF/Fibre) cables.
	Trench containing only DESIGNED/PLANNED (Copper/RF/Fibre/Power) cables.
	Trench containing any INSERVICE/CONSTRUCTED (Power) cables.
	Road and the street name "Broadway ST"
Scale	0 20 40 60 Meters 1:2000 1 cm equals 20 m



You must immediately report any damage to the **nbn™** network that you are/become aware of. Notification may be by telephone - 1800 626 329.

DUTY OF CARE



TELSTRA CORPORATION ACN 051 775 556

IMPORTANT:

When working in the vicinity of telecommunications plant you have a "Duty of Care" that must be observed. Please read and understand all the information and disclaimers provided below.

Telstra network is complex and requires expert knowledge to interpret information, to identify and locate components, to pothole underground assets for validation and to safely work around assets without causing damage. If you are not an expert and/or qualified in these areas, then you must not attempt these activities. Telstra will seek compensation for damages caused to its property and losses caused to Telstra and its customers. The 5 P's to prevent damage to Telstra assets are listed below. Construction activities and/or any activities that potentially may impact on Telstra's assets must not commence without first undertaking these steps. Construction activities can include anything that involves breaking ground, potentially affecting Telstra assets.

If you are designing a project it is recommended that you also undertake these steps to validate underground assets prior to committing to your design.

All damages to Telstra Network must be reported immediately

- Call **13 22 03** Say "Damages" at the voice prompt, then press 1 to speak to an Operator
- Or report online
<https://service.telstra.com.au/customer/general/forms/report-damage-to-telstra-equipment>

(The following pages contain more detail on each step below and the contact details to seek further advice. AS5488-2013 is the Australian Standard for the Classification of Subsurface Utility Information.)

1 PLAN:

The essential first step in preventing damage -

You must have current Telstra plans via the DBYD process. Telstra advises that the accuracy of the information provided by Telstra conforms to Quality Level D as defined in AS5488-2013. This means the information is indicative only, not a precise location. **The actual location may differ substantially from that shown on the plans** - refer to steps 2 & 3 to determine actual location prior to proceeding with construction.

2 PREPARE:

The essential second step in preventing damage -

Engage a Telstra Accredited Plant Locator. To be able to trace and identify individual subsurface cables and ducts requires access to Telstra pits and manholes. Only a Telstra Accredited Plant Locator (TAPL) is authorised to access Telstra network for locating purposes. A TAPL can interpret plans, validate visible assets and access pits and manholes to undertake electronic detection of underground assets prior to further validation. All Telstra assets must be located, validated and protected prior to commencing construction. **If you are not authorised to do so by Telstra, you must not access Telstra network or locate Telstra network.** All Telstra Accredited Plant Locators are required to have DBYD Locator Certification.

3 POTHOLE:

The essential third step in preventing damage -

All Telstra assets must be positively identified (i.e. validated), by physically sighting them. For underground assets this can be done by potholing by hand or using non-destructive vacuum extraction methods (Refer to 'validation' as defined in AS5488-2013 QL-A). **Underground assets located by electronic detection alone (step 2), are not deemed to be 'validated' and must not be used for construction purposes.** Some TAPL's can assist with non-destructive potholing for validation purposes. **If you cannot validate the Telstra network, you must not proceed with construction.** Telstra will seek compensation for damages caused to its property and losses caused to Telstra and its customers.

4 PROTECT:

The essential fourth step in preventing damage -

Telstra assets must be protected to avoid damage from construction activities. Minimum working distances around Telstra network must be maintained. These distances are provided in this document. Telstra can also provide advice and assistance in regards to protection – refer to the following pages.

5 PROCEED:

Only proceed when the above steps have been completed.

STEP 1 - PLAN

Dial Before You Dig / Telstra Plans

The actual location of Telstra assets may differ substantially from that shown on the plans. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for the accuracy shown on the plans. Steps 2 and 3 must also be undertaken to determine actual location of network.

- Telstra DBYD plans are not suitable for displaying Telstra network within a Telstra exchange site. For advice on Telstra network within a Telstra exchange site contact Telstra Plan Service on 1800 653 935.
- Telstra owns and retains the copyright in all plans and details provided in conjunction with the applicant's request. The applicant is authorised to use the plans and details only for the purpose indicated in the applicant's request. The applicant must not use the plans or details for any other purpose.
- Telstra plans or other details are provided only for the use of the applicant, its servants, agents or Telstra Accredited Plant Locators. The applicant must not give the plans or details to any parties other than these, and must not generate profit from commercialising the plans or details.
- Please contact Telstra Plan Services immediately should you locate Telstra assets not indicated on these plans.
- Telstra, its servants or agents shall not be liable for any loss or damage caused or occasioned by the use of plans and or details so supplied to the applicant, its servants and agents, and the applicant agrees to indemnify Telstra against any claim or demand for any such loss or damage.
- Please ensure Telstra plans and information provided remains on-site at all times throughout the inspection, location and construction phase of any works.
- Telstra plans are valid for 60 days after issue and must be replaced if required after the 60 days.
- **Emergency situations - receiving Telstra plans** Telstra's automated mapping system (TAMS) will provide a fast response for emergency situations (faster than an operator can provide manually via a phone call - see below for fast response requirements). Automated responses are normally available 24/7.

