30-46 Auburn Road, Regents Park – Affordable Housing Stage 03 Civil Works

Siteworks Infrastructure Report – SSD-57703458 Application

Integrated Water Management Plan

Surface Groundwater Impact Assessment

Infrastructure Delivery & Staging Plan

27 February 2025

Prepared for 30 Auburn Pty Ltd

Document Information

Document Title	30-46 Auburn Road, Regents Park – Affordable Housing Stage 03 Civil Works
Document Subject	Siteworks Infrastructure Report – SSD-57703458 Application
Prepared For	30 Auburn Pty Ltd
File Name	SY23-120-R03-02-Regents Park.docx
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Approved	Peter McCallum

Transmittal

Revision	Comments	Date	Author	Reviewed	Approved
01	For DRAFT	13/01/2025	JC	FX	
02	SEARs Amendments	27/02/2025	RT	FX	

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S3 SEARS Register

The table below is the list of SEARS item requirements addressed in this report.

No.	Requirement	Documentation	Action
11	**Water Management** • Detail the proposed drainage design and servicing infrastructure to be incorporated as part of the development (stormwater and wasterwater). • Demonstrate how the development complies with council's drainage requirements and identify proposed stormwater treatment and water quality management measures to minimum adverse environmental impacts.	Water Management	Section 4 of this report, outlines the local authority drainge objectives and controls required for the site. A detailed assessment of the proposed water quantity and quality system has been provided in accordance with the objectives and control. Initial consultation with Council was carried out by Stantec during Concept DA. Water related infrastructure anticipated demand can be found in Section 6.7 in this report. To reduce the water demand, a proposed rainwater tank is provided for irrigation purposed, refer to Section 4.8.
12	**Ground and Groundwater Conditions** • Assess potential impacts on soil resources related to infrastructure and riparian lands on and near the site and including soil erosion. • Where required provide a Groundwater Impact Assessment in accordance with relevant Groundwater Guidelines. If the proposed development is on land identified as having high salinity or acid sulfate soil petential in an EPI provide a Salinity Management Plan or Acid Sulfate Soil Mangement Plan that includes appropriate management measures and strategies.	Surface and Groundwater Impact Assessment	In Section 5 of this report, a detailed assessment of the surface water resource in terms of the quality and quantity values have been analysed to determine the impacts on related infrastructure, hydrology, dependent ecosystems, drainage lines, downstream assets and watercourses. A Risk Determination Register is provided which lists activities causing impacts to the surface water quality and quanity. These impacts can be reduced by performing relavent mitigation measures. For soil and groundwater resource impact, refer to Salinity Management Plan and Acid Sulphate Soils Management Plan prepared by Sullivan Environmental Sciences and Groundwater Impact Assessment prepared by IROS Australia

Additional Reporting Information

The table below is the list of additional site information addressed in this report.

No.	Requirement	Documentation	Action
	Infrastructure Requirements and Utilities • In consultation with relevant service providers: ○ assess the impacts of the development on existing utility infrastructure and service provider assets surrounding the site.	Infrastructure Delivery, Management and Staging Plan	Section 6 of the report investigates surrounding existing utility infrastructures and how the proposed development will impact on associated services providers. The on-site and off-site infrastructure was determined includig requirements to facilitate the development.

Contents

1. Introduction 1
2. Related Reports and Documents 1
3. The Development 3
3.1. Proposed Development Location and Description 3
4. Integrated Water Management Plan / Strategy (SEARs 11) 4
4.1. Existing Stormwater Infrastructure and Site Conditions 4
4.2. Objectives and Controls 6
4.3. Stormwater Quantity Management Strategy 6
4.4. Stormwater Conveyance Systems 8
4.4.1. Roof Drainage 8
4.4.2. In Ground Drainage 8
4.5. Stormwater Quantity Modelling 8
4.6. Stormwater Drainage Modelling Results 9
4.6.1. Stormwater Attenuation Results 10
4.7. Stormwater Quality Strategy 10
4.8. Rainwater Tank 10
5. Surface Water Impact Assessment (SEARs 13) 11
5.1. Surface Water Quality Impacts 11
5.2. Surface Water Quality Impacts 12
5.3. Surface Water Quantity/Quality Impact and risk assessment 13
6. Infrastructure Delivery (Utilities) & Staging Plan 8
6.1. Site servicing overview 8
6.2. Site Services 8
6.3. Existing Utilities Infrastructure 8
6.3.1. Existing Electricity Infrastructure 8
6.3.2. Existing Communication Infrastructure 10
6.3.3. Existing Wastewater (Sewer) 11
6.3.4. Existing Potable Water 12
6.3.5. Existing Natural Gas 13
6.5. Stage 01 – On-site Infrastructure Works 14
6.5.1. Electrical Supply 14
6.5.2. Communications Supply 14
6.5.3. Sewer Drainage 14
6.5.4. Potable Water Supply 15
6.5.5. Fire Water Supply 15

6.5.6. Natural Gas Supply 15
6.6. Stage 01 – Off-site Infrastructure Works 16
6.6.1. Ausgrid – Electrical mains 16
6.6.2. NBN – Communications mains 16
6.6.3. Sydney Water Corporation Sewer Drainage 16
6.6.4. Sydney Water Corporation Potable Water Mains 16
6.6.5. Jemena Natural Gas Mains 17
6.7. Infrastructure Demands and Loads 17
6.7.1. Electrical Demand and Loads 17
6.7.2. Sewer Demand and Loads 17
6.7.3. Potable Water Demand and Loads 17
6.7.4. Fire Water Demand and Loads 18
7. Conclusion 19
Appendix A – Stage 03 – Civil Drawing Package 20
Appendix B – Stage 01 - Civil Drawing Package 21
Appendix C – Staging Plan 22
Appendix D – Council Stormwater System Report 23
Appendix E – DRAINS Layout 24
Appendix F – Water Quality Targets Correspondence with Canterbury – Bankstown Council Engineer 27
Appendix G – Stage 01 - Proposed Services and Road Layout Plan 28
Appendix H – Sydney Water Feasibility Letter 29
Appendix I – Stage 1 – Hydraulic Services Site Infrastructure Report 30

List of Tables

Table 1 – Regents Park – Stage 03 Drawing Reference 1
Table 2 - Existing Catchment Area Breakdown 5
Table 3 – Post-development Catchment Breakdown 8
Table 4 - On-Site Detention Tank Parameters 9
Table 5 - Catchment A Pre & Post Development Discharge 10
Table 6 - Catchment B Pre & Post Development Discharge 10
Table 7 – Surface Water Quantity Impacts 11
Table 8 – Surface Water Quality Impacts 12
Table 9 – Qualitative Measure of Likelihood or Frequency 13
Table 10 – Qualitative Measures of Impact – Consequence Severity 13
Table 11 – Risk Matrix for Determination of Risk Level 13
Table 12 – Risk Determination and Responsibility Schedule 7

List of Figures

Figure 1 - Location of Subject Site 3
Figure 2 – Pre-development Catchment plan 5
Figure 3 – Post-development Catchment plan 7
Figure 4 – Existing Ausgrid Infrastructure 9
Figure 5 – Existing Communications Infrastructure 10
Figure 6 – Existing Sewer Infrastructure 11
Figure 7 – Existing Potable Infrastructure 12
Figure 8 – Existing Gas Infrastructure 13

List of Abbreviations

AEP – Annual Exceedance Probability

BOM – Bureau of Meteorology

CICL – Cast Iron Cement Lined

FU's – Fixture Units

HV – High Voltage

IFD – Intensity Frequency Duration

GPT – Gross Pollutant Trap

LGA – Local Government Authority

LV – Low Voltage

OSD – On-Site Detention

PSD – Permissible Site Discharge

SEARs - Secretary's Environmental Assessment Requirements

SSD - State Significant Development

SSDA - State Significant Development Application

SWC – Sydney Water Corporation

VC – Vitreous Clay

WSAA – Water Services Association Australia

WSC – Water Servicing Coordinator

WSUD – Water Sensitive Urban Design

1. Introduction

Sky Engineering and Project Management (**Sky Engineering**) has been engaged by 30 Auburn Road Pty Ltd to prepare the Civil Engineering Design and Documentation to address the Secretary's Environmental Assessment Requirements (**SEARs**) in support of the State Significant Development Application (**SSDA**) for the Stage 03 development subject site. (REF: SSD-57703458). This Development Application is the Stage 03 works of the Concept DA SSD-20724880 application. This report follows the DA submission of Stage 01 and Stage 02) development of the subject site (REF: SSD-54988962, REF:SSD-57394209 respectively).

The proposed Affordable Housing development comprising of residential and commercial floorspace is situated on subject land 30-46 Auburn Road, Regents Park NSW 2143, registered as Lot 1 DP656032 & Lot 2 DP433938, respectively.

The Stage 03 SEARs requirements addressed in this report for the proposed development as follows:

1. SEARs 11 – Integrated Water Management Plan
2. SEARs 12 – Surface Water Impact Assessment

In additional to the above SEARs, this report also includes Infrastructure Delivery and Staging Plan. This report intends to inform the parameters and assumptions adopted in the design and documentation of the following civil engineering elements:

- Stormwater Quantity & Quality Management

2. Related Reports and Documents

This report is to be read in conjunction with the following reports and documents:

1. Regents Park - Stage 03 Civil Siteworks & Stormwater Management Plan drawing package prepared by Sky Engineering can be found in **Appendix A**.

Table 1 – Regents Park – Stage 03 Drawing Reference

Drawing No.	Drawing Title	Rev
SY23-120-C-3001	COVER SHEET LOCALITY PLAN AND DRAWING INDEX	P1
SY23-120-C-3002	GENERAL NOTES	P1
SY23-120-C-3005	STAGING PLAN	P1
SY23-120-C-3010	GENERAL ARRANGEMENT PLAN	P1
SY23-120-C-3200	CIVIL SITEWORKS & STORMWATER MANGEMENT PAN BASEMENT C3	P1
SY23-120-C-3201	CIVIL SITEWORKS & STORMWATER MANGEMENT PAN BASEMENT C2	P1
SY23-120-C-3202	CIVIL SITEWORKS & STORMWATER MANGEMENT PAN BASEMENT C1	P1
SY23-120-C-3203	CIVIL SITEWORKS & STORMWATER MANGEMENT PAN LEVEL 0	P1
SY23-120-C-3204	CIVIL SITEWORKS & STORMWATER MANGEMENT PAN LEVEL 1	P1
SY23-120-C-3205	CIVIL SITEWORKS & STORMWATER MANGEMENT PAN ROOF	P1
SY23-120-C-3206	CIVIL SITEWORKS & STORMWATER MANGEMENT PAN PARK	P1
SY23-120-C-3250	DRIVEWAY LONGITUDINAL SECTIONS	P1
SY23-120-C-3330	CIVIL SITEWORKS DETAILS	P1
SY23-120-C-3700	EROSION AND SEDIMENTATION CONTROL PLAN SHEET 1	P1
SY23-120-C-3701	EROSION AND SEDIMENTATION CONTROL PLAN SHEET 2	P1
SY23-120-C-3750	EROSION AND SEDIMENTATION CTONROL DETAILS	P1

2. Regents Park - Stage 01 Roadworks, Civil Siteworks & Stormwater Management Plan drawing package prepared by Sky Engineering can be found in **Appendix B**.
3. Canterbury Bankstown Council-Stormwater System Report 30-46 Auburn Road, Regents Park dated 23-Nov-2016
4. Bankstown City Council Development Engineering Standards 2009
5. Australian Rainfall & Runoff 2019
6. AS3500 part 5:2013 Plumbing and Drainage
7. Landcom Managing Urban Stormwater: Soils and Construction Volume 1 2004
8. Guidelines for development adjoining land and water managed by DECCW (OEH,2013)
9. Stage 1 – Hydraulic Services Site Infrastructure Report dated 27 July 2023 prepared by Scott Collis Consulting Pty Ltd
10. Concept DA submission (SSD-20724880)
11. Stage 01 DA Submission (SSD-54988962)
12. Stage 01 Siteworks Infrastructure Report dated 30 October 2023 prepared by Sky Engineering and Project Management Pty Ltd
13. Stage 02 DA Submission (SSD-57394209)
14. Stage 02 Siteworks Infrastructure Report dated 24 July 2024 prepared by Sky Engineering and Project Management Pty Ltd

3. The Development

3.1. Proposed Development Location and Description

This report supports the proposed Stage 3 of an Affordable Housing development within the Local Government Area (**LGA**) of Canterbury Bankstown in which the subject site is located. The subject site identified as 30-46 Auburn Road, Regents Park NSW 2143, is registered as Lot 1 DP656032 & Lot 2 DP433938, respectively. The approximate location is shown in **Figure 1** below and is generally bound by the following:

- Industrial lots to the North
- Auburn Road to the East
- Railway to the South & West

The development proposal seeks to deliver:

- Construction of a mixed-use development including residential and commercial floorspace.
- Provision of on-site detention and water sensitive urban design treatment (WSUD)
- Provision of essential utilities

The Staging of the proposed works will be comprised of the following:

- Stage 01 – Road and services infrastructure
- Stage 02 – Buildings A and B
- Stage 03 – Buildings C and Communal Park
- Stage 04 – Building D and E

Stage 03 works is outlined in this report to which it will facilitate the creation of Buildings C & Communal Park. The future Stages of the works will form part of a separate SSD applications. Refer to **Figure 1** below and **Appendix C** for site Staging Plan.

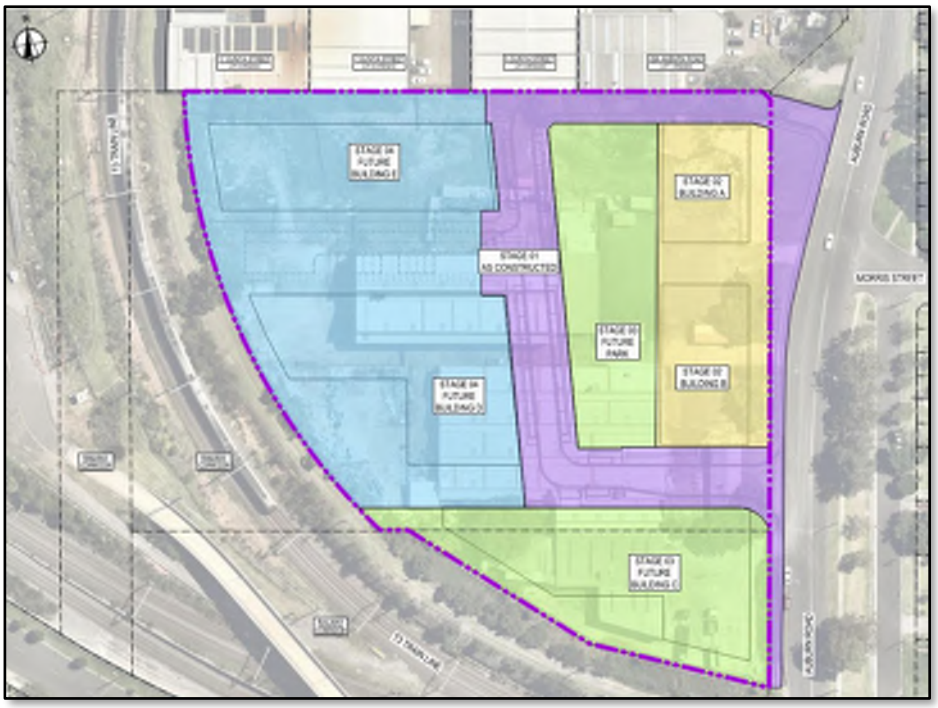


Figure 1 - Location of Subject Site

4. Integrated Water Management Plan / Strategy (SEARs 11)

SEARs 11

Water Management
Detail the proposed drainage design and servicing infrastructure to be incorporated as part of the development (stormwater and wasterwater).

Demonstrate how the development complies with council's drainage requirements and identify proposed stormwater treatment and water quality management measures to minimum adverse environmental impacts

The above SEARs 11 requirement was addressed as part of Stage 01 DA submission and is outlined in Stage 01 Siteworks Infrastructure report. Refer to **Appendix B** of Stage 01 Integrated Water Management Plans. The water management plan was developed in Stage 01 to cater for all of the future Stages including Stage 03. The section of the report below replicates the Stage 01 report, which addresses the above SEARs requirements.

4.1. Existing Stormwater Infrastructure and Site Conditions

The existing lot area is approximately 2.117ha currently occupied by industrial facilities is accessed by three driveways along the frontage of Auburn Road. The Natural topography of the site slopes from south to north, with a minor catchment area falling southwest to northeast. The survey data reveals that the site is impervious to an extent of 71%.

The existing stormwater system discharges to council's drainage network, with two discharge outlets situated along Auburn Road catering for 46 Auburn Road via a kerb outlet and the other for a portion of 30 Auburn Road to an existing stormwater pit. The third discharge location is positioned along the mid northern boundary of the property. Council has verified that the existing Auburn Road drainage system is a 375mm stormwater pipe and the northern boundary drainage system is confirmed to be a 750mm stormwater pipe.

Based on the survey of existing contours, it has been measured that approximately 30% of the site area (6245m^2) directs its catchment flow towards Auburn Road, with the remaining 70% (14,925m^2) naturally draining towards the established northern drainage line. An existing catchment plan illustrated in **Figure 2** below, shows Catchment A as 70% draining towards the northern drainage line, while catchment B refers to the 30% directed flows towards Auburn Road. Based on the existing catchment, all stormwater flows are ultimately converging to Gunya Street.

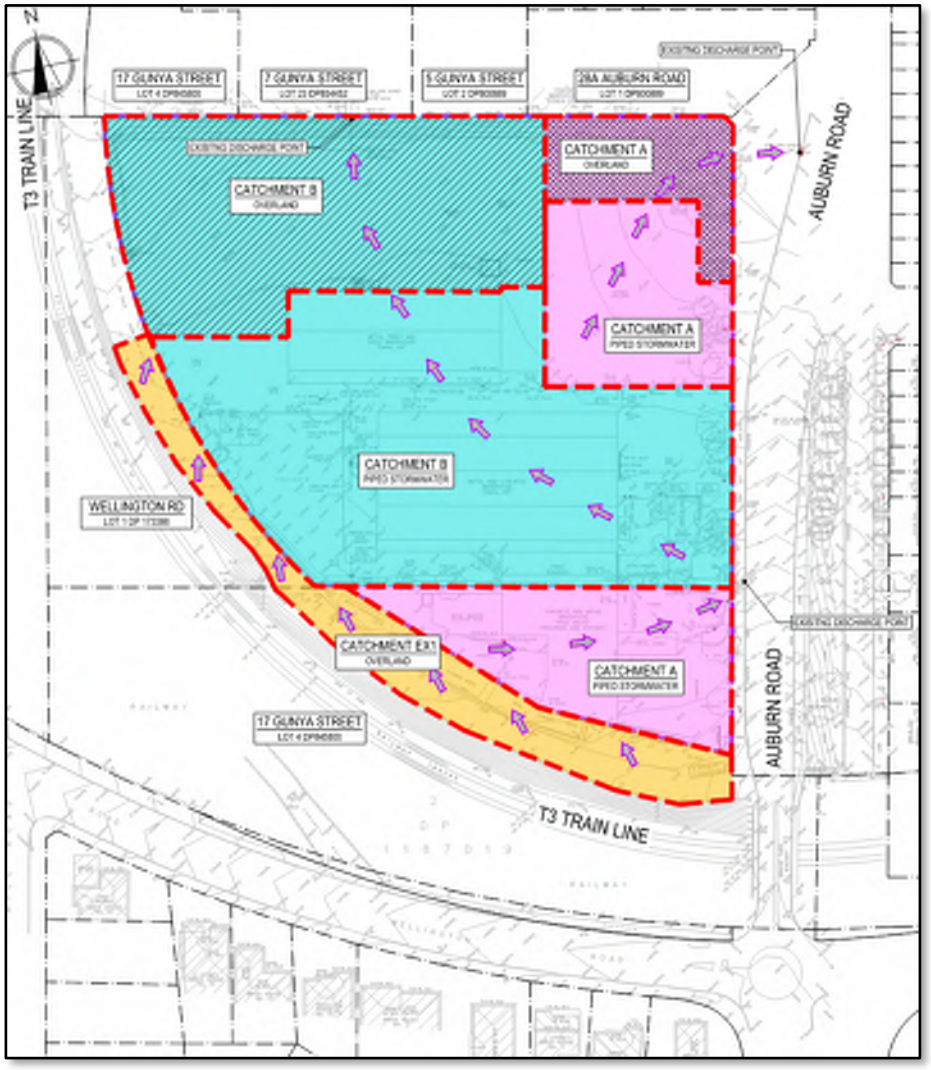


Figure 2 – Pre-development Catchment plan

Refer to **Table 2** below outlining the existing conditions of the catchments.

Table 2 - Existing Catchment Area Breakdown

Catchment ID	Area Type	Area (m^2)	Pervious Fraction (%)	Impervious Fraction (%)
A	Piped 46 Auburn Road	2,758	5	95
	Piped 30 Auburn Road	2,239	10	90
	Overland	1,307	100	0
B	Piped	9,146	5	95
	Overland	5,719	90	10
EX1	Overland	2,478	100	0
	Total Catchment Area	23,647		

Analysis of the surrounding area has been conducted to evaluate the potential impact of external stormwater catchments on the proposed site. Notably, the investigation revealed that no upstream catchment channels direct water towards the site, with the exception of a limited portion of landscape area situated along the southwestern boundary. This specific area naturally slopes towards the property.

The small portion of external catchment transverse through the site and is discharged overland to Catchment B. The Stage 03 proposed development works is planned to provide a retaining structure along the railway corridor (southern boundary) to address future level differences and prevent external flows overtopping the site. To maintain the existing site hydrological integrity, a future pit and pipe network system will be provided adjacent the proposed retaining wall to capture these external flows. The external flows have been accounted for in the hydraulic model to determine Permissible Site Discharge (**PSD**) and OSD requirements.

Refer to **Appendix D** for reference documentation of the Stormwater System Report prepared by Canterbury-Bankstown Council. This report evaluates the existing stormwater infrastructure of the site.

4.2. Objectives and Controls

The stormwater strategy has been developed in accordance with the Canterbury-Bankstown Development Control Plan 2023.

The proposed strategy seeks to:

1. To ensure that development provides a satisfactory level of engineering infrastructure.
2. To promote the consideration of possible engineering constraints to the development at the first stage of the design of the development.
3. To minimise the impact of development on the surrounding environment, roads and stormwater systems
4. To ensure public infrastructure managed by Council is not compromised by development.
5. To protect and construct the interface between development and Council's assets under Council supervision and to Council's satisfaction.
6. To ensure drainage systems are designed to collect and convey stormwater runoff from the site and into receiving systems with minimal nuisance, danger or damage to the site, adjoining sites or Council sites.

The subject site is considered as Mixed Development and in accordance with Canterbury-Bankstown Development Control Plan it will be required that 5% Annual Exceedance Probability (**AEP**) design storm should be allowed for when designing the Stormwater runoff conveyance systems.

Canterbury-Bankstown Development Control Plan states that On-Site Detention (**OSD**) is required where an increase in stormwater runoff, from a new development site, has an adverse effect to the receiving stormwater system.

Where required, the OSD must be designed and constructed to control stormwater runoff from development sites such that, for 0.2EY to 1% AEP events, peak stormwater discharges from the site do not exceed pre-development stormwater flows.

4.3. Stormwater Quantity Management Strategy

As mentioned in **Section 4.1**, the site's predevelopment conditions reveal two distinct catchment areas. To ensure the continuity of existing predeveloped conditions, the stormwater management strategy of the site will also encompass two designated catchment zones, referred as Catchment A and Catchment B. Each of these catchments is designed to convey runoff to the identified and established connection points.

Under the proposed scheme, Catchment A will discharge its accumulated stormwater runoff to a proposed kerb inlet pit. This pit will connect to the existing stormwater line along Auburn Road.

Conversely, the majority of Catchment B will convey stormwater to a proposed on-site detention tank for attenuation and continue to discharge its stormwater runoff into the existing line located at the northern boundary of the development. This approach ensures that the established drainage patterns remain unaltered.

The proposed stormwater management strategy is illustrated in the post development catchment layout, please refer to **Figure 3** for post development catchment plan and **Table 3** for post development catchment breakdown.

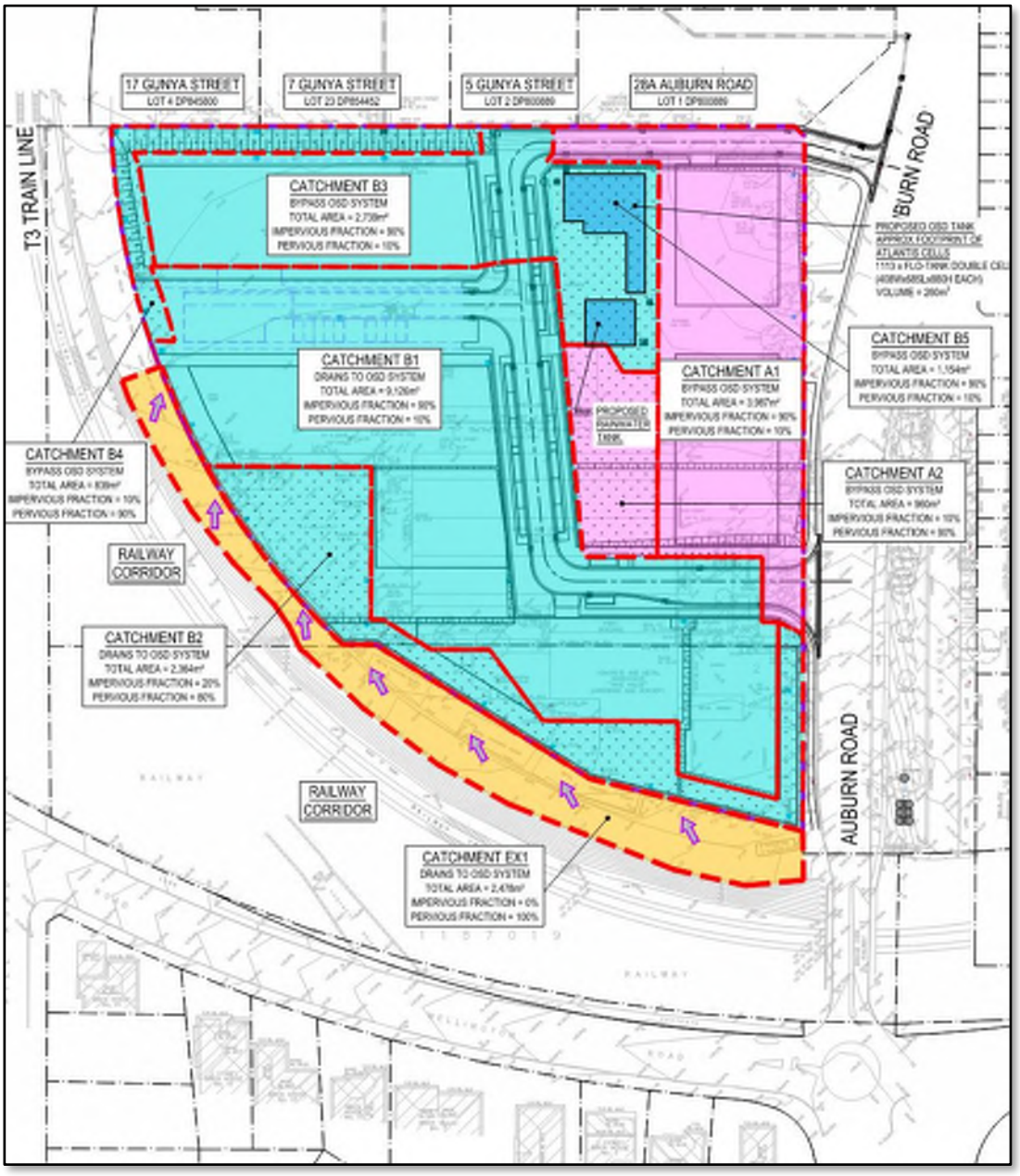


Figure 3 – Post-development Catchment plan

Table 3 – Post-development Catchment Breakdown

Catchment ID	Area Type	Area (m^2)	Pervious Fraction (%)	Impervious Fraction (%)
A1	Bypass OSD	3,987	10	90
A2	Bypass OSD	960	90	10
B1	Piped to OSD	9,126	5	95
B2	Piped to OSD	2,364	80	20
B3	Bypass OSD	2,739	10	90
B4	Bypass OSD	839	90	10
B5	Bypass OSD	1,154	10	90
EX1	Piped to OSD	2,478	100	0
	Total Catchment Area	23,647		

4.4. Stormwater Conveyance Systems

The proposed development is designed to convey surface water run-off through proposed stormwater drainage systems throughout the site to manage flows safely and adequately without causing impact to the adjacent sites. The proposed stormwater system is designed to conveying stormwater runoff to the legal point of discharge, the following systems are implemented for the site as follows:

4.4.1. Roof Drainage

The drainage system will be designed in accordance with AS3500.3-2021 to convey the major design storm runoff from the roof to in-ground system or to the proposed rainwater tank constructed part of Stage 01. Flows in excess of the design flows will overflow from the rainwater tank and be discharged to OSD tank and adjacent in-ground drainage within the site. Overflow pipes will be sized to split flows to the associated catchment scheme.

4.4.2. In Ground Drainage

The in-ground drainage has been designed for the 5% AEP and to cater for the 1% AEP storm event. Surface runoff will be directed to stormwater inlet structures. The inlet structures have been designed to adequately convey the surface runoff into the in-ground drainage network. For stormwater over 1% AEP, overland flow paths have also been provided to ensure that in the event of a pipe network blockage, emergency or heavy rainfall the systems have a safe alternative route.

4.5. Stormwater Quantity Modelling

The attenuation of stormwater discharge from the site has been designed in accordance with Canterbury- Bankstown Development Control Plan 2023 requirements. The post attenuation of the site must achieve values equal to or less than the Permissible Site Discharge (**PSD**) derived from existing site catchment parameters. An OSD tank was adopted to control post attenuated flows and is modelled using DRAINS (ILSAX) software. The hydraulic and hydrological parameters have been adopted from Council's Engineering Design Specification and adopts Australian Rainfall and Runoff 1987 rainfall and procedures.

The models include the following assumptions and key input parameters:

- Post Development impervious fractions based on **Table 3.**
- Minor Storm event = 5% AEP
- Major Storm event = 1% AEP
- Minor Storm event blockage factor = 0% blockage

- Major Storm event blockage factor = 50% blockage sag pits & 20% blockage on-grade pits
- Ponding parameters 150mm max (minor & major event)
- Velocity x depth product in road gutter or overtopping roadway <0.4m^2/s
- Catchment A discharging to proposed line into existing surveyed Council's stormwater system on Auburn Road.
    - Pit level = **RL30.04**
    - Pipe Size = **375mm** dia. pipe
    - Pipe Invert = **IL29.065** (to be confirmed during detail design)
    - Tailwater level conditions = **TWL 30.50**
- Catchment B discharging to existing surveyed stormwater pit stormwater system along the northern boundary.
    - Pit level = **RL30.00**
    - Pipe Size = **750mm** dia. pipe
    - Pipe Invert = **IL27.72**
    - Tailwater level conditions = **TWL 28.00**
- Intensity Frequency Duration (**IFD**) was obtained from Bureau of Meteorology (**BOM**)
- Depression storage:
    - 1mm for paved area;
    - 5mm for grassed area;
- Antecedence moisture condition 3;
- Generally, a time of concentration of 5 minutes for impervious areas, 10 minutes for pervious areas;
- Storm durations ranging from 5 minutes to 3 hours
- An assumed tailwater of RL28.00 of council drainage connection point has been adopted as per Councils Stormwater System Report- (100yr ARI Flood Extent & Flood contour levels)

Due to the relatively small catchment sizes, the proposed on-site detention basin has been modelled adopted DRAINS (ILSAX).

4.6. Stormwater Drainage Modelling Results

The on-site detention tank has been designed to detain development flows from the subject development. The tank will provide the detention storage volume required to ensure post development peak flows do not exceed the existing conditions.

The detention tank has been modelled and modified with the following characteristics. Refer to **Table 4** below.

Table 4 - On-Site Detention Tank Parameters

OSD Tank Design Parameters	Tank
Mean Surface Area (m^2)	311
Base RL	29.00
Outlet Orifice	Ø425mm
High Flow Weir Height (m)	29.55
Weir Length (m)	0.9
Volume Provided	260m^3

4.6.1. Stormwater Attenuation Results

The results of the DRAINS modelling for the 0.2EY, 10%, 5% & 1% AEP storm events are shown by **Table 5** below. The results of both catchment A and B are shown below.

Table 5 - Catchment A Pre & Post Development Discharge

Storm Event AEP (%)	Pre-Developed Site Discharge Rate (L/S)	Post Developed Site Discharge Rate (L/S)
0.2EY	202	156
10%	231	182
5%	275	215
1%	359	268

Table 6 - Catchment B Pre & Post Development Discharge

Storm Event AEP (%)	Pre-Developed Site Discharge Rate (L/S)	Post Developed Site Discharge Rate (L/S)
0.2EY	414	351
10%	485	390
5%	594	440
1%	787	572

The above results show that the post development site discharge for all stormwater events up to and including the 100-year ARI does not exceed the pre-development site discharge. Refer to **Appendix E** for DRAINS model layout and computed results for the minor and major storm event.

4.7. Stormwater Quality Strategy

As outlined in Canterbury-Bankstown Development Control Plan 2023 the establishment of stormwater quality treatment measures for all new developments must be required. The primary goal of these measures aims to reduce the introduction of pollutants into the council drainage system through stormwater discharge.

