

JFP URBAN CONSULTANTS

SITE BASED STORMWATER MANAGEMENT PLAN

Revision C

Proposed Development at
92 REDHEAD STREET, DOOLANDELLA
for
AUSBUILD GROUP PTY LTD



TOWN PLANNING

URBAN DESIGN + MASTER PLANNING



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LANDSCAPE ARCHITECTURE



ECOLOGY + ARBORICULTURE

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SITE BASED STORMWATER MANAGEMENT PLAN

Proposed Development at
92 REDHEAD STREET, DOOLANDELLA
for
AUSBUILD GROUP PTY LTD

B4687EA2_DA6_SBSMP-Revision C
July 2026

JFP Urban Consultants Pty Ltd

Prepared by: C. Blair

Approved by: S. Marsh

Revision	Date	Details	Prepared By	Approved By
A	17/12/2025	Original issue	CB (RPEQ 19190)	TMCK (RPEQ 5087)
B	12/03/2026	RFI response	CB (RPEQ 19190)	SM (RPEQ 8068)
C	1/7/2026	Further advice response	 CB (RPEQ 19190)	 SM (RPEQ 8068)

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1. INTRODUCTION

JFP Urban Consultants Pty Ltd has been commissioned by Ausbuild Group Pty Ltd to compile this *Site Based Stormwater Management Plan* (“**SBSMP**”) for the proposed residential subdivision at 92 Redhead Street, Doolandella (“**the site**”). Refer to **Appendix A** for the proposed layout and Council Application **A006928472**.

This report presents strategies for the development’s stormwater quantity and quality management. Stormwater quantity management presents hydraulic assessments of the downstream drainage infrastructure to demonstrate that the development does not result in adverse stormwater impacts. Stormwater quality management is proposed via Water Sensitive Urban Design (“**WSUD**”) tree pits on Rockfield Road frontage of the development.

Revision C (current) has been updated to address item of the Further Advice letter dated 26 May 2026. Refer to **Section 1.1**.

1.1 FURTHER ADVICE RESPONSE

BCC Item 1: *Based on the information provided Council can accept the roofwater drainage being directed to the 300mm uPVC pipe downslope, as it is shown to have capacity. However, Council does not agree that all the development can all direct major flows into the downslope development. Application A005819019 for the downslope lots provided a SBSMP (prepared by Water Technology dated Aug 2021) stating that the drainage does not assume that the upslope lot will ever direct major flows into this site, nor did the approved operational works therefore require any analysis of flows through each of the impacted downslope lots.*

The downslope 300mm pipe allowed for a catchment of 0.578ha but only for the minor piped flow allowance, as it would be expected that major flows still need to be managed by the applicant. No analysis of major flow impacts on downstream properties has been provided.

The predeveloped flow arriving at LPD2 is not representative of the actual flow that would arrive under predeveloped conditions, as all flows will sheet across the full boundaries of existing lot at 31 Rockfield Road, with a small portion diverted into the approved swale in that lot. By contrast the development will concentrate all runoff into a small section of that land with vastly more noticeable flow depths.

The 39% AEP drainage standard for rear lot drainage would not apply in this instance as the capacity is always dictated by the minor capacity required to ensure the major flows are safe, and additionally this drainage system would be a Level III QUDM design requiring 5% AEP minor storm capacity.

- a) *Provide an amended SBSWMP, limiting the number of properties that direct major flows into the downslope development to no more than 7 lots being Lots 18/19, 22/23, 26/27 & Lot 28. All major flows from all other lots are to be directed to Rockfield Road as previously requested.*

RESPONSE: All inter-allotment roofwater drainage is now proposed to be directed to Rockfield Road. This is due to access consent issues, not capacity issues of the 300mm uPVC pipe downslope. Consequently, more external pipe upgrades are proposed in Rockfield Road. Refer to **Section 3.3**.

The number of lots that direct major flow to south-east is now limited to 7 lots, being Lots 18/19, 22/23, 26/27 & Lot 28.

2. SITE CHARACTERISTICS

2.1 LOCATION

The site is 1.02ha in size and it is in the Brisbane City Council (“BCC” or “Council”) local government area. The real property description is Lot 64 on RP90234. The site fronts Redhead Street to the north, Rockfield Road to the west, a recent development to the south and undeveloped rural property to the east. Refer to **Figure 1** for the site locality overview. The site naturally slopes to the south-east at a grade of approximately 6%.

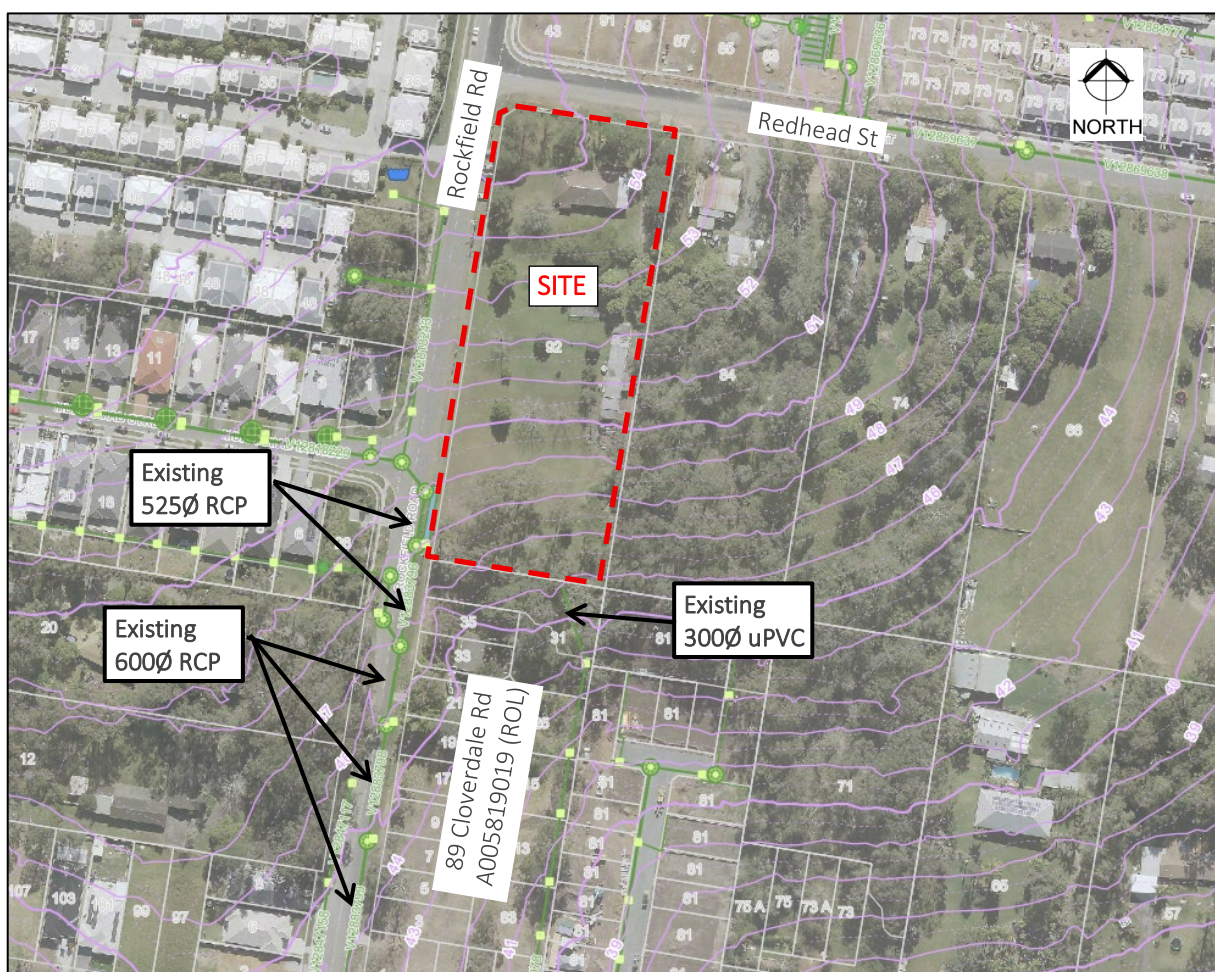


Figure 1 – Site Location, existing drainage & aerial imagery (source: BCC Community Maps)

2.2 EXISTING LAND USE

Currently there is a single residential dwelling fronting Redhead Street. It will be demolished to make way for the subdivision.

2.3 FLOODING

The site is not identified to be affected by any form of flooding or tidal influence.

3. STORMWATER QUANTITY

3.1 LAWFUL POINTS OF DISCHARGE

The following lawful points of discharge (“LPD”) are proposed. The previous proposal to connect to the 300Ø uPVC downslope is now eliminated. The number of lots that direct major flow to south-east is now limited to 7 lots, being Lots 18/19, 22/23, 26/27 & Lot 28 as requested by Council.

- **LPD1:** Redhead Street.
- **LPD2:** Rockfield Road.

3.2 LPD1: REDHEAD STREET

It is proposed to discharge Lots 1-6 to the kerb & channel on Redhead Street via new kerb adapters.

3.3 LPD2: ROCKFIELD ROAD

As mentioned previously, all roofwater will be directed to Rockfield Road. All but 7 lots, being Lots 18/19, 22/23, 26/27 & Lot 28 will also direct major flow to Rockfield Road.

The adjacent development at 89 Cloverdale Road (ROL A005819019) installed drainage infrastructure in Rockfield Road in circa 2022. While its *Stormwater Management Plan* acknowledged some of 92 Redhead Street ultimately discharging stormwater to Rockfield Road, the pipes were not sized accordingly. Therefore, a downstream drainage assessment has been undertaken for Rockfield Road as to determine the new drainage requirements:

- A 1D steady-state hydraulic assessment of the pipe network on the eastern side of Rockfield Road using XP-STORM (version 2024.2) for a 39% AEP minor design storm. Refer to **Section 3.3.1**; and
- The Manning’s Equation flow calculations at two locations on Rockfield Road for a major 2% AEP storm event. Refer to **Section 3.3.2**.

A review of the Cloverdale Road drainage plans (extract in **Appendix G**) confirms the system was designed to accommodate ultimate catchment conditions, including fully developed 92 Redhead Street. Therefore, no new hydraulic assessments have been undertaken for Cloverdale Road.

3.3.1 MINOR DESIGN STORM

3.3.1.1 CATCHMENT INFLOWS

Table 1 presents the catchment data. Refer to drawing No. **B4687EA2_DA6_SK02** in **Appendix B** for the catchment plan.

Table 1 – Catchment Data for Rockfield Road Pipe Network (Minor Design Storm)

Catchment	Area (ha)	Fi	Tc (min)	39% AEP Peak Flow (m ³ /s)
D3a	0.269	70%	7	0.071
D3b	0.155	70%	6	0.043
D3c	0.092	70%	5	0.028
E1	2.600	70%	8.5	0.634
E2	Constant inflow 0.066m ³ /s ^A			
E4	0.212	70%	6	0.059
E5	0.189	70%	6	0.053
E6	0.183	70%	6	0.051

^A from 26 Rockfield Rd OPW A004455892 design plans (not included as an appendix in this report).

3.3.1.2 PIPE NETWORK SET UP

The pipe data such as diameters, lengths, invert levels, surface levels, and grades were obtained from BCC's Community Maps.

3.3.1.3 RESULTS

The results determined that a new drainage line will be required along Rockfield Road, which includes 375Ø and 450Ø RCPs as schematically identified on **Figure 2**.

Refer to Drawing No. **B4687EA2_DA6_SK04** in **Appendix B** for a long section of the 39% AEP water level along new line.

Refer to preliminary engineering plans in **Appendix C** for the pipe alignment, which is proposed to be maintained entirely within the eastern travel lane, subject to detail design.

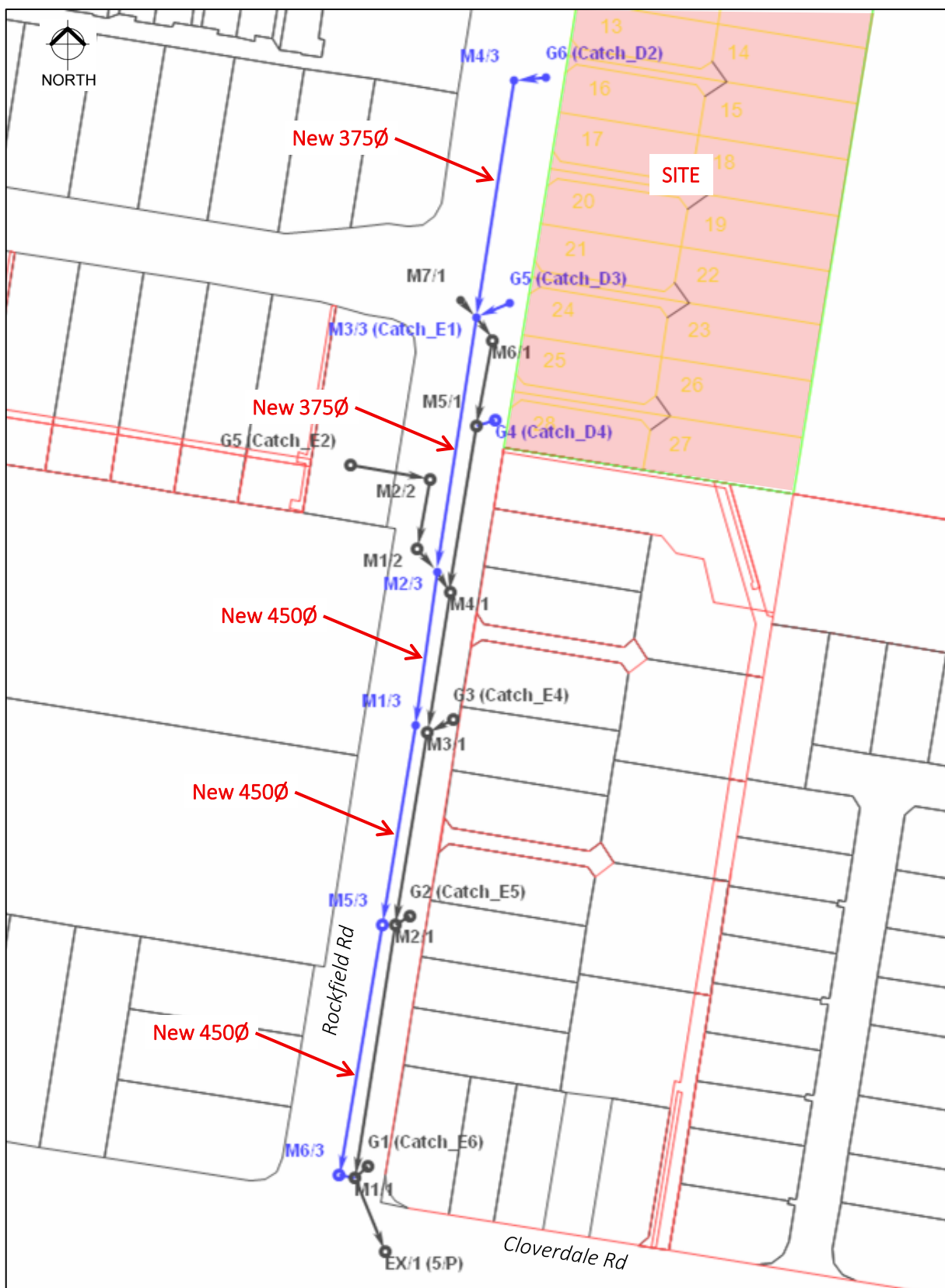


Figure 2 – XP-STORM Layout & Proposed Drainage (Schematic Only)

3.3.2 MAJOR DESIGN STORM

To assess the impact in a 2% AEP major design storm event, a Manning's flow calculation was undertaken at two locations identified on **Figure 3**. The peak flow rates have been estimated using the Rational Method calculation (**Appendix D**, catchment plan in **Appendix B**). Refer to **Table 2** for the peak flow rates.