To receive a fast automated response from Telstra your request must -

- Be a web request lodged at DBYD (www.1100.com.au). The request will be then forwarded to Telstra.
 - Contain your current email address so you can receive the automated email response.
 - Be for the purposes of 'mechanical excavation' or other ground breaking DBYD activity. (Requests with activity types such as conveyancing, planning & design or other non-digging activities may not be responded to until the next business day).
 - Be for an area less than 350 metres in size to obtain a PDF map (over 350 metres will default to DWF due to size) this does not include congested CBD areas where only DWF may be supplied.
 - Be for an area less than 2500 metres in size to obtain a DWF map (CBD's less)
- **Data Extraction Fees.** In some instances a data extraction fee may be applicable for the supply of Telstra information. Typically a data extraction fee may apply to large projects, planning and design requests or requests to be supplied in non-standard formats. For further details contact Telstra Plan Services.
 - **Electronic plans - PDF and DWF maps** If you have received Telstra maps via email you will have received the maps as either a PDF file (for smaller areas) or DWF file (for larger area requests). All requests over approximately *350m or in congested CBD areas can only be supplied in DWF format. There are size limits on what can be provided. (* actual size depends on geographic location of requested area). If you are unable to launch any one of the softcopy files for viewing and printing, you may need to download and install one or more of the free viewing and printing products such as Adobe Acrobat Reader (for PDF files) or Autodesk Design Review (for DWF files) available from the internet

- **Pdf files** - PDF is the default softcopy format for all requests for areas up to approx *350m in length. (*depends on geographic location of request). The PDF file is nominally formatted to A3 portrait sheet however it can be printed on any size sheet that your printer supports, e.g. either as the full sheet or selected areas to suit needs and legibility. (to print a selected area zoom up and print 'current view') If there are multiple layers of Telstra network you may receive up to 2 sheets in the single PDF file attachment supplied. There are three types or layers of network normally recorded - local network, mains cables or a combined layer of local and mains (usually displayed for rural or semi-rural areas). If mains cable network is present in addition to local cables (i.e. as separate layer in a particular area), the mains will be shown on a separate sheet. The mains cable information should be read in conjunction with the local cable information.
- **DWF files** – DWF is the default softcopy format for all requests for areas that are over 350m in length. Maximum length for a DWF automated response is approx 2500m - depending on geographic location of request (manually-processed plans may provide larger coverage). The DWF files differ from PDF in that DWF are vector files made up of layers that can be turned on or off and are not formatted to a specific sheet size. This makes them ideal for larger areas and for transmitting electronically.
 - **How to view Telstra DWF files –**
Telstra DWF files come with all layers turned on. You may need to turn individual layers on or off for viewing and printing clarity. Individual layer names are CC (main cable/conduit), DA (distribution area network) and sometimes a combined layer - CAC. Layer details can be viewed by either picking off the side menu or by selecting 'window' then 'layers' off the top menu bar. Use 'layers' to turn individual layers off or on (double click or right click on layer icon).
 - **How to print Telstra DWF files –**
DWF files can be printed on any size sheet – either their entirety or by selected areas of interest. Some DWF coverage areas are large and are not suited to printing legibly on a single A4 sheet - you may need several prints if you only have an A4 printer. Alternatively, an A3, A1 or larger printer could be used. To print, zoom in or out and then, by changing the 'print range' settings, you can print what is displayed on your screen to suit your paper size. If you only have a small printer, e.g. A4, you may need to zoom until the text is legible for printing (which is why you may need several prints). To print what is displayed on your screen the 'view' setting should be changed from 'full page' to 'current view'. The 'current sheet' setting should also be selected. You may need to print layers separately for clarity and legibility. (Details above on how to turn layers on or off)
 - **How to change the background colour from white to black (when viewing) Telstra DWF files –**
If using Autodesk Design Review the background colour can be changed by selecting 'Tools' then 'options' then 'sheet'. Tick the box 'override published paper colours' and select the colour required using the tab provided.

STEP 2 – PREPARE

Telstra Accredited Plant Locator (TAPL):

Utilising a TAPL is an essential part of the process to identify network and to trace subsurface network prior to validating. A TAPL can provide plan interpretation, identification and electronic detection. This will assist in determining the position of subsurface assets prior to potholing (validating). Some TAPL's can also assist in validating underground detected network. Electronic detection is only an indication of the existence of underground network and can be subject to interference from other services and local conditions. Electronic detection must not be used solely to determine location for construction purposes. The electronic (indicative) subsurface measurements must be proven by physically sighting the asset (see step 3 – Pothole).

- All TAPL's locating Telstra network must be able to produce a current photo ID card issued by Telstra. A list of TAPL's is provided with the Telstra Dial Before You Dig plans.
- All TAPL's in addition to the Telstra photo ID card must also have current DBYD Locator Certification with ID card.

- Telstra does not permit external parties (non-Telstra) to access or conduct work on Telstra network. Only Telstra staff, Telstra contractors or locators whom are correctly accredited are authorised to work on or access Telstra manholes, pits, ducts, cables etc. This is for safety as well as for legal reasons.
- The details of any contract, agreement or retainer for site assistance to locate telecommunications plant shall be for you to decide and agree with the Telstra Accredited Plant Locator engaged. Telstra is not a party to any contract entered into between you and a Telstra Accredited Plant Locator.
- Payment for the site assistance will be your responsibility and payment details must be agreed before the engagement is confirmed.
- Telstra does not accept any liability or responsibility for the performance of or advice given by a Telstra Accredited Plant Locator. Accreditation is an initiative taken by Telstra towards the establishment and maintenance of competency standards. However, performance and the advice given will always depend on the nature of the individual engagement.
- Neither the Telstra Accredited Plant Locator nor any of its employees are an employee or agent for Telstra. Telstra is not liable for any damage or loss caused by the Telstra Accredited Plant Locator or its employees.

• **Electronically derived subsurface measurements (e.g. depths/alignments by locating devices)**

All locator provided measurements for Telstra assets must have the AS5488-2013 quality level specified - (e.g. QL-A, B, C or D). These quality levels define the accuracy of subsurface information and are critical for determining how the information is later used – for example if suitable for excavation purposes.