The proposed water quality enhancements for this development encompasses the following components:

- Installation of litter baskets (pit inserts) in stormwater pits located within landscape areas.
- Integration of trash screens to safeguard On-site Detention outlets.
- Incorporations of a gross pollutant trap (**GPT**) aimed at treating low flow discharge within Catchment B
- Deployment of a silt arrestor pit at the upstream end of the OSD and for Catchment A before discharging into the rainwater tank.

Previous consultation with Canterbury-Bankstown City Council by Stantec as part of concept SSDA design process, has confirmed that no specific water quality treatment targets to be met as part of the design. The correspondence with Council's engineer can be found in **Appendix F**.

4.8. Rainwater Tank

A rainwater tank will be provided for the development. A preliminary volume of 104.5m^3 has been sized based on the irrigation requirements of the site, which will be the predominate rainwater usage. The exact roof area catchments draining into the proposed rainwater reuse tank will be determined during details design.

5. Surface Water Impact Assessment (SEARs 13)

SEARs 12

Ground and Water Conditions
Assess potential impacts on soil resources related to infrastructure and riparian lands on and near the site and including soil erosion.

Where required provide a Groundwater Impact Assessment in accordance with relevant Groundwater Guidelines. If the proposed development is on land identified as having high salinity or acid sulfate soil potential in an EPI provide a Salinity Management Plan or Acid Sulfate Soil Management Plan that includes appropriate management measures and strategies.

The above SEARs 12 requirement was addressed as part of Stage 01 & Stage 02 DA submission and is outlined in both Stage 01 & Stage 02 Siteworks Infrastructure report. This section of the report replicates both Stage 01 & Stage 02 report, which outlines the potential impacts and risks associated with surface water run-off in terms of quantity and quality measures. The above SEARs are to be read in conjunction with Salinity Management Plan and Acid Sulphate Soils Management Plan prepared by Sullivan Environmental Sciences and Groundwater Impact Assessment prepared by IROS Australia.

5.1. Surface Water Quality Impacts

Table 7 below are potential impacts regarding surface water as a quantity measure.

Table 7 – Surface Water Quantity Impacts

Asset	Surface Water Quantity	Potential Impacts
Ecosystem	Decrease	▪ Decrease of surface run-off places strain on recycle phase of the functionality of the ecosystem. ▪ Replenish of ground water is low which impacts vegetation
	Increase	▪ Higher sediment erosion carried by the surface run-off resulting contaminates affecting water quality. ▪ Shallow planted vegetation can be damaged
Drainage Lines	Decrease	▪ Drainage lines are oversized and gathers sediment in the system.
	Increase	▪ Drainage lines undersized and surface water is unable to enter the system, creating a greater volume of water that unmanageable above ground. ▪ Causing local pondage in quick succession ▪ Upwelling of drainage lines
Downstream Assets	Decrease	▪ Downstream wetlands may be harmed
	Increase	▪ May cause increase in flooding. ▪ Overland flow width affecting infrastructures
Watercourse	Decrease	▪ Impacts on the surround fauna and flora system as dryer period strain the ecosystem.
	Increase	▪ Impacts on the surround fauna and flora system as wetter periods tend to over saturated system. ▪ Create higher level of sediment carried by surface run-off
Rainwater Reuse Tank	Decrease	▪ Reuse system doesn't meet the requirements for demand
	Increase	▪ Abundant of surface run-off resulting in less or no requirement for rainwater tank
OSD Tank	Decrease	▪ Insignificant impacts
	Increase	▪ Insignificant impacts

Sediment basin	Decrease	▪ Insignificant impacts
	Increase	▪ Sediment basin could overflow and discharge sedimentation to downstream infrastructure. ▪ Increase time required for carried sediment to settle down. ▪ A larger sediment basin is required
Building Infrastructure	Decrease	▪ Insignificant impacts
	Increase	▪ Insignificant impacts
Services Infrastructure	Decrease	▪ Insignificant impacts
	Increase	▪ Insignificant impacts

5.2. Surface Water Quality Impacts

Table 8 below are potential impacts regarding surface water as a quality measure.

Table 8 – Surface Water Quality Impacts

Asset	Surface Water Quality	Potential Impacts
Ecosystem	Decrease	▪ Increase health risk for humans. ▪ May infiltrate potable water supplies. ▪ Alters the balance of population of wildlife. ▪ Create odour
	Increase	▪ Higher sediment erosion carried by the surface run-off resulting contaminates affecting water quality. ▪ Shallow planted vegetation can be damaged
Drainage Lines	Decrease	▪ Carries a higher load of sedimentation, which may result in regular maintenance.
	Increase	▪ Insignificant impacts
Downstream Assets	Decrease	▪ Downstream wetlands may be harmed
	Increase	▪ May cause increase in flooding. ▪ Overland flow width affecting infrastructures
Watercourse	Decrease	▪ May cause algae boom, result in death of aquatic life. ▪ Wildlife unable to consume the water course as a result shifting their habitable area. ▪ May change the water PH level's that is required to maintain a suitable living environment for micro-organisms.
	Increase	▪ Creates a sustainable environment and increases the quality of fauna and flora life.
Rainwater Reuse Tank	Decrease	▪ Contaminates may cause harm to the irrigated landscape area
	Increase	▪ Abundant of surface run-off resulting in less or no requirement for rainwater tank
Sediment Basin	Decrease	▪ Required to be upsized to cater for increase sediment run-off. ▪ Additional requirements for flocculation of finer particles
	Increase	▪ Suitable for reuse of the captured surface run-off
OSD Tank	Decrease	▪ Insignificant impacts
	Increase	▪ Insignificant impacts
Building Infrastructure	Decrease	▪ Insignificant impacts
	Increase	▪ Insignificant impacts
Services Infrastructure	Decrease	▪ Insignificant impacts
	Increase	▪ Insignificant impacts

5.3. Surface Water Quantity/Quality Impact and risk assessment

Surface water quantity/quality impacts are outlined in Table 12 below.

Table 9 – Qualitative Measure of Likelihood or Frequency

Level	Measure	Criteria to be used to establish rating
1	Rare	Would only occur in highly exceptional circumstances that are unlikely to exist in any phase of the development's lifecycle period. Extremely remote chance of occurrence in development's lifecycle period. 'Once in a lifetime' event.
2	Unlikely	Not likely to occur in the development's lifecycle period. A small, but remote chance of occurrence due to circumstances / situations that could arise.
3	Possible	Likely to occur at least once but not expected to occur much more that this in the development's lifecycle period.
4	Likely	Likely to occur more than once in the development's lifecycle period but not an 'everyday' occurrence. Preconditions will arise at times throughout the period.
5	Almost Certain	Will occur. Circumstances or situations are likely to arise often throughout the development's lifecycle period which provides the opportunity for crystallisation of risk. Expect frequent, regular occurrences.

Table 10 – Qualitative Measures of Impact – Consequence Severity

Level	Impact	Example of consequence
1	Insignificant	no environmental impact.
2	Minor	environmental release immediately contained.
3	Moderate	environmental release not immediately contained with no detrimental effects.
4	Major	environmental release not immediately contained with toxic effects.
5	Catastrophic	release to the environment with long term/permanent toxic effects.

Table 11 – Risk Matrix for Determination of Risk Level

Catastrophic	(5)	High	Very High	Very High	Very High	Very High
Major	(4)	High	High	Very High	Very High	Very High
Moderate	(3)	Moderate	Moderate	High	High	Very High
Minor	(2)	Low	Low	Moderate	High	Very High
Insignificant	(1)	Low	Low	Low	Moderate	High
		Rare (1)	Unlikely (2)	Possible (3)	Likely (4)	Almost Certain (5)

LIKELIHOOD

Table 12 – Risk Determination and Responsibility Schedule

Residual Risk Level & Management Action Required	Very High / High	V	H	Consider alternative option or modify design to reduce risk level. Only accept design if justifiable on other grounds.
	Moderate / Low	M	L	Review risks to determine if they can be further reduced by simple design changes

Item	Activity	Hazard	Stage	Initial Risk Rating			Design Action	Residual Risk Rating			Responsibility for Managing Residual Risk
				Likelihood	Consequence	Risk Level		Likelihood	Consequence	Risk Level	
1	Minor Storm event	Water quality treatment control	During design	1	3	High	▪ Provided tertiary treatment devices such as gross pollutant traps (GPT's) and silt arrestor pits. ▪ Provide sediment and erosion control design in accordance with the 'Blue Book'	1	2	Low	Designer Developer
2	Major Storm event	Water quantity discharge control	During design	1	3	High	▪ Provide on-site detention for control the quantity discharged to the downstream asset	1	2	Low	Designer Developer
3	Stormwater design	Surface flow bypassing stormwater drainage system	During design	1	3	High	▪ Using hydrology and hydraulics, compute using DRAINs to reduce the bypass flows of surface run-off, instead capturing majority of the surface run-off. ▪ Size pits and pipes adequately	1	2	Low	Designer Developer
4	Rainwater Reuse	Demand not met or compensated.	During design	1	3	High	▪ Provide a water balance or plant species that are both resilient to low and high saturation of water.	1	2	Low	Designer Developer
5	Increase surface run-off during bulk earthworks	Additional sedimentation	During construction	3	4	Very High	▪ Provide sediment and erosion control measures in accordance with the 'Blue Book'. ▪ Flocculate and pump sediment basin	1	3	Moderate	Contractor
6	Surface run-off on recent construction left unattended for prolonged periods	Sediment and erosion of exposed surfaces	During construction	2	4	High	▪ Provide sediment and erosion control measures in accordance with the 'Blue Book'. ▪ Provide seeded hydro mulch to disturbed areas for stabilisation. ▪ Stage works to minimise extent of land disturbance at any one time. ▪ Monitor conditions – particularly after rainfall events. ▪ Inspect site periodically – which have been left unattended for prolonged periods	1	2	Low	Contractor
7	Dry periods with no surface run-off	Dust airborne, breathing issues	During construction	2	4	High	▪ Cover or water down stockpiles ▪ Spray wet loose compacted soil	1	2	Low	Contractor
8	Unmaintained sediment erosion control measures such as sediment basins	Overflow downstream to water course	During construction	3	3	High	▪ Reuse water for wetting uncompacted soil for dust control. ▪ Monitor conditions – particularly after rainfall events. ▪ Inspect site periodically – which have been left unattended for prolonged periods. ▪	1	2	Low	Contractor
9	Unmaintained GPT's	Water quality treatment failure	Post Construction	4	3	Very High	▪ Provide regular inspection and perform maintenance schedule as required by the manufacturer	2	2	Low	Developer
10	Blocked Stormwater System	Overflow downstream to water course & flooding	Post Construction	3	4	Very High	▪ Provide regular inspection and clear the stormwater system of any debris.	2	2	Low	Developer
11	Unmaintained development	Surface run-off carrying rubbish	Post Construction	2	3	High	▪ Provide regular site maintenance and cleaning. ▪ Provide amenities such as rubbish bins or dumping days. ▪ Provide clear signage for illegal or unwanted activities	1	2	Low	Developer

6. Infrastructure Delivery (Utilities) & Staging Plan

Infrastructure delivery was addressed as part of Stage 01 DA submission and is outlined in Stage 01 Siteworks Infrastructure report. Refer **Appendix G** for Stage 01 proposed services and road layout plan. The DA submission of Stage 01 development is to provide infrastructure and utilities to cater for all the future stages including Stage 03. The section below is a summary of infrastructure and utilities required to service Stage 03 of Buildings C & Communal Park.

6.1. Site servicing overview

The proposed development consists of five (5) building denoted as Blocks 'A' to 'E', ranging from 6, 8 and 12 storeys in height and is provided with basement parking under an affordable housing scheme which aims to deliver approximately 542 dwellings. It is noted that 440m^2 will be of non-residential floorspace approximate.

6.2. Site Services

New utility infrastructure will be provided to service the proposed development. Where applicable, these services will be placed in a typical shared trench arrangement in accordance with the NSW Streets Opening Conference Guide to Codes and Practices for Street Opening (2009) or equivalent alternative approved by the relevant authority.

A Dial Before You Dig has been performed for the existing site to identify current existing infrastructure and it is noted for the development site the following services provider be utilised:

- Electrical – Ausgrid
- Communications – Telstra / NBN Co NswAct
- Sewer – Sydney Water
- Potable Water – Sydney Water
- Gas – Jemena Gas West

This section of the report outlines Stage 3 works of infrastructure delivery.

6.3. Existing Utilities Infrastructure

6.3.1. Existing Electricity Infrastructure

The existing electrical infrastructure to which this site is serviced by is through the local Ausgrid distribution network. The surrounding area to which the local neighbourhood is serviced are powered by HV/LV feeders and it has been identified an existing electrical kiosk substation (#7852) located at the entrance of 46A Auburn Road provides for loading demands for the neighbourhood.

The existing kiosk substation supplies power to the following properties:

- 1,2,3,4,5,6,7,8,9,10,11,12,13,14,16,18,20,21,23A,23B,25 Morris St Regents Park
- 30,45,46,49-51,53,55,57,61 Auburn Rd Regents Park
- Tewinga Rd Birrong

It is proposed the electrical kiosk substation are to be replaced as part of the new development. Since the substation currently services other Ausgrid customers, it is proposed the existing substation will be demolished and relocated over a notified cut off period which will be determined by Ausgrid authority to which they deem most suitable and practical with minimal impact to the community.

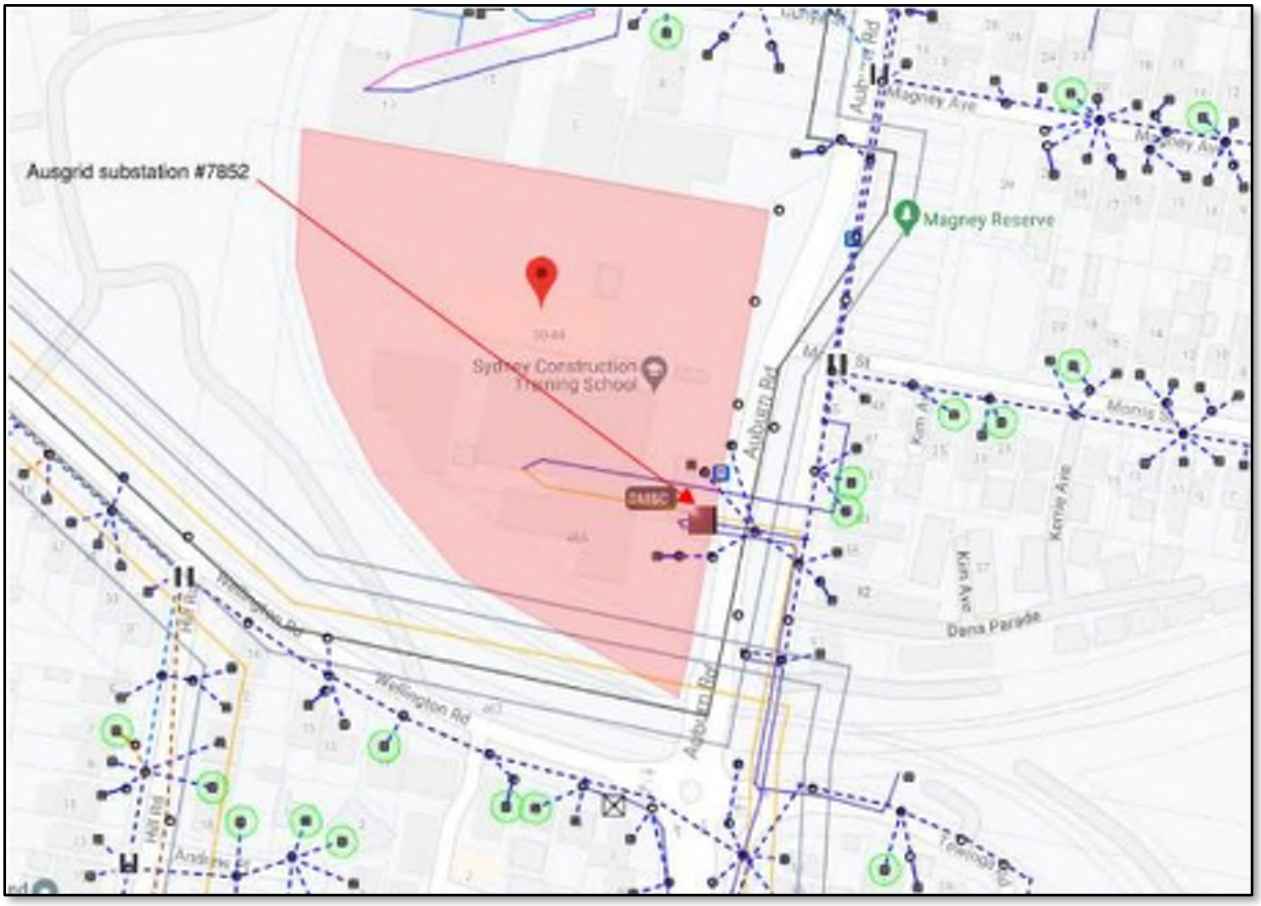


Figure 4 – Existing Ausgrid Infrastructure

6.3.2. Existing Communication Infrastructure

The proposed site comprising of two (2) parcel of land is currently serviced by two active communication connections, as shown in **Figure 5** below.

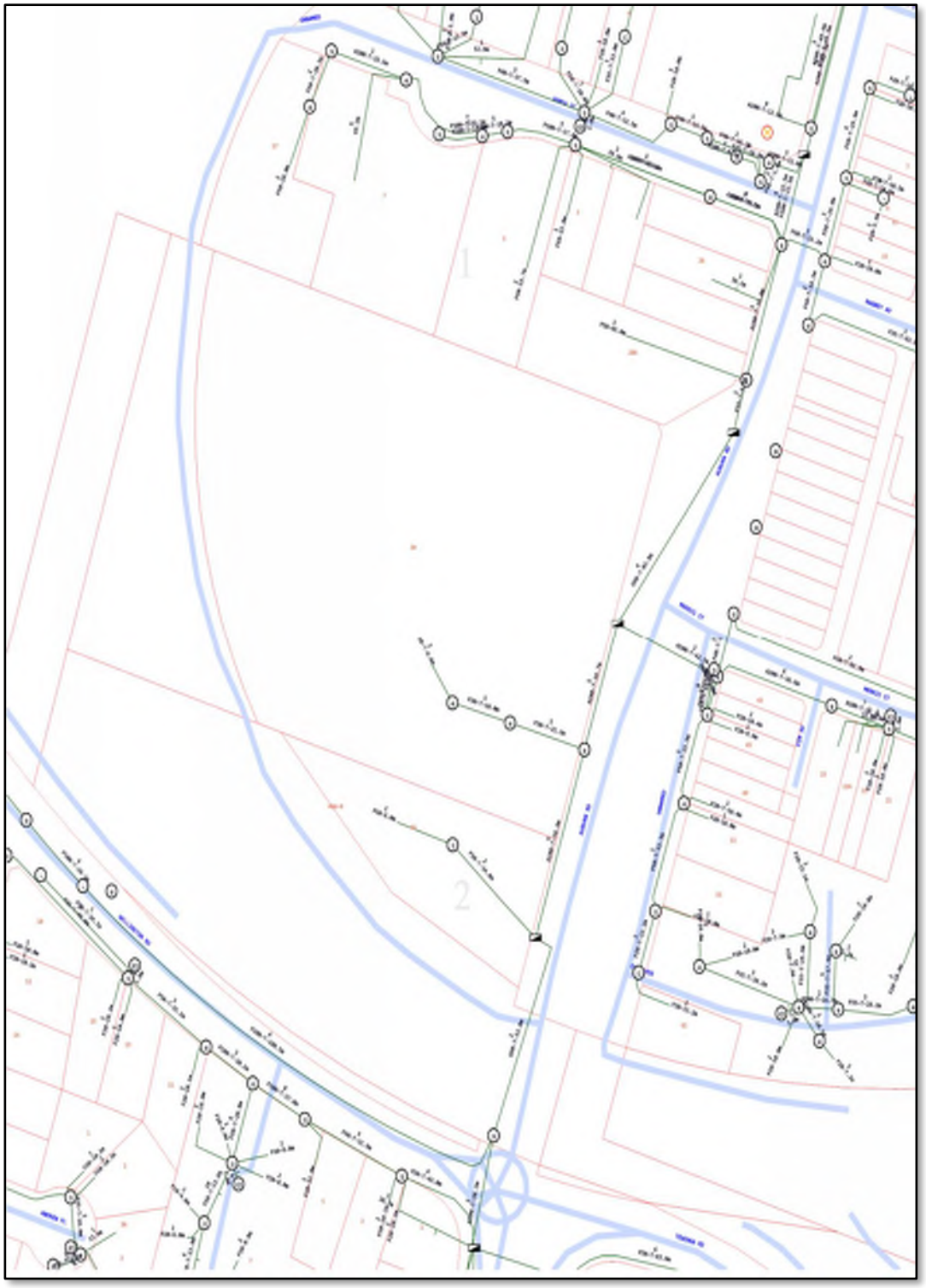


Figure 5 – Existing Communications Infrastructure

6.3.3. Existing Wastewater (Sewer)

The existing sewer infrastructure to which this site is serviced by is through Sydney Water. The owner has previously sought information regarding existing sewer and obtained Hydra information and through correspondence with an accredited Water Servicing Coordinator.

A 300mm vitreous clay (VC) gravity sewer extends across the northern boundary of the site, situated within 28A Auburn Road. It is envisaged the existing 300mm sewer main be the primary connection point for the site sewerage drainage. A feasibility application was made and a Sydney Water Feasibility Letter was obtained suggesting the existing wastewater main is to be extended to serve the development.

A section S73 application will be lodged and Sydney Water requirements will be provided at the time of receiving the letter.

Refer **Appendix H** for Sydney Water Feasibility Letter

Figure 6 – Existing Sewer Infrastructure

6.3.4. Existing Potable Water

The existing potable water by which this site is serviced is through Sydney Water Corporation. The site is located within the Sydney Water Catchment. An existing 150mm Cast Iron Cement Lined (CICL) potable water main is located on the eastern side of Auburn Road, which can be used to service the site. However, based on the Water Services Association Australia (WSAA) requirements, it is noted that development with 8 or more storey potentially requires a 200mm water main to supply the development. A formal water supply feasibility application was made to Sydney Water and a feasibility letter was provided by Sydney Water dated 27 March 2023. The letter suggested the development will require a minimum DN200 for the site to be serviced and the closet DN200 main is on Auburn Road near the intersection of Rodd Street.

A section S73 application will be lodged and Sydney Water requirements will be provided at the time of receiving the letter.

Refer **Appendix H** for Sydney Water Feasibility Letter

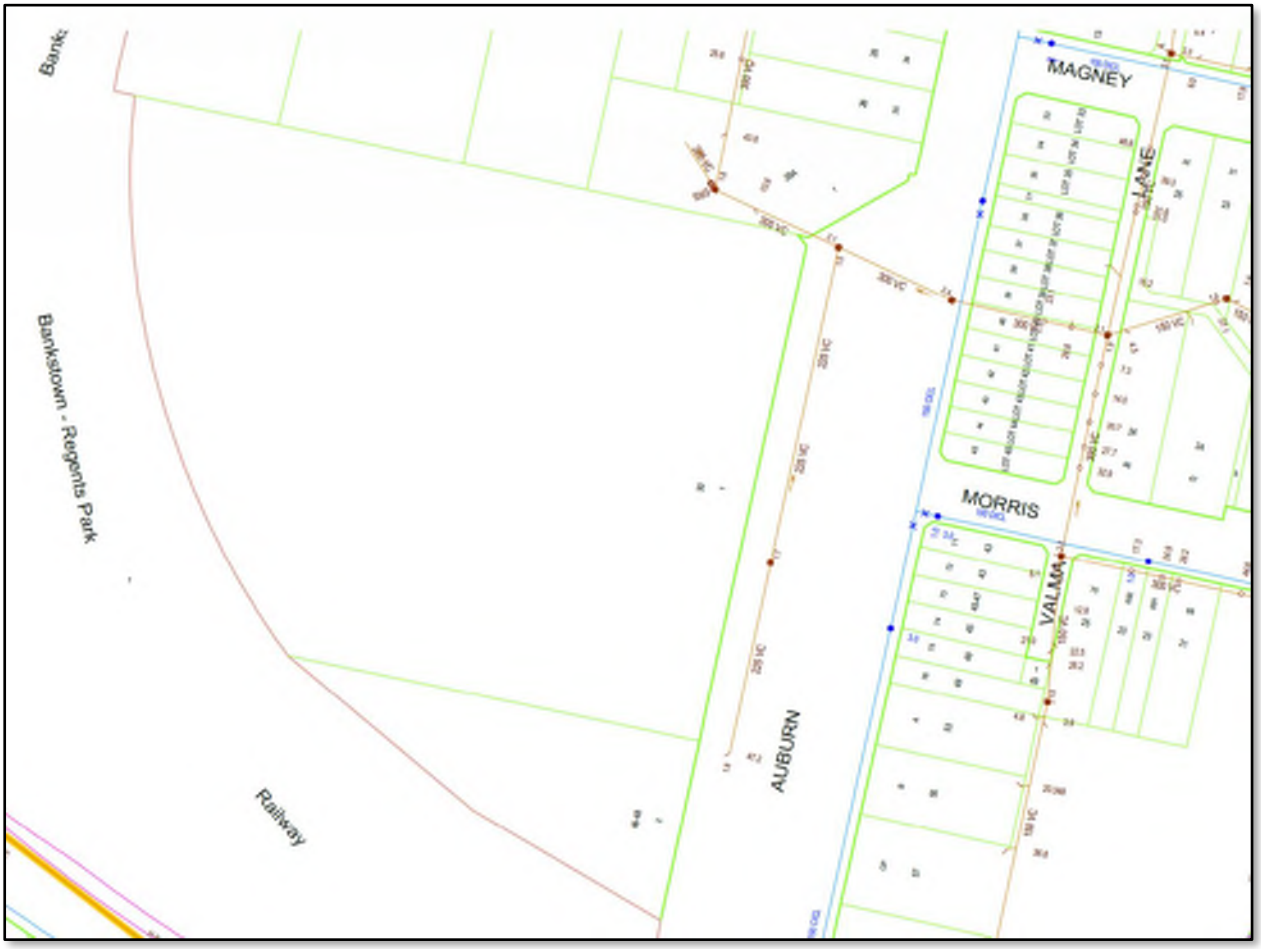


Figure 7 – Existing Potable Infrastructure

6.3.5. Existing Natural Gas

The existing natural gas infrastructure to which this site is serviced by is through Jemena. An existing 50 Nylon 210kPa gas main is located along the frontage of the proposed site, reticulates on the western edge of Auburn Road. It is believed the connection to the existing main is adequate to service the development, however upgrade requirements are to be confirmed by Jemena through the application process. Refer **Figure 8** below for indicative location of existing gas main.

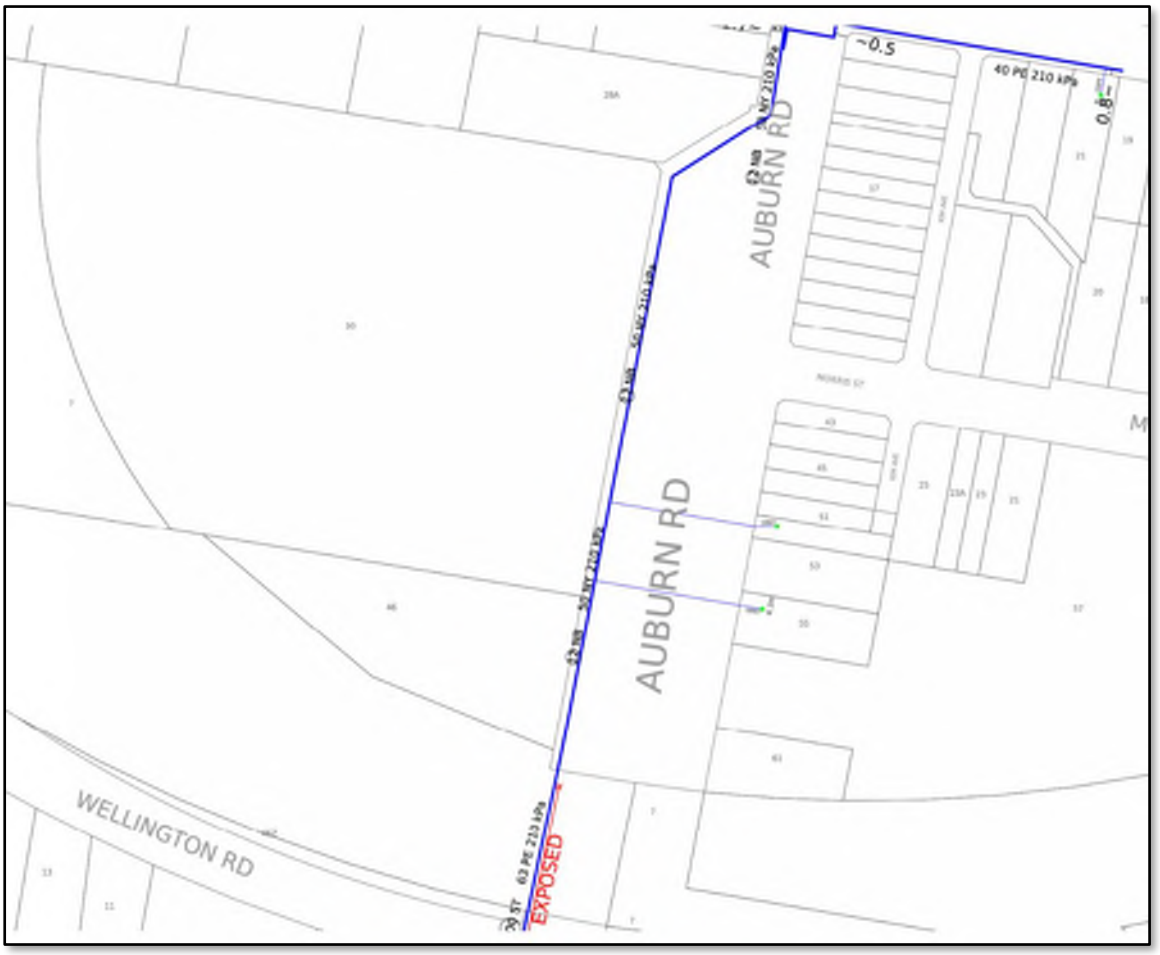


Figure 8 – Existing Gas Infrastructure

6.5. Stage 01 – On-site Infrastructure Works

On-site infrastructure refers to private assets reticulated within the property boundary. The private asset is owned by the property holder(s) and are responsible to the maintenance of these assets.

6.5.1. Electrical Supply

The electrical supply to Buildings A&B will be serviced via two (2) 1000kVA proposed Kiosk Substation on the western side of Auburn Road to the development. An electrical trench will be provided from the proposed substation kiosk to the building.

Similarly, to Buildings A&B, Building C will be serviced via a 1000kVA proposed Kiosk Substation which will sit adjacent to the Buildings A&B Kiosk Substation on the Auburn Road. An electrical trench will be provided from the proposed substation kiosk to the building.

As for the electrical supply to Buildings D&E, it will be serviced via two 1000kVA proposed Kiosk Substations located between Buildings C&D Adjacent to Road 1.

The design of all proposed substations will be carried out by Accredited ASP3 AA Power Engineering Pty Ltd. The Design for the Consumer Mains from the substations to the Main Switchboard for each building will be completed by Joeliane Electrical Engineer Consultants Pty Ltd in accordance with NCC 2022 and all deemed to satisfy provisions of AS3000:2018 and relevant standards.

The construction of the internal electrical infrastructure will be funded by the developer.

6.5.2. Communications Supply

Communications supply to Buildings A&B will be serviced via Fiber Optic cable from nearest Telstra pit located on the western side of Auburn Road to the development. The Fibre Optical Cable will lead into the communications room within Building B.

Similarly, to Buildings A&B, Communications supply to Building C will be serviced via Fiber Optic cable from nearest Telstra pit located on the western side of Auburn Road to the development. The Fibre Optical Cable will lead into the communications room within Building C.

The communications supply to Buildings D&E will be serviced via Fiber Optic cable from proposed NBN Pit to the communications room within Building C.

The Design for the Lead in Conduit will be undertaken by Joeliane Electrical Engineer Consultants Pty Ltd in accordance with the NBN Supply Authority requirements & guidelines. The NBN Supply Authority will be selected at a later date.

The construction of the internal communication network will be funded by the developer.

Refer to **Appendix B**, Drawings C-1650 to C-1653 for utility layout plan.

6.5.3. Sewer Drainage

The proposed on-site infrastructure design of the sewer service for the proposed site has been carried out by Scott Collis Consulting Pty Ltd. This section of the document shall be read in conjunction with '*Stage 1 – Hydraulic Services Site Infrastructure Report*' dated 27 July 2023 prepared by Scott Collis Consulting Pty Ltd, refer **Appendix I**.

The property gravity sewer drainage system will be extended from the property boundary to Sydney Water Corporation existing 300mm VC sewer main located north of the property boundary. The design and installation of the sewer main will be carried out by the WSC in

accordance with National Constructions Codes Volumes 3, which carries 'Deemed to Satisfy' provisions of Australian Standard Codes AS3500.2

The proposed site comprising of two (2) parcels of land and is currently serviced by two active sewer connections. It is envisaged these services be terminated prior to Sydney Water Corporation release of the final certificate.

All the sewer reticulation is funded by the Developer and handed over to Sydney Water Cooperation

6.5.4. Potable Water Supply

The proposed on-site infrastructure design of the potable water service for the proposed site has been carried out by Scott Collis Consulting Pty Ltd. This section of the document shall be read in conjunction with '*Stage 1 – Hydraulic Services Site Infrastructure Report'* dated 27 July 2023 prepared by Scott Collis Consulting Pty Ltd, refer **Appendix I**.