Table 2 – Rockfield Road Peak Flow (Major Design Storm)

Manning's Section	Catchment Area (ha)	2% AEP total flow (m ³ /s)	39% AEP total flow (m ³ /s)	2% AEP road flow (m ³ /s) ^A
Section A	4.41	2.67	1.00	1.67
Section B	5.31	3.11	1.15	1.95

^A 39% AEP flow in pipe network

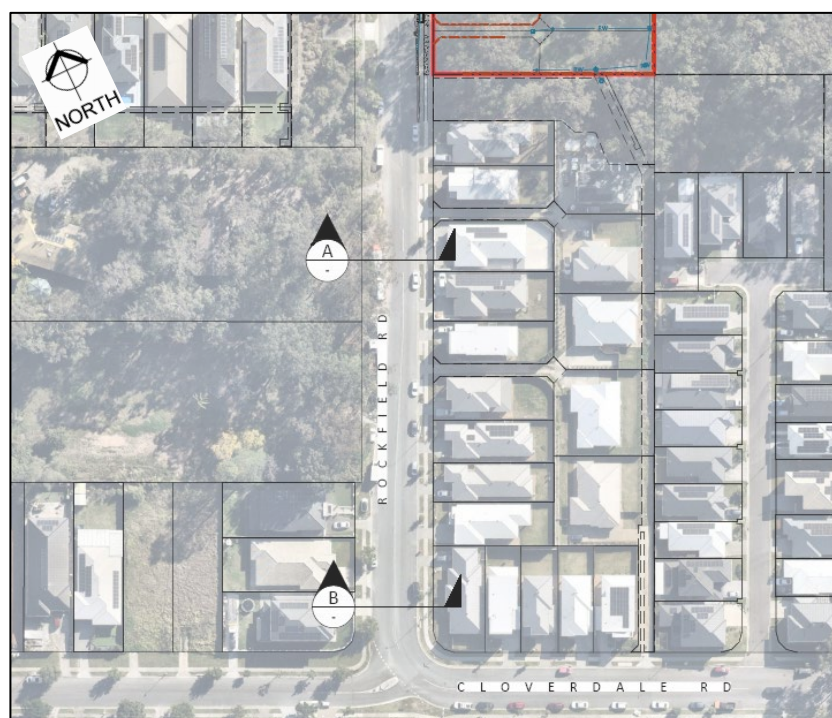


Figure 3 - Manning's Section Locations

Table 3 provides the Mannings flow calculation results. The profile for Section A was draped from 2019 Lidar and the eastern side adjusted based on the external road works from OPW A006078413 (89 Cloverdale Road) approved design plans. The profile for Section B is based on Council's standard 20m wide road corridor. The longitudinal slopes for both sections were determined from 2019 Lidar and A006078413 (89 Cloverdale Road) design plans. Refer to **Appendix E** for calculation details

Table 3 – Mannings Flow Calculation

	Section A	Section B
2% AEP Road Flow (m ³ /s)	1.67	1.95
Max. Flow Depth (m)	0.184	0.210
Max. Velocity (m/s)	1.56	1.18
DV Product (m ² /s)	0.29	0.25

The above results demonstrate flow depths do not exceed 250mm and the depth-velocity ("DV") products do not exceed 0.4m²/s. Both are below the QUDM (2016) recommended maximums.

4. STORMWATER QUALITY

4.1 CONSTRUCTION PHASE STORMWATER QUALITY MANAGEMENT

4.1.1 POLLUTANTS

Typical pollutants expected to be generated during the construction phase of an urban development are shown in **Table 4**. These are based on *Table C4.1 BCC's Subdivision & Development Guidelines Part C Section 4.1.1* (2008).

Table 4 – Construction Phase Pollutants

Pollutant	Potential Source
Litter	Paper, construction packaging, food packaging, cement bags, off cuts.
Sediment	Unprotected exposed soils and stockpiles during earthworks and building works.
Hydrocarbons	Fuel/oil spills, leaks from construction equipment, and temporary car park areas.
Toxic Materials	Cement Slurry, asphalt primer, solvents, cleaning agents, and washwaters etc.
pH altering substances	Cement slurry, acid sulfate soils, and washwaters

4.1.2 WATER QUALITY OBJECTIVES

Table 5 presents an extract from *Table A, Appendix 2* of the *State Planning Policy* (2017) objectives for construction phase stormwater quality management.

Table 5 – Construction Phase Performance Criteria

Issue	Desired Outcomes
Erosion control	1. Staged clearing and construction work to minimise the area of exposed soil at any one time. 2. Effectively cover or stabilise exposed soils prior to predicted rainfall. 3. Prior to completion of works for the development, and prior to removal of sediment controls, all site surfaces must be effectively stabilised using methods which will achieve effective short-term stabilisation.
Sediment Control	1. Direct runoff from exposed site soils to sediment controls that are appropriate to the extent of disturbance and level of erosion risk. 2. All exposed areas greater than 2500m² must be provided with sediment controls which are designed, implemented and maintained to a standard which would achieve at least 80% of the average annual runoff volume of the contributing catchment treated (i.e. 80% hydrological effectiveness) to 50mg/L Total Suspended Solids (TSS) or less, and pH in the range (6.5–8.5).

4.1.3 STORMWATER QUALITY MANAGEMENT STRATEGY

BCC's Erosion Hazard Assessment ("EHA") form has been completed and is included in **Appendix F**. Based on the EHA, the site is classed as "medium" risk because the area is just above 1ha. Accordingly, an erosion and sediment control ("ESC") management plan that is endorsed by a CPESC or RPEQ will be prepared during the operational work phase and implemented during the construction phase. ESC measures may include devices such as a sediment basin, catch drains, diversion drains, silt fences, construction entry/exit pads, and the like.

4.1.4 MONITORING & MAINTENANCE

The general requirement of monitoring during the construction phase are:

- Work activities to be restricted to designated construction areas.
- Earthwork and site clearing to be undertaken in accordance with the ESC management plans.
- ESC devices to be constructed in accordance with the plans prepared during detailed design phase.
- Inspect sediment fences and ESC structures/devices on a weekly basis as well as after any rain event exceeding 25mm in 24hrs.
- Stormwater discharges from the site are not to have any adverse effect on the downstream environment.
- Monitor and record of the performance of the drainage control devices including water quality testing where required.
- Any failure in the stormwater system to be immediately rectified to prevent uncontrolled discharge from the site.
- Any failure to the stormwater system causing damage to surroundings should implement immediate remedial work to the damaged area.

4.1.5 RESPONSIBILITY & REPORTING

- The contractor shall be responsible for monitoring the performance of all drainage control and ESC devices.
- Records of any failures to devices should be kept and reported to the Construction Manager.
- Regular inspections of the devices shall be reported to the Construction Manager.
- Inspections of the devices after heavy rainfall shall be reported to the Construction Manager.

4.2 OPERATIONAL PHASE STORMWATER QUALITY MANAGEMENT

The development footprint is greater than 2,500m² and creates greater than 6 lots. It triggers compliance with *Section B* of Council's *Stormwater Code* (2014) and the *State Planning Policy* (2017) for stormwater quality management; however, an alternative approach is proposed.

The proposed water quality approach for this development is the installation of six (6) bioretention tree pits along Rockfield Road which is approximately at a rate of one every two lots fronting Rockfield Road. This method, in lieu of a conventional bioretention basin, is consistent with the stormwater quality strategy adopted for the adjacent approval to the south, under ROL application number A005819019.

The tree pits are to be generally in accordance with BCC Standard Drawings BSD-9034 and BSD-9035. Refer to engineering design plans in **Appendix C** for concept locations. Council acceptance is requested for the proposed strategy.

5. CONCLUSION & RECOMMENDATIONS

JFP Urban Consultants Pty Ltd has prepared this *Site Based Stormwater Management Plan* for the proposed subdivision at 92 Redhead Street, Doolandella. The following outcomes are noted:

Stormwater Quantity

- The proposed LPDs are:
 - LPD1: Redhead Street
 - LPD2: Rockfield Road.
- No development roofwater is proposed to connect to the existing 300mm uPVC stormwater pipe downslope due to property owner access consent issues.
- The number of lots that direct major flow to south-east is now limited to 7 lots, being Lots 18/19, 22/23, 26/27 & Lot 28.
- A XP-STORM assessment of the pipe drainage in Rockfield Road confirms the need for upgrades. New 375mm diameter and 450mm diameter RCPs are proposed along Rockfield Road as per the preliminary engineering plans in **Appendix C**.
- Manning's flow calculations show flow depths on Rockfield Road remain below 250mm and DV products below 0.4m²/s in a 2% AEP major storm event, confirming no adverse impacts to road flow conditions.

Stormwater Quality

- The site is "medium" risk based on the completed EHA form due to the site area being just over 1ha. An erosion and sediment control management plan that is endorsed by a CPESC or RPEQ will be prepared during detailed design and implemented during construction.
- Council approval is sought for a stormwater quality strategy involving bioretention tree pits on Rockfield Road frontage. The tree pits will be generally in accordance with BCC Standard Drawings BSD-9034 and BSD-9035. This approach aligns with the adjacent approval to the south.

6. DISCLAIMER

This report has been prepared for the purpose and exclusive use of Ausbuild Group Pty Ltd as an investigation into the stormwater management issues related for the proposed development of the land described in the report. The information presented in this report is not to be used for any other purpose or by any other person or corporation.

JFP Urban Consultants Pty Ltd accepts no responsibility for any loss or damage suffered howsoever arising to any person or corporation who may use or rely on this report without further input and/or advice from JFP Urban Consultants Pty Ltd.

The investigations, calculations, analysis and recommendations presented in this report rely on information sourced from third-parties. JFP Urban Consultants Pty Ltd accepts no responsibility for the accuracy of the information sourced from third-parties.

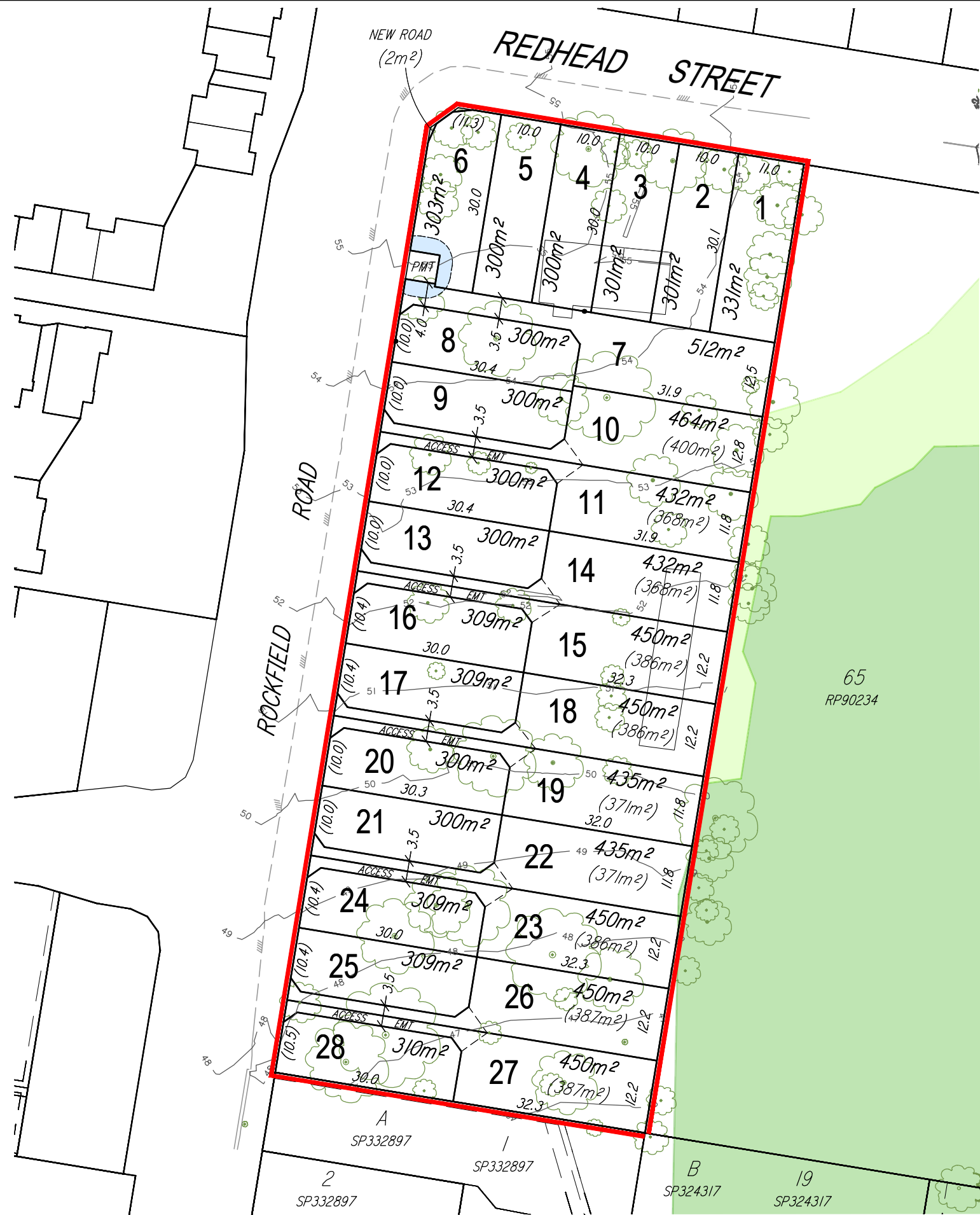
7. APPENDICES

- Appendix A – Proposed Layout
- Appendix B – Stormwater Plans
- Appendix C – Preliminary Engineering Plans
- Appendix D – Rational Method Calculations (Rockfield Road)
- Appendix E – Manning's Calculations (Rockfield Road)
- Appendix F – Erosion Hazard Assessment Form
- Appendix G – Cloverdale Road Drainage Design Plans (extracts)



APPENDIX A

PROPOSED LAYOUT



NOTES

- (1) This plan was prepared for the purpose and exclusive use of AUSBUILD PTY LTD to accompany an application to BRISBANE CITY COUNCIL for a Development Permit to Reconfigure the land described in the plan and is not to be used for any other purpose or by any other person or corporation.
JFP URBAN CONSULTANTS PTY LTD accepts no responsibility for any loss or damage suffered howsoever arising to any person or corporation who may use or rely on this plan in contravention to the terms of this clause or clauses 2, 3, 4, 5, 6 or 7 hereof.
- (2) The contours on this plan are from field survey - see JFP detail plan (B4687SA2DA6-19A) dated 07/10/2025.
- (3) The dimensions, areas, size and location of improvements, flood information (if shown) and number of lots shown on this plan are approximate only and may vary.
- (4) The trees shown on this plan have been surveyed on JFP detail plan (B4687SA2DA6-19A) dated 07/10/2025.
- (5) Safety in Design
The Urban Design for the layout proposal has been developed to meet the stated project brief, as expressed in JFP Urban Consultants Offer for the works, and the Design Standards stipulated by the Local Authority named on this plan.
Non-standard design solutions adopted in the preparation of the layout are listed as follows;
• None
- (6) The State Government proposes changes to the Queensland Development Code to reflect the provisions of the National Construction Code 2022. These changes once implemented will have an impact on the design of the future dwellings on the proposed allotments identified on this plan. The amendments to the QDC may also be subject to transitional provisions and we would strongly recommend that you discuss these matters further with your preferred Building Certifier.
- (7) This plan may not be reproduced unless these notes are included.