1) An example of a subsurface measurement with no quality level specified – (i.e. not to be used)

Telstra cover - 0.9m

*The measurement above has no AS5488-2013 quality level specified and **must not be provided by a locator or used for design or construction.** This is because it is not known whether the measurement is actual or derived (where 'actual' means validated and 'derived' means assumed and not validated, e.g. electronic or other). Typically damages occur by constructors incorrectly using unvalidated measurements as actual measurements.*

2) An example of a subsurface measurement with quality level B specified –

Telstra cover - 0.9m (QL-B)

Where (QL-B) complies with AS5488-2013 QL-B (for example an electronic location that complies with QL-B)

(Note QL-B means it has not been validated and must not be used for construction purposes around Telstra network, however it would assist further investigation to determine the actual location)

3) An example of a subsurface measurement with the quality level A specified –

Telstra cover - 0.6m (QL-A)

Where (QL-A) complies with AS5488-2013 QL-A (and is deemed suitable for excavation purposes). In this example the asset has been electronically located first, (QL-B) and then physically exposed (QL-A).

Note -Telstra will seek compensation for damages caused to its property and losses caused to Telstra and its customers if unvalidated subsurface measurements are used for construction and subsequently result in damage to Telstra assets. Only measurements conforming to AS5488-2013 (QL-A) are deemed by Telstra to be validated measurements.

- **Rural landowners - Rural Locations Subsidy Scheme** Where Telstra-owned cable crosses agricultural land, Telstra may provide on-site assistance with cable location. **You must contact Telstra Plan Services to determine eligibility and to request the service.**

Please note the following –

- If eligible, the location assistance must be approved and organised by Telstra. Telstra will not pay for a location that has not been approved and facilitated by Telstra (Telstra is not responsible for payment assistance when a customer engages a locator directly).
- Telstra will only “subsidise” the location up to \$330 (Incl. GST). This will cover one hour on-site location only, private lead-in locations are for lead-ins 100m or longer. Any time required in addition to Telstra-funded time can be purchased directly from the assigned Telstra Accredited Plant Locator.
- This service does NOT include the use Mechanical Aids or Hydro Excavation (Vac Trucks) to locate and should be discussed between the Accredited Plant Locator and the private rural landowner
- The exact location, including depth of cables, must be validated by potholing, which may not be covered by this service.

- This service is nominally only available to assist private rural land owners.
- This service nominally covers one hour on-site only, private lead-in locations are for lead-ins 100m or longer. Any time required in addition to Telstra-funded time can be purchased directly from the assigned Telstra Accredited Plant Locator.
- This service does not apply to previously located network at the same location (i.e. it is a once off).
- This service does not apply to other carriers' cables (marked as 'OC' on Telstra plans).

STEP 3 – POTHOLE

Validation as defined in AS5488-2013 (QL-A).

After utilising a Telstra Accredited Plant Locator and prior to commencing construction, any electronically detected underground network must be positively identified (validated) by physically sighting it. This can be done by careful hand digging or using non-destructive water jet methods to expose the network.

Manual potholing needs to be undertaken with extreme care and by employing techniques least likely to damage cables. For example, align shovel blades and trowels parallel to the cable rather than digging across the cable. Some Telstra Accredited Plant Locators are able to provide or assist with non-destructive potholing methods to enable validation of underground cables and ducts.

If you cannot validate the underground network then you must not proceed with construction. Telstra will seek compensation for damages caused to its property and losses caused to Telstra and its customers.

Important note: *The construction of Telstra's network dates back over many years. Some of Telstra's pits and ducts were manufactured from asbestos-containing cement. You must take care in conducting any works in the vicinity of Telstra's pits and ducts. You must refrain from in any way disturbing or damaging Telstra's network infrastructure when conducting your works. We recommend that before you conduct any works in the vicinity of Telstra infrastructure that you ensure your processes and procedures eliminate any possibility of disturbing, damaging or interfering in any way with Telstra's infrastructure. Your processes and procedures should incorporate appropriate measures having regard to the nature of this risk. For further information -*

<https://www.telstra.com.au/consumer-advice/digging-construction/relocating-network-assets>

STEP 4 – Protect:

You must maintain the following minimum clearance distances between construction activity and the validated position of Telstra plant.

Jackhammers/Pneumatic Breakers	<i>Not within 1.0m of actual validated location.</i>
Vibrating Plate or Wacker Packer Compactor	<i>Not within 0.5m of actual validated location of Telstra ducts. 300mm compact clearance cover before compactor can be used across Telstra ducts.</i>
Boring Equipment (in-line, horizontal and vertical)	<i>Not within 2.0m of actual validated location. Constructor to hand dig or use non-destructive water jet method (pothole) and expose plant.</i>
Heavy Vehicle Traffic (over 3 tonnes)	<i>Not to be driven across Telstra ducts (or plant) with less than 600mm cover. Constructor to check actual depth via hand digging.</i>
Mechanical Excavators, Farm ploughing and Tree Removal	<i>Not within 1.0m of actual validated location. Constructor to hand dig or use non-destructive water jet method (pot-hole) and expose plant.</i>

- For blasting or controlled fire burning please contact Telstra Plan Services.
- If conducting roadworks all existing Telstra pits and manholes must be a minimum of 1.2m in from the back of kerb after the completion of your work.
- After the completion of any ground work in footways or roadway whereby the existing levels are being changed the depth of cover of the existing Telstra asset at the completion of work must not be less than the existing level before work commenced.

Regardless of whether the surface is being raised or lowered, any work impacting the depth of cover of Telstra underground assets should not commence before consultation with Telstra Network Integrity representatives, to discuss the possibility of 'protection' or relocation (including lowering of the asset)".

- For clearance distances relating to Telstra pillars, cabinets and RIMs/RCMs please contact Telstra Plan Services.
- If Telstra plant is situated wholly or partly where you plan to work (i.e. in conflict, where a pit or manhole would be in a driveway or other vehicle thoroughfare), then Telstra's Network Integrity Group must be contacted to discuss possible engineering solutions to protect Telstra assets. Please phone **1800 810 443** or email NetworkIntegrity@team.telstra.com
- You are not permitted to relocate or alter or repair any Telstra assets or network under any circumstances.

It is a criminal offence under the *Criminal Code Act 1995 (Cth)* to tamper or interfere with communication facilities owned by a carrier. Heavy penalties may apply for breach of this prohibition, and any damages suffered, or costs incurred by Telstra as a result of any such unauthorised works may be claimed against you.