A new 200mm watermain may be required to replace the existing 150mm main as outlined in the 'Feasibility Letter', located on eastern side Auburn Road. The design and installation of the water main will be carried out by the WSC in accordance with National Constructions Codes Volumes 3, which carries 'Deemed to Satisfy' provisions of Australian Standard Codes AS3500.1

The proposed site comprising of two (2) parcel of land is currently serviced by two active water connections from the SWC existing 150mm water main. It is envisaged these services be terminated prior to Sydney Water Corporation release of the final certificate.

All the internal potable water reticulation from the point of the water meter will be funded by the developer.

6.5.5. Fire Water Supply

The proposed on-site infrastructure design of the fire main service for the proposed site has been carried out by Scott Collis Consulting Pty Ltd. This section of the document shall be read in conjunction with '*Stage 1 – Hydraulic Services Site Infrastructure Report'* dated 27 July 2023 prepared by Scott Collis Consulting Pty Ltd, refer **Appendix I**.

The fire main will be fed from the struct watermain. The watermain may be required to be upgraded from the existing 150mm pipe to a 200mm pipe as outlined in the 'Feasibility Letter' as outlined in the 'Feasibility Letter', located on eastern side Auburn Road. The design and installation of the fire main will be carried out by the WSC in accordance with National Constructions Codes Volumes 1 & 3, which carries 'Deemed to Satisfy' provisions of Australian Standard Codes AS2118, AS2941.1 7 AS3500.1.

The proposed site comprising of two (2) parcel of land is currently serviced by two active fire water connections from the SWC existing 150mm water main. It is envisaged these services be terminated prior to Sydney Water Corporation release of the final certificate.

All internal fire water reticulation from the point of the water meter will be funded by the Developer.

6.5.6. Natural Gas Supply

It is proposed the connection for the property gas network will be extended from Jemena's existing 50 Nylon 210kPa gas main located on the western side of Auburn Road. The proposed gas services will be utilised by commercial tenancies desiring gas cooking facilities and is not planned as an energy source for any other equipment's.

All internal gas reticulation from point of the gas meter will be funded by the Developer.

6.6. Stage 01 – Off-site Infrastructure Works

Off-site infrastructure refers to Authority-owned utility assets reticulated external to the property boundary, in some instances they may be located within the private property.

6.6.1. Ausgrid – Electrical mains

The existing substation kiosk along Auburn Road will be replaced with two (2) new additional substation kiosks. The new substation kiosks will utilise the existing HV network on Auburn Road and will service Building Blocks A, B&C. The design will be carried out by accredited ASP3 AA Power Engineering Pty Ltd.

The substation kiosks and associated HV works to the site maybe wholly or partially be funded by Developer, subject to consultation with Ausgrid.

6.6.2. NBN – Communications mains

Existing NBN Infrastructure located on Auburn Road will be utilised to services Buildings AB&C. The NBN Supply Authority is yet to be determined. As for Building Blocks D&E, a new NBN infrastructure will be created to the proposed building for the NBN Supply Authority. The design NBN Pit and pipe layout to the proposed site is provided. Refer to **Appendix B**, Drawings C-1650 to C-1653 for utility layout plan showing NBN layout. The NBN detail design will be completed by Joeliane Electrical Engineer Consultants Pty LTD in accordance with the NBN Supply Authority requirements and guidelines.

The NBN Infrastructure works to the site maybe wholly or partially be funded by Developer, subject to consultation with NBN Co.

6.6.3. Sydney Water Corporation Sewer Drainage

The proposed off-site infrastructure design of the sewer service for the proposed site has been carried out by Scott Collis Consulting Pty Ltd. This section of the document shall be read in conjunction with '*Stage 1 – Hydraulic Services Site Infrastructure Report'* dated 27 July 2023 prepared by Scott Collis Consulting Pty Ltd, refer **Appendix I**.

A new connecting 300mm sewer drainage line extended by branching off the existing 300mm sewer main located north of the property, is terminated within the property. The sewer main works external to the proposed site boundary will be designed, installed and supervised by WSC in accordance with the Water Services Association of Australia's (WSAA) WSA Codes and fulfilment of the enforced SWC 'Notice of Requirements' and Section 73 conditions.

Any upgrades and/or extension of sewer main to the property maybe wholly or partially funded by the Developer, subject to consultation with Sydney Water.

6.6.4. Sydney Water Corporation Potable Water Mains

The proposed off-site infrastructure design of the potable water service for the proposed site has been carried out by Scott Collis Consulting Pty Ltd. This section of the document shall be read in conjunction with '*Stage 1 – Hydraulic Services Site Infrastructure Report'* dated 27 July 2023 prepared by Scott Collis Consulting Pty Ltd, refer **Appendix I**.

As per the Sydney Water Feasibility letter, the existing SWC 150mm water main will be upgraded to a 200mm water main based on the foreseeable requirements by the Sydney Water Corporation. The proposed water supply to the site will be extended from the existing SWC

200mm water main located at Rodd Street, approximately 500m south of the proposed site. The water main works external to the proposed site boundary will be designed, installed and supervised by WSC in accordance with the Water Services Association of Australia's (WSAA) WSA Codes and fulfilment of the enforced SWC 'Notice of Requirements' and Section 73 conditions.

Any upgrades and/or extension of water main to the property maybe wholly or partially funded by the Developer, subject to consultation with Sydney Water.

6.6.5. Jemena Natural Gas Mains

The proposed connection to existing 50 Nylon 210kPa gas main for limited commercial tenancy operations loads is generally adequate. A supply line from the existing gas main is to be provided which extends 225mm beyond the property boundary and is terminated by a path value for off-site infrastructure connection.

The gas connection point to the site will be constructed and funded by Jemena.

6.7. Infrastructure Demands and Loads

6.7.1. Electrical Demand and Loads

Joeliane Electrical Engineer Consultants Pty Ltd has performed a preliminary assessment for the calculation of Maximum Demand for each Building. The final electrical load demand will be determined during detail design stage.

The estimated loads are provided below:

Buildings A&B – 86 Units - Estimated Load of 800 to 1000Amps per Phase

Building C – 89 Units - Estimated Load of 800 to1000Amps per Phase

Buildings D&E – 367 Units - Estimated Load of 2800Amps per Phase

6.7.2. Sewer Demand and Loads

The total site demands and loadings calculated for the basis of sewer infrastructure design has been carried out by Scott Collis Consulting Pty Ltd. This section of the document shall be read in conjunction with '*Stage 1 – Hydraulic Services Site Infrastructure Report'* dated 27 July 2023 prepared by Scott Collis Consulting Pty Ltd, refer **Appendix I**.

The on-site infrastructure in accordance with AS3500.2, calculates loads based on 'Fixture Units (FU's)'. It's been calculated for the proposed development a total tally of fixtures will have an estimated value of 10,178 FU's. This value translates to a peak flow of 65L/s based on sewer drainage principles, therefore the connecting private sewer line to existing sewer main will consist of a minimum 300mm sized conduit.

For off-site infrastructure determined by Sydney Water Corporation (**SWC**) design methods, the calculation has estimated a value of 191.136kL (daily average), a value which is 80% of the average daily water demand pattern. These flows will be investigated during detail design by the Water Services Coordinator (**WSC**) for the SWC sewer main extension. The SWC 'Feasibility Letter' indicates requirements can be met.

6.7.3. Potable Water Demand and Loads

The total site demands and loadings calculated for the basis of potable water infrastructure design has been carried out by Scott Collis Consulting Pty Ltd. This section of the document shall be

read in conjunction with '*Stage 1 – Hydraulic Services Site Infrastructure Report'* dated 27 July 2023 prepared by Scott Collis Consulting Pty Ltd, refer **Appendix I**.

The on-site infrastructure in accordance with AS3500.1, calculates loads based on 'Loading Units'. It's been calculated for the proposed development a total tally of apartments and ancillary spaces to have an estimated value of 26.91 L/s, resulting in the connection of private water main to the existing water main to be minimum 150mm sized conduit.

For off-site infrastructure determined by SWC design methods, the calculation has estimated a value of 238.920kL (daily average), a value which is 100% of the average daily water demand pattern. These flows will be investigated during detail design by the WSC for the water main tap-in. The SWC 'Feasibility Letter' indicates requirements can be met.

6.7.4. Fire Water Demand and Loads

The total site demands and loadings calculated for the basis of fire main infrastructure design has been carried out by Scott Collis Consulting Pty Ltd. This section of the document shall be read in conjunction with '*Stage 1 – Hydraulic Services Site Infrastructure Report'* dated 27 July 2023 prepared by Scott Collis Consulting Pty Ltd, refer **Appendix I**.

The fire water supply demands are assessed using AS2118 (fire sprinklers) and AS2419.1 (fire hydrants) codes. Based on preliminary size of the shared basement carpark of Buildings D&E, it is predicted to have the overall greatest demand for fire water flow requirement on the site. The maximum fire flow demand will be approximately 30L/s and is adequately services by the proposed 200mm watermain. These flows will be investigated during detail design by the WSC for the SWC water main augmentation works. The SWC 'Feasibility Letter' indicates requirements can be met.

7. Conclusion

Stage 03 Civil siteworks Infrastructure Report has been prepared to address the SEARs in support of the proposed development. The SEARs requirements outlined for Stage 03 has been addressed in the DA submission of Stage 01. The purpose of Stage 01 is to provide the associated infrastructure and utilities service to cater for all future stages including Stage 03.

The stormwater management proposed part of Stage 01 encapsulates Stage 03 development. This report elaborates on the design assumptions, inputs and guide to the stormwater quantity and quality management techniques to meet Council's objectives and controls in terms of overall stormwater management scheme for the site. It is noted that the proposed stormwater drainage network, road network and associated civil infrastructure has been designed in accordance with the City of Canterbury Bankstown Council Design Specification.

The stormwater quantity calculations demonstrate how peak flows from the proposed onsite detention tank (to be constructed part of Stage 01 works) in post-development conditions are attenuated to be no greater than the existing peak flows for all design storms up to and including the 1% AEP event, inclusive of Stage 03. Further to stormwater quantity, a proposed rainwater reuse tank (to be constructed part of Stage 01 works) is provided for irrigation purposes to reduce the water demand usage for the site. The stormwater quality assessment demonstrates that a treatment will be required in order to capture gross pollutants as defined in the Councils documentation during the operational phase of the proposed development.

The Stage 01 report outlined the assessment of naturally occurring surface water relative to water quantity and quality values. It explored activities that pose risk to water quantity & quality and provided mitigation measures to reduce the adverse impacts. It is understood, that analysing the risk of surface water quantity/quality impacts to the surrounding asset, we're able to understand the correlation between local council and relevant authorities' objectives and controls. It was noted that consultation with Council by Stantec part of the original concept design was performed to understand any additional requirements are to be catered for the subject site.

During Stage 01 DA submission, an investigation of existing surrounding utilities was carried out to identify associated affected services providers. It was deemed that additional on-site and off-site infrastructure are to be installed and upgraded to meet the increase demand of the proposed development, including Stage 03. Servicing demand load calculations are provided to ensure sufficient capacity are accounted for to facilitate the whole site.

To conclude, the requirements of the SEARs have been addressed in consideration with relevant authorities to demonstrate the proposed development can be facilitated. The impact of the development to surrounding assets has been assessed and measures have been accounted for to ensure all obligations are met.

Appendix A – Stage 03 – Civil Drawing Package

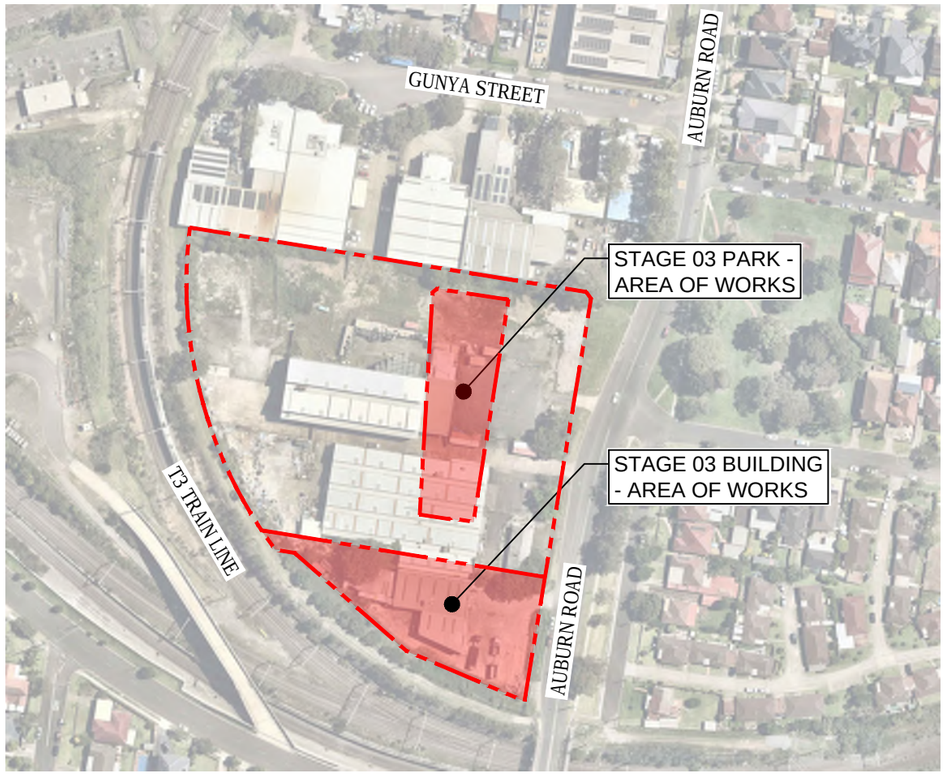
30-46 AUBURN ROAD, REGENTS PARK

FOR

30 AUBURN PTY LTD

LGA : CITY OF CANTERBURY BANKSTOWN

LOT : LOT 1 DP656032 & LOT 2 DP433938



SITE LOCATION PLAN

N.T.S

DRAWING LIST

DRAWING NO.	DRAWING TITLE
GENERAL	
SY23-120-C-3001	COVER SHEET LOCALITY PLAN AND DRAWING INDEX
SY23-120-C-3002	GENERAL NOTES SHEET 1
SY23-120-C-3005	STAGING PLAN
SY23-120-C-3010	GENERAL ARRANGEMENT PLAN
ROADWORKS AND DRAINAGE PLANS	
SY23-120-C-3200	CIVIL SITEWORKS & STORMWATER MANAGEMENT PLAN BASEMENT C3
SY23-120-C-3201	CIVIL SITEWORKS & STORMWATER MANAGEMENT PLAN BASEMENT C2
SY23-120-C-3202	CIVIL SITEWORKS & STORMWATER MANAGEMENT PLAN BASEMENT C1
SY23-120-C-3203	CIVIL SITEWORKS & STORMWATER MANAGEMENT PLAN LEVEL 0
SY23-120-C-3204	CIVIL SITEWORKS & STORMWATER MANAGEMENT PLAN LEVEL 1
SY23-120-C-3205	CIVIL SITEWORKS & STORMWATER MANAGEMENT PLAN ROOF
SY23-120-C-3206	CIVIL SITEWORKS & STORMWATER MANAGEMENT PLAN PARK
DRIVEWAY LONGITUDINAL SECTIONS	
SY23-120-C-3250	DRIVEWAY LONGITUDINAL SECTIONS
SITEWORKS DETAILS	
SY23-120-C-3330	CIVIL SITEWORKS DETAILS
EROSION AND SED CONTROL	
SY23-120-C-3700	EROSION AND SEDIMENTATION CONTROL PLAN SHEET 1
SY23-120-C-3701	EROSION AND SEDIMENTATION CONTROL PLAN SHEET 2
SY23-120-C-3750	EROSION AND SEDIMENTATION CONTROL DETAILS

RESIDENTIAL DEVELOPMENT
STAGE 3 - CIVIL SITEWORKS & STORMWATER MANGEMENT PLAN
STATE SIGNIFICANT DEVELOPMENT APPLICATION (SSDA)

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REV	DESCRIPTION	BY	APRVD	DATE
P1	ISSUED FOR DRAFT	JC	FX	10/01/2025

REVISIONS

BAR SCALES

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 STAGE 3 - BUILDING & CARPARK DEVLOPMENT

TITLE: COVER SHEET LOCALITY PLAN AND DRAWING INDEX

STATUS: ISSUED FOR DRAFT

Drawn	Designed	Checked	Approved
RT	RT	FX	FX

Height Datum	Grid	SCALE
AHD	MGA	N.T.S AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-3001	P1

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GENERAL

1. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE SPECIFICATION AND THE REQUIREMENTS OF THE LOCAL COUNCIL
2. THE CONTRACTOR SHALL LIAISE WITH ALL RELEVANT AUTHORITIES TO LOCATE ALL EXISTING SERVICES WITHIN THE CONTRACT AREA PRIOR TO THE COMMENCEMENT OF WORK. SERVICES INFORMATION SHOWN ON THE DRAWINGS IS INDICATIVE ONLY AND MAY NOT BE COMPLETE. WHERE EXISTING AND PROPOSED WORKS CONFLICT, LEVELS ARE TO BE TAKEN AND SUPPLIED TO THE SUPERINTENDENT IMMEDIATELY.
3. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS' DRAWINGS ,SPECIFICATIONS AND ANY OTHER WRITTEN INSTRUCTIONS THAT MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
4. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
5. ALL HEIGHTS ARE TO AHD AND ALL LEVELS SHALL BE DERIVED FROM ESTABLISHED BENCHMARKS
6. ALL BENCH MARKS ARE TO BE PROTECTED AND PRESERVED.
7. ALL CONSTRUCTION SHALL MAKE SMOOTH CONNECTION TO EXISTING WORK.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUPPORT OF ALL EXISTING SERVICES.
9. 'AS CONSTRUCTED' DRAWINGS ARE TO BE PREPARED TO THE REQUIREMENTS OF THE RELEVANT AUTHORITIES.
10. THE SITE IS TO BE LEFT CLEAN AND FREE OF DEBRIS UPON COMPLETION OF WORKS. ALL EXCAVATED AND DEMOLISHED MATERIAL IS TO BE DISPOSED OF AT AN APPROVED DISPOSAL SITE AT THE CONTRACTORS COST.
11. CONTRACTOR TO ENSURE THE RELEVANT AUTHORITIES OCCUPATIONAL HEALTH AND SAFETY PRACTICES ARE COMPLIED WITH

SURVEY

1. THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN DERIVED FROM SURVEY INFORMATION SUPPLIED FROM GEOMETRA CONSULTING.
2. THE SURVEY INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. SKY ENGINEERING PTY LTD DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS.
3. SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, PLEASE NOTIFY THE ENGINEER.
4. THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.
5. BENCHMARK, SURVEY PEGS, LEVEL PEGS OR SUPPLEMENTARY REFERENCE MARKS SHALL NOT BE ADJUSTED OR MOVED WITHOUT WRITTEN APPROVAL FROM THE SUPERINTENDENT. THE CONTRACTOR SHALL TRANSFER ANY PEGS AFFECTED BY THE PROPOSED WORKS TO SIDE POSITIONS CLEAR OF OPERATIONS AND SHALL NOTE THE EXTENT OF THE MOVEMENT IN DISTANCE AND LEVEL.

BULK EARTHWORKS

1. TECHNICAL SPECIFICATIONS OR SPECIFIC INSTRUCTIONS CONTAINED IN THE GEOTECHNICAL REPORT TAKE PRECEDENCE OVER THESE NOTES.
2. ALL TOP SOIL, ORGANIC MATTER AND FILL MATERIAL SHALL BE REMOVED FROM ALL AREAS UNDER PROPOSED WORK LOCATIONS TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER/SUPERINTENDENT. AREAS TO BE FULLY STRIPPED OF EXISTING FILL AND DARK BROWN BLACK UPPER ORGANIC ALLUVIUM.
3. FILLING TO BE PLACED AND COMPACTED IN MAXIMUM 150mm LAYERS
4. CONTRACTOR SHALL PLACE SAFETY BARRIERS AROUND EXCAVATIONS IN ACCORDANCE WITH RELEVANT AUTHORITY SAFETY REGULATIONS

EXISTING SERVICES AND FEATURES

1. THE CONTRACTOR MUST CONFIRM THE EXACT LOCATION AND EXTENT OF EXISTING SERVICES PRIOR TO CONSTRUCTION AND NOTIFY ANY CONFLICT WITH THE DRAWINGS IMMEDIATELY TO THE ENGINEER/SUPERINTENDENT.
2. EXISTING SERVICES UNLESS SHOWN ON SURVEY PLAN HAVE BEEN PLOTTED FROM SERVICES SEARCH PLANS AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE A 'DIAL BEFORE YOU DIG' SEARCH AND TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER/SUPERINTENDENT.
4. THE CONTRACTOR HAS A DUTY OF CARE WHEN EXCAVATING NEAR SERVICES. DO NOT ASSUME DEPTHS OR ALIGNMENTS OF CABLES OR PLANT AS THESE MAY VARY SIGNIFICANTLY. THE CONTRACTOR MUST ACCEPT ALL RESPONSIBILITY TO DAMAGES TO EXISTING SERVICES AS SERVICE AUTHORITIES MAY SEEK COMPENSATION FOR DAMAGES CAUSED TO THEIR PROPERTY AND SUBSEQUENT LOSSES CAUSED.
5. THE CONTRACTOR SHALL ALLOW FOR THE CAPPING OFF, EXCAVATION AND REMOVAL OR RELOCATION (IF REQUIRED) TO RELEVANT AUTHORITIES GUIDELINES OF ALL EXISTING SERVICES IN AREAS AFFECTED BY WORKS WITHIN THE CONTRACT AREA OR AS SHOWN ON THE DRAWINGS.
7. THE CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES TO MAINTAIN SUPPLY TO EXISTING BUILDINGS REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF ANY RELEVANT AUTHORITIES. ONCE DIVERSION IS COMPLETE AND COMMISSIONED, THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE RELEVANT AUTHORITY/SUPERINTENDENT.
8. INTERRUPTION TO SUPPLY OF EXISTING SERVICES SHALL BE DONE SO AS NOT TO CAUSE ANY INCONVENIENCE TO SURROUNDING ALLOTMENTS. CONTRACTOR TO GAIN APPROVAL FROM THE RELEVANT AUTHORITIES FOR TIME OF INTERRUPTION.
9. ALL EXISTING SERVICE UTILITIES COVERS AND GRATES ARE TO BE ADJUSTED (TO RELEVANT AUTHORITY GUIDELINES) TO SUIT NEW FINISHED SURFACE LEVELS WHERE APPLICABLE.
10. IF EXISTING SERVICE UTILITY COVERS AND GRATES OR SURROUNDING SURFACE LEVELS ARE TO BE LOWERED, THE CONTRACTOR IS TO MAKE CERTAIN THAT MINIMUM COVERS (TO RELEVANT SERVICE AUTHORITY GUIDELINES) TO SERVICES ARE MAINTAINED. IF MINIMUM COVERS AREN'T MAINTAINED THE CONTRACTOR IS TO LOWER OR PROTECT SERVICES TO THE SATISFACTION OF THE RELEVANT SERVICE AUTHORITY/SUPERINTENDENT.

STORMWATER DRAINAGE

1. THE STORMWATER DESIGN SHOWN ON THESE DRAWINGS HAS BEEN CARRIED OUT IN ACCORDANCE WITH THE LOCAL COUNCIL'S REQUIREMENTS, AUSTRALIAN RAINFALL AND RUNOFF (AR&R) GUIDELINES AND RELEVANT AUTHORITIES GUIDELINES.
2. ALL STORMWATER WORK IS TO COMPLY WITH AS3500 PART 3.
3. PROTECTION OF NEW AND EXISTING PIPES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
4. NO CONSTRUCTION LOADS SHALL BE APPLIED TO uPVC PIPES.
5. EXISTING STORMWATER PIPE LOCATIONS AND INVERT LEVELS TO BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
6. IF PIT LID SIZE IS SMALLER THAN THE PIT CHAMBER SIZE THEN THE PIT LID IS TO BE CONSTRUCTED ON THE CORNER OF THE PIT CHAMBER WITH THE STEP IRONS DIRECTLY BELOW. ALTERNATIVELY THE PIT LID TO BE USED, IS TO BE THE SAME SIZE AS THE PIT CHAMBER.
7. GALVANIZED STEP IRONS SHALL BE PROVIDED AT 300 CTRS FOR PITS HAVING A DEPTH EXCEEDING 1200mm
8. PIPES 300 DIA. AND LARGER TO BE REINFORCED CONCRETE PIPES (RCP) CLASS '2' APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINTS U.N.O.
9. PIPES UP TO 300 DIA. SHALL BE SEWER GRADE uPVC WITH SOLVENT WELDED JOINTS.
10. BEDDING TYPE SHALL BE TYPE H2 FOR RCP. WHERE NECESSARY THE OVERLAY ZONE SHALL BE REDUCED TO ACCOMMODATE PAVEMENT REQUIREMENTS.
11. PIPES SHALL BE LAID ON A 75mm THICK SAND BED. IN ALL CASES BACKFILL TRENCH WITH SAND TO 200mm ABOVE THE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1 (OR A DENSITY INDEX OF NOT LESS THAN 75).
12. WHERE TRENCHES ARE IN ROCK THE PIPE SHALL BE BEDDED ON A MINIMUM OF 50mm CONCRETE BED (OR 75mm BED OF 12mm BLUE METAL) UNDER THE BARREL OF THE PIPE.
13. CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.
14. GRATES AND COVERS SHALL CONFORM TO AS3996 AND AS1428.1 AT ALL TIMES DURING CONSTRUCTION OF THE STORMWATER PITS.
15. ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED AND CLEANED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDENT AND ENGINEER FOR FURTHER DIRECTIONS.

SUBSOIL DRAINAGE

1. PROVIDE SUBSOIL DRAINS TO INTERCEPT GROUNDWATER SEEPAGE AND PREVENT WATER BUILD-UP BEHIND WALLS AND UNDER FLOORS AND PAVEMENTS. CONNECT SUBSOIL TO SURFACE DRAINS OR TO THE STORMWATER DRAINAGE SYSTEM AS APPLICABLE.
2. ALL SUBSOIL PIPES SHALL BE 100mm SLOTTED CORRUGATED uPVC IN A FILTER SOCK U.N.O.
3. FILTER SOCKS ARE TO BE POLYESTER PERMEABLE SOCKS CAPABLE OF RETAINING PARTICLES GREATER THAN 0.25mm IN SIZE. SECURELY FIT OR JOIN THE SOCK AT EACH JOINT.
4. WHERE SUBSOIL DRAINS PASS UNDER EXTERNAL SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED uPVC SEWER GRADE PIPE IS TO BE USED.
5. SUBSOIL DRAINAGE TRENCHES ARE TO BE WRAPPED WITH PERMEABLE TEXTILE FABRIC 'BIDIM A12' OR EQUIVALENT.
6. TO REDUCE GROUND WATER TRACKING WITHIN STORMWATER TRENCHES INSTALL A 3m LENGTH OF SUBSOIL PIPE IN PIPE TRENCHES DRAINING IN DIRECTION OF FALL OF PIPE AND CONNECT TO DOWNSTREAM STORMWATER DRAINAGE PIT.
7. SUBSOIL MINIMUM CLEARANCE DEPTHS, MEASURED TO THE CROWN OF THE PIPE, WHERE THE PIPE PASSES BELOW THE FOLLOWING ELEMENTS:
   - 100mm BELOW FORMATION LEVEL OF THE PAVEMENT, KERB OR CHANNEL
   - AT THE AVERAGE GRADIENT OF THE BOTTOM OF FOOTINGS.
8. AT JUNCTIONS OF SUBSOIL PIPES PROVIDE TEES, COUPLINGS OR ADAPTORS IN ACCORDANCE WITH AS2439.1.
9. SUBSOIL DRAINAGE TRENCHES SHALL BE A MINIMUM 300mm WIDE.
10. GRADE THE TRENCH FLOOR EVENLY TO THE GRADIENT OF THE PIPELINE. IF THE TRENCH FLOOR IS ROCK, CORRECT ANY IRREGULARITIES WITH COMPACTED BEDDING MATERIAL. BED PIPING ON A CONTINUOUS UNDERLAY OF BEDDING MATERIAL, AT LEAST 75mm THICK AFTER COMPACTION. LAY THE PIPE WITH ONE LINE OF PERFORATIONS AT THE BOTTOM.
11. PLACE THE MATERIAL IN THE PIPE SURROUND IN LAYERS SMALLER THAN OR EQUAL TO 200mm LOOSE THICKNESS, AND COMPACT WITHOUT DAMAGING OR DISPLACING PIPING.

EROSION AND SEDIMENT CONTROL

1. ALL SEDIMENT CONTROL DEVICES ARE TO BE CONSTRUCTED, PLACED AND MAINTAINED IN ACCORDANCE WITH RELEVANT AUTHORITY GUIDELINES AND ANY DETAILS SHOWN ON THESE DRAWINGS.
2. ALL PERIMETER AND SILTATION CONTROL MEASURES ARE TO BE PLACED PRIOR TO, OR AS THE FIRST STEP IN EARTHWORKS AND/OR CLEARING.
3. THE EROSION AND SEDIMENT CONTROL PLAN MAY REQUIRE FUTURE ADJUSTMENT TO REFLECT CONSTRUCTION STAGING. IT IS THE CONTRACTORS RESPONSIBILITY TO PREPARE THEIR OWN EROSION AND SEDIMENT CONTROL PLAN WHICH SUITS THE DESIGNED CONSTRUCTION STAGING TO THE SUPERINTENDENTS SATISFACTION
4. FILTRATION BUFFER ZONES ARE TO BE FENCED OFF AND ACCESS PROHIBITED TO ALL PLANT AND MACHINERY.
5. CONTRACTOR IS TO ENSURE ALL EROSION & SEDIMENT CONTROL DEVICES ARE MAINTAINED IN GOOD WORKING ORDER AND OPERATE EFFECTIVELY. REPAIRS AND OR MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED, PARTICULARLY FOLLOWING STORM EVENTS.
6. ALL TOPSOIL IS TO BE STOCKPILED ON SITE (AWAY FROM TREES AND DRAINAGE LINES) IN ACCORDANCE WITH DETAILS PROVIDED AND WITH RELEVANT AUTHORITY GUIDELINES. MEASURES SHALL BE APPLIED TO PREVENT EROSION OF THE STOCKPILES.
7. ALL EARTHWORK AREAS SHALL BE ROLLED EACH EVENING TO SEAL THE EARTHWORKS. DUST SUPPRESSION SHALL BE CARRIED OUT IN ACCORDANCE WITH RELEVANT AUTHORITIES GUIDELINES.
8. UPON COMPLETION OF ALL EARTHWORKS OR AS DIRECTED BY RELEVANT AUTHORITY, SOIL CONSERVATION TREATMENTS SHALL BE APPLIED SO AS TO RENDER AREAS THAT HAVE BEEN DISTURBED, EROSION PROOF WITHIN 14 DAYS.
9. ALL CUT AND FILL SLOPES ARE TO BE SEEDED AND STRAW MULCHED WITHIN 14 DAYS OF COMPLETION OF FORMATION U.N.O. BY LANDSCAPE ARCHITECTS.
10. ALL CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE SITE VIA THE TEMPORARY CONSTRUCTION ENTRY/EXIT AS PER DETAILS PROVIDED OR WITH RELEVANT AUTHORITY GUIDELINES.
11. ALL VEHICLES LEAVING THE SITE SHALL BE CLEANED AND INSPECTED BEFORE LEAVING SITE TO LIMIT SEDIMENT TRACKING TO ROADWAYS.
12. FINAL SITE LANDSCAPING WILL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 20 WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.
13. ANY EXISTING TREES WHICH FORM PART OF THE FINAL LANDSCAPING PLAN WILL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY:
   A. PROTECTING THEM WITH BARRIER FENCING OR SIMILAR MATERIALS INSTALLED OUTSIDE THE DRIP LINE
   B. ENSURING THAT NOTHING IS NAILED TO THEM
   C. PROHIBITING PAVING, GRADING, SEDIMENT WASH OR PLACING OF STOCKPILES WITHIN THE DRIP LINE EXCEPT UNDER THE FOLLOWING CONDITIONS:
   - ENCROACHMENT ONLY OCCURS ON ONE SIDE AND NO CLOSER TO THE TRUNK THAN EITHER 1.5 METRES OR HALF THE DISTANCE BETWEEN THE OUTER EDGE OF THE DRIP LINE AND THE TRUNK, WHICH EVER IS THE GREATER
   - A DRAINAGE SYSTEM THAT ALLOWS AIR AND WATER TO CIRCULATE THROUGH THE ROOT ZONE (E.G. A GRAVEL BED) IS PLACED UNDER ALL FILL LAYERS OF MORE THAN 300 MILLIMETRES DEPTH
   - CARE IS TAKEN NOT TO CUT ROOTS UNNECESSARILY NOR TO COMPACT THE SOIL AROUND THEM.