PROPERTY DESCRIPTION

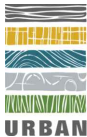
LOT 64 ON RP90234
TOTAL AREA 1.018 ha (Deed)
TOTAL AREA 1.017 ha (Survey)

LEGEND

- SUBJECT SITE
- EXISTING BUILDING (Surveyed)
- EXISTING TREE (Surveyed)
- BIODIVERSITY AREAS - HIGH ECOLOGICAL SIGNIFICANCE
- BIODIVERSITY AREAS - HIGH ECOLOGICAL SIGNIFICANCE STRATEGIC
- ENERGEX PMT BUFFER

STATISTICS

NO. OF LOTS	
300m ² min.	21 (75%)
450m ² min.	7 (25%)
TOTAL	28 (100%)
TOTAL AREA (ha)	1.018
DENSITY (lots/ha)	27.5
AVERAGE LOT SIZE (m ²)	362

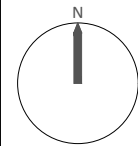


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- PLANNERS
URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH:



SCALE:

SCALE: @ A3 1:800
0 8 16 24 32 40 48 56

THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE - (A3 SIZE)
DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

DESIGNED	TJM	CHECKED	JC	COUNCIL REF
DRAWN	TJM	APPROVED	ST	L.A. BRISBANE CITY COUNCIL

ISSUES:

H	1.5m DRAINAGE EMT REMOVED	02-07-26	TJM
G	PMT SITE SHIFTED	25-06-26	TJM
F	PMT SITE RELOCATED	04-03-26	TJM
E	PMT SITE ADDED TO LOT 6	26-02-26	TJM
D	EMT ADDED TO LOTS 1-3	19-11-25	DWW
A	ORIGINAL	17-10-25	TJM
ISSUE:	DETAILS:	DATE:	INIT:

TITLE:

RECONFIGURATION PLAN
AUSBUILD PTY LTD
92 REDHEAD STREET, DOOLANDELLA

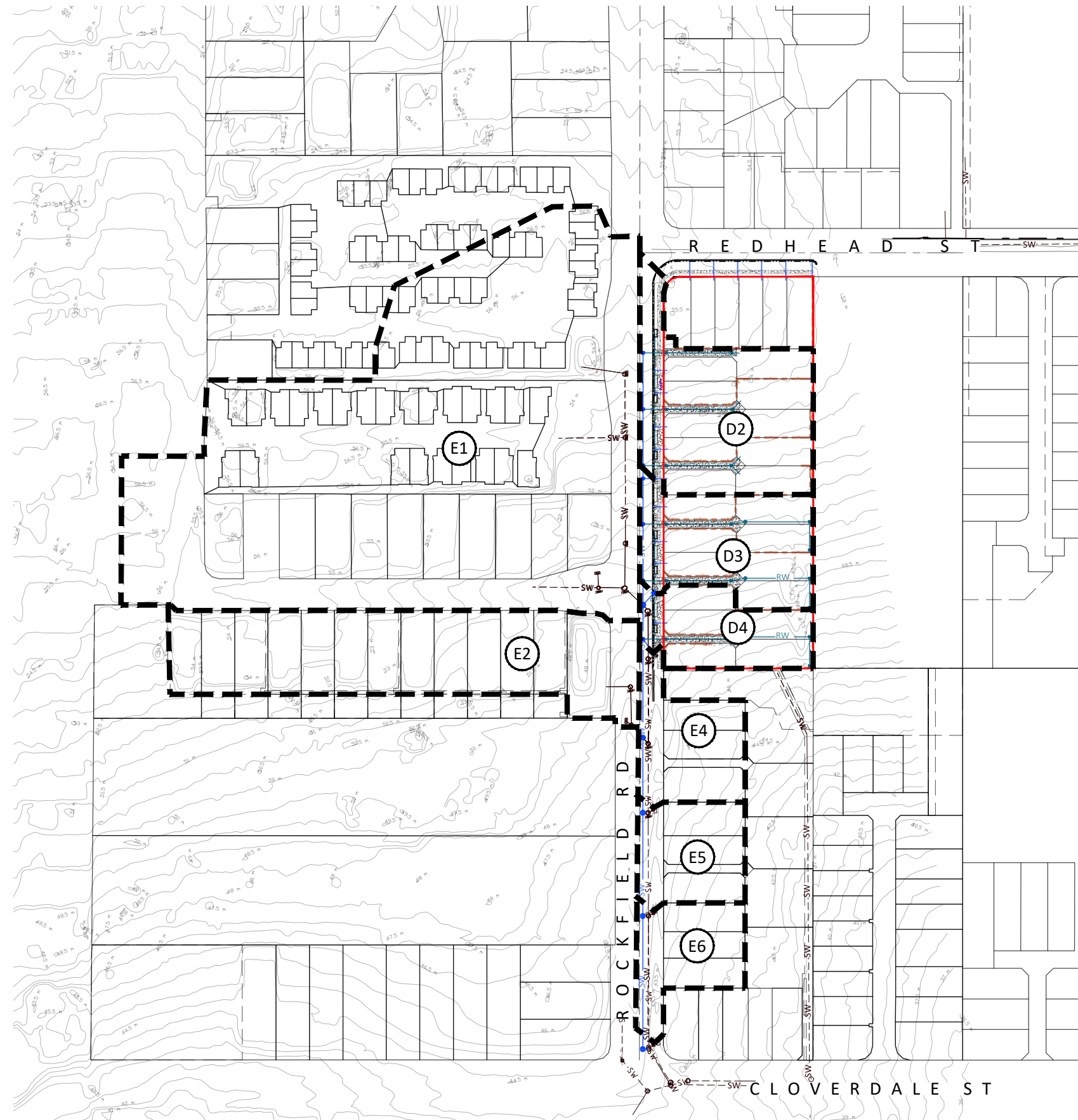
DETAILS:

JOB NUMBER:
B4687PA2_DA6 R1 H
PLAN: ISSUE:
SHEET:
1 OF 1
DATE:
2nd July 2026



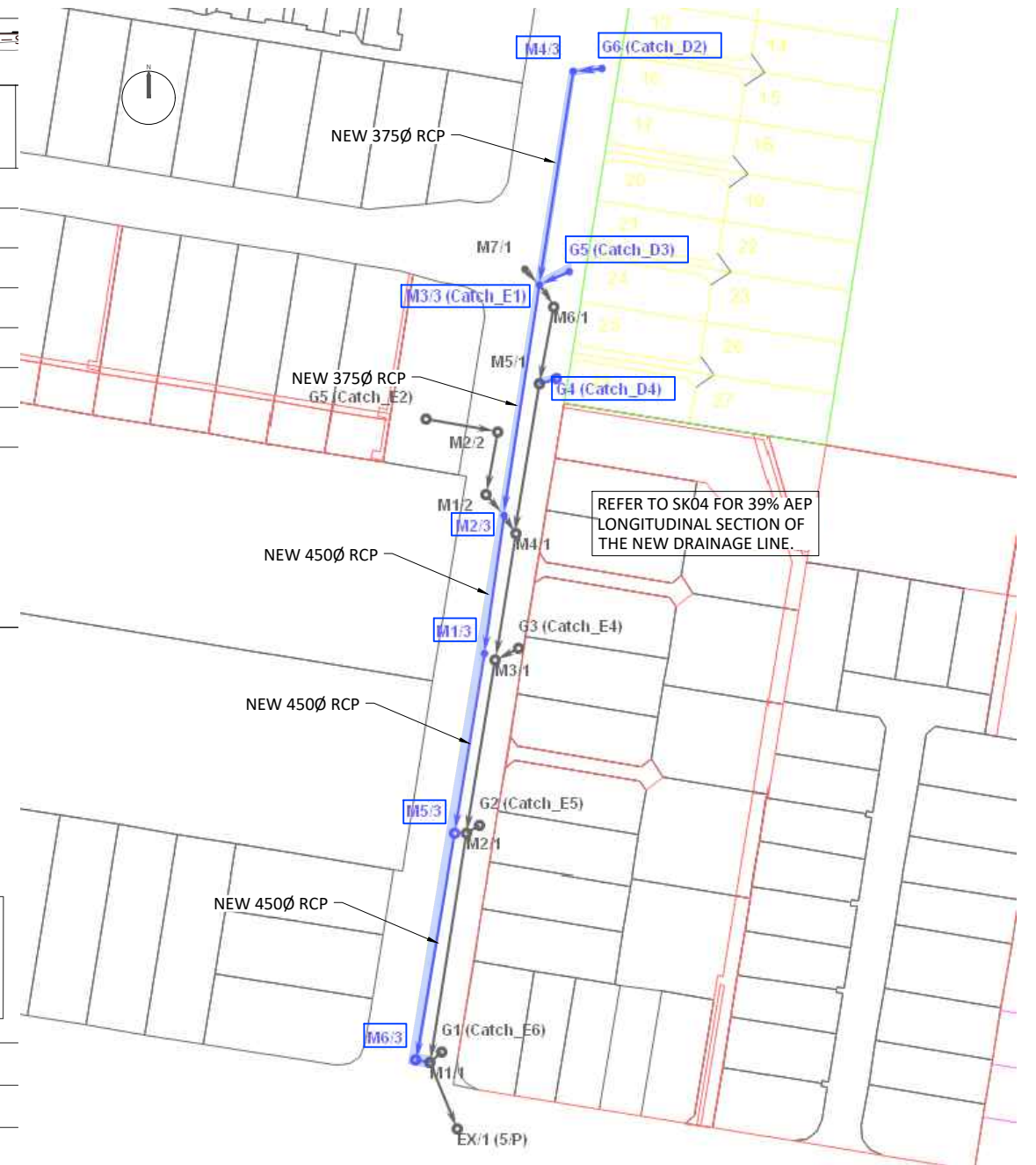
APPENDIX B

STORMWATER PLANS



LEGEND:

- CATCHMENT BOUNDARY
- CATCHMENT LABEL
- EXISTING STORMWATER



XP-STORM LAYOUT
(NOT TO SCALE)

ROCKFIELD ROAD DRAINAGE CATCHMENT PLAN - MINOR

92 REDHEAD STREET, DOOLANDELLA
AUSBUILD GROUP PTY LTD

LEGEND:

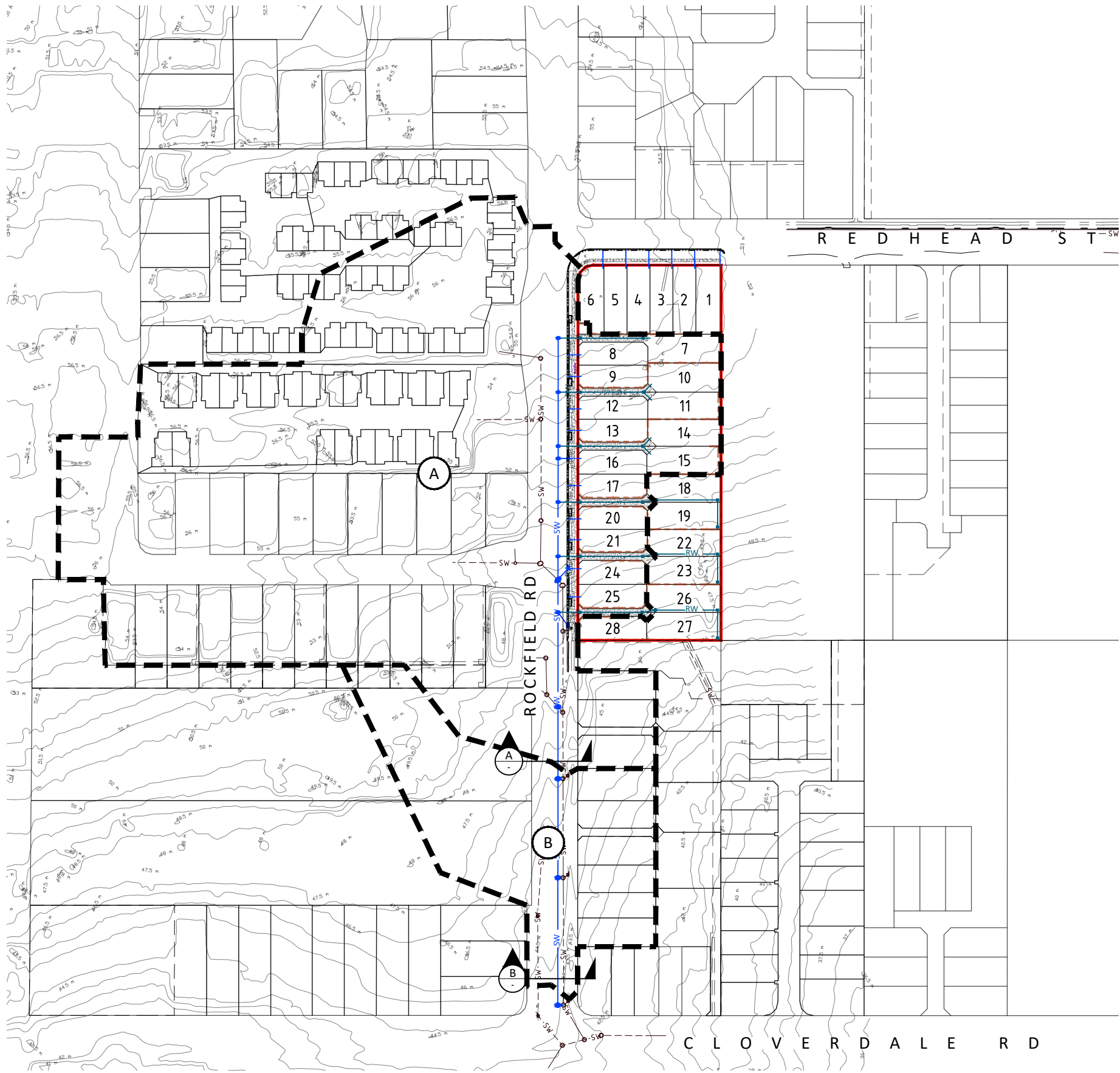
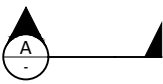
CATCHMENT BOUNDARY