Only Telstra and its contractors may access and conduct works on Telstra's network (including its plant and assets). This requirement is to ensure that Telstra can protect the integrity of its network, avoid disruption to services and ensure that the relocation meets Telstra's requirements.

- If Telstra relocation or protection works are part of the agreed solution, then payment to Telstra for the cost of this work shall be the responsibility of the principal developer, constructor or person for whom the work is performed. The principal developer or constructor will be required to provide Telstra with the details of their proposed work showing how Telstra's plant is to be accommodated and these details must be approved by the Regional Network Integrity Manager prior to the commencement of site works. Please phone 1800 810 443 or email NetworkIntegrity@team.telstra.com
Further information - <https://www.telstra.com.au/consumer-advice/digging-construction/relocating-network-assets>

Damage to Telstra's network must be reported immediately –

132 203 Say "Damages" at the voice prompt, then press 1 to speak to an Operator

Or report online:

<https://service.telstra.com.au/customer/general/forms/report-damage-to-telstra-equipment>

- You will be held responsible for all plant damage that occurs or any impacts to Telstra's network as a result of your construction activities. This includes interfering with plant, conducting unauthorised modification works and interfering with Telstra's assets in a way that prevents Telstra from accessing or using its assets in the future.
- Telstra reserves all rights to recover compensation for loss or damage to its cable network or other property including consequential losses.

FURTHER INFORMATION - CONTACTS

NATURAL DISASTERS

Natural Disasters include (amongst other things) earthquakes, cyclones, floods and tsunamis. In the case of such events, urgent requests for plans or information relating to the location of Telstra network can be made directly to Telstra Network Integrity Team Managers as follows:

NSW –	John McInerney	0419 485 795
NT/WA/QLD –	Glenn Swift	0419 660 147
SA/VIC/TAS -	David Povazan	0417 300 947

TELSTRA PLAN SERVICES - for all Telstra Dial Before You Dig related enquiries

Email - Telstra.Plans@team.telstra.com

Phone - 1800 653 935 (general enquiries, business hours only)

Accredited plant locator enquiries - Glen	(07)34551011
Telstra easements - Glen	(07)34551011

**Please note - to make a Telstra plan enquiry the plans must be current (within 60 days of issue). If your plans have expired you will need to submit a new request via DBYD prior to contacting Telstra Plan Services.*

Information for new developments (developers, builders, home owners)

Telstra Smart Communities - <https://www.telstra.com.au/smart-community>

Asset relocations

Please phone 1800 810 443 or email NetworkIntegrity@team.telstra.com

<https://www.telstra.com.au/consumer-advice/digging-construction/relocating-network-assets>

Telstra offers free Cable Awareness Presentations, if you believe you or your company would benefit from this offer please contact Network Integrity on 1800 810 443 or NetworkIntegrity@team.telstra.com

PRIVACY NOTE

Your information has been provided to Telstra by DBYD to enable Telstra to respond to your DBYD request. Telstra keeps your information in accordance with its privacy statement entitled "Protecting Your Privacy" which can be obtained from Telstra either by calling 1800 039 059 or visiting our website at www.telstra.com.au/privacy

Search for the closest **Certified Locating Organisation (CLO)** to your work-site at the following website: <https://dbydlocator.com/certified-locating-organisation/>

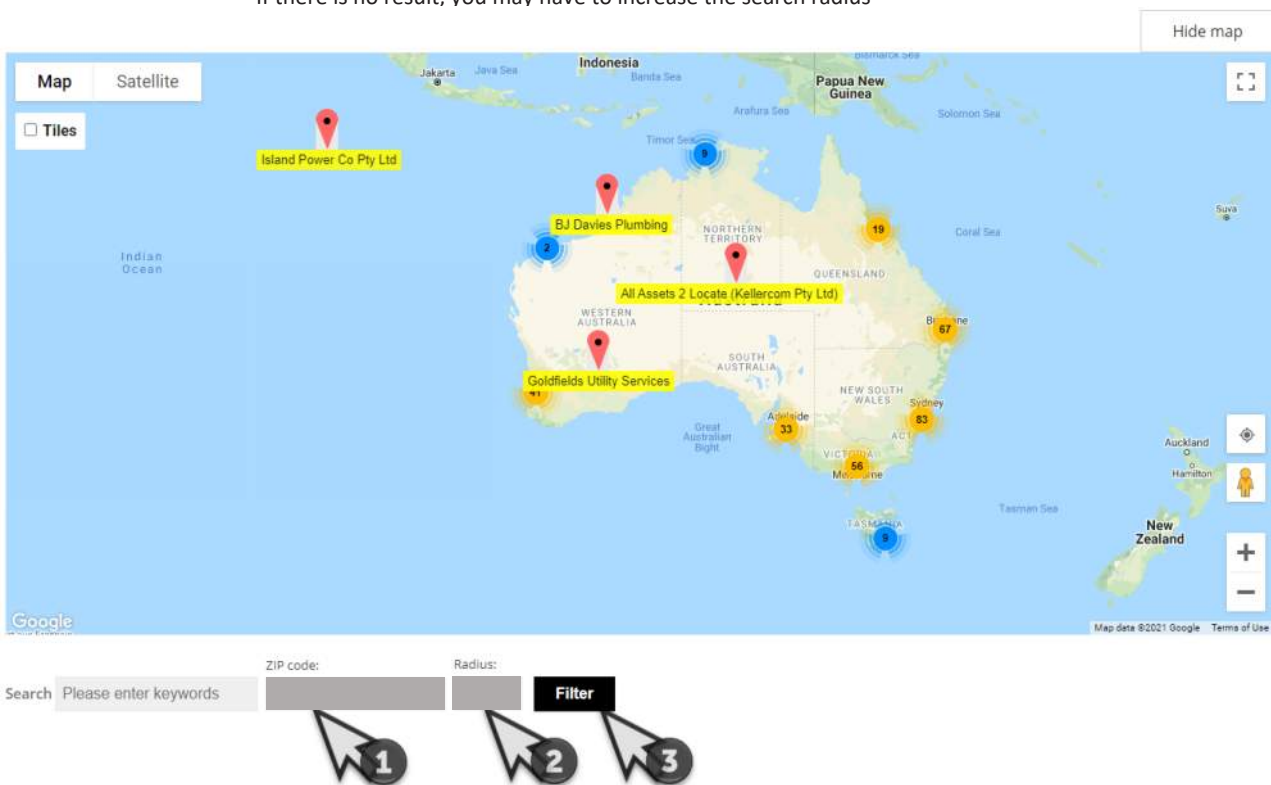
Read the terms of use - Click accept.