REV	DESCRIPTION	BY	APRVD	DATE
P1	ISSUED FOR DRAFT	JC	FX	10/01/2025

REVISIONS

BAR SCALES

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 STAGE 3 - BUILDING & CARPARK DEVLOPMENT

TITLE: GENERAL NOTES SHEET 1

STATUS: ISSUED FOR DRAFT

Drawn	Designed	Checked	Approved
RT	RT	FX	FX

Height Datum	Grid	SCALE
AHD	MGA	N.TS AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-3002	P1

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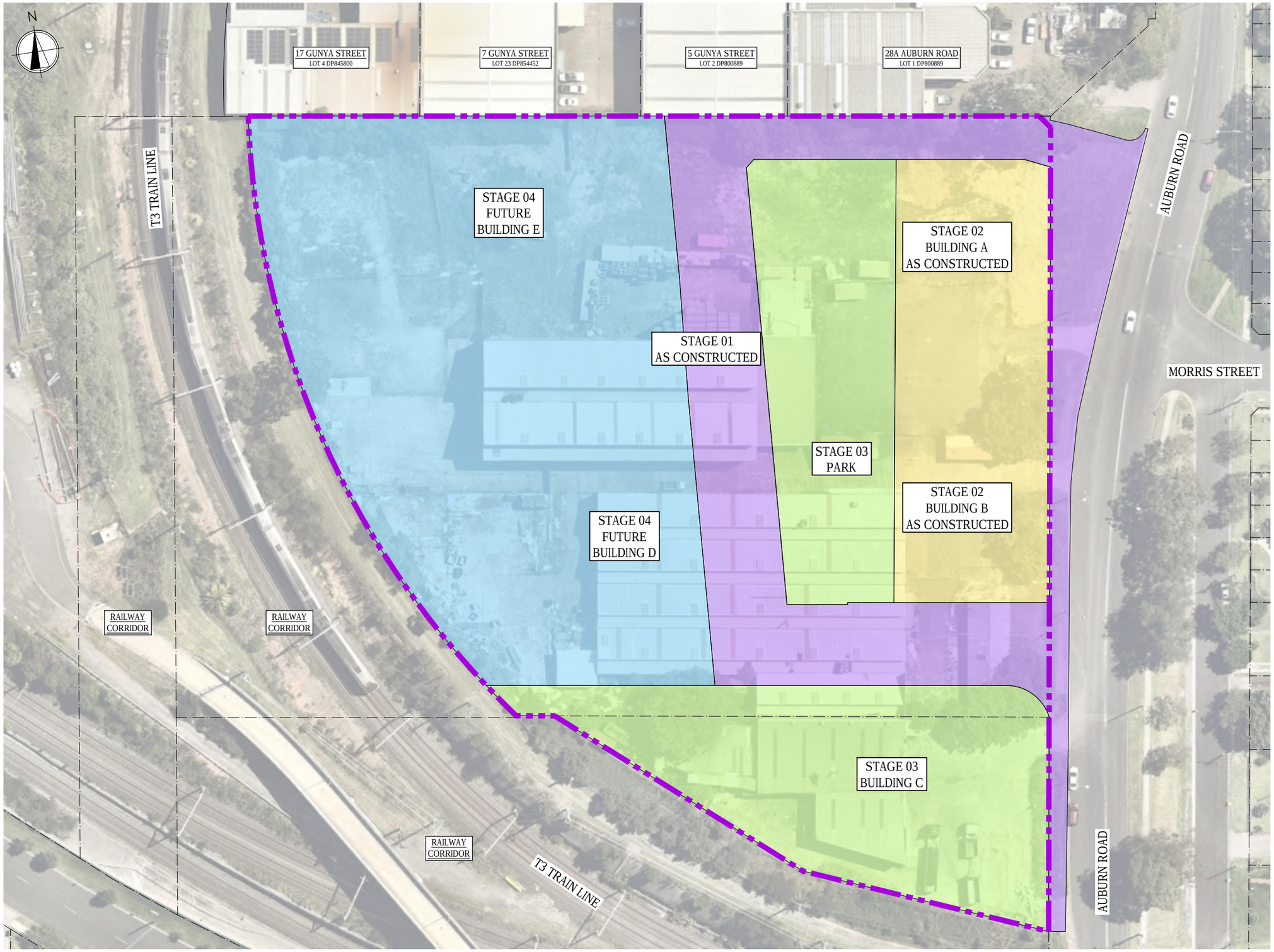

LEGEND

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- STAGE 01 - ROADWORKS
- STAGE 02 - BUILDING A & B
- STAGE 03 - BUILDING C & COMMUNAL PARK
- STAGE 04 - BUILDING D & E

STAGING PLAN

SCALE 1:400

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REV	DESCRIPTION	BY	APRVD	DATE
P1	ISSUED FOR DRAFT	JC	FX	10/01/2025

REVISIONS

BAR SCALES

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SCALE 1:400 AT A1 SIZE

CLIENT

30 AUBURN ROAD PTY. LTD.

PROJECT

30-46 AUBURN ROAD
REGENTS PARK NSW 2143
STAGE 3 - BUILDING
& CARPARK DEVLOPMENT

TITLE

STAGING PLAN

STATUS

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Drawn	Designed	Checked	Approved
RT	RT	FX	FX

Height Datum	Grid	SCALE	
AHD	MGA	1:400	AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-3005	P1

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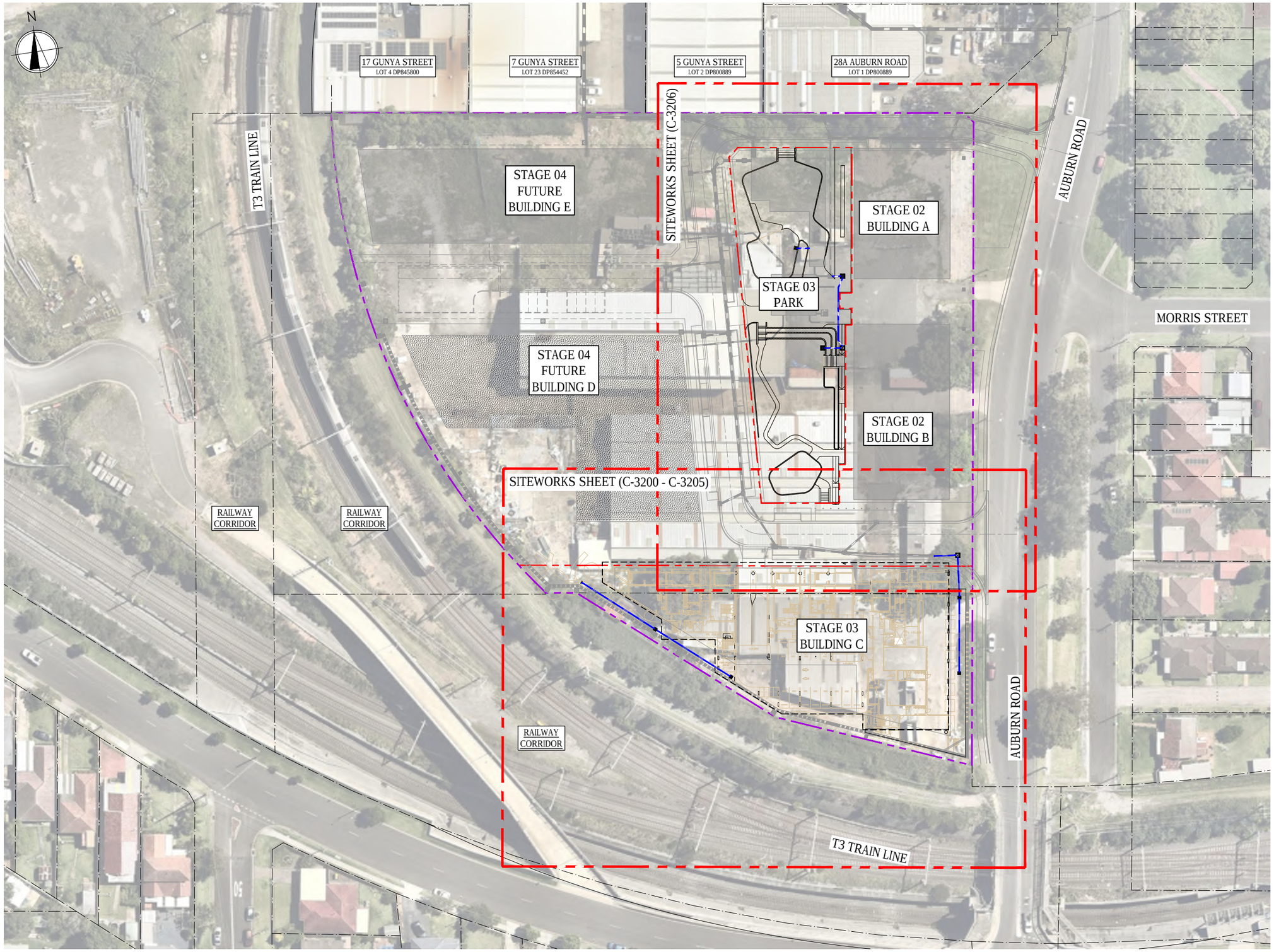

LEGEND

EXISTING

LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY

LIMITS OF WORKS BOUNDARY

GENERAL ARRANGEMENT PLAN

SCALE 1:500

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REV	DESCRIPTION	BY	APRVD	DATE
P1	ISSUED FOR DRAFT	JC	FX	10/01/2025

REVISIONS

BAR SCALES

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SCALE 1:500 AT A1 SIZE

CLIENT

30 AUBURN ROAD PTY. LTD.

PROJECT

30-46 AUBURN ROAD
REGENTS PARK NSW 2143
STAGE 3 - BUILDING
& CARPARK DEVLOPMENT

TITLE

GENERAL ARRANGEMENT PLAN

STATUS

ISSUED FOR DRAFT

Drawn	Designed	Checked	Approved
RT	RT	FX	FX

Height Datum	Grid	SCALE	
AHD	MGA	1:500	AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-3010	P1

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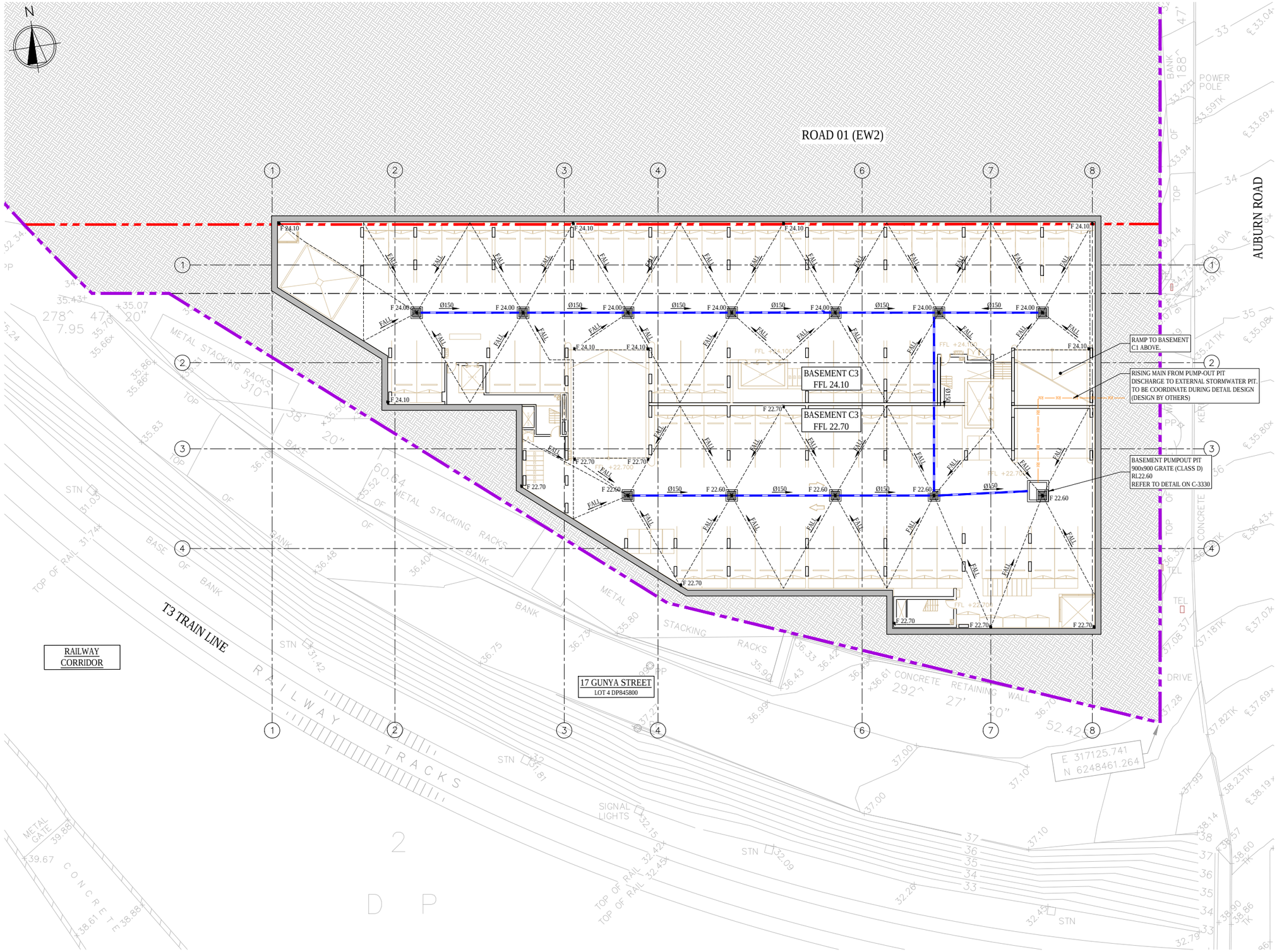

LEGEND

EXISTING

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- EXISTING LIMIT OF WORKS BOUNDARY
- EXISTING CADASTRAL BOUNDARY
- EXISTING CONTOURS

NEW

- Ø375 — STORMWATER PIPE
- SUSPENDED STORMWATER PIPE
- GRATED INLET/JUNCTION PIT
- FF — FIRST FLUSH DEVICE
- GRADE STRING
- RWO — RAINWATER OUTLET
- FALL — SLAB FALL
- F83.56 — FINISH SURFACE LEVEL

CIVIL SITEWORKS & DRAINAGE PLAN - BASEMENT C3

SCALE 1:200

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REV	DESCRIPTION	BY	APRVD	DATE
P1	ISSUED FOR DRAFT	JC	FX	10/01/2025

REVISIONS

BAR SCALES

0 2 4 6 8 10 12m
SCALE 1:200 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 STAGE 3 - BUILDING & CARPARK DEVLOPMENT

TITLE: CIVIL SITEWORKS & STORMWATER MANAGEMENT PLAN BASEMENT C3

STATUS: ISSUED FOR DRAFT

Drawn	Designed	Checked	Approved
RT	RT	FX	FX

Height Datum	Grid	SCALE
AHD	MGA	1:200 AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-3 200	P1

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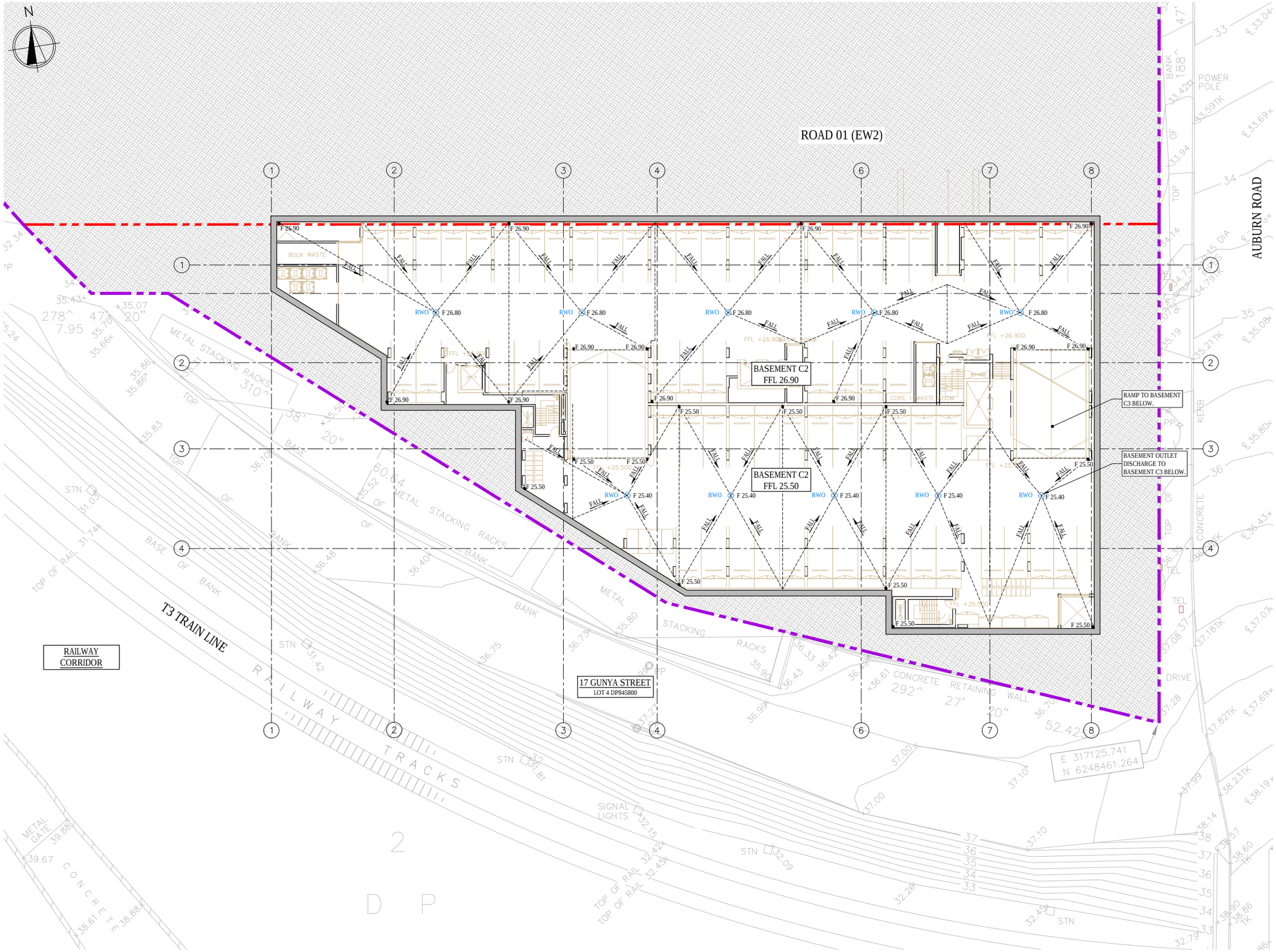

LEGEND

EXISTING

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- EXISTING LIMIT OF WORKS BOUNDARY
- EXISTING CADASTRAL BOUNDARY
- EXISTING CONTOURS

NEW

- STORMWATER PIPE
- SUSPENDED STORMWATER PIPE
- GRATED INLET/JUNCTION PIT
- FF — FIRST FLUSH DEVICE
- GRADE STRING
- RWO — RAINWATER OUTLET
- FALL — SLAB FALL
- F83.56 — FINISH SURFACE LEVEL

CIVIL SITEWORKS & DRAINAGE PLAN - BASEMENT C2

SCALE 1:200

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BAR SCALES

0 2 4 6 8 10 12m

SCALE 1:200 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 STAGE 3 - BUILDING & CARPARK DEVLOPMENT

TITLE: CIVIL SITEWORKS & STORMWATER MANAGEMENT PLAN BASEMENT C2

STATUS: ISSUED FOR DRAFT

Drawn	Designed	Checked	Approved
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AHD	MGA	1:200	AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-3 201	P1

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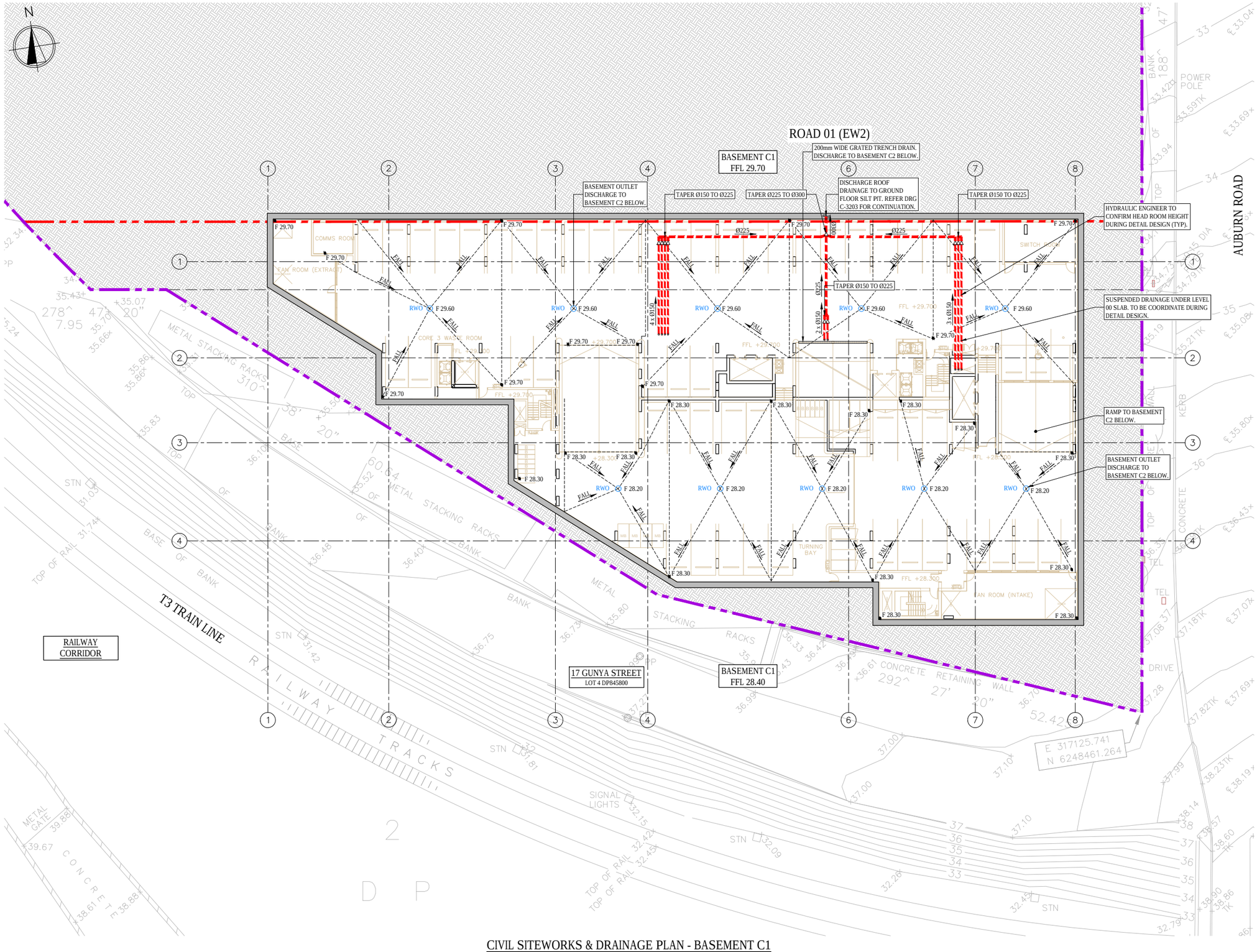

LEGEND

EXISTING

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- EXISTING LIMIT OF WORKS BOUNDARY
- EXISTING CADASTRAL BOUNDARY
- EXISTING CONTOURS

NEW

- Ø375 — STORMWATER PIPE
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- F83.56 — FINISH SURFACE LEVEL

CIVIL SITEWORKS & DRAINAGE PLAN - BASEMENT C1

SCALE 1:200

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SCALE 1:200 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 STAGE 3 - BUILDING & CARPARK DEVLOPMENT

TITLE: CIVIL SITEWORKS & STORMWATER MANAGEMENT PLAN BASEMENT C1

STATUS: ISSUED FOR DRAFT

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SY23-120	-C-3 202	P1

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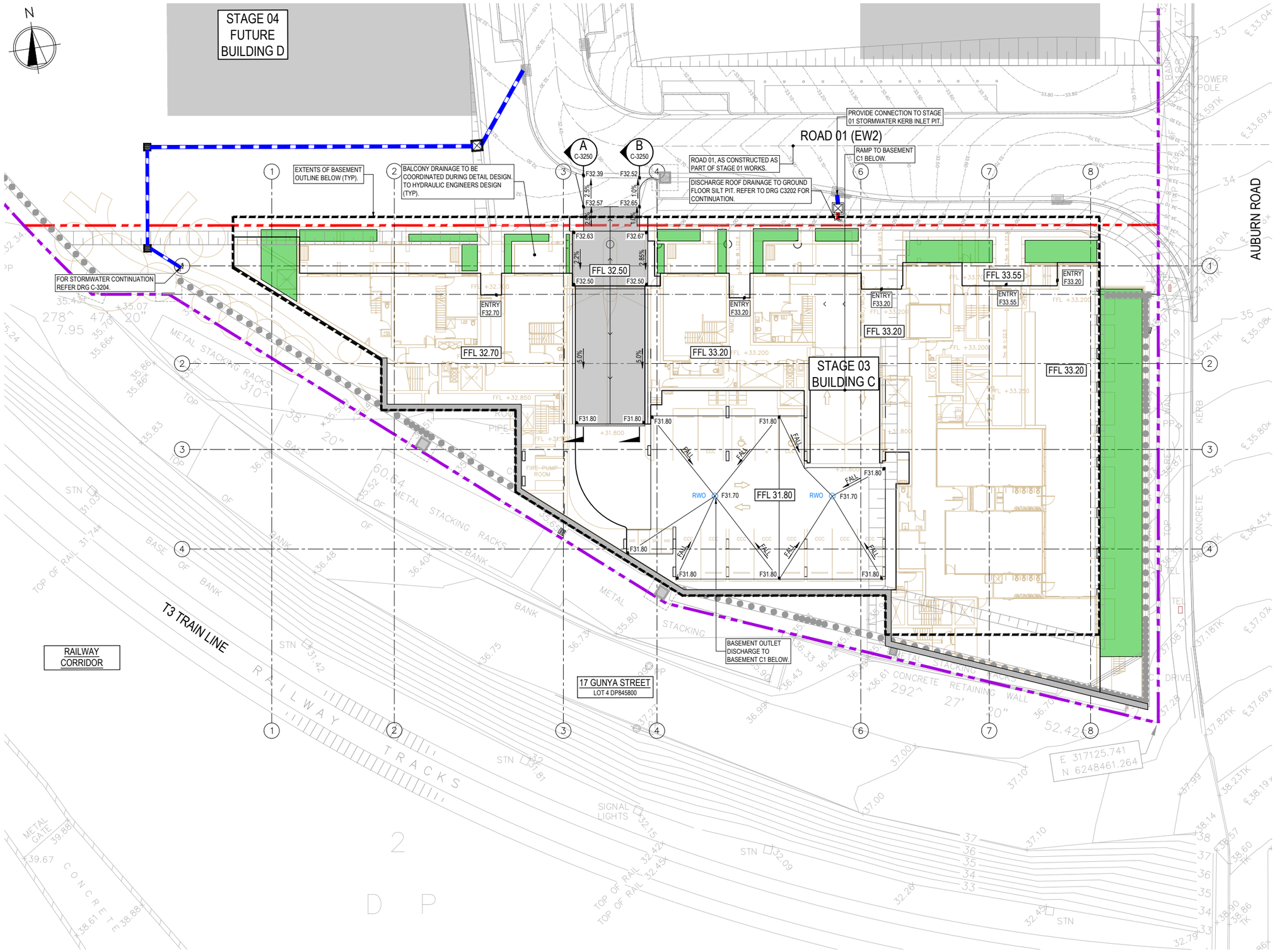

LEGEND

EXISTING

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- EXISTING LIMIT OF WORKS BOUNDARY
- EXISTING CADASTRAL BOUNDARY
- EXISTING CONTOURS
- EXISTING KERB AND GUTTER - CONSTRUCTED AS PER STAGE 01 WORKS
- STAGE 1 STORMWATER PIPE - CONSTRUCTED AS PER STAGE 01 WORKS
- STAGE 1 GRATED INLET/JUNCTION PIT - CONSTRUCTED AS PER STAGE 01 WORKS

NEW

- PAVEMENT TYPE 1 - LANDSCAPE
- BASEMENT OUTLINE
- Ø375 STORMWATER PIPE
- SUSPENDED STORMWATER PIPE
- GRATED INLET/JUNCTION PIT
- GRADE STRING
- RWO RAINWATER OUTLET
- FALL SLAB FALL
- F83.56 FINISH SURFACE LEVEL

CIVIL SITEWORKS & DRAINAGE PLAN - LEVEL 0

SCALE 1:200

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REV	DESCRIPTION	BY	APRVD	DATE
P1	ISSUED FOR DRAFT	JC	FX	10/01/2025

REVISIONS

BAR SCALES

0 2 4 6 8 10 12m
SCALE 1:200 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 STAGE 3 - BUILDING & CARPARK DEVLOPMENT

TITLE: CIVIL SITEWORKS & STORMWATER MANAGEMENT PLAN LEVEL 0

STATUS: ISSUED FOR DRAFT

Drawn	Designed	Checked	Approved
RT	RT	FX	FX

Height Datum	Grid	SCALE	
AHD	MGA	1:200	AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-3 203	P1

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STAGE 04
FUTURE
BUILDING D

ROAD 01 (EW2)

AUBURN ROAD

EXTENTS OF BASEMENT OUTLINE BELOW (TYP).

PROVIDE NEW 900x900 JUNCTION PIT TO CONNECT TO STAGE 01 ROAD PIT A1-1. REFER TO DRAWING DRG C-1203.

FOR STORMWATER CONTINUATION, REFER TO DRG C-3203.

STORMWATER DRAINAGE LINE TO PUNCTURE THROUGH CAPPING BEAM WALL AND AVOID STRUCTURAL PILES. TO BE COORDINATED DURING DETAIL DESIGN .TO STRUCTURAL ENGINEERS DESIGN.

STORMWATER PIPE TO PASS ABOVE GROUND LEVEL BASEMENT RL 33.50

PODIUM DRAINAGE TO CONNECT TO NEAREST DOWNSTREAM PIT. TO BE COORDINATED DURING DETAIL DESIGN. TO HYDRAULIC ENGINEERS DESIGN (TYP).

STAGE 03
BUILDING C

FFL 36.40

FFL 35.40

RWO

17 GUNYA STREET
LOT 4 DP845800

RAILWAY
CORRIDOR

T3 TRAIN LINE

RAILWAY TRACKS

E 317125.741
N 6248461.264

LEGEND

EXISTING

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- EXISTING LIMIT OF WORKS BOUNDARY
- EXISTING CADASTRAL BOUNDARY
- EXISTING CONTOURS
- EXISTING KERB AND GUTTER - CONSTRUCTED AS PER STAGE 01 WORKS
- STAGE 1 STORMWATER PIPE - CONSTRUCTED AS PER STAGE 01 WORKS
- STAGE 1 GRATED INLET/JUNCTION PIT - CONSTRUCTED AS PER STAGE 01 WORKS

NEW

- PAVEMENT TYPE 1 - LANDSCAPE
- BASEMENT OUTLINE
- STORMWATER PIPE
- SUSPENDED STORMWATER PIPE
- GRATED INLET/JUNCTION PIT
- GRADE STRING
- RAINWATER OUTLET
- SLAB FALL
- FINISH SURFACE LEVEL

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CIVIL SITEWORKS & DRAINAGE PLAN - LEVEL 0

SCALE 1:200

REV	DESCRIPTION	BY	APRVD	DATE
P1	ISSUED FOR DRAFT	JC	FX	10/01/2025

REVISIONS

BAR SCALES

0 2 4 6 8 10 12m
SCALE 1:200 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 STAGE 3 - BUILDING & CARPARK DEVLOPMENT

TITLE: CIVIL SITEWORKS & STORMWATER MANAGEMENT PLAN LEVEL 1

STATUS: ISSUED FOR DRAFT

Drawn	Designed	Checked	Approved
RT	RT	FX	FX

Height Datum	Grid	SCALE
AHD	MGA	1:200 AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-3 204	P1

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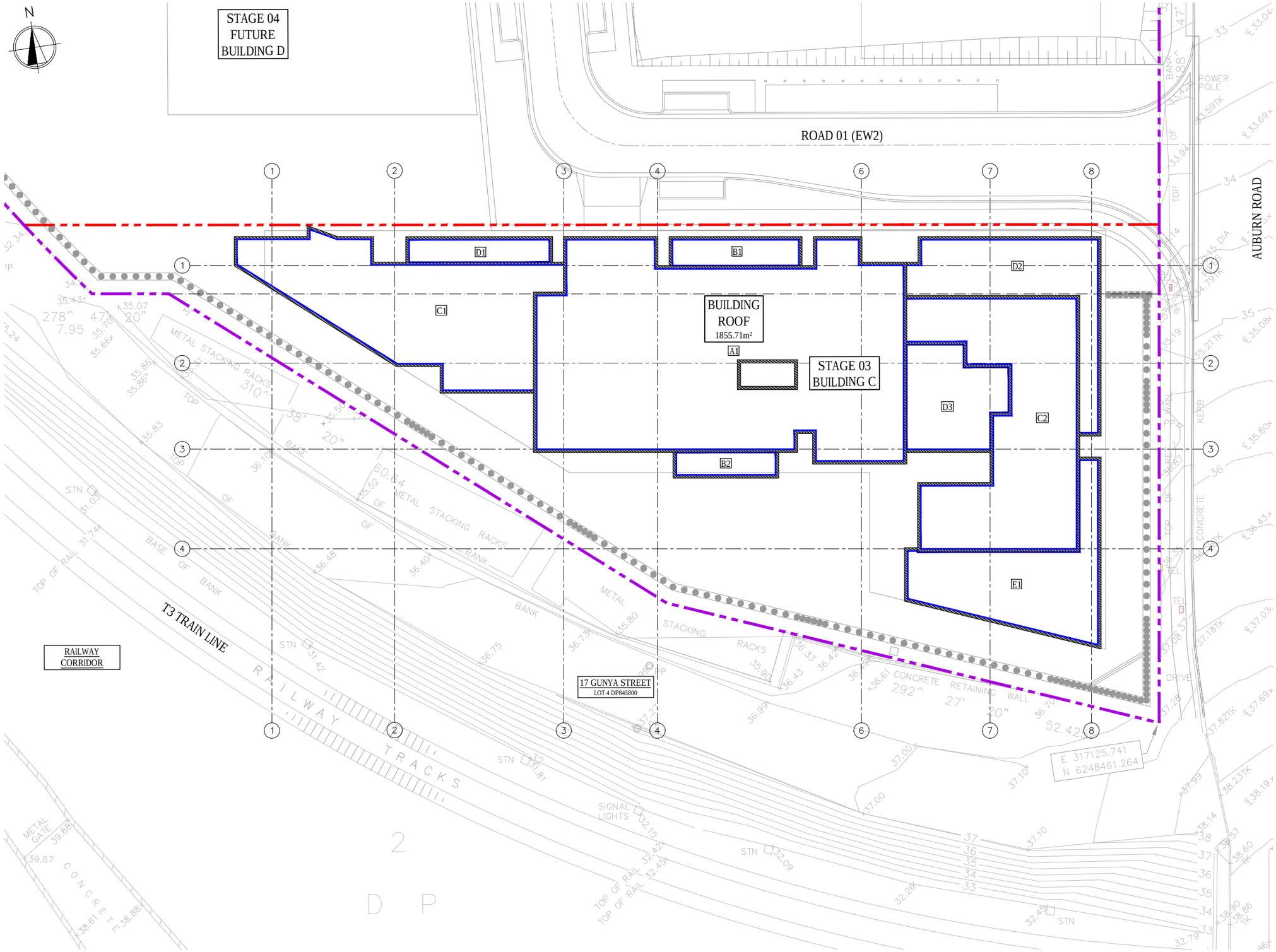

LEGEND

EXISTING

- LOT 4 DP6264 & LOT 200 DP2343053 CADASTRAL BOUNDARY
- EXISTING LIMIT OF WORKS BOUNDARY
- EXISTING CADASTRAL BOUNDARY

NEW

- A1 — ROOF CATCHMENT AREA

ROOF CALC SUMMARY

ROOF CALCULATION

- ROOF DISCHARGE (Q) CALCULATED USING RATIONAL METHOD = [(C)x(I)x(A)/3600] = xxL/s
- ASSUMED ROOF RUN-OFF COEFFICIENT (C) EQUAL TO 1
- RAINFALL INTENSITIES OBTAINED FROM BUREAU OF METEOROLOGY (BOM)
- DESIGN RAIN FALL INTENSITY (I) FOR $^{100}I_5$ (5min DURATION) $^{100}I_5$ = 235mm/hr
- ALL BOX GUTTERS DESIGNED FOR 100 YEAR ARI IN ACCORDANCE TO AS3500.3 (2021)
- BOX GUTTERS DESIGNED TO A GRADIENT OF 1:200

BUILDING C ROOF DESIGN CHECK

- TOTAL ROOF CATCHMENT = 1855.71m²
- TOTAL 100 YEAR ARI DISCHARGE Q_{100} = 121.14 L/s
- ROOF AREA DISCHARGE TO RAINWATER TANK
- MINIMUM OUTLET PIPE @ 1.5% = Ø300 (154.00 L/s)

NOTES

1. DO NOT OBTAIN DIMENSIONS FROM SCALING THE DRAWING. ALL DIMENSIONS ARE IN METERS (M) AND ALL LEVELS ARE IN METERS (M), UNO. ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD).
2. DOWNPIPE AND GUTTER SIZES SHOWN ARE MINIMUM AND SHALL BE COORDINATED WITH THE ARCHITECTURAL SPECIFICATIONS.
3. STORMWATER DRAINAGE TO BE INSTALLED BY A LICENSED PLUMBER.
4. CONTRACTOR TO CONFIRM EXACT LOCATION OF EXISTING STORMWATER OUTLETS BEFORE COMMENCING WORKS.
5. CONTRACTOR IS TO CONFIRM ALL EXISTING DOWNPIPES AND UNDERGROUND STORMWATER NETWORK WORKING SATISFACTORILY. REPLACE IF REQUIRED
6. CONTRACTOR IS TO RESTORE ALL EXISTING AREAS AFFECTED BY THE WORKS OR DAMAGED DURING THE COURSE OF WORKS.
7. STORMWATER DRAINAGE MATERIALS, INSTALLATION AND TESTING SHALL COMPLY WITH AS3500.3:2018.