CATCHMENT LABEL



MANNING'S SECTIONS



BRISBANE - SUNSHINE COAST - CENTRAL QLD
BRISBANE
JFP House - 76 Ernest Street,
South Brisbane Qld 4101
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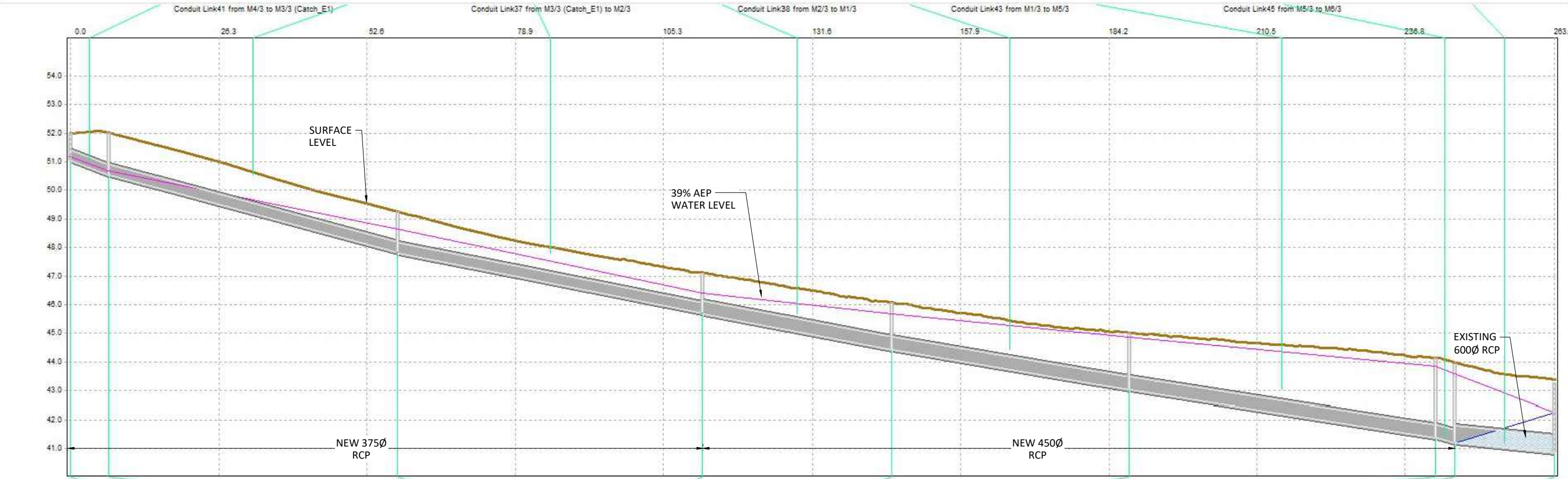
ROCKFIELD ROAD DRAINAGE CATCHMENT PLAN - MAJOR

92 REDHEAD STREET, DOOLANDELLA
AUSBUILD GROUP PTY LTD

JOB NO:	PLAN:	ISSUE:
B4687EA2_DA6	SK03	C
SCALE:	1:1000 @ A1	
DATE:	25/6/2026	
DRAFTED BY:	EK / CB	
FILE NAME:	B4687EA2_DA6_SK03.DWG	



	Link42	Link41	Link37	Link38	Link43	Link45	Link46	Link18
Diameter	0.375	0.375	0.375	0.450	0.450	0.450	0.450	0.600
Length	6.920	51.120	54.150	33.500	42.060	54.320	3.490	17.600
Slope	7.124	5.272	3.873	3.731	3.373	3.045	5.000	1.943
US IL	51.020	50.527	47.812	45.695	44.445	43.026	41.373	41.198
DS IL	50.527	47.832	45.715	44.445	43.026	41.373	41.198	40.856



	G6 (Catch_D2)	M4/3	M3/3 (Catch_E1)	M2/3	M1/3	M5/3	M6/3	M1/1	EX/1 (5/P)
Water Level	51.190	50.671	48.660	46.423	45.697	44.860	43.864	43.587	42.244
Surface Level	52.020	52.027	49.260	47.111	46.077	45.018	44.138	43.930	43.260
Freeboard	0.830	1.356	0.600	0.688	0.380	0.158	0.274	0.343	1.016
Flood Loss	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

REFERE TO SK02 FOR THE
XP-STORM NODES LAYOUT



APPENDIX C

PRELIMINARY ENGINEERING PLANS

LEGEND:

EXISTING CONTOURS

EXISTING KERB & CHANNEL

EXISTING EDGE OF BITUMEN

PROPOSED KERB & CHANNEL

PROPOSED RETAINING WALL

INDICATIVE DRIVEWAY

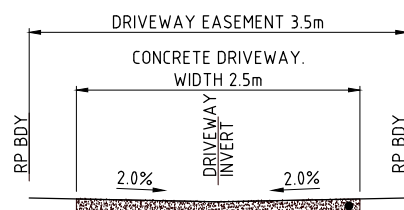
INDICATIVE BIN LOCATIONS

TREE LEGEND

TREES PROPOSED TO BE RETAINED AND PROTECTED.

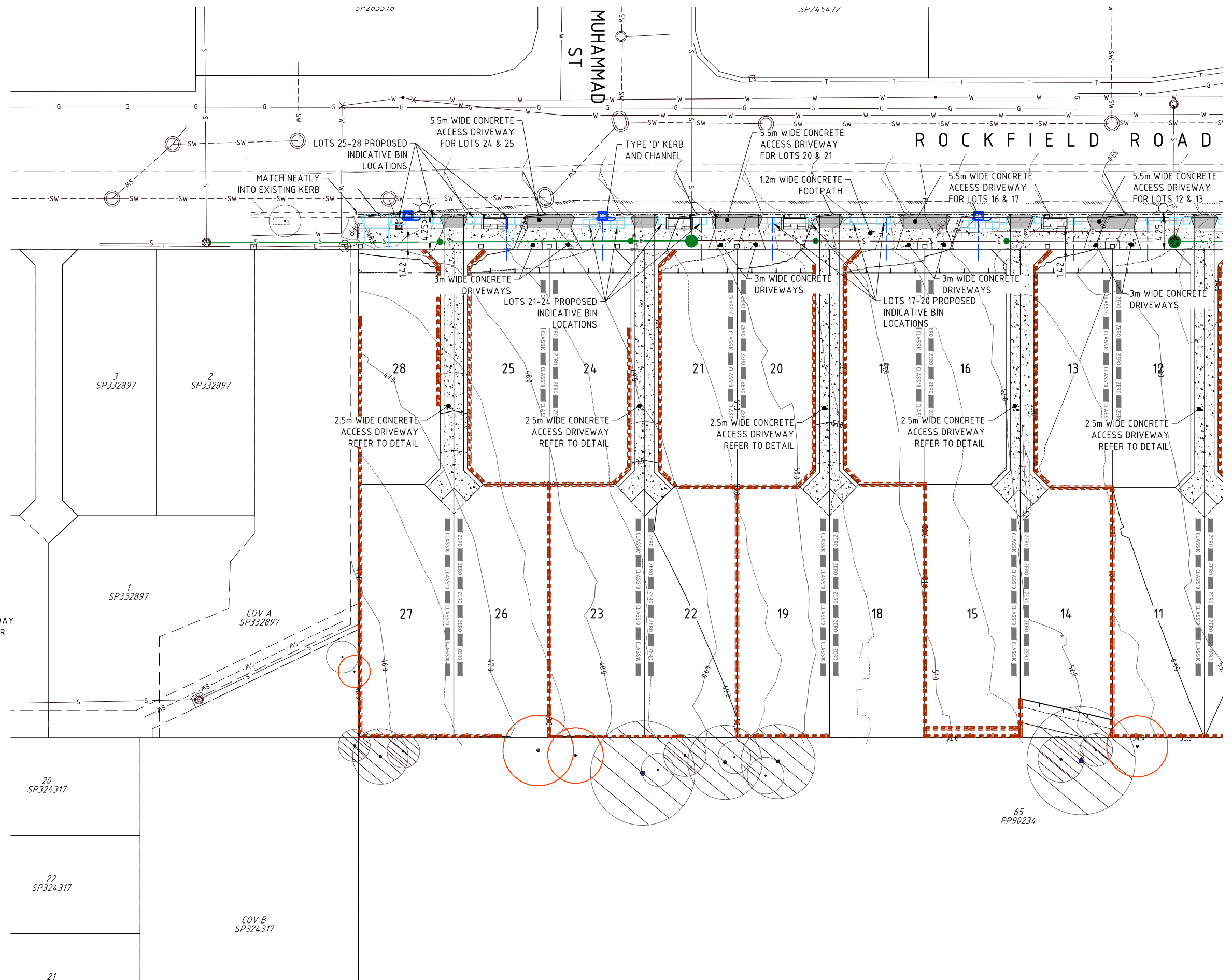
TREES PROPOSED TO BE RETAINED AND REQUIRE ARBORIST (AQF5) DIRECTION & SUPERVISION FOR TPZ WORKS.

TREE PROTECTION ZONE (TPZ)
TPZ to be protected in accordance with Protection of Trees on Development Sites (AS4970-2009) guidelines & any approval conditions.



TYPICAL DRIVEWAY SECTION
SCALE - NTS

125mm THICK DRIVEWAY ACCESS SLAB AS PER BSD-2022



ENGINEERING CONCEPT - FUNCTIONAL TRAFFIC LAYOUT - SHEET 1 OF 2

92 REDHEAD STREET, DOOLANDELLA
AUSBUILD GROUP PTY LTD



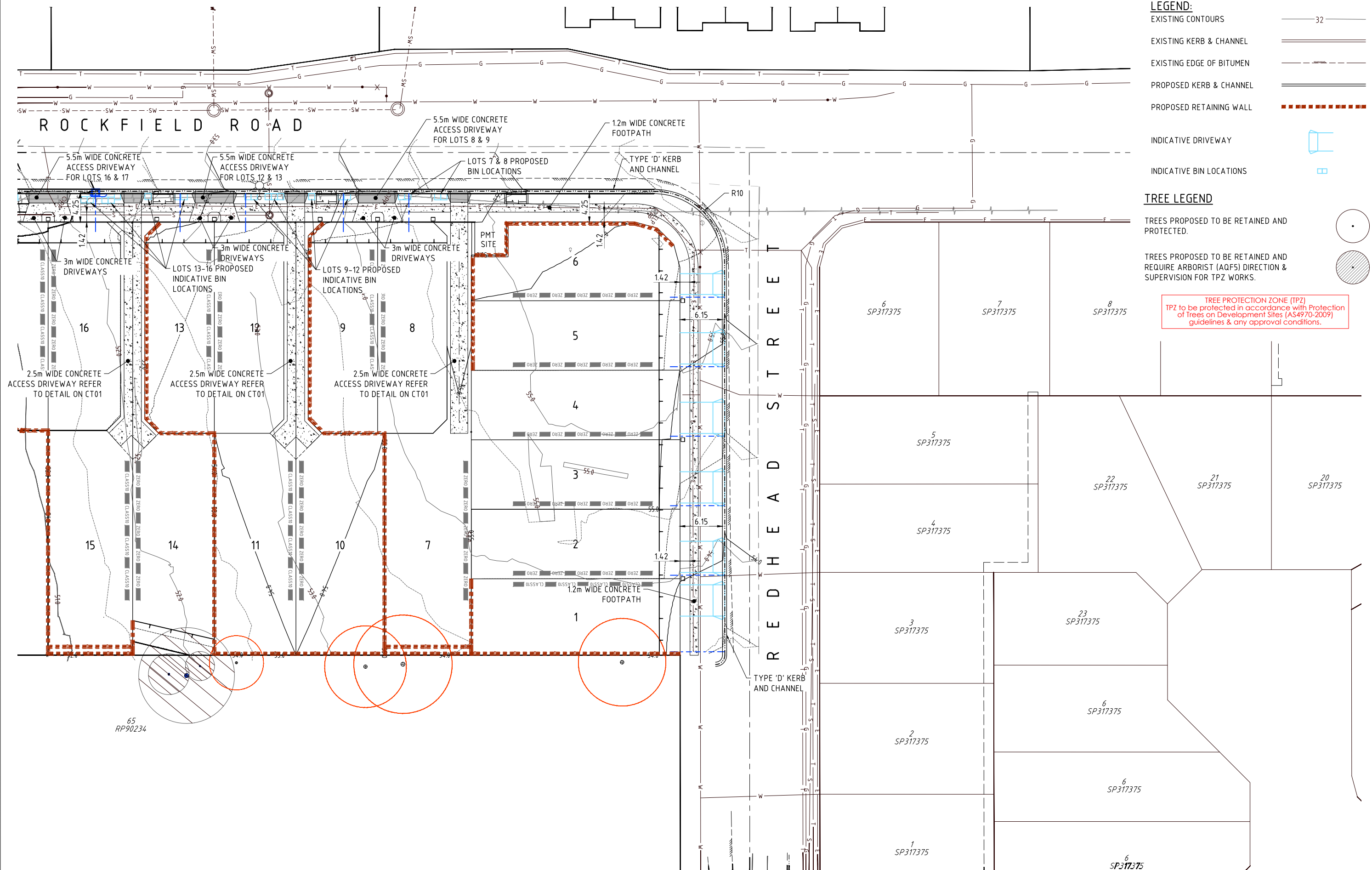
BRISBANE - SUNSHINE COAST - CENTRAL QLD

BRISBANE
JFP House - 76 Ernest Street,
South Brisbane Qld 4101
P 07 3012 0100 W www.jfp.com.au

JFP URBAN CONSULTANTS PTY. LTD. A.C.N. 050 414 045

PLANNERS
URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

JOB NO: B4687EA2_DA6 PLAN: CT01 ISSUE: D
SCALE: 1:250 @ A1
DATE: 18/06/2026
DRAFTED BY: PGM
FILE NAME: B4687EA2_DA6.DWG



- LEGEND:**
- EXISTING CONTOURS
 - EXISTING KERB & CHANNEL
 - EXISTING EDGE OF BITUMEN
 - PROPOSED KERB & CHANNEL
 - PROPOSED RETAINING WALL
 - INDICATIVE DRIVEWAY
 - INDICATIVE BIN LOCATIONS
- TREE LEGEND**
- TREES PROPOSED TO BE RETAINED AND PROTECTED.
 - TREES PROPOSED TO BE RETAINED AND REQUIRE ARBORIST (AQF5) DIRECTION & SUPERVISION FOR TPZ WORKS.

TREE PROTECTION ZONE (TPZ)
TPZ to be protected in accordance with Protection of Trees on Development Sites (AS4970-2009) guidelines & any approval conditions.