A national map and an A-Z list of all Certified Locating Organisations is now available.

Use the map to zoom to your work area and then choose the closest  Locator indicated.
OR SEARCH BY POSTCODE OF YOUR WORK AREA

1. Enter the postcode
2. Choose your search radius
3. Click Filter

If there is no result, you may have to increase the search radius



Chose the closest  Locator indicated OR scroll down to see all search results.



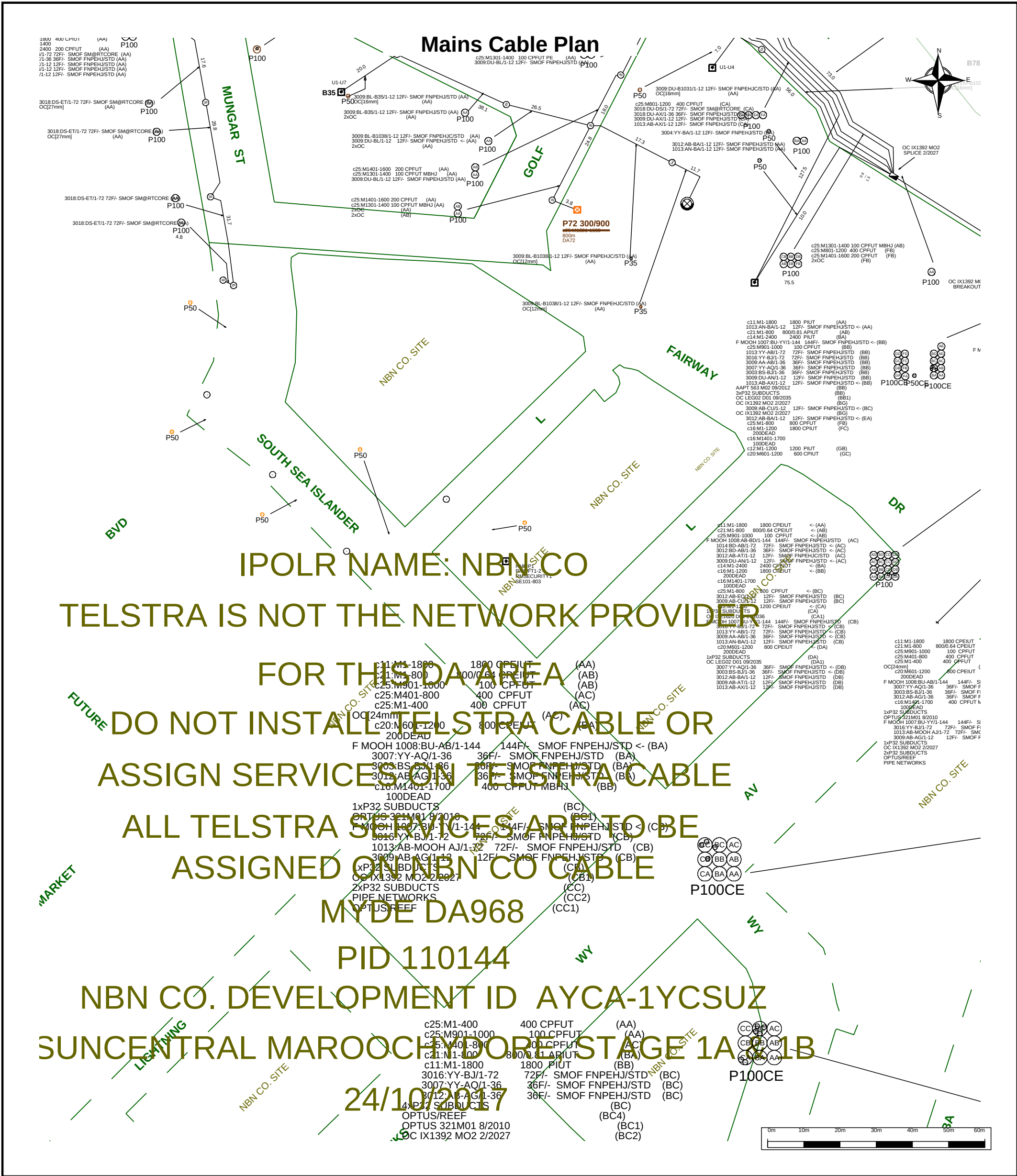
Telstra is aware of each Certified Locating Organisation **and** their employee locators.

Locator skills have been tested, and the Organisation has calibrated location and safety equipment.

Each Certified Locator working for a CLO is issued with a photo ID Card, authorising them to access Telstra pits and manholes for the purpose of cable and plant locations.

Please ask to see your Locators' CLO ID Card.





	For all Telstra DBYD plan enquiries - email - Telstra.Plans@team.telstra.com For urgent onsite contact only - ph 1800 653 935 (bus hrs)	Sequence Number: 201539405
TELSTRA CORPORATION LIMITED A.C.N. 051 775 556		CAUTION: Critical Network Route in plot area. DO NOT PROCEED with any excavation prior to seeking advice from Telstra Plan Services on : 1800 653 935
Generated On 09/08/2021 08:53:31		

WARNING - Due to the nature of Telstra underground plant and the age of some cables and records, it is impossible to ascertain the precise location of all Telstra plant from Telstra's plans. The accuracy and/or completeness of the information supplied can not be guaranteed as property boundaries, depths and other natural landscape features may change over time, and accordingly the plans are indicative only. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans.