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CIVIL SITEWORKS & DRAINAGE PLAN - ROOF

SCALE 1:200

REV	DESCRIPTION	BY	APRVD	DATE
P1	ISSUED FOR DRAFT	JC	FX	10/01/2025

REVISIONS

BAR SCALES

0 2 4 6 8 10 12m
SCALE 1:200 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 STAGE 3 - BUILDING & CARPARK DEVLOPMENT

TITLE: CIVIL SITEWORKS & STORMWATER MANAGEMENT PLAN ROOF

STATUS: ISSUED FOR DRAFT

Drawn	Designed	Checked	Approved
RT	RT	FX	FX

Height Datum	Grid	SCALE	
AHD	MGA	1:200	AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-3 205	P1

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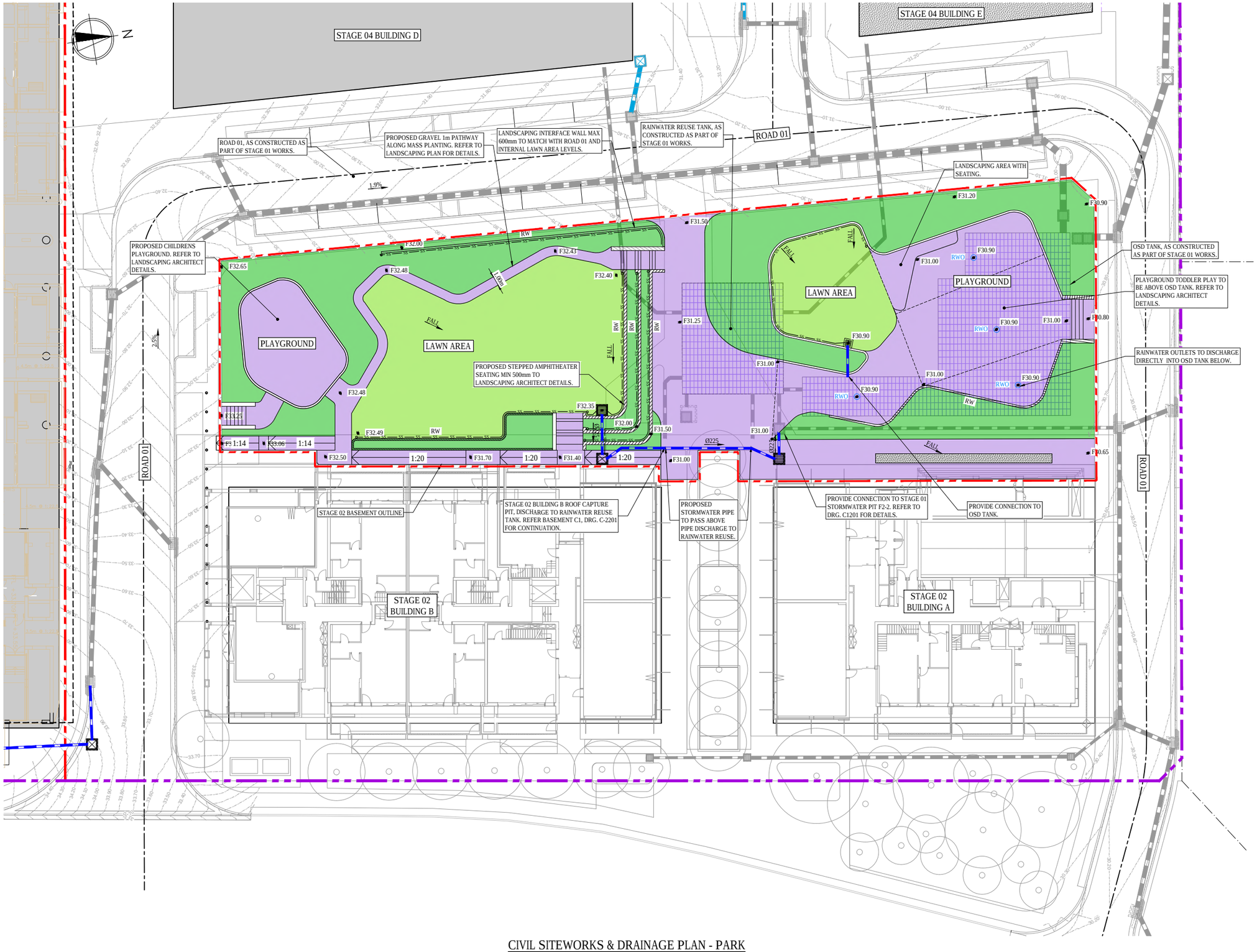

LEGEND

EXISTING

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- EXISTING LIMIT OF WORKS BOUNDARY
- EXISTING CADASTRAL BOUNDARY
- EXISTING CONTOURS
- EXISTING KERB AND GUTTER - CONSTRUCTED AS PER STAGE 01 WORKS
- STAGE 1 & 2 STORMWATER PIPE - CONSTRUCTED AS PER STAGE 01 WORKS
- STAGE 1 & 2 GRATED INLET/JUNCTION PIT - CONSTRUCTED AS PER STAGE 01 WORKS
- FUTURE STAGE STORMWATER PIPE - CONSTRUCTED AS PER STAGE 02 WORKS
- FUTURE STAGE GRATED INLET/JUNCTION PIT - CONSTRUCTED AS PER STAGE 02 WORKS
- EXISTING BASEMENT OUTLINE

NEW

- PAVEMENT TYPE 1 - CONCRETE FOOTPATH REFER TO LANDSCAPING ARCHITECT
- PAVEMENT TYPE 2 - LANDSCAPE REFER TO LANDSCAPING ARCHITECT
- PAVEMENT TYPE 3 - LAWN AREA REFER TO LANDSCAPING ARCHITECT
- BASEMENT OUTLINE
- STORMWATER PIPE
- GRATED INLET/JUNCTION PIT
- GRADE STRING
- XX% FINISH SURFACE LEVEL
- F83.56 FINISH FLOOR LEVEL
- PROPOSED RETAINING WALL / LANDSCAPE SEATING
- RWO RAINWATER OUTLET
- SS SUBSOIL DRAIN & FLUSHING POINT

CIVIL SITEWORKS & DRAINAGE PLAN - PARK

SCALE 1:200

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REV	DESCRIPTION	BY	APRVD	DATE
P1	ISSUED FOR DRAFT	JC	FX	10/01/2025

REVISIONS

BAR SCALES

0 2 4 6 8 10 12m
SCALE 1:200 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 STAGE 3 - BUILDING & CARPARK DEVLOPMENT

TITLE: CIVIL SITEWORKS & STORMWATER MANAGEMENT PLAN PARK

STATUS: ISSUED FOR DRAFT

Drawn	Designed	Checked	Approved
RT	RT	FX	FX

Height Datum	Grid	SCALE
AHD	MGA	1:200 AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-3 206	P1

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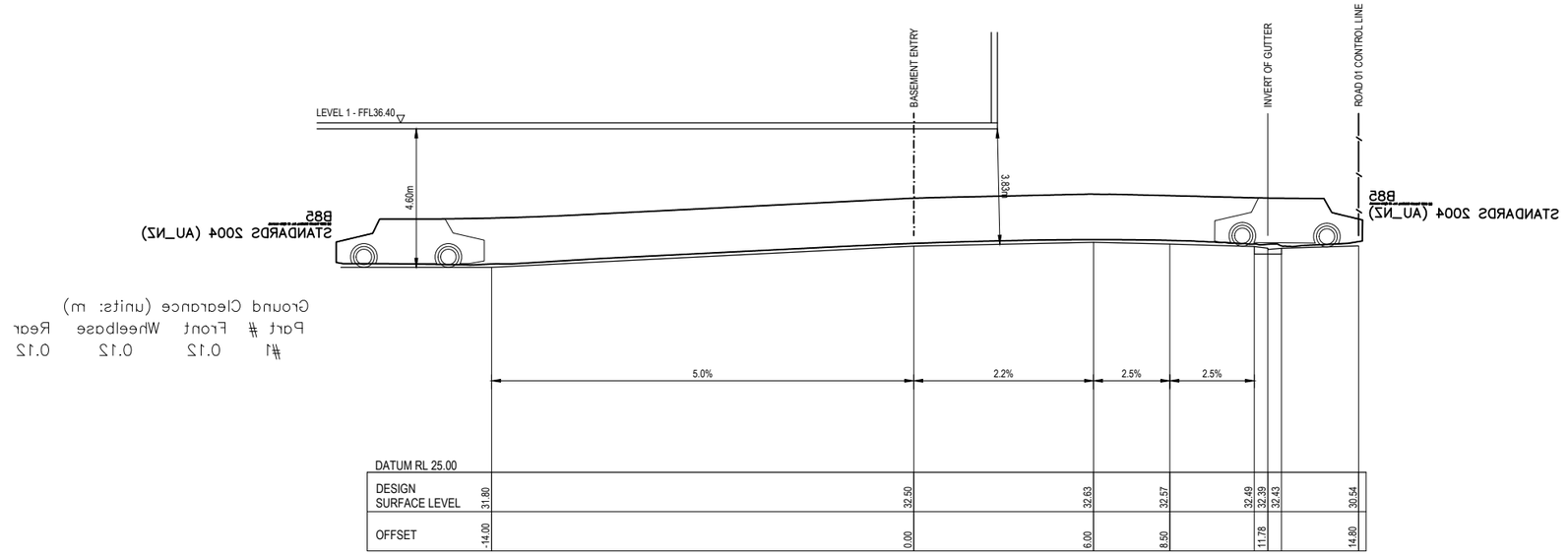
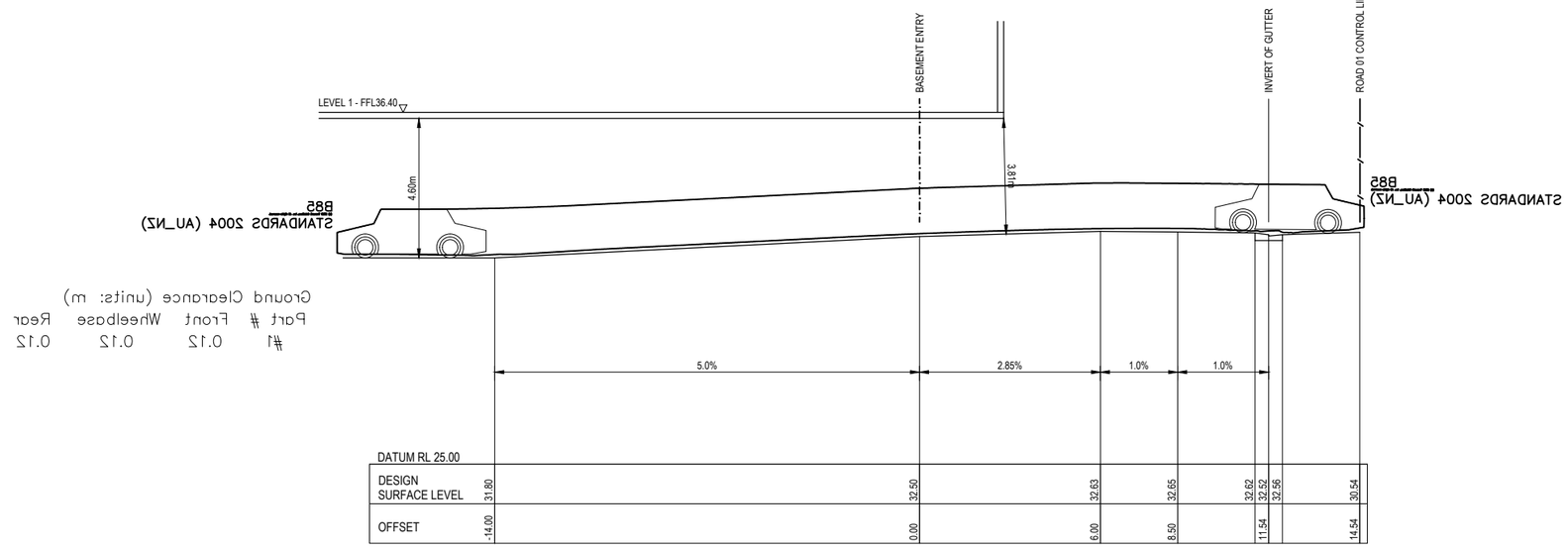


Ground Clearance (units: m)

Part #	Front	Wheelbase	Rear
#1	0.12	0.12	0.12

BASEMENT C1 RAMP DRIVEWAY LONGITUDINAL SECTION (A / C-3203)

SCALE 1:100



Ground Clearance (units: m)

Part #	Front	Wheelbase	Rear
#1	0.12	0.12	0.12

BASEMENT C1 RAMP DRIVEWAY LONGITUDINAL SECTION (B / C-3203)

SCALE 1:100

REV	DESCRIPTION	BY	APRVD	DATE
P1	ISSUED FOR DRAFT	JC	FX	10/01/2025

REVISIONS

BAR SCALES

0 1 2 3 4 5 6m
SCALE 1:100 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 STAGE 3 - BUILDING & CARPARK DEVLOPMENT

TITLE: DRIVEWAY LONGITUDINAL SECTIONS

STATUS: ISSUED FOR DRAFT

Drawn	Designed	Checked	Approved
RT	RT	FX	FX

Height Datum	Grid	SCALE	
AHD	MGA	1:100	AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-3 250	P1

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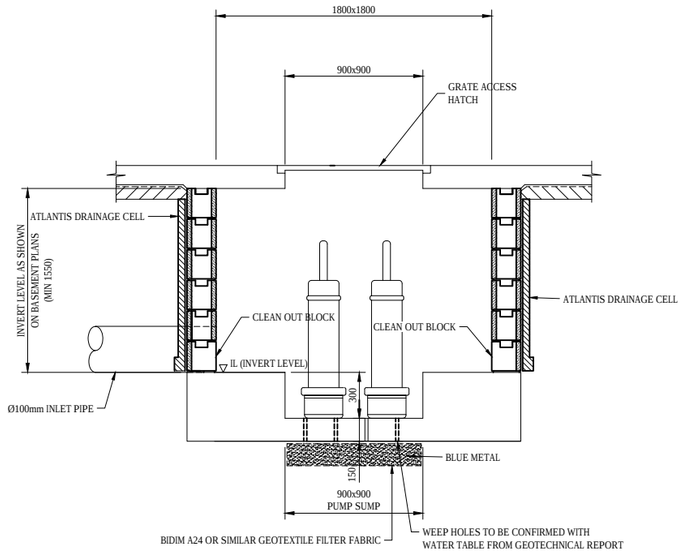
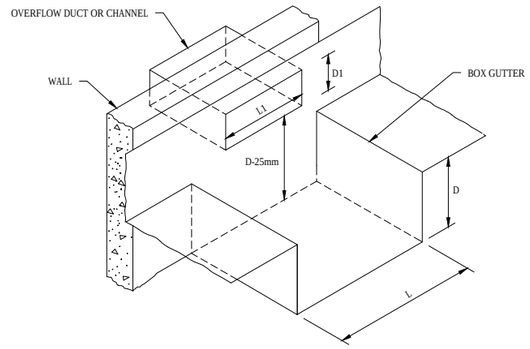


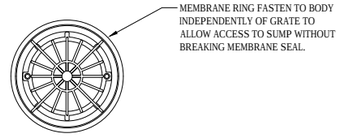
BASEMENT PUMP OUT PIT DETAIL

SCALE 1:20



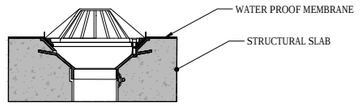
SIDE OVERFLOW DEVICE (OF)

SCALE 1:20



RAINWATER OUTLET PLAN

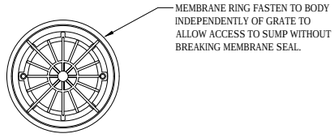
SCALE 1:10



RAINWATER OUTLET SECTION

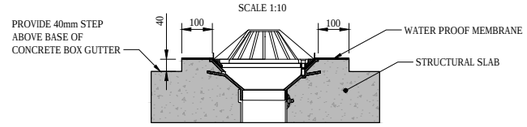
SCALE 1:10

NOTE:
1. SPS TRUFLO WITH 150mm RWO WITH DOME GRATE & MEMBRANE CLAMP.
2. INSTALLED TO MANUFACTURER'S REQUIREMENTS.
3. PROVIDE WATERPROOFING AS REQUIRED.



RAINWATER OUTLET OVERFLOW PLAN

SCALE 1:10



RAINWATER OUTLET OVERFLOW SECTION

SCALE 1:10

NOTE:
1. SPS TRUFLO WITH 150mm RWO WITH DOME GRATE & MEMBRANE CLAMP.
2. INSTALLED TO MANUFACTURER'S REQUIREMENTS.
3. PROVIDE WATERPROOFING AS REQUIRED.

BASEMENT PUMPING WELL 1

PROVIDE TWO CENTRIFUGAL DRAINAGE SUMP PUMPS WITH SINGLE-PHASE ELECTRIC MOTOR CAPABLE OF DISCHARGING 2.50L/S EACH AGAINST A TOTAL HEAD OF (2.2M) WITH 10 STARTS PER HOUR MAXIMUM. CLASS 1 ZONE 2 CERTIFIED PUMPS FOR HAZARDOUS AREAS ARE REQUIRED SWITCHING SHALL PROVIDE FOR ALTERNATIVE OPERATION OF THE PUMPS, HIGH LEVEL SWITCH ON/OFF, 2ND PUMP, AND A RED LIGHT ALARM PLACED PERMANENTLY IN THE BASEMENT AREA ACTIVATED BY HIGH LEVEL SWITCH ON.

BASEMENT HOLDING TANK
AREA DRAINING TO THE BASEMENT PUMPING = 0m^2 (EXPOSED DRIVEWAY TO THE BASEMENT)
GROUNDWATER DRAINING TO THE BASEMENT PUMPING = 0m^2 (TO BE CONFIRMED DURING DETAIL DESIGN)
STORAGE MUST BE PROVIDED FOR A BLACKOUT OF AT LEAST 2HRS, THE 10 YEAR ARI STORM RUNOFF IS:

Q = F x C x I x A
= 1/3600 x 0.9 x 0 x 217
= 0 L/s

VOLUME ACCUMULATED (10 YEAR ARI, 2 HOUR STORM):

V_{10120}= (0L/s x 2hrs x 3600s)/1000
= 0 m^3

VOLUME PUMPED IN 30 MINS:

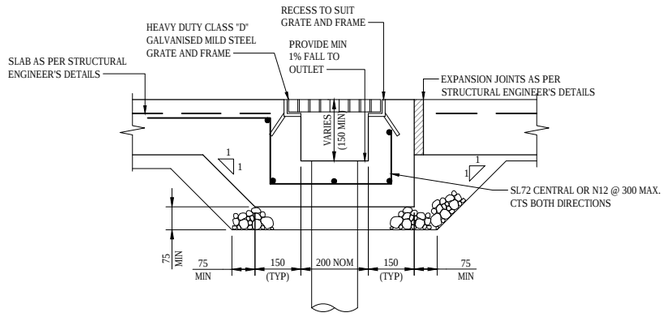
PC_{30} = (5.0L/s x 0.5hrs x 3600s)/1000
= 9.00 m^3

VOLUME PUMPED IN 5 MINS:

PC_5 = (5.0L/s x 0.083hrs x 3600s)/1000
= 1.50 m^3

DESIGN WET WELL STORAGE CAPACITY
= V_{10120} - PC_{30} = 0 m^3

∴ 3 m^3 MIN (AS PER AS3500.3.2021)
SPECIFIED PUMP CAPACITY MUST BE MINIMUM 5L/s



GRATED DRAIN (GTD)

SCALE 1:10

REV	DESCRIPTION	BY	APRVD	DATE
P1	ISSUED FOR DRAFT	JC	FX	10/01/2025

REVISIONS

BAR SCALES
0 1 2 3 4 5 6m
SCALE 1:100 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 STAGE 3 - BUILDING & CARPARK DEVLOPMENT

TITLE: CIVIL SITEWORKS DETAILS

STATUS: ISSUED FOR DRAFT

Drawn	Designed	Checked	Approved
RT	RT	FX	FX

Height Datum	Grid	SCALE	
AHD	MGA	AS SHOWN	AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-3 330	P1

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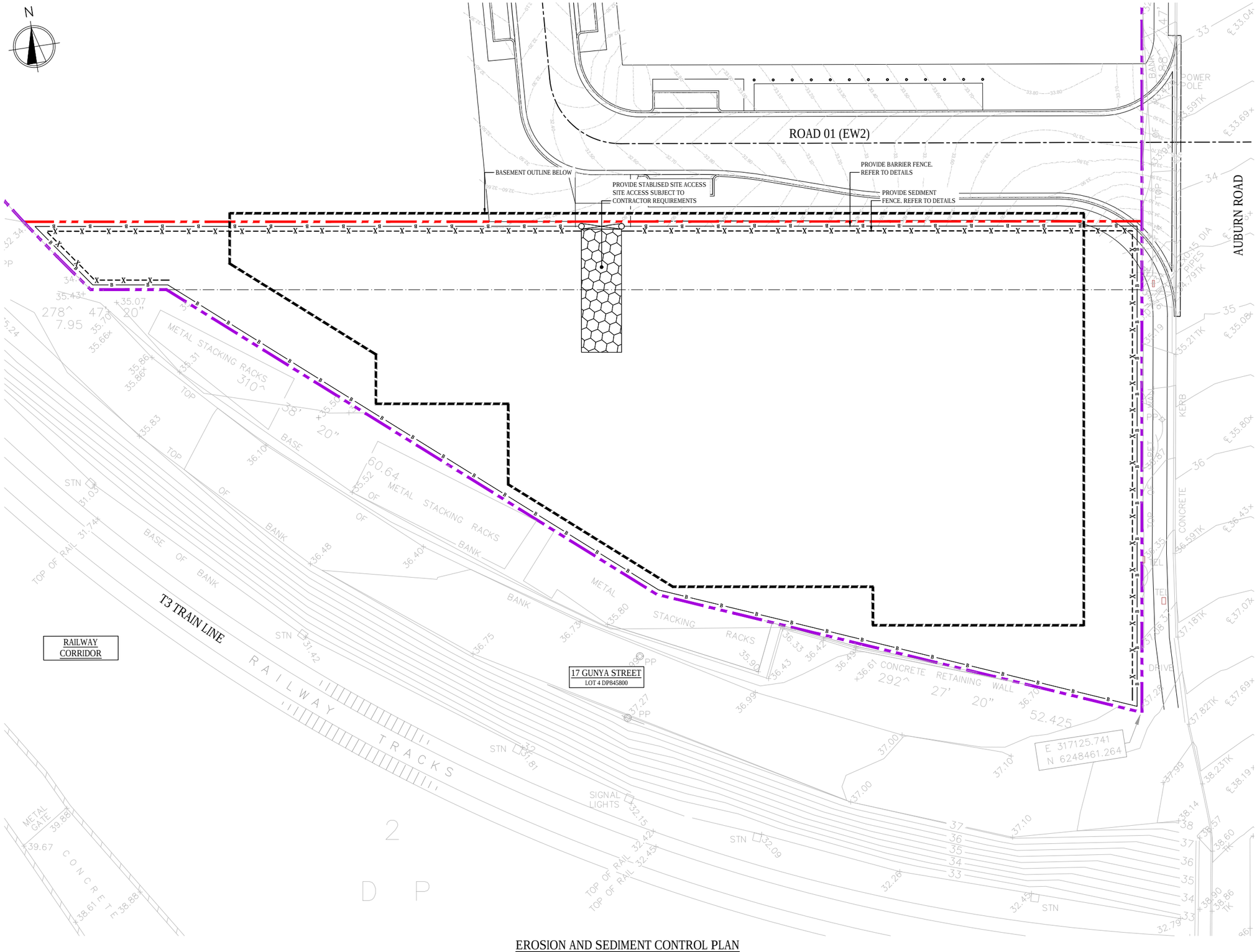

LEGEND

EXISTING

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- LIMITS OF WORKS BOUNDARY
- EXISTING CONTOURS

NEW

- CONSTRUCTION VEHICLE EXIT
- BARRIER FENCE
- SEDIMENT FENCE
- BASEMENT OUTLINE
- GEOTEXTILE INLET FILTER TYPE A
- MESH AND GRAVEL INLET FILTER
- SITE ACCESS GATE

EROSION AND SEDIMENT CONTROL PLAN

SCALE 1:200

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REV	DESCRIPTION	BY	APRVD	DATE
P1	ISSUED FOR DRAFT	JC	FX	10/01/2025

REVISIONS

BAR SCALES

0 2 4 6 8 10 12m
SCALE 1:200 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 STAGE 3 - BUILDING & CARPARK DEVLOPMENT

TITLE: EROSION AND SEDIMENTATION CONTROL PLAN SHEET 1

STATUS: ISSUED FOR DRAFT

Drawn	Designed	Checked	Approved
RT	RT	FX	FX

Height Datum	Grid	SCALE
AHD	MGA	1:200 AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-3 700	P1

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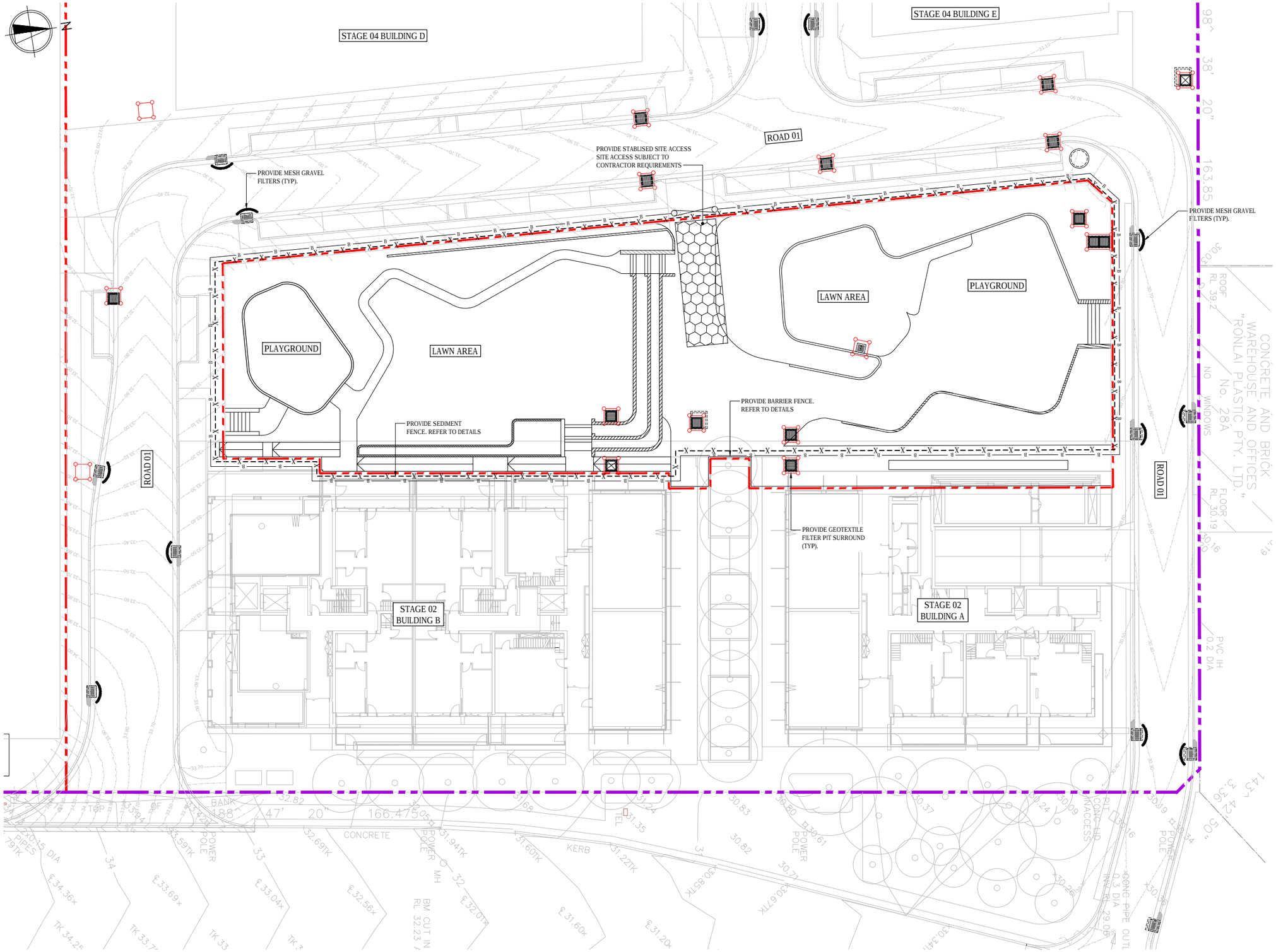
STAGE 04 BUILDING D
STAGE 04 BUILDING E
ROAD 01
PROVIDE STABLISED SITE ACCESS
SITE ACCESS SUBJECT TO
CONTRACTOR REQUIREMENTS
PROVIDE MESH GRAVEL
FILTERS (TYP).
PROVIDE MESH GRAVEL
FILTERS (TYP).
PLAYGROUND
LAWN AREA
PLAYGROUND
LAWN AREA
PROVIDE SEDIMENT
FENCE. REFER TO DETAILS
PROVIDE BARRIER FENCE.
REFER TO DETAILS
PROVIDE GEOTEXTILE
FILTER PIT SURROUND
(TYP).
ROAD 01
ROAD 01
STAGE 02
BUILDING B
STAGE 02
BUILDING A
CONCRETE AND BRICK WAREHOUSE AND OFFICES "RONLAI PLASTIC PTY. LTD." No. 28A
ROOF RL 39.2
NO WINDOWS
FLOOR RL 30.19
FLOOR RL 30.16
PVC IH 0.2 DIA
CONC PIPE OUTL 0.3 DIA INV EL 29.08
CONCRETE
KERB
BANK
TOP
TOP
BM CUT IN RL 32.23
POWER POLE
POWER POLE
POWER POLE
POWER POLE
POWER POLE
TEL
CONC LID ACCESS
98° 38' 20" 163.85
188.47' 20" 166.475
32.82
32.69TK
31.94TK
31.60TK
31.22TK
30.85TK
30.67TK
31.35
30.83
30.80
30.61
30.37
30.24
30.09
30.26
30.34
30.16
30.19
32.24
31.68
30.82
30.77
30.71
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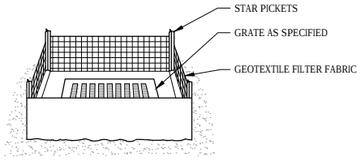
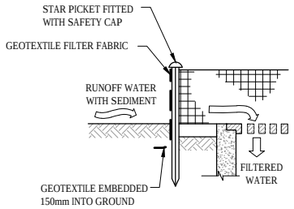


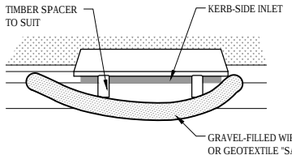


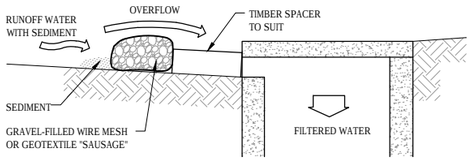
GEOTEXTILE INLET FILTER CONSTRUCTION NOTES:

1. FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE OR STRAW BALES.
2. PICKET SPACING TO BE A MAXIMUM 1.0m CENTRES.
3. IN WATERWAYS, ARTIFICIAL SAG POINTS CAN BE CREATED WITH SANDBAGS OR EARTH BANKS AS SHOWN IN THE DRAWING.
4. DO NOT COVER THE INLET WITH GEOTEXTILES UNLESS THE DESIGN IS ADEQUATE TO ALLOW FOR ALL WATERS TO BYPASS IT.