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ENGINEERING CONCEPT - FUNCTIONAL TRAFFIC LAYOUT - SHEET 2 OF 2

92 REDHEAD STREET, DOOLANDELLA AUSBUILD GROUP PTY LTD

JOB NO:	PLAN:	ISSUE:
B4687EA2_DA6	CT02	D
SCALE:	1:250 @ A1	
DATE:	18/06/2026	
DRAFTED BY:	PGM	
FILE NAME:	B4687EA2_DA6.DWG	

1:07/2026 N:\B4687EA2\AUSBUILD\WORKING DRAWINGS\B4687EA2_DA6

LEGEND:

EXISTING CONTOURS

—32—

FINISHED CONTOURS

—32—

PRELIMINARY PAD LEVEL (PL)

PL40.65

SPOT LEVELS

#19.62 DENOTES NATURAL SURFACE LEVEL

19.62

PRELIMINARY FILLING



PRELIMINARY EXCAVATION



PRELIMINARY RETAINING WALL



EXISTING/FUTURE
RETAINING WALL



NOTES:

- BATTERS BETWEEN ALLOTMENTS TO BE 1 IN 2 MAXIMUM.
- PAD AND EARTHWORKS LEVELS ARE PRELIMINARY ONLY AND ARE SUBJECT TO DETAILED ENGINEERING DESIGN.
- RETAINING WALL HEIGHTS ARE INDICATIVE ONLY AND ARE SUBJECT TO DETAILED ENGINEERING DESIGN.
- PLEASE REFER TO THE TREE RETENTION PLAN (TRP) FOR DETAILS PERTAINING TREE RETENTION &/OR REMOVAL

TREE LEGEND

TREES PROPOSED TO BE RETAINED AND PROTECTED.



TREES PROPOSED TO BE RETAINED AND REQUIRE ARBORIST (AQF5) DIRECTION & SUPERVISION FOR TPZ WORKS.



TREE PROTECTION ZONE (TPZ)
TPZ to be protected in accordance with Protection of Trees on Development Sites (AS4970-2009) guidelines & any approval conditions.

19
32897

1
SP332897

3
SP332897

2
SP332897

20
SP324317

22
SP324317

21

COV B
SP324317

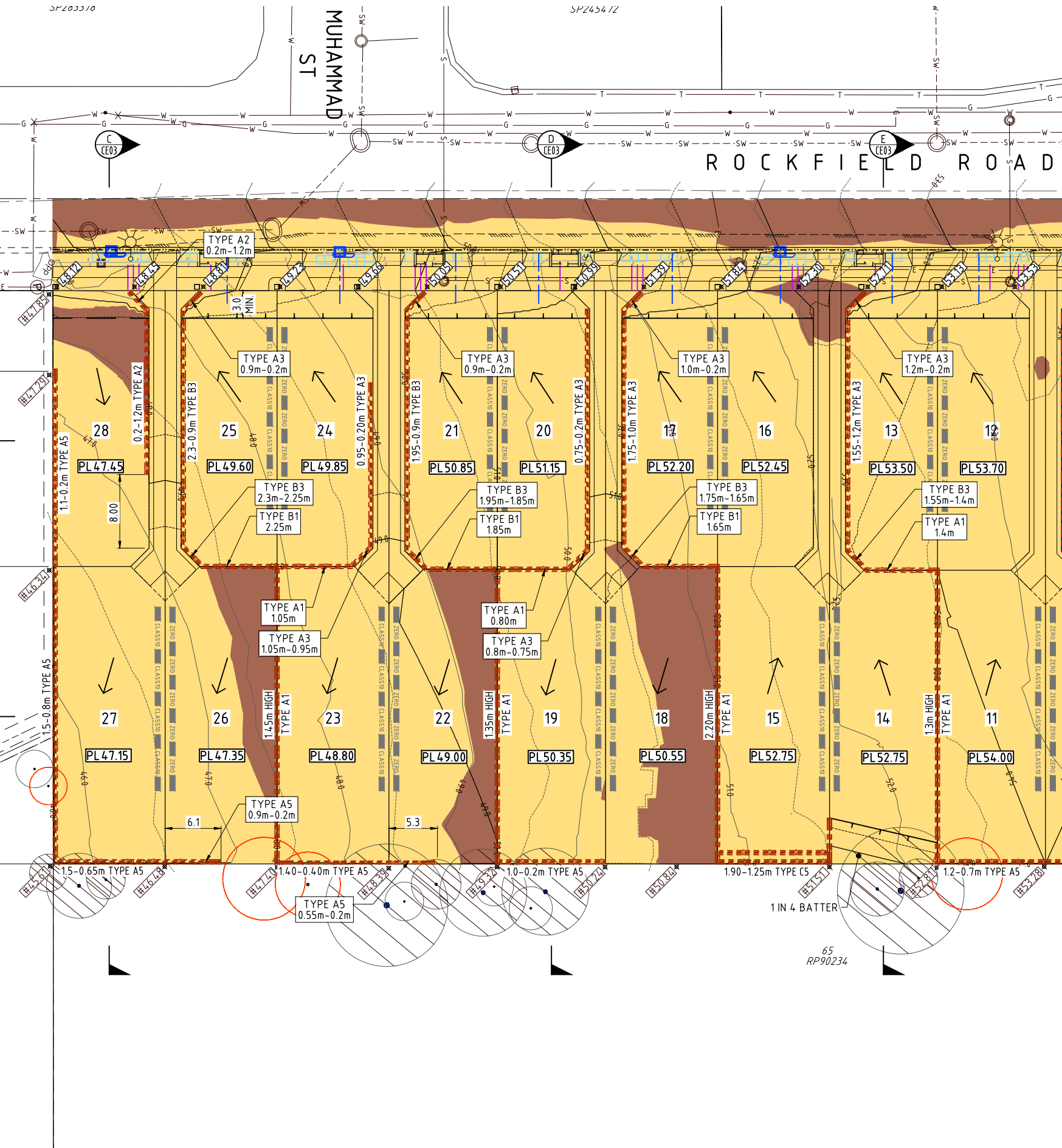
COV A
SP332897

SP203310

SP245412

MUHAMMAD
ST

ROCKFIELD ROAD



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South Brisbane Qld 4101
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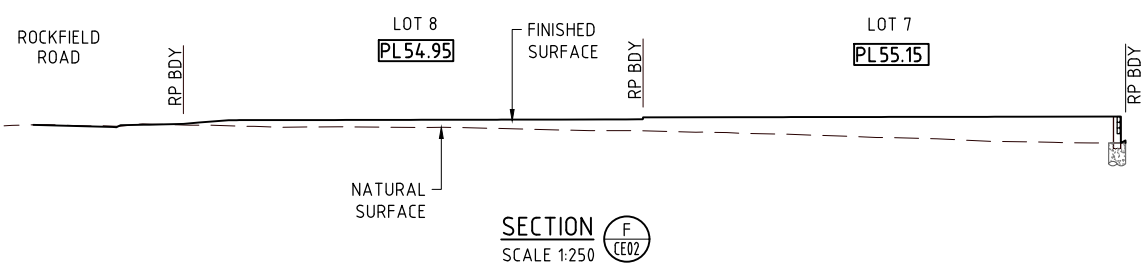
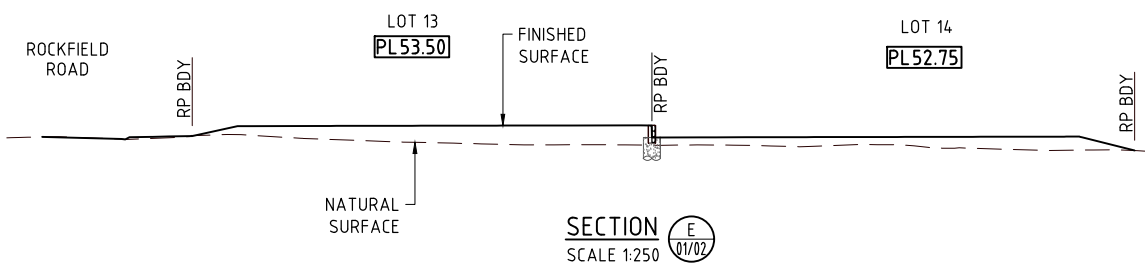
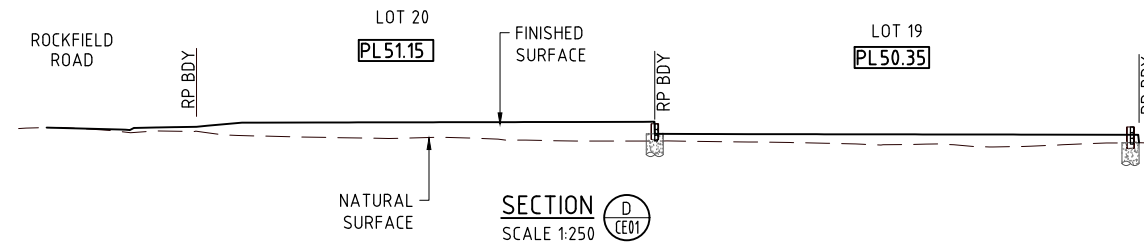
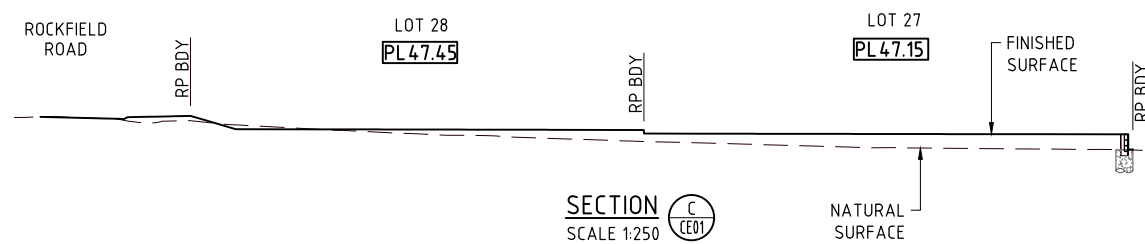
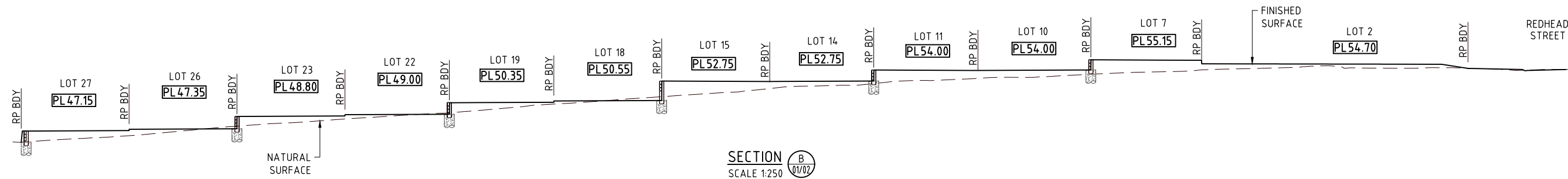
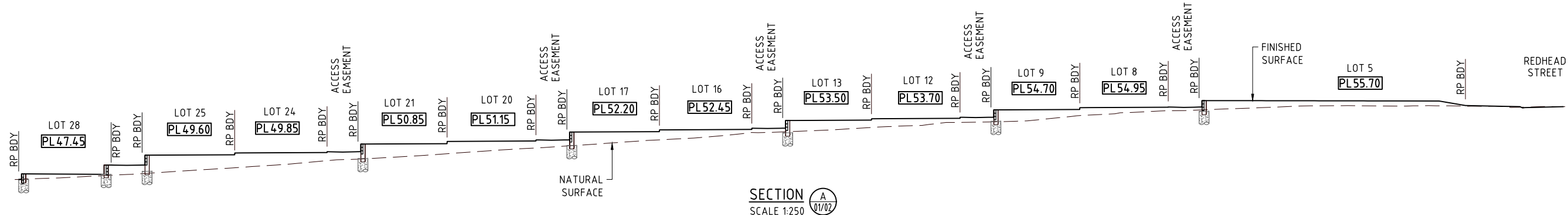
PLANNERS
URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

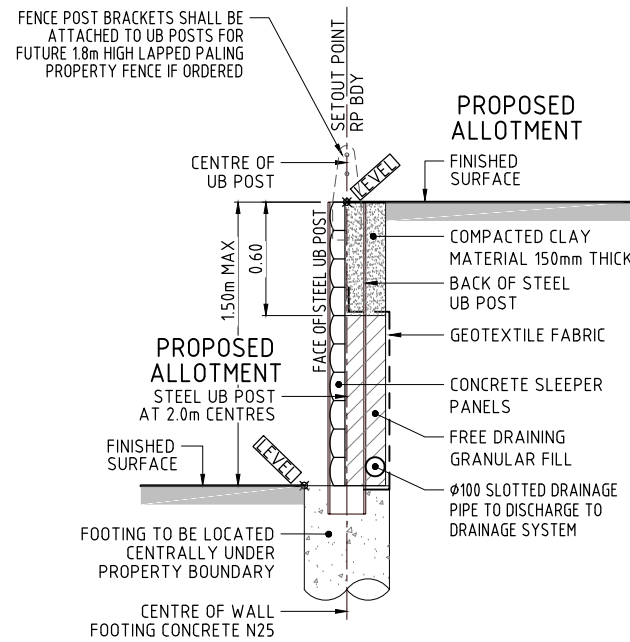
ENGINEERING CONCEPT - EARTHWORKS LAYOUT PLAN - SHEET 1 OF 2

92 REDHEAD STREET, DOOLANDELLA
AUSBUILD GROUP PTY LTD

JOB NO: B4687EA2_DA6
SCALE: 1:250 @ A1
DATE: 18/06/2026
DRAFTED BY: PGM
FILE NAME: B4687EA2_DA6.DWG
PLAN: CE01
ISSUE: D

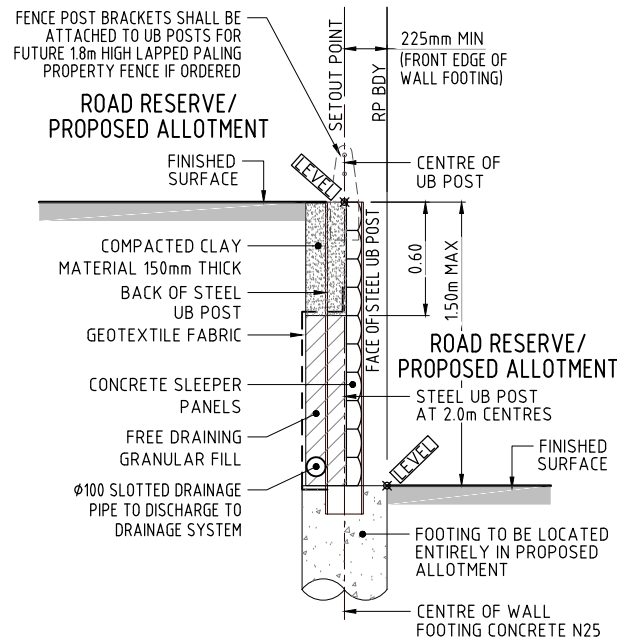
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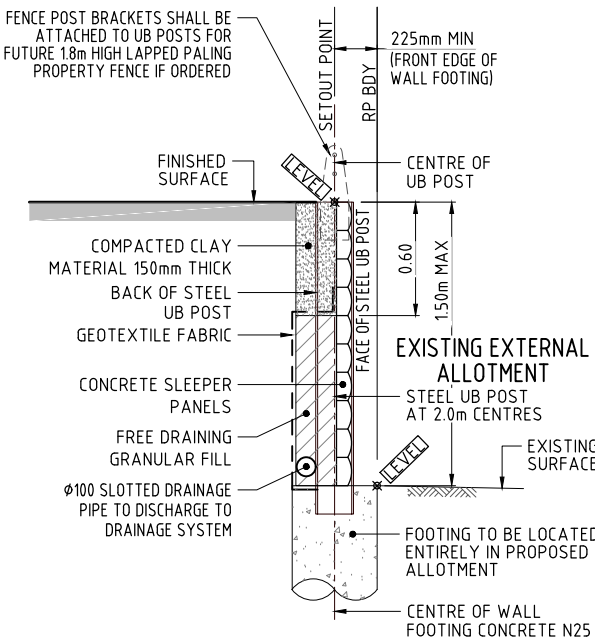
TYPICAL SECTION - TYPE A1
CONCRETE SLEEPER/UB POST RETAINING WALL
SCALE 1:20