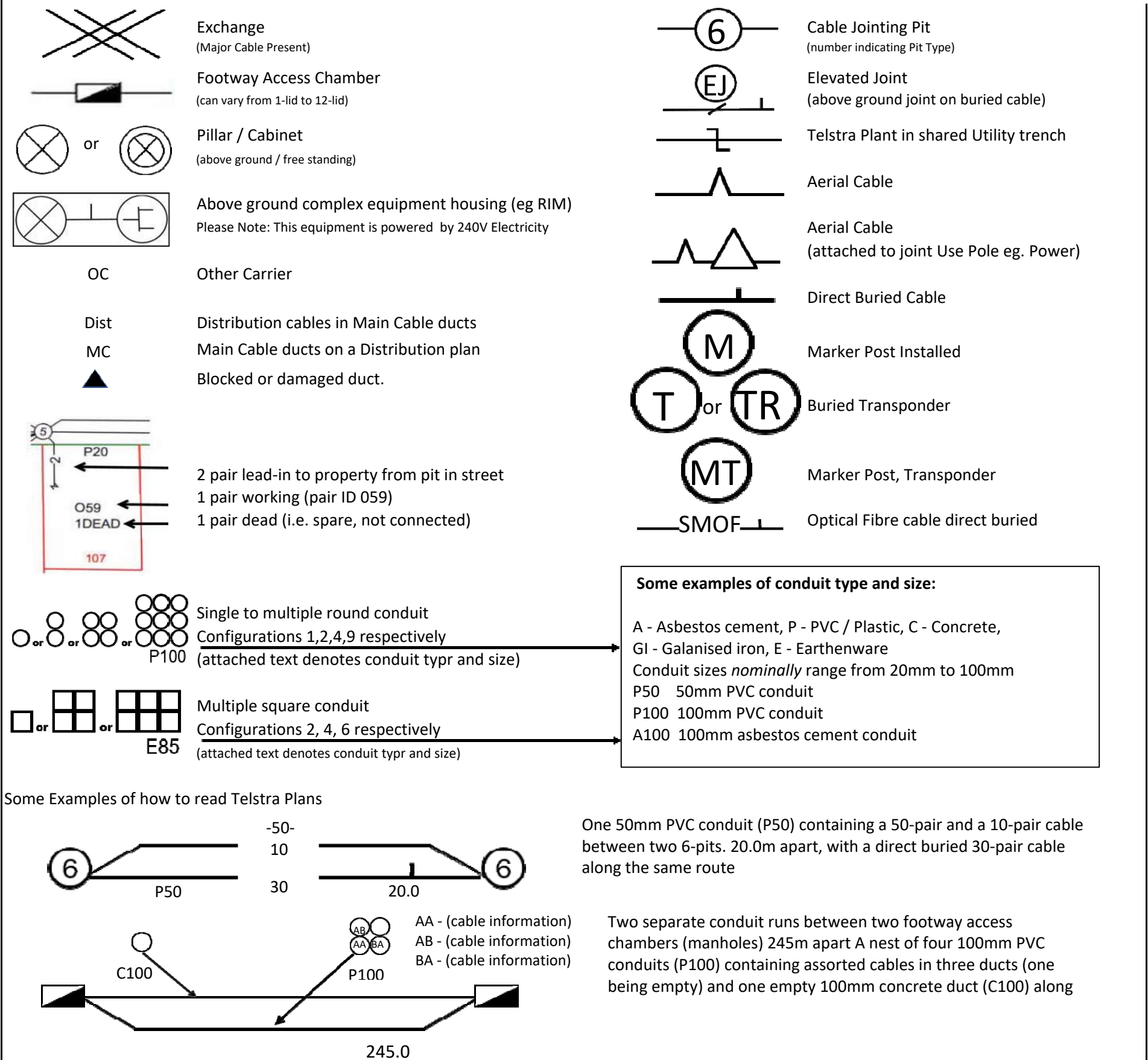
It is your responsibility to locate Telstra's underground plant by careful hand pot-holing prior to any excavation in the vicinity and to exercise due care during that excavation.

Please read and understand the information supplied in the duty of care statement attached with the Telstra plans. TELSTRA WILL SEEK COMPENSATION FOR LOSS CAUSED BY DAMAGE TO ITS PLANT.

Telstra plans and information supplied are valid for 60 days from the date of issue. If this timeframe has elapsed, please reapply for plans.

LEGEND

For more info contact a Certified Location Organisation or Telstra Plan Services 1800 653 935



WARNING: Telstra plans and location information conform to Quality Level 'D' of the Australian Standard AS 5488 - Classification of Subsurface Utility Information. As such, Telstra supplied location information is indicative only. Spatial accuracy is not applicable to Quality Level D. Refer to AS 5488 for further details. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans. FURTHER ON SITE INVESTIGATION IS REQUIRED TO VALIDATE THE EXACT LOCATION OF TELSTRA PLANT PRIOR TO COMMENCING CONSTRUCTION WORK. A plant location service is an essential part of the process to validate the exact location of Telstra assets and to ensure the asset is protected during construction works. The exact position of Telstra assets can only be validated by physically exposing it. Telstra will seek compensation for damages caused to its property and losses caused to Telstra and its customers.

Jared Falkenhagen
WSP
900 Ann Street
Fortitude Valley QLD 4006

9 August 2021

Dear Jared Falkenhagen

RESPONSE TO RECENT DBYD ENQUIRY
Lot 120 Islander Way Maroochydore QLD 4558
SEQ: 201539401

Please find attached As Constructed Stormwater, Electrical and Communication Infrastructure as requested. This map expires 30 days from Sunshine Coast Councils plan print date.

Any damages to Council's Infrastructure must be reported immediately by calling Sunshine Coast Council Customer Service on (07) 5475 7272.

If you require drainage plans that may show the drains/pipes within the building/property and where they connect to the mains, please contact Sunshine Coast Council Customer Service on (07) 5475 7272 or mail@sunshinecoast.qld.gov.au.