GEOTEXTILE INLET FILTER - TYPE A

SCALE N.T.S



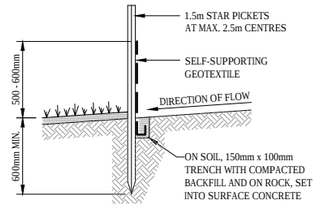


MESH & GRAVEL INLET FILTER CONSTRUCTION NOTES:

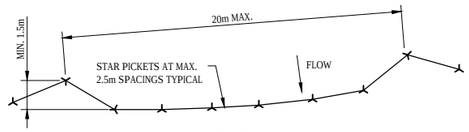
1. INSTALL FILTERS TO KERB INLETS ONLY AT SAG POINTS.
2. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT AND FILL IT WITH 25mm TO 50mm GRAVEL.
3. FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm HIGH x 400mm WIDE.
4. PLACE THE FILTER AT THE OPENING LEAVING AT LEAST A 100mm SPACE BETWEEN IT AND THE KERB INLET. MAINTAIN THE OPENING WITH SPACER BLOCKS.
5. FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING THE FILTER.
6. SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY CAN FIRMLY ABUT EACH OTHER AND SEDIMENT-LADEN WATERS CANNOT PASS BETWEEN.

MESH & GRAVEL INLET FILTER

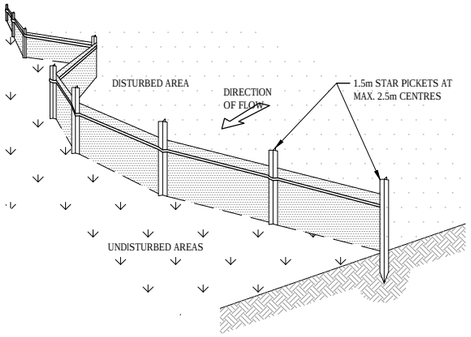
SCALE N.T.S



SECTION DETAIL



PLAN

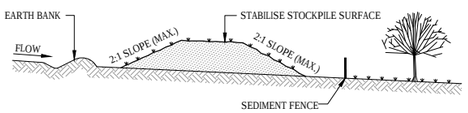


SEDIMENT FENCE CONSTRUCTION NOTES:

1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
2. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5m LONG STAR PICKETS INTO GROUND AT 2.5m INTERVALS (MAX.) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

SEDIMENT FENCE

SCALE N.T.S

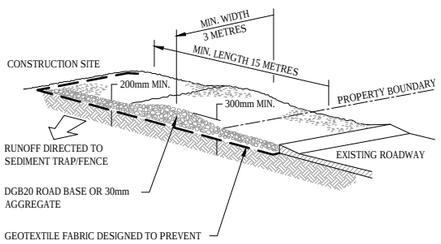


STOCKPILE CONSTRUCTION NOTES:

1. PLACE STOCKPILES MORE THAN 2 (PREFERABLY 5) METRES FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METRES IN HEIGHT.
4. WHERE THEY ARE TO BE PLACE FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED ESCP OR SWMP TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
5. CONSTRUCT EARTH BANKS ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES 1 TO 2 METRES DOWNSLOPE.

STOCKPILES

SCALE N.T.S



STABILISED SITE ACCESS CONSTRUCTION NOTES:

1. STRIP THE TOPSOIL, LEVEL THE SITE AND COMPACT THE SUBGRADE.
2. COVER THE AREA WITH NEEDLE-PUNCHED GEOTEXTILE
3. CONSTRUCT A 200mm THICK PAD OVER THE GEOTEXTILE USING ROAD BASE OR 30mm AGGREGATE.
4. ENSURE THE STRUCTURE IS AT LEAST 15 METRES LONG OR TO BUILDING ALIGNMENT AND AT LEAST 3 METRES WIDE.
5. WHERE A SEDIMENT FENCE JOINS ONTO THE STABILISED ACCESS, CONSTRUCT A HUMP IN THE STABILISED ACCESS TO DIVERT WATER TO THE SEDIMENT FENCE.

STABILISED SITE ACCESS

SCALE N.T.S

REV	DESCRIPTION	BY	APRVD	DATE
P1	ISSUED FOR DRAFT	JC	FX	10/01/2025

REVISIONS

BAR SCALES

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 STAGE 3 - BUILDING & CARPARK DEVLOPMENT

TITLE: EROSION AND SEDIMENTATION CONTROL DETAILS

STATUS: ISSUED FOR DRAFT

Drawn	Designed	Checked	Approved
RT	RT	FX	FX

Height Datum	Grid	SCALE	
AHD	MGA	N.T.S	AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-3 750	P1

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Appendix B – Stage 01 - Civil Drawing Package

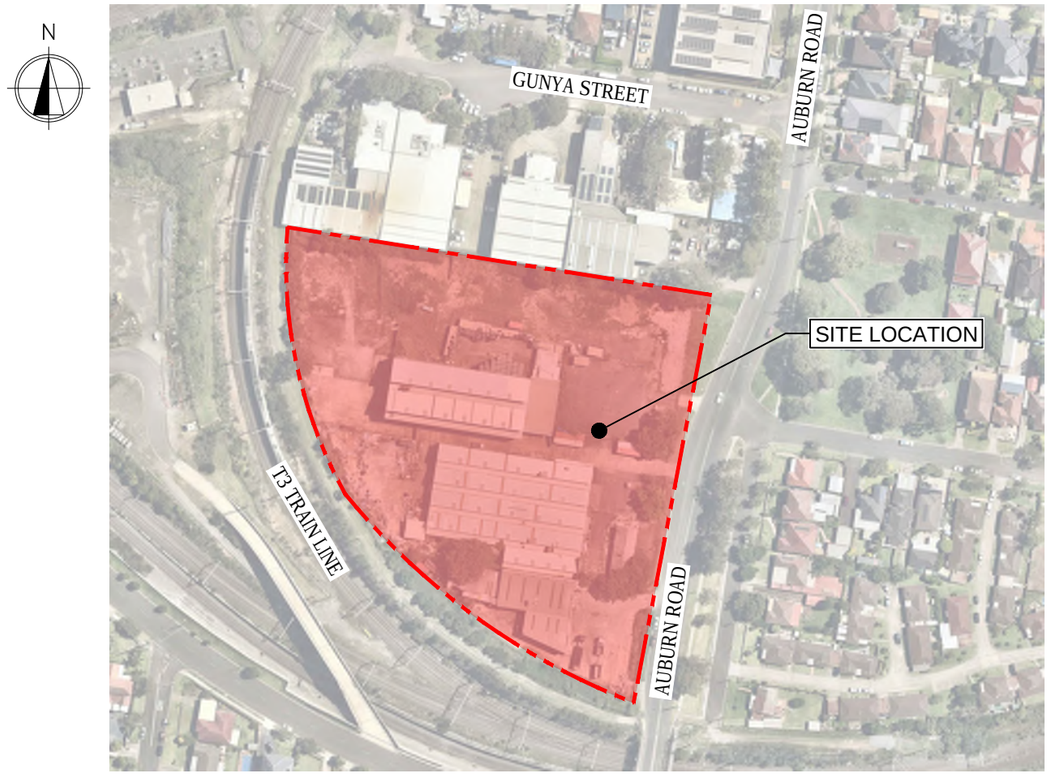
30-46 AUBURN ROAD, REGENTS PARK

FOR

30 AUBURN ROAD PTY LTD

LGA : CITY OF CANTERBURY BANKSTOWN

LOT : LOT 1 DP656032 & LOT 2 DP433938



SITE LOCATION PLAN

N.T.S

DRAWING LIST

DRAWING NO.	DRAWING TITLE
GENERAL	
SY23-120-C-1001	COVER SHEET LOCALITY PLAN AND DRAWING INDEX
SY23-120-C-1002	GENERAL NOTES SHEET 1
SY23-120-C-1003	GENERAL NOTES SHEET 2
SY23-120-C-1005	STAGING PLAN
SY23-120-C-1010	GENERAL ARRANGEMENT PLAN
BULK EARTHWORKS	
SY23-120-C-1100	CUT FILL PLAN
RETAINING WALL PLANS	
SY23-120-C-1150	RETAINING WALL LAYOUT PLAN
SY23-120-C-1180	TYPICAL RETAINING WALL SECTIONS
SY23-120-C-1190	TYPICAL RETAINING WALL DETAILS
ROADWORKS AND DRAINAGE PLANS	
SY23-120-C-1200	ROADWORKS AND DRAINAGE PLAN SHEET 1
SY23-120-C-1201	ROADWORKS AND DRAINAGE PLAN SHEET 2
SY23-120-C-1202	ROADWORKS AND DRAINAGE PLAN SHEET 3
SY23-120-C-1203	ROADWORKS AND DRAINAGE PLAN SHEET 4
ROADWORKS LONGITUDINAL SECTIONS	
SY23-120-C-1210	ROAD LONGITUDINAL SECTIONS
TYPICAL SECTIONS	
SY23-120-C-1230	ROAD TYPICAL SECTIONS SHEET 1
SY23-120-C-1231	ROAD TYPICAL SECTIONS SHEET 2
SITEWORKS DETAILS	
SY23-120-C-1330	SITEWORKS DETAILS
STORMWATER CATCHMENT PLAN	
SY23-120-C-1430	STORMWATER DRAINAGE CATCHMENT PLAN
STORMWATER DRAINAGE OSD	
SY23-120-C-1460	OSD TANK PLAN AND SECTION
SY23-120-C-1461	RAINWATER REUSE TANK & IRRIGATION DRAW-OUT PIT SECTION
DRAINAGE DETAILS	
SY23-120-C-1470	STORMWATER DETAILS
UTILITIES LAYOUT PLAN	
SY23-120-C-1650	UTILITIES LAYOUT PLAN SHEET 1
SY23-120-C-1651	UTILITIES LAYOUT PLAN SHEET 2
SY23-120-C-1652	UTILITIES LAYOUT PLAN SHEET 3
SY23-120-C-1653	UTILITIES LAYOUT PLAN SHEET 4
EROSION AND SED CONTROL	
SY23-120-C-1700	EROSION AND SEDIMENTATION CONTROL PLAN
SY23-120-C-1750	EROSION AND SEDIMENTATION CONTROL DETAILS

RESIDENTIAL DEVELOPMENT
STAGE 1 - ROAD WORKS,
CIVIL SITEWORKS & STORMWATER MANGEMENT PLAN
STATE SIGNIFICANT DEVELOPMENT APPLICATION (SSDA)

DIAL BEFORE YOU DIG www.1100.com.au

REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023
B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
A	ISSUED FOR APPROVAL	RT	FX	06/09/2023
P2	PRELIMINARY ISSUE	RT	FX	15/08/2023
P1	PRELIMINARY ISSUE	RT	FX	04/08/2023

REVISIONS

BAR SCALES

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: COVER SHEET LOCALITY PLAN AND DRAWING INDEX

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-1001	C

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GENERAL

1. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE SPECIFICATION AND THE REQUIREMENTS OF THE LOCAL COUNCIL
2. THE CONTRACTOR SHALL LIAISE WITH ALL RELEVANT AUTHORITIES TO LOCATE ALL EXISTING SERVICES WITHIN THE CONTRACT AREA PRIOR TO THE COMMENCEMENT OF WORK. SERVICES INFORMATION SHOWN ON THE DRAWINGS IS INDICATIVE ONLY AND MAY NOT BE COMPLETE. WHERE EXISTING AND PROPOSED WORKS CONFLICT, LEVELS ARE TO BE TAKEN AND SUPPLIED TO THE SUPERINTENDENT IMMEDIATELY.
3. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS' DRAWINGS ,SPECIFICATIONS AND ANY OTHER WRITTEN INSTRUCTIONS THAT MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
4. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
5. ALL HEIGHTS ARE TO AHD AND ALL LEVELS SHALL BE DERIVED FROM ESTABLISHED BENCHMARKS
6. ALL BENCH MARKS ARE TO BE PROTECTED AND PRESERVED.
7. ALL CONSTRUCTION SHALL MAKE SMOOTH CONNECTION TO EXISTING WORK.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUPPORT OF ALL EXISTING SERVICES.
9. 'AS CONSTRUCTED' DRAWINGS ARE TO BE PREPARED TO THE REQUIREMENTS OF THE RELEVANT AUTHORITIES.
10. THE SITE IS TO BE LEFT CLEAN AND FREE OF DEBRIS UPON COMPLETION OF WORKS. ALL EXCAVATED AND DEMOLISHED MATERIAL IS TO BE DISPOSED OF AT AN APPROVED DISPOSAL SITE AT THE CONTRACTORS COST.
11. CONTRACTOR TO ENSURE THE RELEVANT AUTHORITIES OCCUPATIONAL HEALTH AND SAFETY PRACTICES ARE COMPLIED WITH

SURVEY

1. THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN DERIVED FROM SURVEY INFORMATION SUPPLIED FROM GEOMETRA CONSULTING.
2. THE SURVEY INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. SKY ENGINEERING PTY LTD DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS.
3. SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, PLEASE NOTIFY THE ENGINEER.
4. THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.
5. BENCHMARK, SURVEY PEGS, LEVEL PEGS OR SUPPLEMENTARY REFERENCE MARKS SHALL NOT BE ADJUSTED OR MOVED WITHOUT WRITTEN APPROVAL FROM THE SUPERINTENDENT. THE CONTRACTOR SHALL TRANSFER ANY PEGS AFFECTED BY THE PROPOSED WORKS TO SIDE POSITIONS CLEAR OF OPERATIONS AND SHALL NOTE THE EXTENT OF THE MOVEMENT IN DISTANCE AND LEVEL.

BULK EARTHWORKS

1. TECHNICAL SPECIFICATIONS OR SPECIFIC INSTRUCTIONS CONTAINED IN THE GEOTECHNICAL REPORT TAKE PRECEDENCE OVER THESE NOTES.
2. ALL TOP SOIL, ORGANIC MATTER AND FILL MATERIAL SHALL BE REMOVED FROM ALL AREAS UNDER PROPOSED WORK LOCATIONS TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER/SUPERINTENDENT. AREAS TO BE FULLY STRIPPED OF EXISTING FILL AND DARK BROWN BLACK UPPER ORGANIC ALLUVIUM.
3. FILLING TO BE PLACED AND COMPACTED IN MAXIMUM 150mm LAYERS
4. COMPACT FILL AREAS AND SUBGRADE TO NOT LESS THAN:

		STANDARD DRY DENSITY (AS 1289)
-	UNDER BUILDING SLABS	98%
-	ON GROUND	98%
-	UNDER ROADS AND CAR PARKS	98%
-	LANDSCAPED AREAS UNLESS NOTED OTHERWISE	98%

7. CONTRACTOR SHALL PLACE SAFETY BARRIERS AROUND EXCAVATIONS IN ACCORDANCE WITH RELEVANT AUTHORITY SAFETY REGULATIONS

EXISTING SERVICES AND FEATURES

1. THE CONTRACTOR MUST CONFIRM THE EXACT LOCATION AND EXTENT OF EXISTING SERVICES PRIOR TO CONSTRUCTION AND NOTIFY ANY CONFLICT WITH THE DRAWINGS IMMEDIATELY TO THE ENGINEER/SUPERINTENDENT.
2. EXISTING SERVICES UNLESS SHOWN ON SURVEY PLAN HAVE BEEN PLOTTED FROM SERVICES SEARCH PLANS AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE A 'DIAL BEFORE YOU DIG' SEARCH AND TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER/SUPERINTENDENT.
4. THE CONTRACTOR HAS A DUTY OF CARE WHEN EXCAVATING NEAR SERVICES. DO NOT ASSUME DEPTHS OR ALIGNMENTS OF CABLES OR PLANT AS THESE MAY VARY SIGNIFICANTLY. THE CONTRACTOR MUST ACCEPT ALL RESPONSIBILITY TO DAMAGES TO EXISTING SERVICES AS SERVICE AUTHORITIES MAY SEEK COMPENSATION FOR DAMAGES CAUSED TO THEIR PROPERTY AND SUBSEQUENT LOSSES CAUSED.
5. THE CONTRACTOR SHALL ALLOW FOR THE CAPPING OFF, EXCAVATION AND REMOVAL OR RELOCATION (IF REQUIRED) TO RELEVANT AUTHORITIES GUIDELINES OF ALL EXISTING SERVICES IN AREAS AFFECTED BY WORKS WITHIN THE CONTRACT AREA OR AS SHOWN ON THE DRAWINGS.
7. THE CONTRACTOR SHALL CONSTRUCT TEMPORARY SERVICES TO MAINTAIN SUPPLY TO EXISTING BUILDINGS REMAINING IN OPERATION DURING WORKS TO THE SATISFACTION AND APPROVAL OF ANY RELEVANT AUTHORITIES. ONCE DIVERSION IS COMPLETE AND COMMISSIONED, THE CONTRACTOR SHALL REMOVE ALL SUCH TEMPORARY SERVICES AND MAKE GOOD TO THE SATISFACTION OF THE RELEVANT AUTHORITY/SUPERINTENDENT.
8. INTERRUPTION TO SUPPLY OF EXISTING SERVICES SHALL BE DONE SO AS NOT TO CAUSE ANY INCONVENIENCE TO SURROUNDING ALLOTMENTS. CONTRACTOR TO GAIN APPROVAL FROM THE RELEVANT AUTHORITIES FOR TIME OF INTERRUPTION.
9. ALL EXISTING SERVICE UTILITIES COVERS AND GRATES ARE TO BE ADJUSTED (TO RELEVANT AUTHORITY GUIDELINES) TO SUIT NEW FINISHED SURFACE LEVELS WHERE APPLICABLE.
10. IF EXISTING SERVICE UTILITY COVERS AND GRATES OR SURROUNDING SURFACE LEVELS ARE TO BE LOWERED, THE CONTRACTOR IS TO MAKE CERTAIN THAT MINIMUM COVERS (TO RELEVANT SERVICE AUTHORITY GUIDELINES) TO SERVICES ARE MAINTAINED. IF MINIMUM COVERS AREN'T MAINTAINED THE CONTRACTOR IS TO LOWER OR PROTECT SERVICES TO THE SATISFACTION OF THE RELEVANT SERVICE AUTHORITY/SUPERINTENDENT.

STORMWATER DRAINAGE

1. THE STORMWATER DESIGN SHOWN ON THESE DRAWINGS HAS BEEN CARRIED OUT IN ACCORDANCE WITH THE LOCAL COUNCIL'S REQUIREMENTS, AUSTRALIAN RAINFALL AND RUNOFF (AR&R) GUIDELINES AND RELEVANT AUTHORITIES GUIDELINES.
2. ALL STORMWATER WORK IS TO COMPLY WITH AS3500 PART 3.
3. PROTECTION OF NEW AND EXISTING PIPES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
4. NO CONSTRUCTION LOADS SHALL BE APPLIED TO uPVC PIPES.
5. EXISTING STORMWATER PIPE LOCATIONS AND INVERT LEVELS TO BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
6. IF PIT LID SIZE IS SMALLER THAN THE PIT CHAMBER SIZE THEN THE PIT LID IS TO BE CONSTRUCTED ON THE CORNER OF THE PIT CHAMBER WITH THE STEP IRONS DIRECTLY BELOW. ALTERNATIVELY THE PIT LID TO BE USED, IS TO BE THE SAME SIZE AS THE PIT CHAMBER.
7. GALVANIZED STEP IRONS SHALL BE PROVIDED AT 300 CTRS FOR PITS HAVING A DEPTH EXCEEDING 1200mm
8. PIPES 300 DIA. AND LARGER TO BE REINFORCED CONCRETE PIPES (RCP) CLASS '2' APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINTS U.N.O.
9. PIPES UP TO 300 DIA. SHALL BE SEWER GRADE uPVC WITH SOLVENT WELDED JOINTS.
10. BEDDING TYPE SHALL BE TYPE H2 FOR RCP. WHERE NECESSARY THE OVERLAY ZONE SHALL BE REDUCED TO ACCOMMODATE PAVEMENT REQUIREMENTS.
11. PIPES SHALL BE LAID ON A 75mm THICK SAND BED. IN ALL CASES BACKFILL TRENCH WITH SAND TO 200mm ABOVE THE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1 (OR A DENSITY INDEX OF NOT LESS THAN 75).
12. WHERE TRENCHES ARE IN ROCK THE PIPE SHALL BE BEDDED ON A MINIMUM OF 50mm CONCRETE BED (OR 75mm BED OF 12mm BLUE METAL) UNDER THE BARREL OF THE PIPE.
13. CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.
14. GRATES AND COVERS SHALL CONFORM TO AS3996 AND AS1428.1 AT ALL TIMES DURING CONSTRUCTION OF THE STORMWATER PITS.
15. ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED AND CLEANED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDENT AND ENGINEER FOR FURTHER DIRECTIONS.

SUBSOIL DRAINAGE

1. PROVIDE SUBSOIL DRAINS TO INTERCEPT GROUNDWATER SEEPAGE AND PREVENT WATER BUILD-UP BEHIND WALLS AND UNDER FLOORS AND PAVEMENTS. CONNECT SUBSOIL TO SURFACE DRAINS OR TO THE STORMWATER DRAINAGE SYSTEM AS APPLICABLE.
2. ALL SUBSOIL PIPES SHALL BE 100mm SLOTTED CORRUGATED uPVC IN A FILTER SOCK U.N.O.
3. FILTER SOCKS ARE TO BE POLYESTER PERMEABLE SOCKS CAPABLE OF RETAINING PARTICLES GREATER THAN 0.25mm IN SIZE. SECURELY FIT OR JOIN THE SOCK AT EACH JOINT.
4. WHERE SUBSOIL DRAINS PASS UNDER EXTERNAL SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED uPVC SEWER GRADE PIPE IS TO BE USED.
5. SUBSOIL DRAINAGE TRENCHES ARE TO BE WRAPPED WITH PERMEABLE TEXTILE FABRIC 'BIDIM A12' OR EQUIVALENT.
6. TO REDUCE GROUND WATER TRACKING WITHIN STORMWATER TRENCHES INSTALL A 3m LENGTH OF SUBSOIL PIPE IN PIPE TRENCHES DRAINING IN DIRECTION OF FALL OF PIPE AND CONNECT TO DOWNSTREAM STORMWATER DRAINAGE PIT.
7. SUBSOIL MINIMUM CLEARANCE DEPTHS, MEASURED TO THE CROWN OF THE PIPE, WHERE THE PIPE PASSES BELOW THE FOLLOWING ELEMENTS:
   - 100mm BELOW FORMATION LEVEL OF THE PAVEMENT, KERB OR CHANNEL
   - AT THE AVERAGE GRADIENT OF THE BOTTOM OF FOOTINGS.
8. AT JUNCTIONS OF SUBSOIL PIPES PROVIDE TEES, COUPLINGS OR ADAPTORS IN ACCORDANCE WITH AS2439.1.
9. SUBSOIL DRAINAGE TRENCHES SHALL BE A MINIMUM 300mm WIDE.
10. GRADE THE TRENCH FLOOR EVENLY TO THE GRADIENT OF THE PIPELINE. IF THE TRENCH FLOOR IS ROCK, CORRECT ANY IRREGULARITIES WITH COMPACTED BEDDING MATERIAL. BED PIPING ON A CONTINUOUS UNDERLAY OF BEDDING MATERIAL, AT LEAST 75mm THICK AFTER COMPACTION. LAY THE PIPE WITH ONE LINE OF PERFORATIONS AT THE BOTTOM.
11. PLACE THE MATERIAL IN THE PIPE SURROUND IN LAYERS SMALLER THAN OR EQUAL TO 200mm LOOSE THICKNESS, AND COMPACT WITHOUT DAMAGING OR DISPLACING PIPING.

SIGNAGE AND PAVEMENT MARKING

1. ALL SIGNAGE TO BE IN ACCORDANCE WITH THE AUSTRALIAN STANDARD AS 1742.
2. ALL PAVEMENT MARKING TO BE IN ACCORDANCE WITH THE RMS DELINEATION MANUAL
3. PROVIDE RETRO - REFLECTORISED PAVEMENT MARKERS TO COUNCIL AND RMS REQUIREMENTS.
4. BICYCLE PAVEMENT MARKINGS AND SIGN POSTING TO BE IN ACCORDANCE WITH AUSTROADS STANDARDS.
5. THERMOPLASTIC SHALL BE APPLIED IN ACCORDANCE WITH AS4049.2 AND THE MANUFACTURER'S SPECIFICATIONS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COSTS OR DAMAGE TO PROPERTY, EQUIPMENT OR THE ROAD SURFACE CAUSED BY THE WORK INCLUDING ANY COSTS ASSOCIATED WITH THE REPAIR OF VEHICLES DAMAGED AS A RESULT OF DRIVING ON OR CLOSE TO NEWLY APPLIED ROAD MARKINGS AT NO COST TO THE PRINCIPAL.
7. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT NEWLY APPLIED ROAD MARKINGS UNTIL SUCH TIME AS THE ROAD MARKINGS ARE ABLE TO RESIST DAMAGE FROM TRAFFIC. ANY ROAD MARKING DAMAGED BY TRAFFIC PRIOR TO DRYING OR SETTING, SHALL BE RECTIFIED BY THE CONTRACTOR AT NO COST TO THE PRINCIPAL.
8. ROAD MARKING MATERIALS SHALL NOT BE APPLIED DURING WET WEATHER, WHEN THE ROAD PAVEMENT IS WET OR WHEN ADVERSE WEATHER CONDITIONS MAY PREVAIL DURING THE WORK.
9. WHERE EXISTING PAVEMENT MARKING CONFLICTS WITH PROPOSED, IT IS TO BE REMOVED TO THE SATISFACTION OF THE SUPERINTENDENT AND THE RELEVANT AUTHORITIES.
10. THE CONTRACTOR SHALL ESTABLISH THE LOCATION OF EXISTING SERVICES AND LOCATE NEW SIGNS CLEAR OF THESES INSTALLATIONS. REFER TO THE "EXISTING SERVICES AND FEATURES" NOTES ON THESE DRAWINGS.
15. SIGN POSTS BEHIND SAFETY BARRIERS TO BE POSITIONED OUTSIDE DEFLECTION ZONE OF BARRIERS.

KERBING

INCLUDES ALL KERBS, GUTTERS, DISH DRAINS, CROSSINGS AND EDGES.

1. ALL KERBS, GUTTERS, DISH DRAINS AND CROSSINGS TO BE CONSTRUCTED ON MINIMUM 100mm GRANULAR BASE COURSE MATERIAL COMPACTED TO A MINIMUM 98% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1.
2. EXPANSION JOINTS (EJ) TO BE FORMED FROM 10MM COMPRESSIBLE CORK FILLER BOARD FOR THE FULL DEPTH OF THE SECTION AND CUT TO PROFILE. EXPANSION JOINTS TO BE LOCATED AT DRAINAGE PITS, ON TANGENT POINTS OF CURVES AND ELSEWHERE AT 12m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATIONS IN SLABS.
3. WEAKENED PLANE JOINTS (WPJ) ARE TO BE LOCATED AT A MAX 1.5 x WIDTH OF THE PAVEMENT. WEAKENED PLANE JOINTS (WPJ) ARE TO BE A MINIMUM 3mm WIDE WITH A JOINT DEPTH TO BE A MINIMUM OF 1/4 THE TOTAL DEPTH OF THE SECTION.
4. ALL KERBING OR DISH DRAINS TO BE STEEL FLOAT FINISHED. RAMP AND VEHICLE CROSSINGS TO BE BROOMED FINISHED.
5. WHEN CONSTRUCTING NEW KERB TO EXISTING AND IN THE REPLACEMENT OF KERBS, EXISTING ROAD PAVEMENT IS TO BE SAWCUT 900mm FROM LIP OF GUTTER. UPON COMPLETION OF NEW KERBS, NEW BASE COURSE AND SURFACE IS TO BE LAID 900mm WIDE TO MATCH EXISTING MATERIALS AND THICKNESS.
6. EXISTING ALLOTMENT DRAINAGE PIPES ARE TO BE BUILT INTO THE NEW KERB WITH A 125 x 75 GALVANISED RHS.
8. TRANSITIONS BETWEEN DIFFERENT KERB SECTIONS SHALL BE MADE OVER A LENGTH OF 1.20m.
9. WHERE EXISTING AND PROPOSED WORKS CONFLICT, LEVELS ARE TO BE TAKEN AND SUPPLIED TO THE SUPERINTENDENT IMMEDIATELY.
10. EXISTING KERBS ARE TO BE COMPLETELY REMOVED WHERE NEW KERBS ARE SHOWN.

EROSION AND SEDIMENT CONTROL

1. ALL SEDIMENT CONTROL DEVICES ARE TO BE CONSTRUCTED, PLACED AND MAINTAINED IN ACCORDANCE WITH RELEVANT AUTHORITY GUIDELINES AND ANY DETAILS SHOWN ON THESE DRAWINGS.
2. ALL PERIMETER AND SILTATION CONTROL MEASURES ARE TO BE PLACED PRIOR TO, OR AS THE FIRST STEP IN EARTHWORKS AND/OR CLEARING.
3. THE EROSION AND SEDIMENT CONTROL PLAN MAY REQUIRE FUTURE ADJUSTMENT TO REFLECT CONSTRUCTION STAGING. IT IS THE CONTRACTORS RESPONSIBILITY TO PREPARE THEIR OWN EROSION AND SEDIMENT CONTROL PLAN WHICH SUITS THE DESIGNED CONSTRUCTION STAGING TO THE SUPERINTENDENTS SATISFACTION
4. FILTRATION BUFFER ZONES ARE TO BE FENCED OFF AND ACCESS PROHIBITED TO ALL PLANT AND MACHINERY.
5. CONTRACTOR IS TO ENSURE ALL EROSION & SEDIMENT CONTROL DEVICES ARE MAINTAINED IN GOOD WORKING ORDER AND OPERATE EFFECTIVELY. REPAIRS AND OR MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED, PARTICULARLY FOLLOWING STORM EVENTS.
6. ALL TOPSOIL IS TO BE STOCKPILED ON SITE (AWAY FROM TREES AND DRAINAGE LINES) IN ACCORDANCE WITH DETAILS PROVIDED AND WITH RELEVANT AUTHORITY GUIDELINES. MEASURES SHALL BE APPLIED TO PREVENT EROSION OF THE STOCKPILES.
7. ALL EARTHWORK AREAS SHALL BE ROLLED EACH EVENING TO SEAL THE EARTHWORKS. DUST SUPPRESSION SHALL BE CARRIED OUT IN ACCORDANCE WITH RELEVANT AUTHORITIES GUIDELINES.
8. UPON COMPLETION OF ALL EARTHWORKS OR AS DIRECTED BY RELEVANT AUTHORITY, SOIL CONSERVATION TREATMENTS SHALL BE APPLIED SO AS TO RENDER AREAS THAT HAVE BEEN DISTURBED, EROSION PROOF WITHIN 14 DAYS.
9. ALL CUT AND FILL SLOPES ARE TO BE SEEDED AND STRAW MULCHED WITHIN 14 DAYS OF COMPLETION OF FORMATION U.N.O. BY LANDSCAPE ARCHITECTS.
10. ALL CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE SITE VIA THE TEMPORARY CONSTRUCTION ENTRY/EXIT AS PER DETAILS PROVIDED OR WITH RELEVANT AUTHORITY GUIDELINES.
11. ALL VEHICLES LEAVING THE SITE SHALL BE CLEANED AND INSPECTED BEFORE LEAVING SITE TO LIMIT SEDIMENT TRACKING TO ROADWAYS.
12. FINAL SITE LANDSCAPING WILL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 20 WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.
13. ANY EXISTING TREES WHICH FORM PART OF THE FINAL LANDSCAPING PLAN WILL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY:
   A. PROTECTING THEM WITH BARRIER FENCING OR SIMILAR MATERIALS INSTALLED OUTSIDE THE DRIP LINE
   B. ENSURING THAT NOTHING IS NAILED TO THEM
   C. PROHIBITING PAVING, GRADING, SEDIMENT WASH OR PLACING OF STOCKPILES WITHIN THE DRIP LINE EXCEPT UNDER THE FOLLOWING CONDITIONS:
   - ENCROACHMENT ONLY OCCURS ON ONE SIDE AND NO CLOSER TO THE TRUNK THAN EITHER 1.5 METRES OR HALF THE DISTANCE BETWEEN THE OUTER EDGE OF THE DRIP LINE AND THE TRUNK, WHICH EVER IS THE GREATER
   - A DRAINAGE SYSTEM THAT ALLOWS AIR AND WATER TO CIRCULATE THROUGH THE ROOT ZONE (E.G. A GRAVEL BED) IS PLACED UNDER ALL FILL LAYERS OF MORE THAN 300 MILLIMETRES DEPTH
   - CARE IS TAKEN NOT TO CUT ROOTS UNNECESSARILY NOR TO COMPACT THE SOIL AROUND THEM.