NOTE: RETAINING WALL DESIGN (INCLUDING FENCE POST BRACKETS AND FITTINGS) AND CONSTRUCTION CERTIFICATION TO INCORPORATE LOADING FROM FUTURE 1.8m HIGH LAPPED PALING PROPERTY FENCE



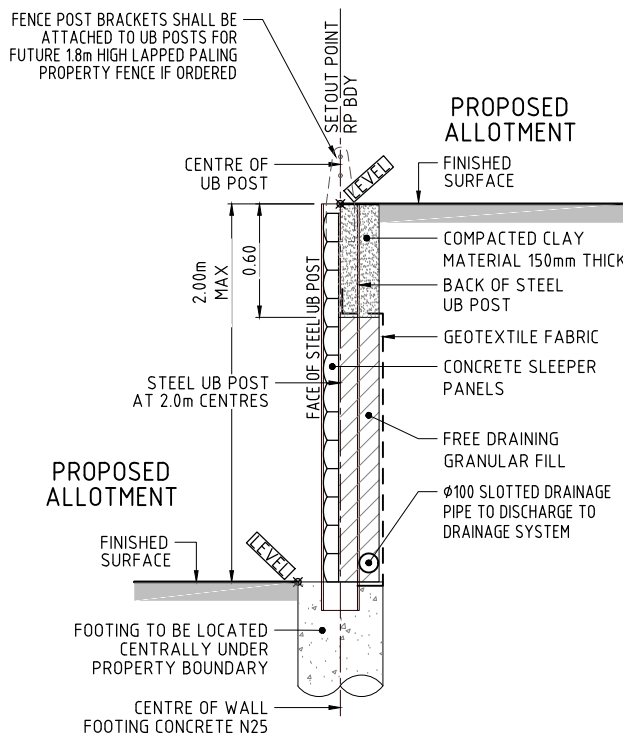
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CONCRETE SLEEPER/UB POST RETAINING WALL
SCALE 1:20

NOTE: RETAINING WALL DESIGN (INCLUDING FENCE POST BRACKETS AND FITTINGS) AND CONSTRUCTION CERTIFICATION TO INCORPORATE LOADING FROM FUTURE 1.8m HIGH LAPPED PALING PROPERTY FENCE



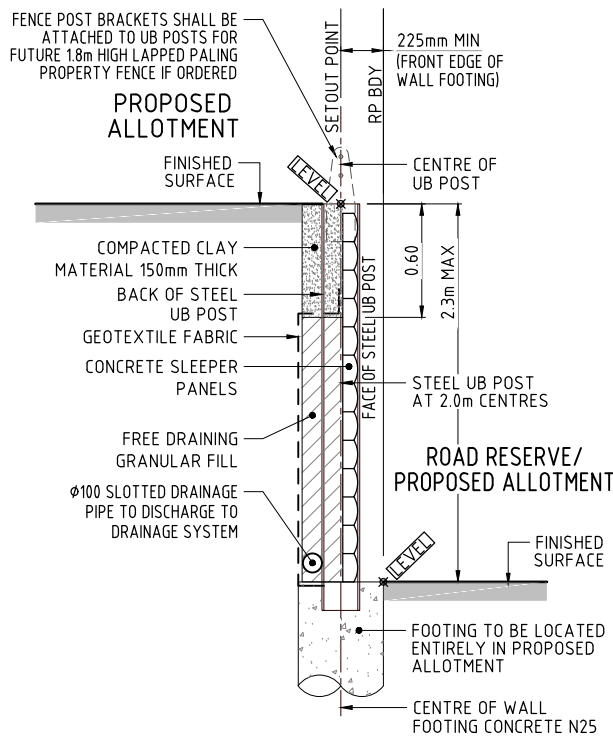
TYPICAL SECTION - TYPE A5
CONCRETE SLEEPER/UB POST RETAINING WALL
SCALE 1:20

NOTE: RETAINING WALL DESIGN (INCLUDING FENCE POST BRACKETS AND FITTINGS) AND CONSTRUCTION CERTIFICATION TO INCORPORATE LOADING FROM FUTURE 1.8m HIGH LAPPED PALING PROPERTY FENCE



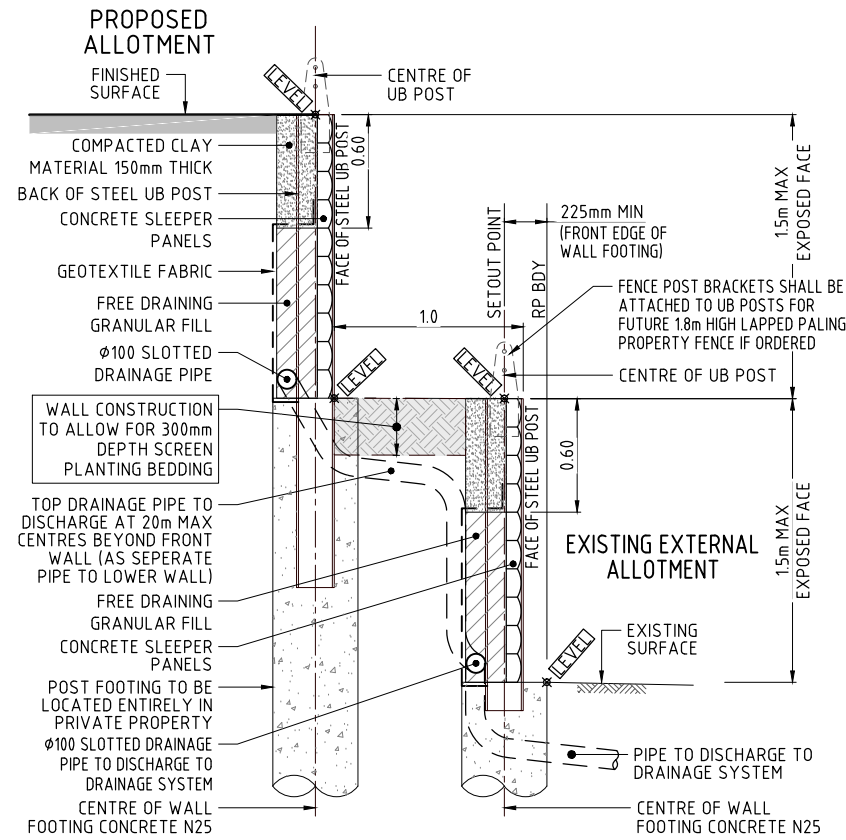
TYPICAL SECTION - TYPE B1
CONCRETE SLEEPER/UB POST RETAINING WALL
SCALE 1:20

NOTE: RETAINING WALL DESIGN (INCLUDING FENCE POST BRACKETS AND FITTINGS) AND CONSTRUCTION CERTIFICATION TO INCORPORATE LOADING FROM FUTURE 1.8m HIGH LAPPED PALING PROPERTY FENCE



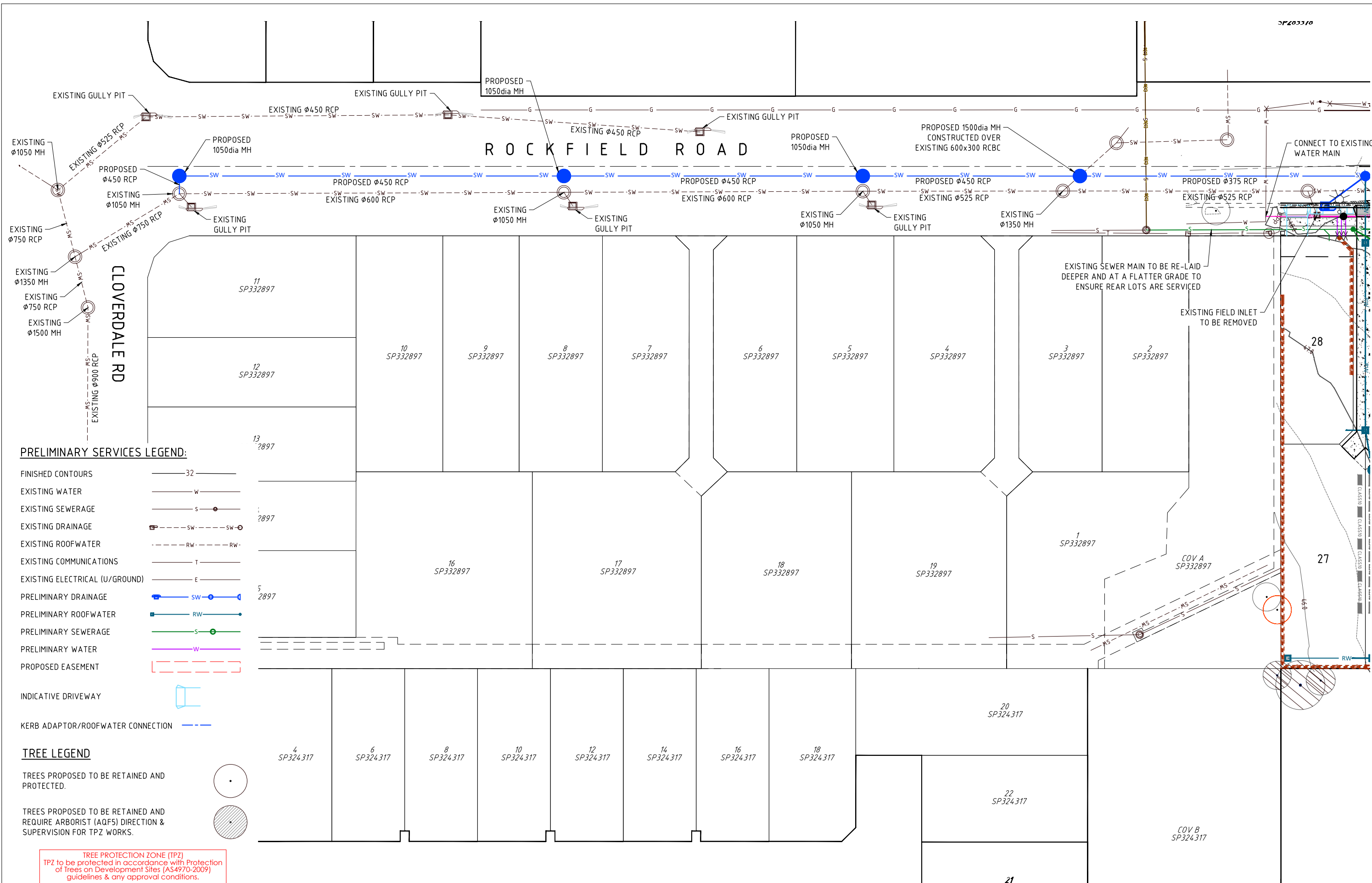
TYPICAL SECTION - TYPE B3
CONCRETE SLEEPER/UB POST RETAINING WALL
SCALE 1:20

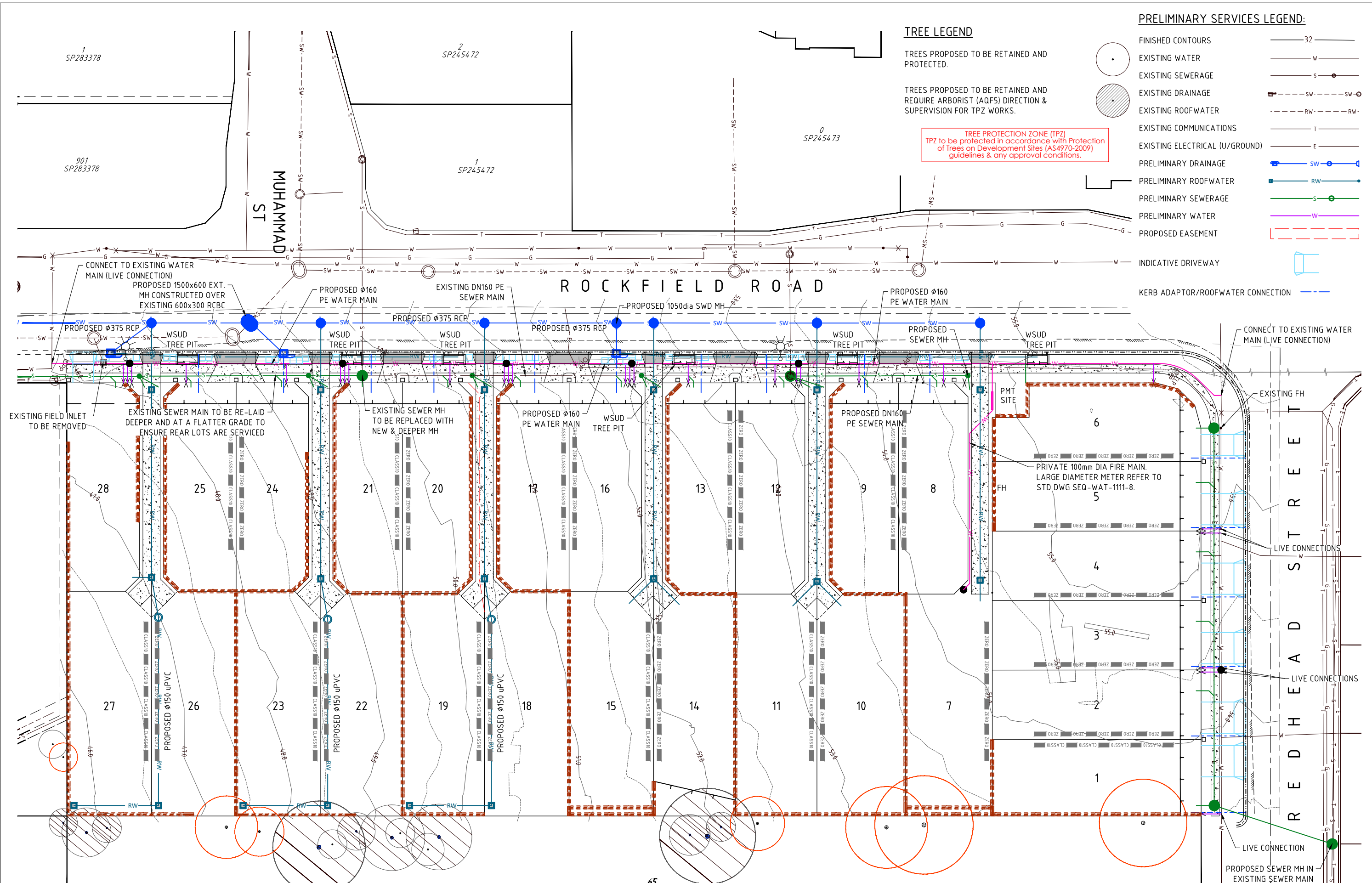
NOTE: RETAINING WALL DESIGN (INCLUDING FENCE POST BRACKETS AND FITTINGS) AND CONSTRUCTION CERTIFICATION TO INCORPORATE LOADING FROM FUTURE 1.8m HIGH LAPPED PALING PROPERTY FENCE