IMPORTANT NOTICE

This enquiry response, including any associated documentation, has been assessed and compiled from the information detailed within the DBYD enquiry outlined above. Please ensure that the DBYD enquiry details and this response accurately reflect your proposed works.

DISCLAIMER

While every care is taken to ensure the accuracy of this product, neither the Sunshine Coast Regional Council nor the State of Queensland make any representations or warranties about the accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages including indirect or consequential damage) and costs that may occur as a result of the product being inaccurate or incomplete in any way or for any reason.

The applicant should rely on field investigation in order to validate information shown on this plan.
Crown Copyright Reserved. Council Copyright Reserved.





/HJHQG
'%<' (QTXLU)
6WRUPZDWHU 3LW
■ &DWFK3LW
■)LHOG,QOHW
● 0DQKROH
6WRUPZDWHU 3LW 1RQ &
■)LHOG,QOHW
● 6WRUPZDWHU 4XDOLW\ 'HY
6WRUPZDWHU 3LSH
— 3LSH
6WRUPZDWHU 3LSH 1RQ
— 3LSH
— (OHFWULFDO ,QIUDVWUXFW

'LVFODLPHU, :KLOH HYHU\ FDU
HQVXUH WKH DFFXUDF\ RI WKLV
WKH 6XQVKLQH &RDVW 5HJURQDO
QRU WKH 6WDWH RI 4XHHQVOD
UHSUHVHQDWLRQV RU ZDUUD
DFFXUDF\ UHOLDELOLW\
FRPSOHWHQHV RU VXLWDELOLW\
SXUSRVH DQG GLVFODLPV DOO
DOO OLDELOLW\
LQFOXGLQJ ZLWKRXW OLPLWD
QHJOLJHQFH IRU DOO H[SHQ
GDPDJHV LQFOXGLQJ LQGLUHFW
RU FRQVHTXHQWLDO GDPDJH DQ
RFFXU DV D UHVXOW RI WKH
LQDFFXUDWH RU LQFRPSOHWH
LQ DQ\ ZD\ RU IRU DQ\ UHDFVRQ
&URZQ &RXQFLO &RSULJKW 5HY

,Q DQ HPHUJHQF\ FRQWDFW 6XQVKLQH &RDVW &RXQFLO RQ
" YDOLG IRU GD\V
3ODQV JHQHUDWHG E\ 6PDUWHU;,, \$XWRPDWH

p

6FDOH

Jared Falkenhagen
WSP
900 Ann Street
Fortitude Valley QLD 4006

9/08/2021



Dear Jared Falkenhagen

Response to your recent enquiry: Unitywater infrastructure is located on the property

Your recent Dial Before You Dig enquiry about the location of water and sewerage assets on your property of interest has been sent to Unitywater.

Unitywater has located water and/or sewerage infrastructure on the property. Attached is a map locating the infrastructure and identifying the type of infrastructure that has been identified. The map and information contained on this map is valid for 30 days from Unitywater plan print date.

Also attached to this letter is additional information about your responsibilities in relation to our infrastructure.

Sequence No: 201539404

Job No: 30265184

Location: Lot 120 Islander Way Maroochydore

If you have further questions, please call the Customer Service Centre on 1300 0 UNITY (1300 086 489).

Yours sincerely



Ivan Beirne
Head of Asset Management



Important Information

Disclaimer

All Unitywater's records, data and information supplied via DBYD are indicative only. You agree that any plans supplied to you has been or will be provided only for your convenience and has not been and will not be relied upon by you for any purpose.

You also agree that Unitywater does not assume any responsibility or duty of care in respect of, or warrant, guarantee or make any representation as to the Data (including its accuracy, reliability, currency or suitability).

Unitywater's plans only indicates the general vicinity of infrastructure in a geographic area and does not state the depths at which infrastructure could be buried. You must first physically locate the infrastructure by utilising relevant site detection methodologies prior to performing any works or undertaking any activities near or adjacent to our infrastructure. You are solely responsible for the selection of appropriate site detection methodologies at all times.

To the fullest extent permitted by law, Unitywater will not be liable to you in contract, tort, equity, under statute or otherwise arising from or in connection with the provision of any plans to you via DBYD.

Compliance with laws

There may be both indicated and unmarked hazards, dangers or encumbrances, including underground asbestos pipes and abandoned mains within your nominated search area. You are solely responsible for ensuring that appropriate care is taken at all times and that you comply with all mandatory requirements relating to such matters, including in relation to workplace health and safety.

Damaged Infrastructure

Please note that it is an offence under Section 192 of the *Water Supply (Safety and Reliability) Act 2008* to interfere with our infrastructure without Unitywater's written consent.

You may be liable to Unitywater for any loss of or damage to our infrastructure, together with any consequential or indirect loss or damage (including without limitation, loss of use, loss of profits or loss of revenue) arising from or in connection with any interference with Unitywater's infrastructure by you or any other person for which you are legally responsible.

Any damage to Unitywater's Infrastructure must be reported immediately to the (24 Hours) Faults and Emergencies contact number on **1300 0 UNITY** (1300 086 489).

Copyright

All Data is copyright.

Notes

If you require further details on sewerage and water infrastructure, Detailed Infrastructure Plans are available for purchase. A request form is available through Unitywater's website <http://www.unitywater.com> or by contacting the Customer Service Centre on 1300 0 UNITY (1300 086 489).

Unitywater water and sewerage infrastructure is located across Moreton Bay, Sunshine Coast and Noosa local government areas. For information outside these areas you will need to contact the relevant authority.

UNITYWATER DBYD MAP

Sequence Number: 201539404

Job Number: 30265184

Printed On: 9/08/2021

Emergency Situations

Call Unitywater:

1300 086 489

This information on this plan is valid
for 30 days from "Printed On" date.