RIGID CONCRETE PAVEMENT

GENERAL

1. CARRY OUT ALL CONCRETE WORK IN ACCORDANCE WITH AS1379, AS3600, ANY SPECIFICATIONS AND RELEVANT AUTHORITY GUIDELINES. A COPY OF THESE DOCUMENTS ARE TO BE KEPT ON SITE.

CONCRETE

1. PLACE CONCRETE OF THE FOLLOWING CHARACTERISTIC COMPRESSIVE STRENGTH f'c AS DEFINED IN AS1379. ADD WATER REDUCING ADMIXTURE EQUAL TO WRDA.

	AS3600 f'c MPa AT 28 DAYS	SPECIFIED SLUMP	NOMINAL AGG. SIZE
ALL KERBS, PITS ETC.	25	80	20
VEHICULAR PAVING	32	80	20

2. USE TYPE GP CEMENT IN ACCORDANCE WITH AS3972.
3. ALL CONCRETE SHALL BE SUBJECT TO PROJECT CONTROL SAMPLE AND TESTING TO AS1379.
4. CONSOLIDATE BY VIBRATION OR OTHER APPROVED METHOD.

REINFORCEMENT

1. INSTALL REINFORCEMENT AS SHOWN ON DRAWINGS. THE TYPE AND GRADE IS INDICATED BY A SYMBOL AS SHOWN BELOW.
   - N. HOT ROLLED DEFORMED BAR. GRADE 500
   - R. PLAIN ROUND BAR. GRADE 250
   - SL OR RL. HARD DRAWN WIRE FABRIC SQUARE OR RECTANGULAR
2. PROVIDE BAR SUPPORTS OR SPACERS TO GIVE THE FOLLOWING CONCRETE COVER TO ALL REINFORCEMENT UNLESS NOTED OTHERWISE.
   - SLABS/PAVEMENTS: 40 WHEN EXPOSED TO WEATHER.
   - DRAINAGE STRUCTURES: 30 WHEN CAST IN FORMS BUT LATER EXPOSED TO WEATHER OR GROUND. 65 WHEN CAST DIRECTLY IN CONTACT WITH GROUND.
3. FOR ALL PITS LOCATED IN CONCRETE PROVIDE 2N16 TRIMMER BARS 1200mm LONG AT ALL CORNERS OF PITS UNLESS SHOWN OTHERWISE.

CONCRETE VEHICULAR PAVEMENT

1. CONCRETE MIX PARAMETERS:
   - MAXIMUM AGGREGATE SIZE 20mm
   - FLEXURAL STRENGTH AT 28 DAYS = 3.5 MPa (F'c=32MPa)
   - FLEXURAL STRENGTH AT 90 DAYS = 3.85 MPa
   - MAXIMUM WATER / CEMENT RATIO =0.45
   - MAXIMUM SHRINKAGE LIMIT = 600 MICROSTRAINS (AS1012.13) AFTER 8 WEEKS OF DRYING
   - MINIMUM CEMENT CONTENT = 300kg/m3
   - CEMENT TO BE TYPE GP (NORMAL CEMENT) TO AS 3972
   - SLUMP = 80mm
2. SAWN JOINTS ARE TO BE CUT BETWEEN 2-4 HOURS AFTER CONCRETE POUR USING SOFF CUT SAW TO AVOID DAMAGING THE SURFACE DURING SAWCUT.
3. FOR EXPANSION JOINTS, PRIOR TO THE PLACEMENT OF CONCRETE IN THE ADJACENT SLAB, SELF EXPANDING CORK FILLER SHALL BE ADHERED TO THE ALREADY CAST AND CLEANED CONCRETE FACE USING AN APPROVED WATERPROOF ADHESIVE. ADHESIVE SHALL BE LIBERALLY APPLIED TO THE FULL FACE OF THE CONCRETE SLAB TO BE COVERED BY THE FILLER. AND ON THE FULL FACE OF THE FILLER TO BE ADHERED. THE BUILDER SHALL PROVIDE CONSTANT SUPERVISION OF CONCRETE POURS EXECUTED BY SUB-CONTRACTORS TO ENSURE:
   - REINFORCEMENT DISPLACED OFF CHAIRS ARE REPLACED PRIOR TO CONCRETE PLACEMENT.
   - NO SITE WATER IS ADDED TO CONCRETE OR CONCRETE IN WAITING TRUCKS. (REQUIRED SLUMP FOR PLACEMENT SHALL BE ACHIEVED USING SUPER PLASTICISER).
   - ALL CONCRETE IS FULLY COMPACTED USING A POKER VIBRATOR.
   - NO POURS ARE EXECUTED WHEN THE AMBIENT TEMPERATURE EQUALS OR EXCEEDS 35°C.
   - POURS ARE PROTECTED FROM ANY HOT DRYING WINDS.
4. THE FINISHED CONCRETE SHALL BE CURED FOR A MINIMUM OF SEVEN DAYS USING AT LEAST ONE OF THE FOLLOWING METHODS:
   - PONDING OR CONTINUOUS SPRINKLING WITH WATER.
   - THE USE OF AN ABSORBENT COVER KEPT CONSTANTLY WET. (WHEN THE AMBIENT TEMPERATURE EXCEEDS 32°C CURING MAY ONLY BE ACHIEVED USING ABOVE 2 METHODS.
   - THE USE OF AN IMPERMEABLE SHEET MEMBRANE OVER A MOISTENED SURFACE. (THE MEMBRANE SHALL BE FIXED AND LAPPED SO THAT NO AIR CIRCULATION CAN OCCUR AT THE CONCRETE SURFACE).
   - THE USE OF A CURING COMPOUND COMPLYING WITH AS3799, APPLIED UNIFORMLY IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS, AND WHEN DRY THE COAT SHOULD BE CONTINUOUS, FLEXIBLE AND WITHOUT VISIBLE BREAKS OR PIN HOLES FOR SEVEN DAYS.

CONCRETE FINISHING

1. ALL EXPOSED CONCRETE PAVEMENTS ARE TO BE BROOMED FINISHED U.N.O.
2. ALL EDGES OF THE CONCRETE PAVEMENT INCLUDING KEYED AND DOWELED JOINTS ARE TO BE FINISHED WITH AN EDGING TOOL.
3. CONCRETE PAVEMENTS WITH GRADES GREATER THAN 10% SHALL BE HEAVILY BROOM FINISHED U.N.O.

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REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023
B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
A	ISSUED FOR APPROVAL	RT	FX	06/09/2023
P2	PRELIMINARY ISSUE	RT	FX	15/08/2023
P1	PRELIMINARY ISSUE	RT	FX	04/08/2023

REVISIONS

BAR SCALES

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: GENERAL NOTES SHEET 1

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-1002	C

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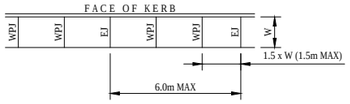
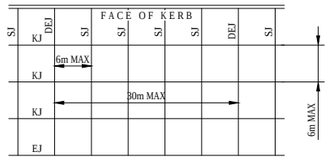
FOOTPATH JOINTING

1. EXPANSION JOINTS (EJ) ARE TO BE LOCATED WHERE POSSIBLE AT TANGENT POINTS OF CURVES AND ELSEWHERE AT MAX 6.0M CENTRES.
2. WEAKENED PLANE JOINTS (WPJ) ARE TO BE LOCATED AT A MAX 1.5 x WIDTH OF THE PAVEMENT. WEAKENED PLANE JOINTS (WPJ) ARE TO BE A MINIMUM 3mm WIDE WITH A JOINT DEPTH TO BE A MINIMUM OF 1/4 THE TOTAL DEPTH OF THE SECTION.
3. WHERE POSSIBLE JOINTS SHOULD BE LOCATED TO MATCH KERBING AND / OR ADJACENT PAVEMENT JOINTS.
4. ALL PEDESTRIAN FOOTPATH JOINTING AS FOLLOWS (UNO).



VEHICLE PAVEMENT JOINTING

1. KEYED CONSTRUCTION JOINTS (KJ) SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 6M CENTRES.
2. SAWN JOINTS (SJ) SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 6M CENTRES OR 1.5 x THE SPACING OF KEYED JOINTS (KJ), WHERE KEY JOINT SPACING IS LESS THAN 4m, PROVIDE DOWELED EXPANSION JOINTS (DEJ) AT MAXIMUM OF 30m CENTRES.
3. PROVIDE 10mm WIDE EXPANSION JOINTS (EJ) BETWEEN STRUCTURES AND ALL CONCRETE OR UNIT PAVER INTERFACES.
4. VEHICULAR PAVEMENT JOINTING AS FOLLOWS.



GENERAL PAVEMENT

1. TECHNICAL SPECIFICATIONS CONTAINED WITHIN THE GEOTECHNICAL REPORT TAKE PRECEDENCE OVER THESE NOTES.
2. PRIOR TO DELIVERY OF ANY MATERIAL TO THE SITE, THE SOURCE OF ALL MATERIALS AND ANY RELEVANT CERTIFICATES STATING THAT THE MATERIAL SATISFIES THE SPECIFIED REQUIREMENTS SHALL BE PROVIDED TO THE SUPERINTENDENT FOR APPROVAL.
3. TESTING OF PAVEMENT MATERIALS WILL NORMALLY BE PERFORMED ON SAMPLES TAKEN AT THE SOURCE SITE PRIOR TO DELIVERY TO THE SITE AND IN THEIR FINAL CONDITIONS AFTER PLACEMENT AND COMPACTION. HOWEVER, THE PROPERTIES SPECIFIED AND FINAL ACCEPTANCE ARE APPLICABLE TO THE MATERIALS IN THEIR FINAL CONDITION IN THE PAVEMENT.
4. FINAL ACCEPTANCE WILL BE CONDITIONAL ON NO SIGNIFICANT CHANGE IN PROPERTIES DUE TO SEGREGATION OR CONTAMINATION DURING SUBSEQUENT PAVEMENT WORKS.

BASE COURSE COMPACTION

1. PAVEMENT "BASE" (I.E THE HIGHEST COURSE OF THE PAVEMENT BELOW THE SURFACING) SHALL BE CONSTRUCTED FROM MATERIAL AS SPECIFIED ON DRAWINGS AND COMPACTED TO 98% OF THE STANDARD MAXIMUM DRY DENSITY (SMDD) AND WITHIN 2% OF STANDARD OPTIMUM MOISTURE CONTENT (SOMC) IN ACCORDANCE WITH AS 1289 5.1.1 (EXCEPT CONCRETE PAVEMENT, WHERE THE CONCRETE IS THE BASE).
2. ALL BASE MATERIAL SHALL BE HARD, DURABLE AND THE MATERIALS SHALL BE FREE OF CLAY LUMPS, ORGANIC MATTER AND OBJECTIONABLE QUANTITIES OF DELETERIOUS SUBSTANCES.
3. ALL MATERIAL REQUIREMENTS APPLY BOTH PRIOR TO AND AFTER PLACEMENT OF THE PAVEMENT

SUBGRADE COMPACTION

1. THE EXPOSED SUBGRADE (I.E. THE LOWER COURSE OF PAVEMENT BELOW THE SUB-BASE) AFTER STRIPPING AND/OR EXCAVATION SHALL BE PROOF ROLLED USING NOT FEWER THAN 5 PASSES WITH A 10 TONNE DEAD WEIGHT STEEL SMOOTH-DRUM ROLLER UNDER THE SUPERVISION OF AN EXPERIENCED GEOTECHNICAL ENGINEER. ANY AREAS EXHIBITING EXCESSIVE DEFLECTION/MOVEMENT UNDER ROLLER SHALL BE REMOVED TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER TO A MINIMUM DEPTH OF 500mm AND THEN BACKFILLED WITH APPROVED ENGINEERED FILL TO MEET THE DESIGN SUBGRADE LEVEL.
2. ENGINEERED FILL TO TO BE PLACED IN LAYERS NOT EXCEEDING 250mm LOOSE THICKNESS AND COMPACTED TO 98% OF STANDARD MAXIMUM DRY DENSITY (SMDD) AND TO WITHIN 2% OF STANDARD OPTIMUM MOISTURE CONTENT (SOMC) IN ACCORDANCE WITH AS 1289 5.1.1. APPROVED BACKFILL MATERIAL MAY BE CRUSHED ROCK OR SANDY LOAM WITH A PLASTICITY INDEX LESS THAN 15%.
3. TESTING OF THE SUBGRADE SHALL BE CARRIED OUT BY AN APPROVED N.A.T.A. REGISTERED LABORATORY.
4. ALL FILL MATERIAL SHALL BE FROM A SOURCE APPROVED BY THE SUPERINTENDENT AND SHALL COMPLY WITH THE FOLLOWING.
   - FREE FROM ORGANIC AND PERISHABLE MATTER
   - MAXIMUM PARTICLE SIZE = 75mm
   - MAXIMUM PLASTICITY INDEX = 15%

SUB-BASE COURSE COMPACTION

1. PAVEMENT "SUB-BASE" (I.E THE INTERMEDIATE OR LOWER COURSE OF THE PAVEMENT BELOW THE BASE) SHALL BE CONSTRUCTED FROM MATERIAL AS SPECIFIED ON DRAWINGS AND COMPACTED TO 98% OF THE STANDARD MAXIMUM DRY DENSITY (SMDD) AND WITHIN 2% OF STANDARD OPTIMUM MOISTURE CONTENT (SOMC) IN ACCORDANCE WITH AS 1289 5.1.1.
2. ALL SUB-BASE MATERIAL SHALL BE HARD, DURABLE AND THE MATERIALS SHALL BE FREE OF CLAY LUMPS, ORGANIC MATTER AND OBJECTIONABLE QUANTITIES OF DELETERIOUS SUBSTANCES.
3. ALL MATERIAL REQUIREMENTS APPLY BOTH PRIOR TO AND AFTER PLACEMENT OF THE PAVEMENT.

ASPHALT SURFACING

1. ASPHALT (HOT MIXED) TO AS2150.
2. BITUMEN EMULSION: TO AS1160.
3. BEFORE SURFACING ENSURE THAT THE BASE COURSE SURFACE IS FIRM, FREE OF SURFACE WATER, OILS, GREASE, RETARDERS, LOOSE MATERIAL AND DUST. APPLY TACK COAT IMMEDIATELY BEFORE PLACING ASPHALT.
4. TACK COAT: BITUMINOUS EMULSION SPRAY TO THE RECOMMENDATION OF AS2150.
5. ASPHALT: MIXING LAYING AND COMPACTION TO THE RECOMMENDATION OF AS2150.
6. MIXES:
   - AC10 - 10MM NOMINAL MAXIMUM AGGREGATE SIZE
   - AC7 - 7MM NOMINAL MAXIMUM AGGREGATE SIZE
   - AC5 - 5MM NOMINAL MAXIMUM AGGREGATE SIZE
7. BITUMEN BINDER CLASS: 170.
8. SURFACE FINISH: DENSE, SMOOTH, FREE OF ROLLER MARKS AND LOOSE MATERIAL.
9. COMPACTION:
   - WHILST THE MIX TEMPERATURE IS ABOVE 140°C. SITE DENSITY (MINIMUM): 95% OF THE 50 BELOW MARSHALL DENSITY OF THE LABORATORY COMPACTED MIX.
10. JOINTS:
    - THE NUMBER OF JOINTS, BOTH LONGITUDINAL AND TRANSVERSE, SHALL BE KEPT TO A MINIMUM.
    - THE DENSITY AND SURFACE FINISH AT JOINTS SHALL BE SIMILAR TO THOSE OF THE REMAINDER OF THE LAYER.
    - FORM JOINTS AND STAGGER 300MM MINIMUM IN SUCCESSIVE LAYERS.
11. FINISHED PAVEMENT PROPERTIES:
    - FINISHED SURFACES SHALL BE SMOOTH, DENSE AND TRUE TO SHAPE AND SHALL NOT VARY MORE THAN 10MM FROM SPECIFIED PLAN LEVEL AT ANY POINT AND SHALL NOT DEVIATE FROM THE BOTTOM OF A 3M STRAIGHT EDGE LAID IN ANY DIRECTION BY MORE THAN 5MM.

PROPOSED SERVICES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH RELEVANT:-
   - JEMENA LTD DRAWINGS
   - ENERGYAUSTRALIA DRAWINGS
   - INTEGRAL ENERGY DRAWINGS
   - COUNTRYENERGY DRAWINGS
   - LOCAL GOVERNMENT ASSOCIATION OF NSW AND SHIRES ASSOCIATION OF NSW DRAWINGS
   - SINGTEL OPTUS PTY LTD DRAWINGS
   - ROADS & TRAFFIC AUTHORITY OF NSW DRAWINGS
   - SYDNEY WATER CORPORATION DRAWINGS
   - COUNCIL OF THE CITY OF SYDNEY DRAWINGS
   - TELSTRA CORPORATION LIMITED DRAWINGS
   - THE CURRENT NSW STREETS OPENING CONFERENCE GUIDE TO CODES AND PRACTICES FOR STREETS OPENING LITERATURE.
2. THE CONTRACTOR SHALL ATTEND, MANAGE & SUPERVISE THE PROVISION OF PUBLIC UTILITY SERVICES TO THE WORKS GENERALLY AS INDICATED ON THE SERVICES PLANS, NOTING THAT PRIOR & DURING CONSTRUCTION THE PUBLIC UTILITY AUTHORITIES WILL FINALISE THEIR DOCUMENTATION TO CONSTRUCTION ISSUE STANDARD. THE FOLLOWING GENERAL ARRANGEMENTS SHALL APPLY IN RESPECT OF EACH PUBLIC UTILITY SERVICE.
   - ENERGY AUSTRALIA/INTEGRAL ENERGY/COUNTRY ENERGY

     HAVE PROVIDED QUOTATIONS FOR THE PROVISION OF THEIR SERVICES. THE CIVIL CONTRACTOR SHALL ALLOW FOR THIS QUOTATION IN THEIR PRICE. IN ADDITION TO THE ABOVE THE CIVIL CONTRACTOR WILL BE REQUIRED TO EXCAVATE AND BACKFILL THE AUTHORITIES TRENCHES GENERALLY IN ACCORDANCE WITH THE THE CURRENT NSW STREETS OPENING CONFERENCE GUIDE TO CODES AND PRACTICES FOR STREETS OPENING LITERATURE. THE CIVIL CONTRACTOR SHALL EXCAVATE, SUPPLY, LAY, BACKFILL, ROAD CROSSING CONDUITS.
   - TELSTRA/SINGTEL OPTUS

     TELSTRA AND/OR SINGTEL OPTUS WILL SUPPLY AND LAY THEIR CONDUITS AT NO COST, BUT THE CIVIL CONTRACTOR WILL NEED TO ALLOW FOR EXCAVATION AND BACKFILLING OF THE AUTHORITIES TRENCH AS WELL AS EXCAVATE, LAY AND BACKFILL ROAD CROSSING CONDUITS.
   - JEMENA LTD

     THE CIVIL CONTRACTOR IS TO EXCAVATE AND BACKFILL SERVICE TRENCHES AS WELL AS EXCAVATE, SUPPLY, LAY AND BACKFILL ROAD CROSSING CONDUITS. JEMENA LTD WILL SUPPLY AND LAY THEIR SERVICES IN THE TRENCH PROVIDED BY THE CIVIL CONTRACTOR.
   - CONDUIT ROAD CROSSING

     THE CIVIL CONTRACTOR SHALL ALLOW IN THEIR PRICE FOR CONDUIT CROSSINGS. THE CIVIL CONTRACTOR SHALL EXCAVATE, SUPPLY, LAY, BACKFILL AND COMPACT TO RELEVANT STANDARDS AND CERTIFY ROAD CROSSING CONDUITS TO THE SATISFACTION OF THE ULTIMATE ROAD ASSET OWNER-UNDER THE PROPOSED ROADS AS SHOWN ON THE "SERVICES PLAN".
   - SEWER AND WATER

     THE CIVIL CONTRACTOR SHALL CONSTRUCT THE SEWER AND WATER MAINS AND ASSOCIATED WORKS AS SHOWN ON APPROVED SYDNEY WATER CORPORATION DRAWINGS.
3. THE CIVIL CONTRACTOR (TRENCH PROVIDER) IS TO ARRANGE ON SITE MEETING WITH ALL SERVICE AUTHORITIES PRIOR TO THE INSTALLATION OF CONDUITS.
4. THE CIVIL CONTRACTOR TO CO-ORDINATE INSTALLATION OF ELECTRICITY, GAS,TELECOMMUNICATION, WATER AND SEWER SERVICES.
5. ELECTRICITY, GAS AND TELECOMMUNICATION SERVICES ARE TO BE LAID FOLLOWING THE INSTALLATION OF STORMWATER, SEWER AND WATER SERVICES AND KERB AND GUTTER.
6. ALL UTILITY AUTHORITY REPRESENTATIVES TO INSPECT ROAD CROSSINGS PRIOR TO SEALING.
7. ALL ELECTRICAL ROAD CROSSINGS TO BE CLASS 6 (ORANGE) uPVC CONDUITS.
8. ALL GAS ROAD CROSSINGS TO BE uPVC GREY SEWER GRADE CONDUITS.
9. ALL STREET POLES TO BE POSITIONED THE APPROPRIATE DISTANCE FROM FACE OF KERB TO FACE OF POLE ACCORDING TO THE CURRENT NSW STREETS OPENING CONFERENCE GUIDE TO CODES AND PRACTICES FOR STREETS OPENING LITERATURE. CONTRACTOR TO ALLOW TO EXCAVATE AND BACKFILL TRENCH GENERALLY IN ACCORDANCE WITH NOTE 2.
10. ALL SERVICE PIT COVERS AND MARKERS ARE TO BE LAID WHOLLY WITHIN THE CONCRETE FOOTPATH. CONTACT SUPERINTENDENT SHOULD DIFFICULTIES ARISE.
11. ELECTRICITY CONDUITS ARE SHOWN FOR CLARITY HOWEVER, CABLES MAY BE DIRECTLY BURIED. APPROVAL BY ENERGY AUSTRALIA REQUIRED.

NOTES (CAR PARKS)

1. CONTRACTOR TO UNDERTAKE MINOR EARTHWORKS TO ACHIEVE FINAL LEVELS SHOWN.
2. SUBGRADE SHALL BE CLEAN SAND FREE FROM VEGETATION AND OTHER DELETERIOUS MATERIALS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES AND CHARGES THAT WILL NEED TO BE PAID TO ALL AUTHORITIES IN ORDER TO COMPLETE THE WORKS.
4. BACKFILL BEHIND KERB TO BE PLACED AT A MAXIMUM GRADE OF 1 IN 6.
5. ALL TREES TO REMAIN UNDISTURBED UNLESS SHOWN OTHERWISE ON THE DRAWINGS.
6. CONTRACTOR TO ENSURE ANY PARKING SIGNS REMOVED DURING CONSTRUCTION ARE REPLACED AT THE COMPLETION OF PROJECT.

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REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023
B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
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P1	PRELIMINARY ISSUE	RT	FX	04/08/2023

REVISIONS

BAR SCALES

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: GENERAL NOTES SHEET 2

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-1003	C

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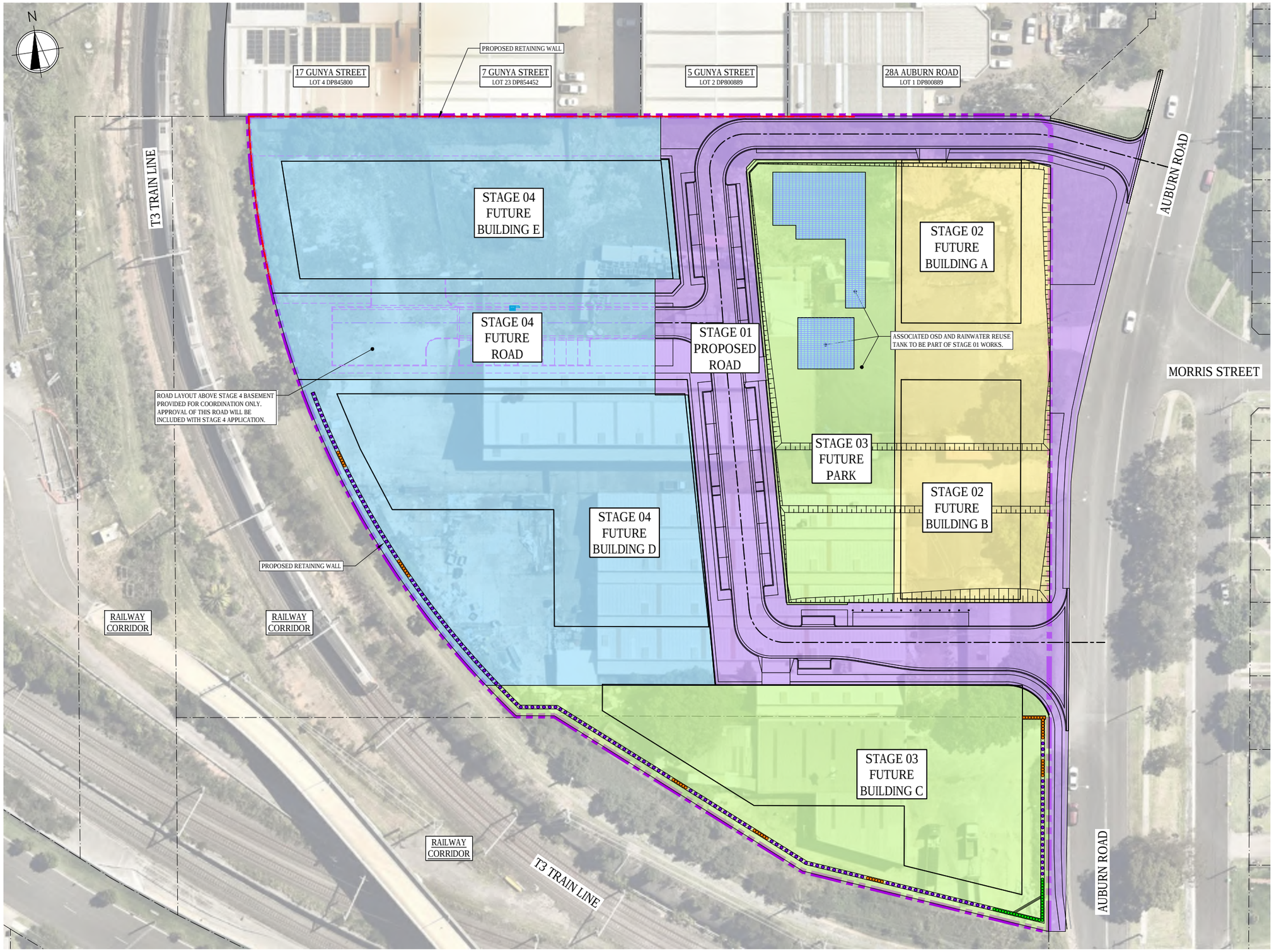

STAGING PLAN

SCALE 1:400

LEGEND

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- STAGE 01 - ROADWORKS
- STAGE 02 - BUILDING A & B
- STAGE 03 - BUILDING C & COMMUNAL PARK
- STAGE 04 - BUILDING D & E

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REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023
B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
A	ISSUED FOR APPROVAL	RT	FX	06/09/2023
P2	PRELIMINARY ISSUE	RT	FX	15/08/2023
P1	PRELIMINARY ISSUE		FX	04/08/2023

REVISIONS

BAR SCALES

0 4 8 12 16 20 24m
SCALE 1:400 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: STAGING PLAN

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	1:400 AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-1005	C

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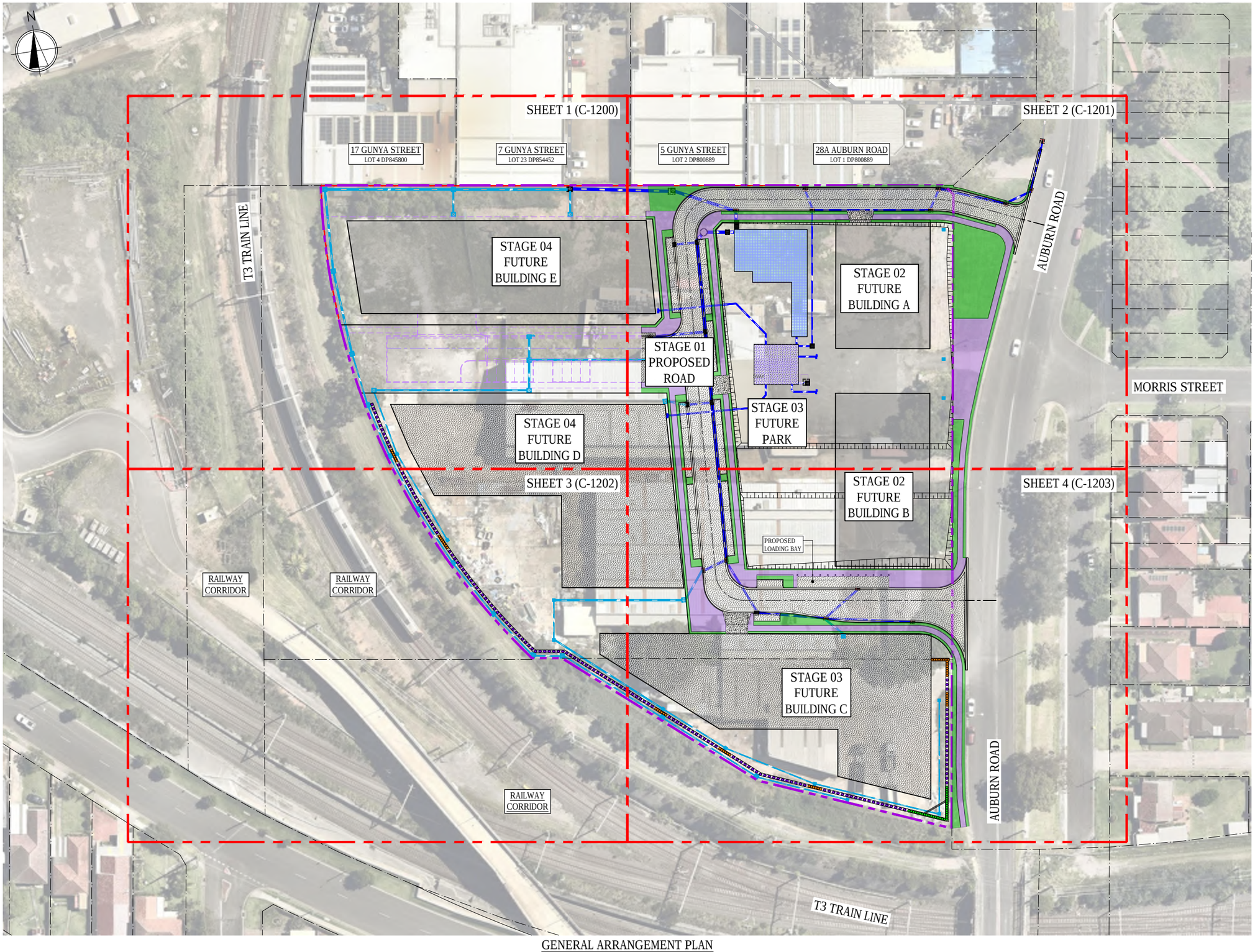

LEGEND

EXISTING

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- LIMITS OF WORKS BOUNDARY
- RETAINING WALL TYPE 01
- PILE RETAINING WALL TYPE 01
- PILE RETAINING WALL TYPE 02
- PILE RETAINING WALL TYPE 03

GENERAL ARRANGEMENT PLAN

SCALE 1:500

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REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023
B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
A	ISSUED FOR APPROVAL	RT	FX	06/09/2023
P2	PRELIMINARY ISSUE	RT	FX	15/08/2023
P1	PRELIMINARY ISSUE	RT	FX	04/08/2023

REVISIONS

BAR SCALES

0 5 10 15 20 25 30m
SCALE 1:500 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: GENERAL ARRANGEMENT PLAN

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	1:500 AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-1010	C