TYPICAL SECTION - TYPE C5
TERRACED CONCRETE SLEEPER/UB POST RETAINING WALL
SCALE 1:20

NOTE: RETAINING WALL DESIGN (INCLUDING FENCE POST BRACKETS AND FITTINGS) AND CONSTRUCTION CERTIFICATION TO INCORPORATE LOADING FROM FUTURE 1.8m HIGH LAPPED PALING PROPERTY FENCE







APPENDIX D

RATIONAL METHOD CALCULATIONS (ROCKFIELD ROAD)

RATIONAL METHOD CALCULATION

Sections A & B on Rockfield Road

Area & C10

Catchment	Area (ha)	Fi (%)	Co-efficients of Runoff						
			C1	C2	C5	C10	C20	C50	C100
Section A	4.41	69%	0.68	0.72	0.81	0.85	0.89	0.98	1.00
Section B	5.31	65%	0.67	0.71	0.80	0.84	0.88	0.97	1.00

Time of Concentration Standard Inlet & Pipe Flow

Catchment	Standard Inlet Time (mins)	Friends Overland Sheet Flow				Pipe / Stream Flow Time			Total Tc (mins)
		Overland Sheet Flow Length (mins)	Horton's n	Slope (%)	Sheet Flow Travel Time (mins)	Pipe/ Stream Flow Length (m)	Assumed velocity (m/s)	Pipe/ Stream Flow Time (mins)	
Section A	10					57	2	0.5	10.5
Section B	10					155	2	1	11.3

Rainfall Intensities (mm/hr)

Catchment	I ₁	I ₂	I ₅	I ₁₀	I ₂₀	I ₅₀	I ₁₀₀
Section A	88	113	145	164	189	222	249
Section B	85	110	140	159	183	217	242

Peak Flow (m³/s)

Catchment	1yr ARI	2yr ARI	5yr ARI	10yr ARI	20yr ARI	50yr ARI	100yr ARI
Section A	0.73	1.00	1.44	1.71	2.06	2.67	3.05
Section B	0.84	1.15	1.65	1.97	2.38	3.11	3.57



APPENDIX E

MANNING'S CALCULATIONS (ROCKFIELD ROAD)

MANNING'S CALCULATION

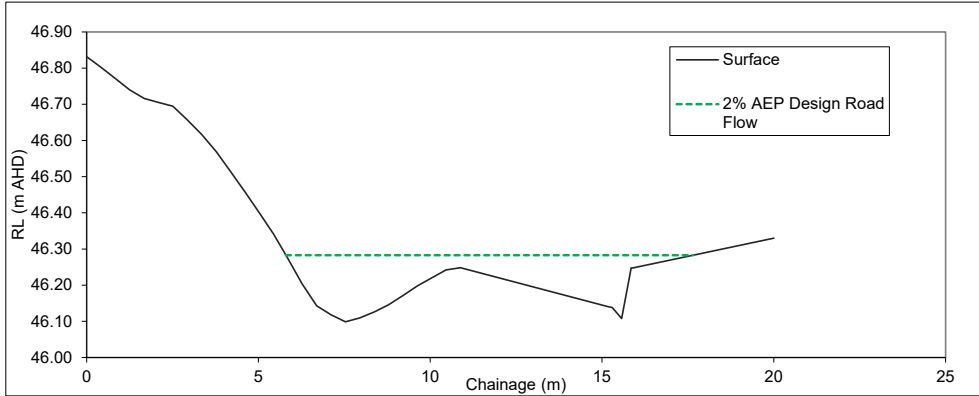
SECTION A

near CH 65.000 from

near CH 65.000 from OPW A006078413 downslope deisgn plans

Cross Section Details				2% AEP Design Road Flow		
comment	CH	Z	n	wA	wP	n x wA
table drain (lidar)	0.00	46.832	0.030			
table drain (lidar)	0.42	46.802	0.030			
table drain (lidar)	0.84	46.771	0.030			
table drain (lidar)	1.26	46.740	0.030			
table drain (lidar)	1.67	46.716	0.030			
table drain (lidar)	2.09	46.705	0.030			
table drain (lidar)	2.51	46.695	0.030			
table drain (lidar)	2.93	46.657	0.030			
table drain (lidar)	3.35	46.617	0.030			
table drain (lidar)	3.77	46.569	0.030			
table drain (lidar)	4.18	46.515	0.030			
table drain (lidar)	4.60	46.458	0.030			
table drain (lidar)	5.02	46.401	0.030			
table drain (lidar)	5.44	46.341	0.030			
table drain (lidar)	5.86	46.273	0.030	0.00	0.06	0.00
table drain (lidar)	6.28	46.203	0.030	0.02	0.42	0.00
table drain (lidar)	6.70	46.143	0.030	0.05	0.42	0.00
table drain (lidar)	7.11	46.118	0.030	0.06	0.42	0.00
table drain (lidar)	7.53	46.099	0.030	0.07	0.42	0.00
table drain (lidar)	7.95	46.110	0.030	0.07	0.42	0.00
table drain (lidar)	8.37	46.126	0.030	0.07	0.42	0.00
pavement (lidar)	8.79	46.146	0.030	0.06	0.42	0.00
pavement (lidar)	9.21	46.172	0.015	0.05	0.42	0.00
pavement (lidar)	9.62	46.198	0.015	0.04	0.42	0.00
pavement (lidar)	10.04	46.220	0.015	0.03	0.42	0.00
pavement (lidar)	10.46	46.242	0.015	0.02	0.42	0.00
crown (lidar)	10.88	46.248	0.015	0.02	0.42	0.00
cut back	15.15	46.142	0.015	0.38	4.27	0.01
Lip	15.30	46.138	0.015	0.02	0.15	0.00
Kerb invert	15.57	46.108	0.015	0.04	0.27	0.00
NFK	15.75	46.198	0.015	0.02	0.20	0.00
top of kerb	15.85	46.248	0.015	0.01	0.11	0.00
top of kerb	15.90	46.248	0.015	0.00	0.05	0.00
footpath start	17.38	46.277	0.030	0.03	1.48	0.00
foothpath end	18.58	46.301	0.015	0.00	0.27	0.00
boundary	20.00	46.330	0.030			
				wA	wP	n x wA
				1.070	11.904	0.023
				R	n	Q
				0.090	0.021	1.67
Design Flow (m³/s)				1.67		
WSL (m AHD)				46.283		

Results	
Flow (m ³ /s)	1.67
Max. Depth (m)	0.184
Velocity (m/s)	1.56
DV Product (m ² /s)	0.29



MANNING'S CALCULATION

SECTION B

near CH 150.000 from OPW A006078413 deisgn plans

Cross Section Details				2% AEP Design Road Flow		
comment	CH	Z	n	wA	wP	n x wA
boundary	0.00	44.526	0.100			
footpath start	1.42	44.498	0.030	0.01	0.84	0.00
footpath end	2.62	44.474	0.015	0.03	1.20	0.00
top of kerb	4.10	44.444	0.030	0.08	1.48	0.00
top of kerb	4.15	44.444	0.015	0.00	0.05	0.00
NFK	4.25	44.394	0.015	0.01	0.11	0.00
Kerb invert	4.43	44.304	0.015	0.03	0.20	0.00
Lip	4.70	44.334	0.015	0.05	0.27	0.00
crown	10.00	44.467	0.015	0.60	5.30	0.01
cut back	15.15	44.338	0.015	0.58	5.15	0.01
Lip	15.30	44.334	0.015	0.03	0.15	0.00
Kerb invert	15.57	44.304	0.015	0.05	0.27	0.00
NFK	15.75	44.394	0.015	0.03	0.20	0.00
top of kerb	15.85	44.444	0.015	0.01	0.11	0.00
top of kerb	15.90	44.444	0.015	0.00	0.05	0.00
footpath start	17.38	44.474	0.030	0.08	1.48	0.00
foothpath end	18.58	44.498	0.015	0.03	1.20	0.00
boundary	20.00	44.526	0.030	0.01	0.84	0.00
Slope (m/m) Slope 0.010				wA 1.649	wP 18.912	n x wA 0.027
				R 0.087	n 0.017	Q 1.95

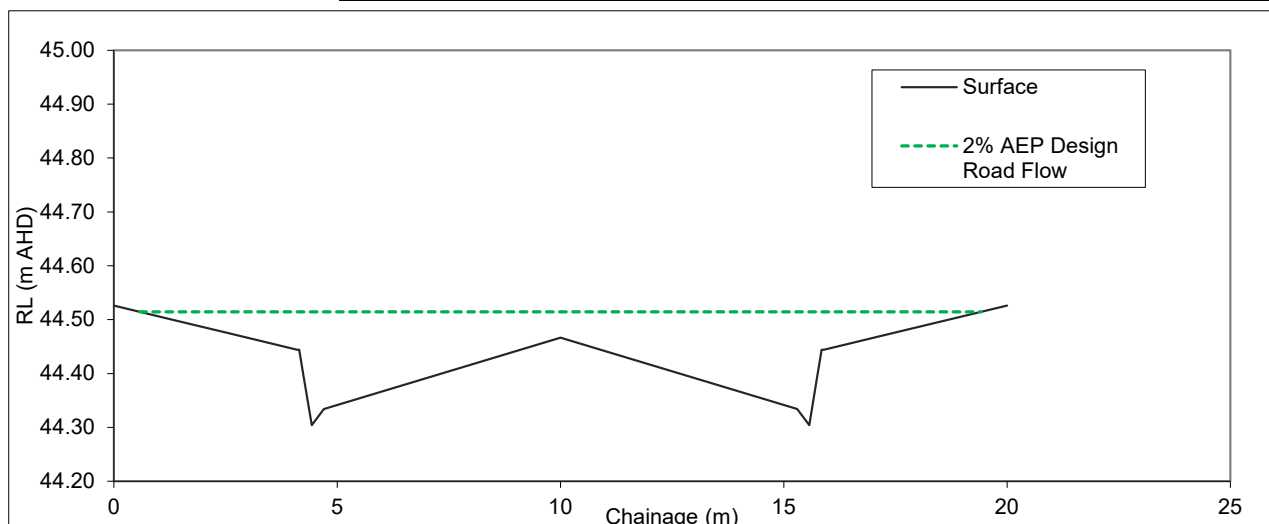
Design Flow (m³/s)

WSL (m AHD)

1.95

44.514

Results	
Flow (m ³ /s)	1.95
Max. Depth (m)	0.210
Velocity (m/s)	1.18
DV Product (m ² /s)	0.25





APPENDIX F

EROSION HAZARD ASSESSMENT FORM



Erosion Hazard Assessment

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

What is an Erosion Hazard Assessment?

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

When is the EHA required?

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

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

Privacy Statement

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

Assessment Details

1 Please turn over and complete the erosion hazard assessment.

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

☐ **A 'low' risk site**

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

☒ **A 'medium' risk site**

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

☐ **A 'high' risk site**

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

3 Site Information and Certification

Application number (if known)

Site address

92 Redhead Street, Doolandella

Postcode **4077**

I certify that:

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

Certified by (Print name)

Chamindri Blair

Certifier's signature

Date

3 / 12 / 2025

Assessment Table

Table 1: Low Risk Test

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

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

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

Table 2: Medium Risk Test

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

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

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

Table 3: High Risk Test

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

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

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



APPENDIX G

CLOVERDALE ROAD DRAINAGE DESIGN PLANS (EXTRACTS)

Approved Plan
Brisbane City Council
04/05/2018

APPROVED PLAN ONLY REFERS TO:

- ☐ Earthworks
- ☒ Stormwater
- ☒ Roadworks
- ☐ Traffic Functional Layout
- ☐ Traffic Signals
- ☐ Construction Management Plan
- ☐ WSPD Plan

LEGEND:

- FINISHED CONTOURS
- PROPOSED STORMWATER DRAINAGE
- PROPOSED CATCHMENT BOUNDARIES
- Q10 DEVELOPED CATCHMENT AREA
- Q10 UNDEVELOPED CATCHMENT AREA (DUE TO CONSTRUCTED DETENTION BASINS)

The map displays the Q10 catchment area with several labeled features:

- FINISHED CONTOURS:** Represented by thin, wavy lines at the top of the map.
- PROPOSED STORMWATER DRAINAGE:** Indicated by a thick black line with a manhole symbol (a circle with a T-shaped structure) at its upstream end.
- PROPOSED CATCHMENT BOUNDARIES:** Shown as a series of blue dashed rectangular blocks.
- Q10 DEVELOPED CATCHMENT AREA:** A central rectangular area filled with a wavy, textured pattern, representing developed land.
- Q10 UNDEVELOPED CATCHMENT AREA (DUE TO CONSTRUCTED DETENTION BASINS):** A rectangular area at the bottom filled with a solid light blue color, representing undeveloped land.