Legend



Extent of Unitywater Area

Water



Water Pump Station



Water Service



Water Valve



Water Pipe (Abandoned)



Water Hydrant



Water Fitting

Water Main



Trunk Main



Reticulation Main

Sewer



Sewer Pump Station



Sewer Manhole



Sewer Valve



Sewer Fitting

Sewer Gravity Main



Trunk Main



Reticulation Main



Overflow Main



Sewer Pipe (Abandoned)

Sewer Pressure Main



Pressure Sewer



Rising Main



Vacuum Main



Pressure Sewer Service



Sewer Service

Recycled Water



Recycled Water Pump Station



Recycled Water Valve



Recycled Water Hydrant



Recycled Water Fitting



Recycled Water Pipe (Abandoned)



Recycled Water Main

Map Tile: 1
Scale: 1:1000
(If printed at 100%
on A3 size paper)



Unitywater

Dial Before You Dig

Geospatial Information Systems

Ground Floor, 33 King St

Caboolture QLD 4510

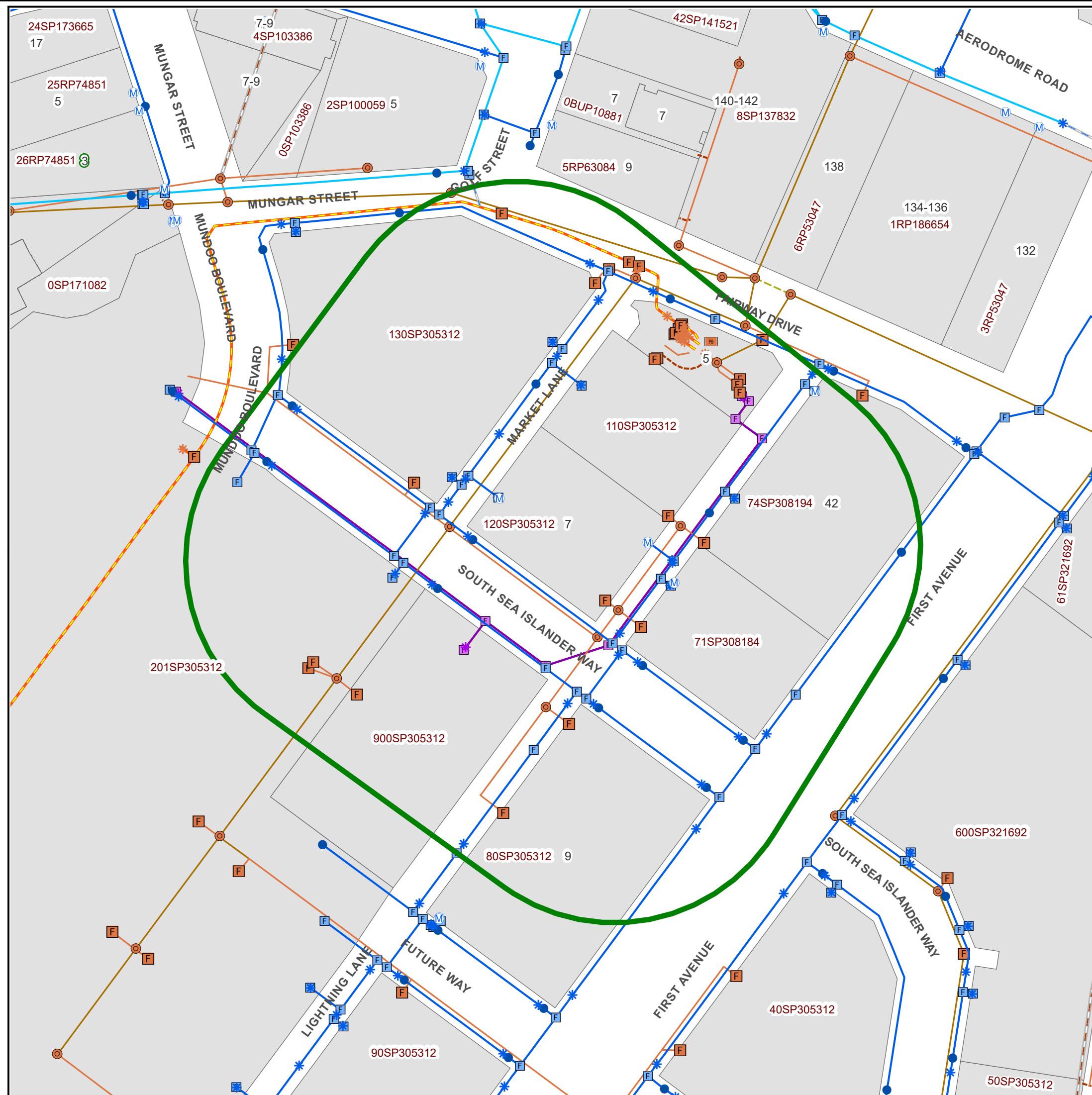
Inquiries: 1300 0 Unity (1300 086 489)

Email: dbyd@unitywater.com

Disclaimer

These Maps are supplied under the following conditions:-

Mapping details are supplied from information contained in Unitywater's records which may have been furnished to Unitywater by other persons. Unitywater gives no warranty or guarantee of any kind, expressed, implied, or statutory, to the correctness or accuracy of the map details or the degree of compliance with any standards in this matter. Persons making decisions with financial or legal implications must not rely upon the map details shown on this plan for the purpose of determining whether any particular facts or circumstances exist and Unitywater (and its officers and agents) expressly disclaim responsibility for any loss or damage suffered as a result of placing reliance upon this information.



ABOUT US

WSP is one of the world's leading engineering professional services consulting firms. We are dedicated to our local communities and propelled by international brainpower. We are technical experts and strategic advisors including engineers, technicians, scientists, planners, surveyors, environmental specialists, as well as other design, program and construction management professionals. We design lasting Property & Buildings, Transportation & Infrastructure, Resources (including Mining and Industry), Water, Power and Environmental solutions, as well as provide project delivery and strategic consulting services. With approximately 50,000 talented people globally, we engineer projects that will help societies grow for lifetimes to come.