Approved Plan
 Brisbane City Council

04/05/2018

APPROVED PLAN ONLY REFERS TO:

- ☐ Earthworks
- ☒ Stormwater
- ☒ Roadworks
- ☐ Traffic Functional Layout
- ☐ Traffic Signals
- ☐ Construction Management Plan
- ☐ WSUD Device(s)
- ☐ Signs and Linemarking

Other:

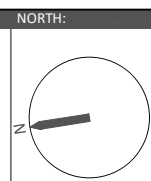


BRISBANE - SUNSHINE COAST - CENTRAL QLD

BRISBANE
JFP House - 76 Ernest Street,
South Brisbane Qld 4101
P 07 3012 0100 W www.jfp.com.au

JFP URBAN CONSULTANTS PTY. LTD. A.C.N. 050 414 045

PLANNERS
URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS



SCALE: **1:1000** THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE

A1 

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APPROVED  FOR AND ON BEHALF OF JPP URBAN CONSULTANTS PTY LTD	☐ J. M. KINNEY RPEQ 5087 ☒ S. MARSH RPEQ 8068	☐ A. FRASER RPEQ 3691 ☐ J. PAPPAS RPEQ 6086	DESIGNED DRAWN CHECKED DATE
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ISSUE:		
K		
K	B	AMENDED AS PER BCC RFI DATED 30/11/2017
IM	A	ISSUE FOR OPERATIONAL WORKS APPROVAL
		ISSUE DETAILS:

[illegible]

TITLE:

DRAINAGE EXTERNAL CATCHMENT
SHEET 1 of 2

ESTATES CO PTY LTD

PROPOSED DEVELOPMENT AT
84 & 90 CLOVERDALE ROAD, DOOLANDELLA


Estates Co

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The Essential First Step

DETAILS:	
JOB NO:	B3617E
PLAN:	ISSUE:
D01	B
BRISBANE CITY COUNCIL REF:	
A004356091	
FILE NAME: DRAINAGE.DWG	

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LEGEND:

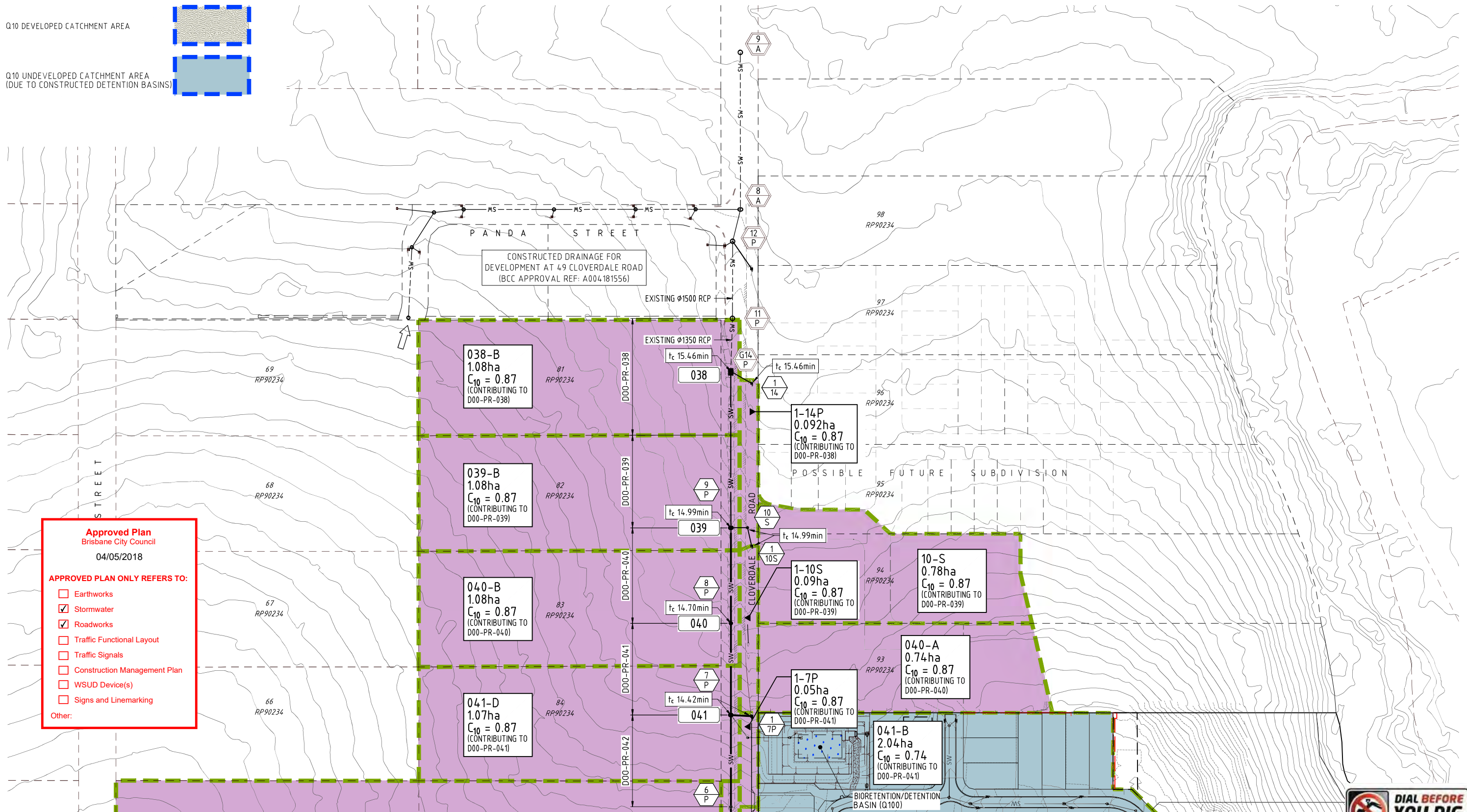
FINISHED CONTOURS

PROPOSED STORMWATER DRAINAGE

PROPOSED CATCHMENT BOUNDARIES

Q10 DEVELOPED CATCHMENT AREA

Q10 UNDEVELOPED CATCHMENT AREA
(DUE TO CONSTRUCTED DETENTION BASINS)



Approved Plan
Brisbane City Council
04/05/2018

APPROVED PLAN ONLY REFERS TO:

- ☐ Earthworks
- ☒ Stormwater
- ☒ Roadworks
- ☐ Traffic Functional Layout
- ☐ Traffic Signals
- ☐ Construction Management Plan
- ☐ WSUD Device(s)
- ☐ Signs and Linemarking

Other:

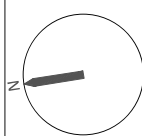
FOR CONTINUATION REFER SHEET 1



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URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH:



SCALE:

1:1000
A1

THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE

0 10 20 30 40 50 60 70 80 90 100 Metres
(A1) 1:1000
(A3) 1:2000

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APPROVED
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD

T.M. KINNEY
RPEQ 5087
S. MARSH
RPEQ 8068

A. FRASER
RPEQ 5691
L. PAPPAS
RPEQ 6086

ISSUE:

DESIGNED: SJK
DRAWN: SJK
CHECKED: SMM
DATING: AHD

B
AMENDED AS PER BCC RFI DATED 30/11/2017
ISSUE FOR OPERATIONAL WORKS APPROVAL
ISSUE: DETAILS:

TITLE:

DRAINAGE EXTERNAL CATCHMENT PLAN
SHEET 2 of 2

ESTATES CO PTY LTD

PROPOSED DEVELOPMENT AT
84 & 90 CLOVERDALE ROAD, DOOLANDELLA

19/03/18
30/10/17
DATE:
INIT:

SJK
SJK
INIT:

DETAILS:

JOB NO:
B3617E
PLAN:
D02
ISSUE:
B

BRISBANE CITY COUNCIL REF:
A004356091
FILE NAME: DRAINAGE.DWG

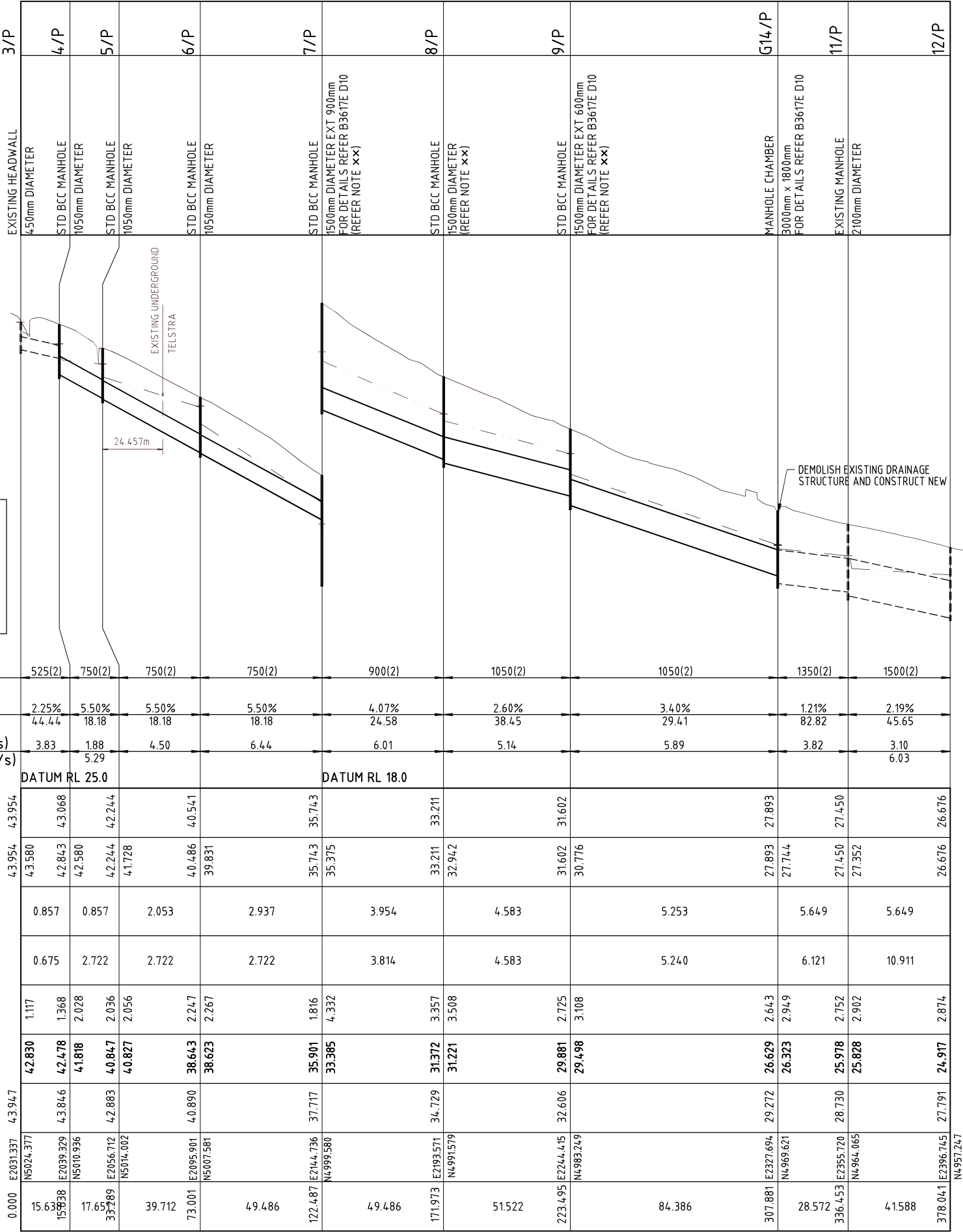
STRUCTURE NAME
STRUCTURE DESCRIPTION

NOTE xx

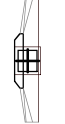
STRUCTURAL CERTIFICATION
STORMWATER MANHOLES DEEPER THAN 3m TO BE DESIGNED AND CERTIFIED BY AN RPEQ. FORM 15 AND FORM 16 TO BE PROVIDED BY RPEQ PRIOR TO ON MAINTENANCE.

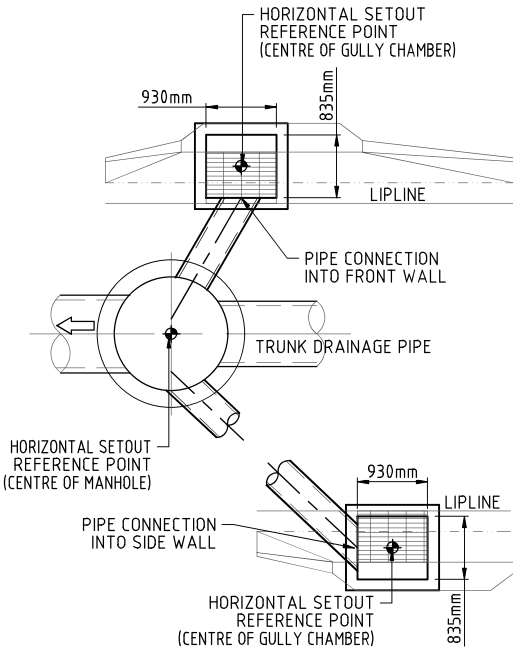
PIPE SIZE (mm)	525(2)	750(2)	750(2)	750(2)	900(2)	1050(2)	1050(2)	1350(2)	1500(2)
AND PIPE CLASS									
PIPE GRADE %	2.25%	5.50%	5.50%	5.50%	4.07%	2.60%	3.40%	1.21%	2.19%
PIPE SLOPE 1 in X	4.4.44	18.18	18.18	18.18	24.58	38.45	29.41	82.82	45.65
FULL PIPE FLOW VELOCITY (m/s)	3.83	1.88	4.50	6.44	6.01	5.14	5.89	3.82	3.10
PART FULL FLOW VELOCITY (m/s)		5.29							6.03

WATER LEVEL IN STRUCTURE
HYDRAULIC GRADE LEVEL
PIPE FLOW (Cumecs)
PIPE CAPACITY AT GRADE (Cumecs)
DEPTH TO INVERT
INVERT LEVEL OF DRAIN
DESIGN SURFACE LEVEL
STRUCTURE SETOUT CO-ORDINATES
RUNNING CHAINAGE



REFERENCE POINT LOCATION FOR STORMWATER DRAINAGE STRUCTURES

STRUCTURE TYPE	HORIZONTAL REFERENCE LOCATION (STRUCTURE SETOUT CO-ORDINATES)	VERTICAL REFERENCE LEVEL
MANHOLE AND ROOFWATER PIT	 ∇ MAIN SHAFT	FINISHED SURFACE LEVEL - MANHOLE/PIT COVER
TYPE 'A' GULLY PIT, LIP IN LINE	 CENTRE OF GULLY	LIP OF KERB
FIELD INLET AND ROOFWATER PIT	 CENTRE OF GULLY	TOP OF GRATE OR COVER
HEADWALL	 ∇ OF HEADWALL (END OF OUTLET PIPE)	INVERT OF OUTLET PIPE.



CONTRACTOR IS TO ENSURE THAT PIPE CONNECTIONS TO GULLY PITS ARE NOT CONSTRUCTED INTO THE CORNER OF TWO WALLS

GULLY PIT PIPE CONNECTION DETAIL

SCALE: NTS

REFER B3617E D14 FOR ALLOWABLE STORMWATER PIPE CONSTRUCTION EQUIPMENT LOAD TABLE

Approved Plan

Brisbane City Council

04/05/2018

APPROVED PLAN ONLY REFERS TO:

☐ Earthworks

☒ Stormwater

☒ Roadworks

☐ Traffic Functional Layout

☐ Traffic Signals

☐ Construction Management Plan

☐ WSUD Device(s)

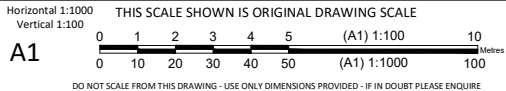
☐ Signs and Linemarking

Other:



NORTH:

SCALE:



ISSUE:

TITLE:

BRISBANE - SUNSHINE COAST - CENTRAL QLD BRISBANE JFP House - 76 Ernest Street, South Brisbane Qld 4101 P 07 3012 0100 W www.jfp.com.au PLANNERS URBAN DESIGNERS SURVEYORS ENGINEERS LANDSCAPE ARCHITECTS	APPROVED T.M'KINNEY RPEQ 5087 CHECKED S.MARSH RPEQ 8068 DESIGNED SJK DRAWN SJK CHECKED SMM DATUM: AHD	LINE P AMENDED AMENDED AS PER BCC RFI DATED 30/11/17 ISSUE FOR OPERATIONAL WORKS APPROVAL 12/04/18 19/03/18 30/10/17 CDV CDV SJK DATE: INIT:	ESTATES CO PTY LTD PROPOSED DEVELOPMENT AT 84 & 90 CLOVERDALE ROAD, DOOLANDELLA 12/04/2018 N:\3867\STAGE 03\DESIGN\WORKING DRAWINGS\DRAWINGS	DETAILS: JOB NO: B3617E PLAN: D15 ISSUE: C BRISBANE CITY COUNCIL REF: A004356091 FILE NAME: DRAINAGE SECTIONS.DWG
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