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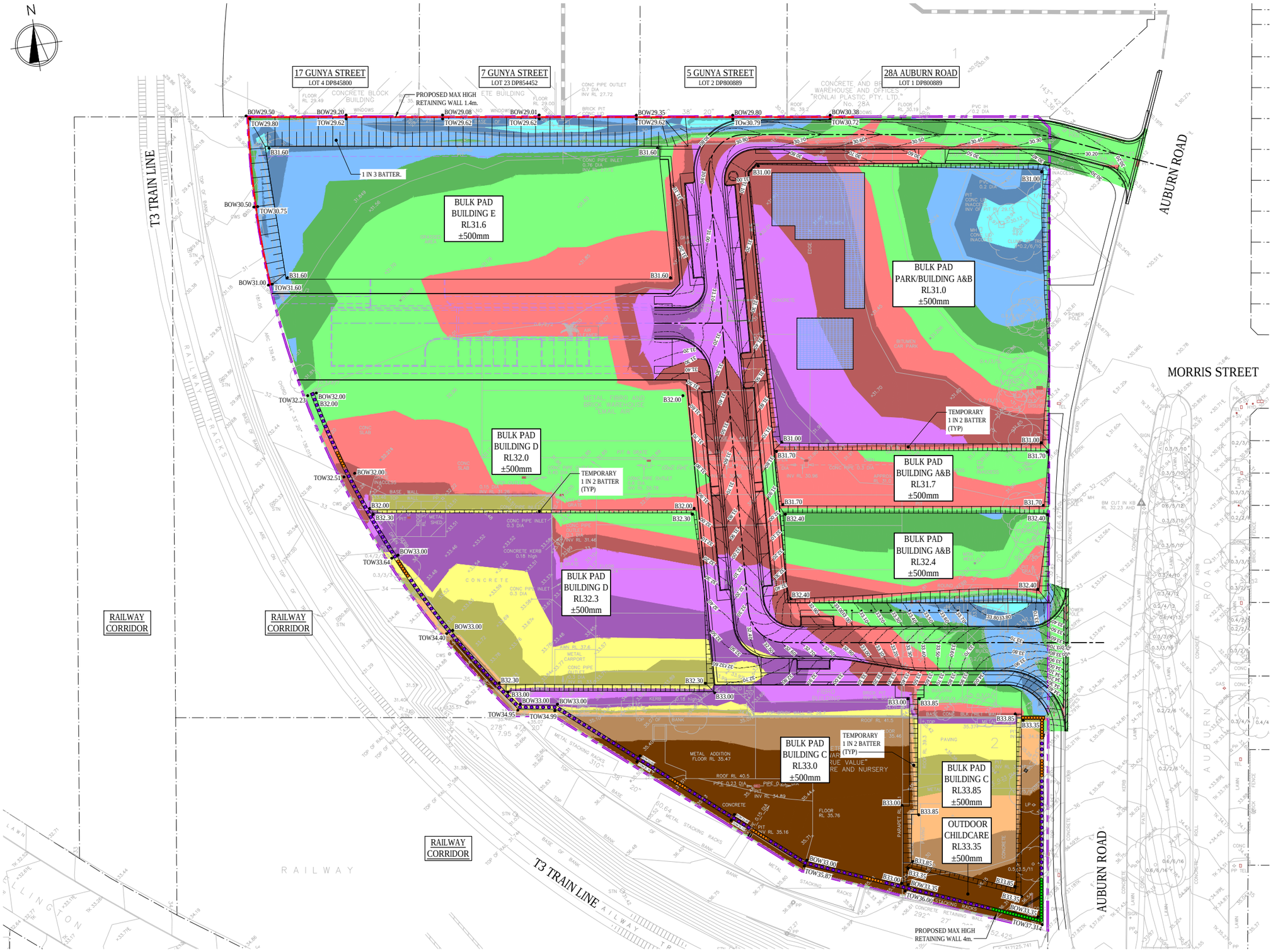

CUT & FILL PLAN

SCALE 1:400

LEGEND

EXISTING

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- EXISTING CADASTRAL BOUNDARY
- EXISTING CONTOUR

NEW

- DESIGN SURFACE CONTOURS
- B33.00 — BULK PAD LEVEL
- 2.3% — BULK LEVEL FALL
- RETAINING WALL TYPE 01
- PILE RETAINING WALL TYPE 01
- PILE RETAINING WALL TYPE 02
- PILE RETAINING WALL TYPE 03

STAGE 01 - EARTHWORKS VOLUMES

TOTAL:CUT	10,596 m³
TOTAL:FILL	2,815 m³
BALANCE:	7,781 m³ (EXPORT REQUIRED)

NOTES

1. THE ABOVE VOLUMES ARE CALCULATED WITH THE ASSUMPTION THAT THE INFRASTRUCTURE WORKS ARE COMPLETED.
2. ASSUME NO MATERIAL TO BE REUSED AND CANNOT BE BLENDED.
3. EARTHWORKS VOLUMES DENOTED ARE APPROXIMATE ONLY AND HAVE BEEN CALCULATED BETWEEN THE DESIGN SURFACE LEVEL AND THE EXISTING SURFACE LEVEL STRIPPED 200mm. THE VOLUMES DO NOT TAKE INTO ACCOUNT :-

- BULKING FACTORS OF REMOVED CUT
- REMOVAL OF EXISTING BUILDING SLABS AND PAVEMENTS
- REMOVAL AND/OR REMEDIATION OF ANY EXISTING UNCONTROLLED FILL
- PROPOSED LANDSCAPING
- STORMWATER AND UTILITIES TRENCHING
- STRUCTURAL FOOTINGS
- EXISTING DAMS OR WATER BODIES WHERE BY THE BASE HAS NOT BEEN SURVEYED DUE TO THE PRESENCE OF WATER AT TIME OF SURVEY

NEW

- BATTER

DEPTH RANGE LEGEND

Lower_value		Upper_value		Colour
-1000	to	-2.00	m	
-2.00	to	-1.75	m	
-1.75	to	-1.50	m	
-1.50	to	-1.25	m	
-1.25	to	-1.00	m	
-1.00	to	-0.75	m	
-0.75	to	-0.50	m	
-0.50	to	-0.25	m	
-0.25	to	0.00	m	
0.00	to	0.25	m	
0.25	to	0.50	m	
0.50	to	0.75	m	
0.75	to	1.00	m	
1.00	to	1.25	m	
1.25	to	1.50	m	
1.50	to	1.75	m	
1.75	to	2.00	m	
2.00	to	1000	m	

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REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023
B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
A	ISSUED FOR APPROVAL	RT	FX	06/09/2023
P2	PRELIMINARY ISSUE	RT	FX	15/08/2023
P1	PRELIMINARY ISSUE	RT	FX	04/08/2023

REVISIONS

BAR SCALES

0 4 8 12 16 20 24m
SCALE 1:400 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: EARTHWORKS CUT FILL PLAN

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	1:400 AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-1 100	C

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N

17 GUNYA STREET
LOT 4 DP845800

7 GUNYA STREET
LOT 23 DP854452

5 GUNYA STREET
LOT 2 DP800889

28A AUBURN ROAD
LOT 1 DP800889

CONCRETE BLOCK BUILDING
CONCRETE BUILDING
CONCRETE, AND BRICK WAREHOUSE AND OFFICES "RONLAT PLASTIC PTY. LTD."
CONC PIPE OUTLET 0.7 DIA INV RL 27.72
BRICK PIT CONC LID
PVC IH 0.2 DIA
CONC PIPE OUTLET 0.3 DIA INV RL 29.06
CONC LID INACCESS
POWER POLE
PIT

T3 TRAIN LINE

AUBURN ROAD

MORRIS STREET

STAGE 04
FUTURE
BUILDING E

STAGE 02
FUTURE
BUILDING A

STAGE 03
FUTURE
PARK

STAGE 02
FUTURE
BUILDING B

STAGE 04
FUTURE
BUILDING D

STAGE 03
FUTURE
BUILDING C

01
C-1180

02
C-1180

03
C-1180

04
C-1180

RAILWAY
CORRIDOR

RAILWAY
CORRIDOR

RAILWAY
CORRIDOR

RAILWAY

T3 TRAIN LINE RAILWAY TRACKS

TEMPORARY SHORING BEAM SUPPORTING STRUCTURE. TO BE COORDINATED DURING DETAIL DESIGN

AUBURN ROAD

LEGEND

- RW — RETAINING WALL TYPE 01
- PILE RETAINING WALL TYPE 01
- PILE RETAINING WALL TYPE 02
- PILE RETAINING WALL TYPE 03

NOTES:
1. REFER BULK EARTHWORKS PLAN FOR TOP & BOTTOM OF WALL LEVELS.
2. PILE RETAINING WALL DETAIL SUBJECT TO CHANGE DURING DETAIL DESIGN.
3. PILE WALL TO BE DESIGNED AND COORDINATED BY THE STRUCTURAL ENGINEER.

RETAINING WALL LAYOUT PLAN

SCALE 1:400

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REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023

REVISIONS

BAR SCALES

0 4 8 12 16 20 24m
SCALE 1:400 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: RETAINING WALL LAYOUT PLAN

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE	
AHD	MGA	1:400	AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-1 150	C

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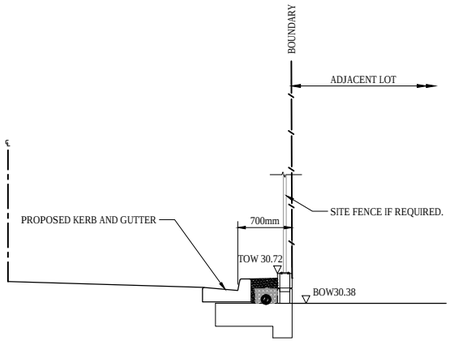
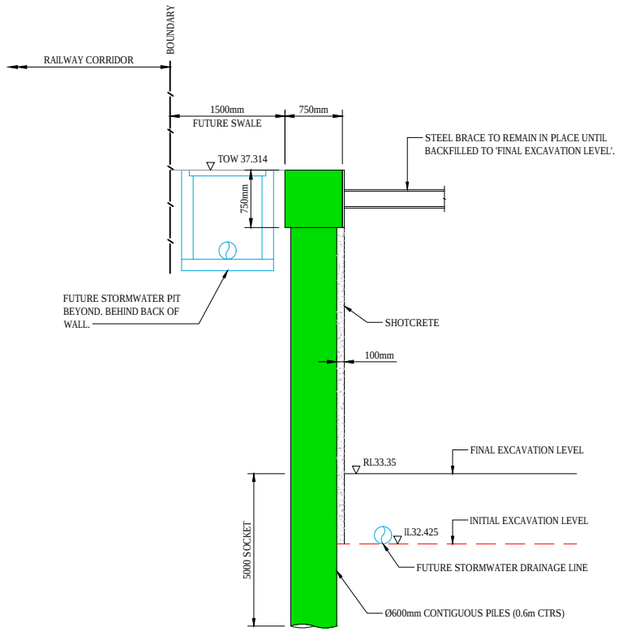


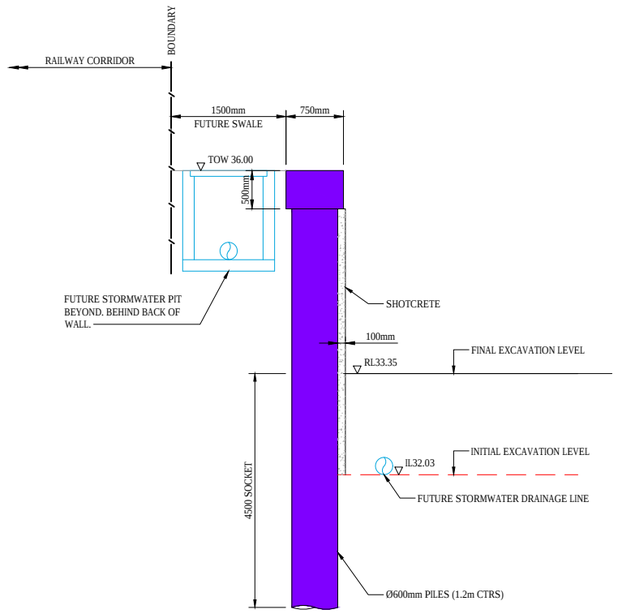
TYPICAL RETAINING WALL TYPE 01 SECTION — 01 / C-1150

SCALE 1:40



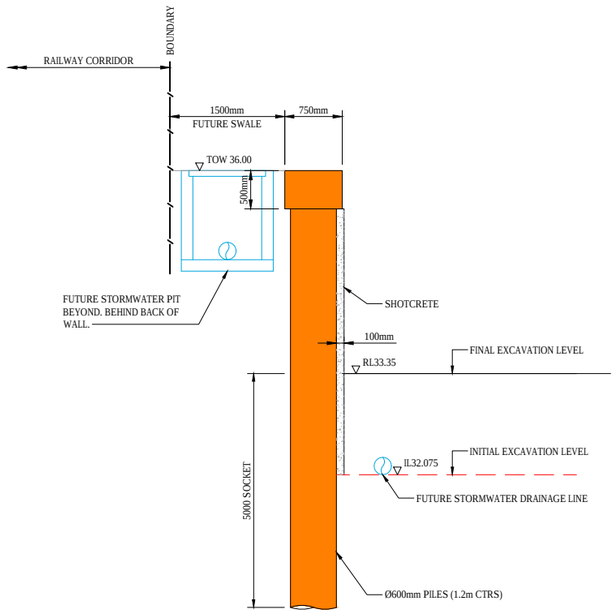
TYPICAL PILE RETAINING WALL TYPE 01 SECTION — 02 / C-1150

SCALE 1:40



TYPICAL PILE RETAINING WALL TYPE 02 SECTION — 03 / C-1150

SCALE 1:40



TYPICAL PILE RETAINING WALL TYPE 03 SECTION — 04 / C-1150

SCALE 1:40

REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023

REVISIONS

BAR SCALES

0 0.4 0.8 1.2 1.6 2.0 2.4m

SCALE 1:40 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: TYPICAL RETAINING WALL SECTIONS

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	1:40 AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-1 180	C

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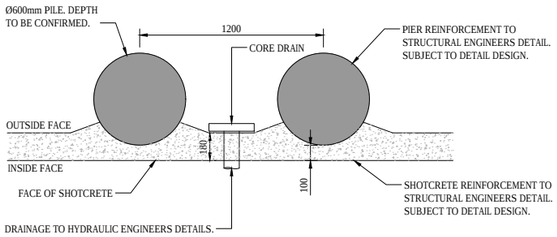
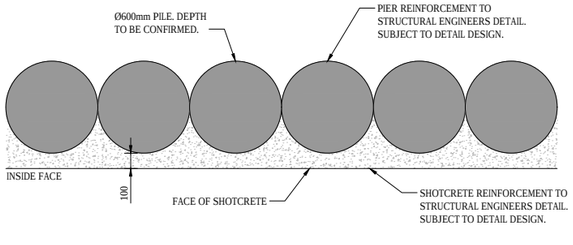


TYPICAL BORED PIER/SHOTCRETE WALL DETAIL

SCALE 1:20

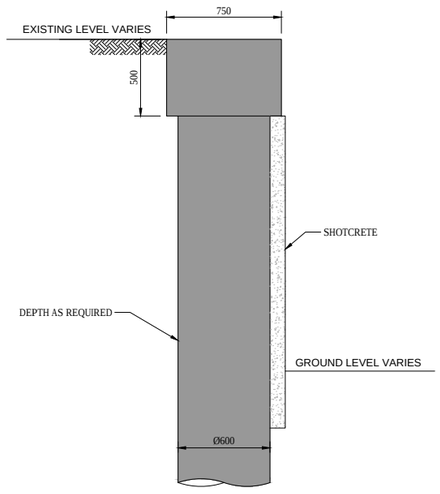
NOTES:
SUBJECT STRUCTURAL ENGINEERS DESIGN



TYPICAL CONTIGOUS BORED PIER/SHOTCRETE WALL DETAIL

SCALE 1:20

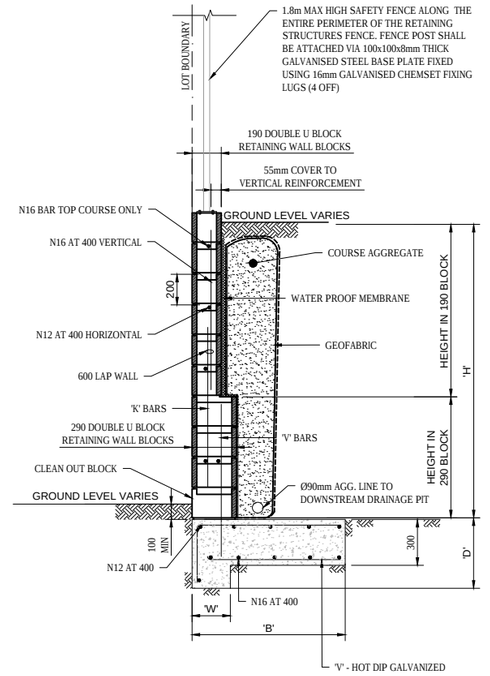
NOTES:
SUBJECT STRUCTURAL ENGINEERS DESIGN



TYPICAL PILE RETAINING WALL SECTION

SCALE 1:20

NOTES:
SUBJECT STRUCTURAL ENGINEERS DESIGN



TYPICAL RETAINING WALL TYPE 01 (MAX 2.2m)

SCALE 1:20

NOTES:
SUBJECT STRUCTURAL ENGINEERS DESIGN

REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023

REVISIONS

BAR SCALES

0 0.2 0.4 0.6 0.8 1.0 1.2m
SCALE 1:20 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD
REGENTS PARK NSW 2143
RESIDENTIAL
DEVLOPMENT

TITLE: TYPICAL RETAINING WALL DETAILS

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	1:20 AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-1 190	C

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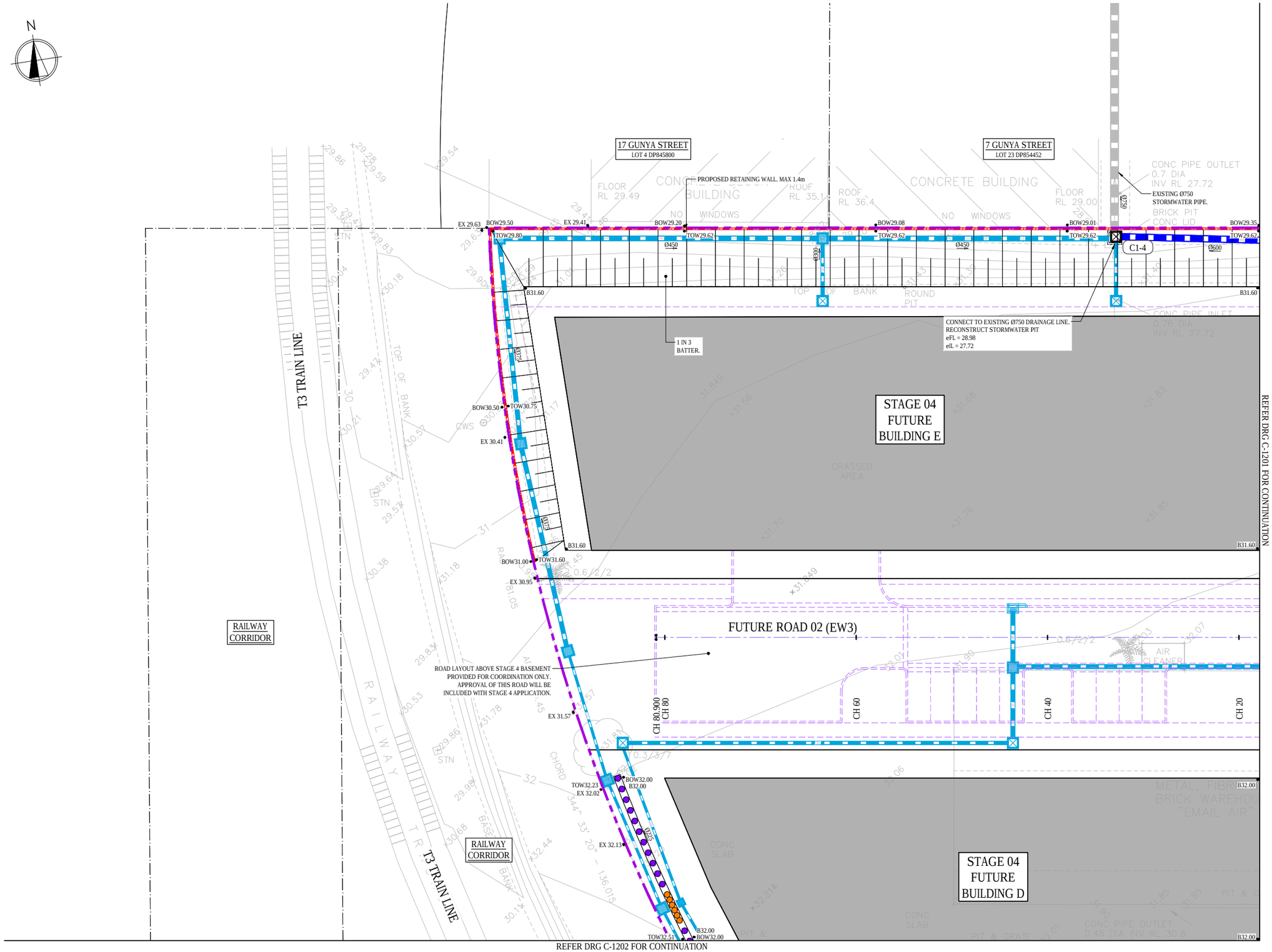

CIVIL SITEWORKS & DRAINAGE PLAN

SCALE 1:200

LEGEND

EXISTING

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- EXISTING CADASTRAL BOUNDARY
- EXISTING EASEMENT
- EXISTING CONTOURS
- EXISTING SEWER
- EXISTING WATER
- EXISTING COMM
- EXISTING ELEC
- EXISTING STORMWATER

NEW

- DESIGN SURFACE CONTOURS
- BATTER
- F83.56 FINISH SURFACE LEVEL
- KO KERB ONLY
- K&G KERB AND GUTTER
- DD DISH DRAIN
- KR KERB RAMP
- VC / LBK VEHICLE CROSSING / LAYBACK
- RW RETAINING WALL TYPE 01
- PILE RETAINING WALL TYPE 01
- PILE RETAINING WALL TYPE 02
- PILE RETAINING WALL TYPE 03
- Ø375 STORMWATER PIPE
- A1-06 STORMWATER PIT REFERENCE NO.
- GROSS POLLUTANT TRAP (GTP)
- GRATED INLET/JUNCTION PIT
- KERB INLET PIT
- INDICATIVE FUTURE SURFACE INLET PIT
- INDICATIVE FUTURE STORMWATER PIPE
- OSD TANK
- RAINWATER REUSE TANK
- SILT ARRESTOR PIT
- FUTURE ROAD WORKS
- FUTURE RETAINING WALL

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REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL			05/12/2023
B	ISSUED FOR APPROVAL			30/10/2023
A	ISSUED FOR APPROVAL			06/09/2023
P2	PRELIMINARY ISSUE			15/08/2023
P1	PRELIMINARY ISSUE			04/08/2023

REVISIONS

BAR SCALES

0 2 4 6 8 10 12m
SCALE 1:200 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: CIVIL SITEWORKS & DRAINAGE PLAN SHEET 1

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	1:200 AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-1200	C

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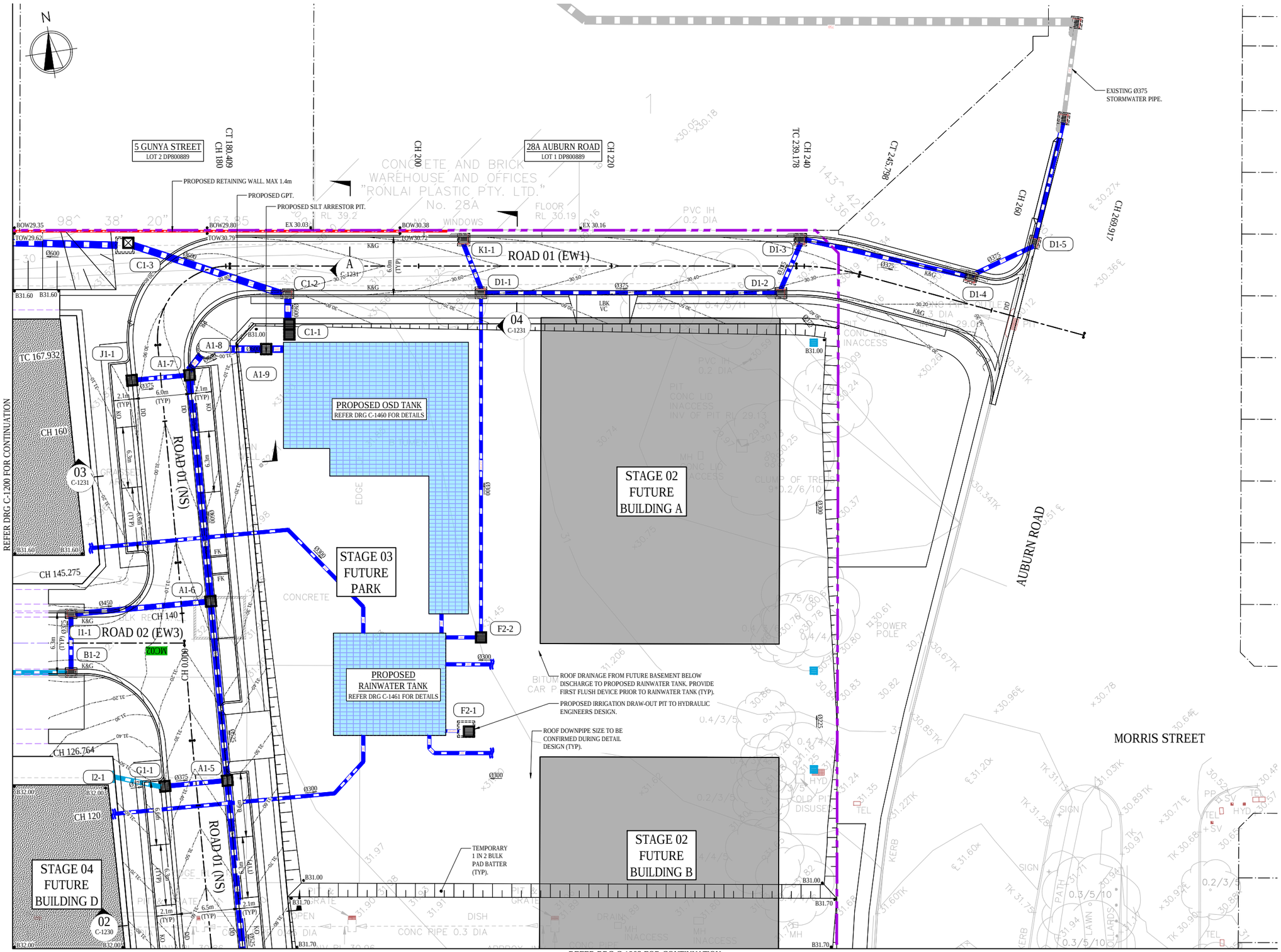

CIVIL SITEWORKS & DRAINAGE PLAN

SCALE 1:200

LEGEND

EXISTING

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- EXISTING CADASTRAL BOUNDARY
- EXISTING EASEMENT
- EXISTING CONTOURS
- EXISTING SEWER
- EXISTING WATER
- EXISTING COMM
- EXISTING ELEC
- EXISTING STORMWATER

NEW

- DESIGN SURFACE CONTOURS
- BATTER
- F83.56 FINISH SURFACE LEVEL
- KO KERB ONLY
- K&G KERB AND GUTTER
- DD DISH DRAIN
- KR KERB RAMP
- VC / LBK VEHICLE CROSSING / LAYBACK
- RW RETAINING WALL TYPE 01
- PILE RETAINING WALL TYPE 01
- PILE RETAINING WALL TYPE 02
- PILE RETAINING WALL TYPE 03
- Ø375 STORMWATER PIPE
- A1-06 STORMWATER PIT REFERENCE NO.
- GROSS POLLUTANT TRAP (GTP)
- GRATED INLET/JUNCTION PIT
- KERB INLET PIT
- INDICATIVE FUTURE SURFACE INLET PIT
- INDICATIVE FUTURE STORMWATER PIPE
- OSD TANK
- RAINWATER REUSE TANK
- SILT ARRESTOR PIT
- FUTURE ROAD WORKS
- FUTURE RETAINING WALL

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REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL			05/12/2023
B	ISSUED FOR APPROVAL			30/10/2023
A	ISSUED FOR APPROVAL			06/09/2023
P2	PRELIMINARY ISSUE			15/08/2023
P1	PRELIMINARY ISSUE			04/08/2023

REVISIONS

BAR SCALES

0 2 4 6 8 10 12m
SCALE 1:200 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: CIVIL SITEWORKS & DRAINAGE PLAN SHEET 2

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	1:200 AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-1201	C

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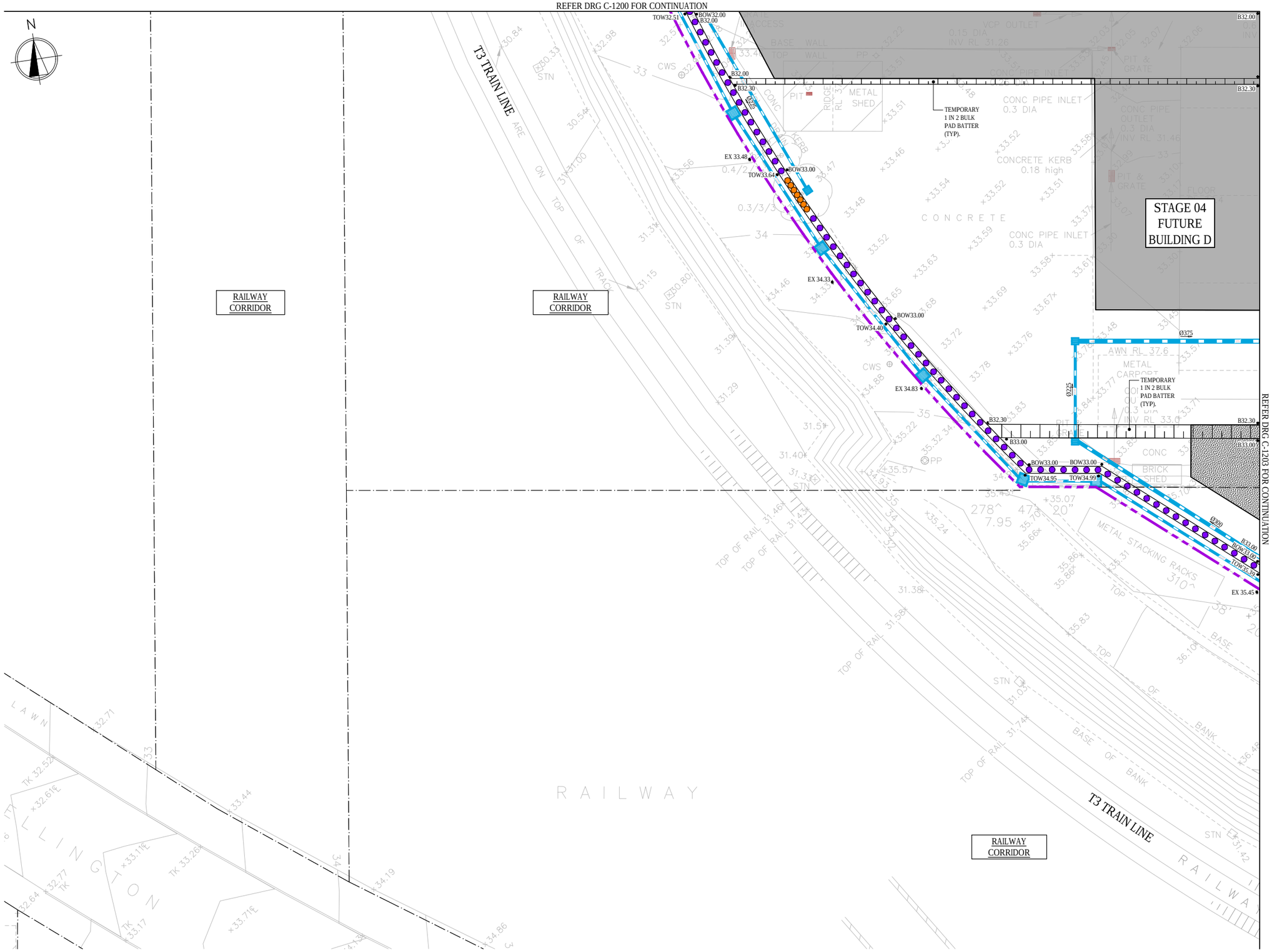

LEGEND

EXISTING

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- EXISTING CADASTRAL BOUNDARY
- EXISTING EASEMENT
- EXISTING CONTOURS
- EXISTING SEWER
- EXISTING WATER
- EXISTING COMM
- EXISTING ELEC
- EXISTING STORMWATER

NEW

- DESIGN SURFACE CONTOURS
- BATTER
- F83.56 — FINISH SURFACE LEVEL
- KO — KERB ONLY
- K&G — KERB AND GUTTER
- DD — DISH DRAIN
- KR — KERB RAMP
- VC / LBK — VEHICLE CROSSING / LAYBACK
- RW — RETAINING WALL TYPE 01
- PILE RETAINING WALL TYPE 01
- PILE RETAINING WALL TYPE 02
- PILE RETAINING WALL TYPE 03
- Ø375 — STORMWATER PIPE
- A1-06 — STORMWATER PIT REFERENCE NO.
- GROSS POLLUTANT TRAP (GTP)
- GRATED INLET/JUNCTION PIT
- KERB INLET PIT
- INDICATIVE FUTURE SURFACE INLET PIT
- INDICATIVE FUTURE STORMWATER PIPE
- OSD TANK
- RAINWATER REUSE TANK
- SILT ARRESTOR PIT
- FUTURE ROAD WORKS
- FUTURE RETAINING WALL

CIVIL SITEWORKS & DRAINAGE PLAN

SCALE 1:200

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REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL			05/12/2023
B	ISSUED FOR APPROVAL			30/10/2023
A	ISSUED FOR APPROVAL			06/09/2023
P2	PRELIMINARY ISSUE			15/08/2023
P1	PRELIMINARY ISSUE			04/08/2023

REVISIONS

BAR SCALES

0 2 4 6 8 10 12m
SCALE 1:200 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: CIVIL SITEWORKS & DRAINAGE PLAN SHEET 3

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE	
AHD	MGA	1:200	AT A1 SIZE

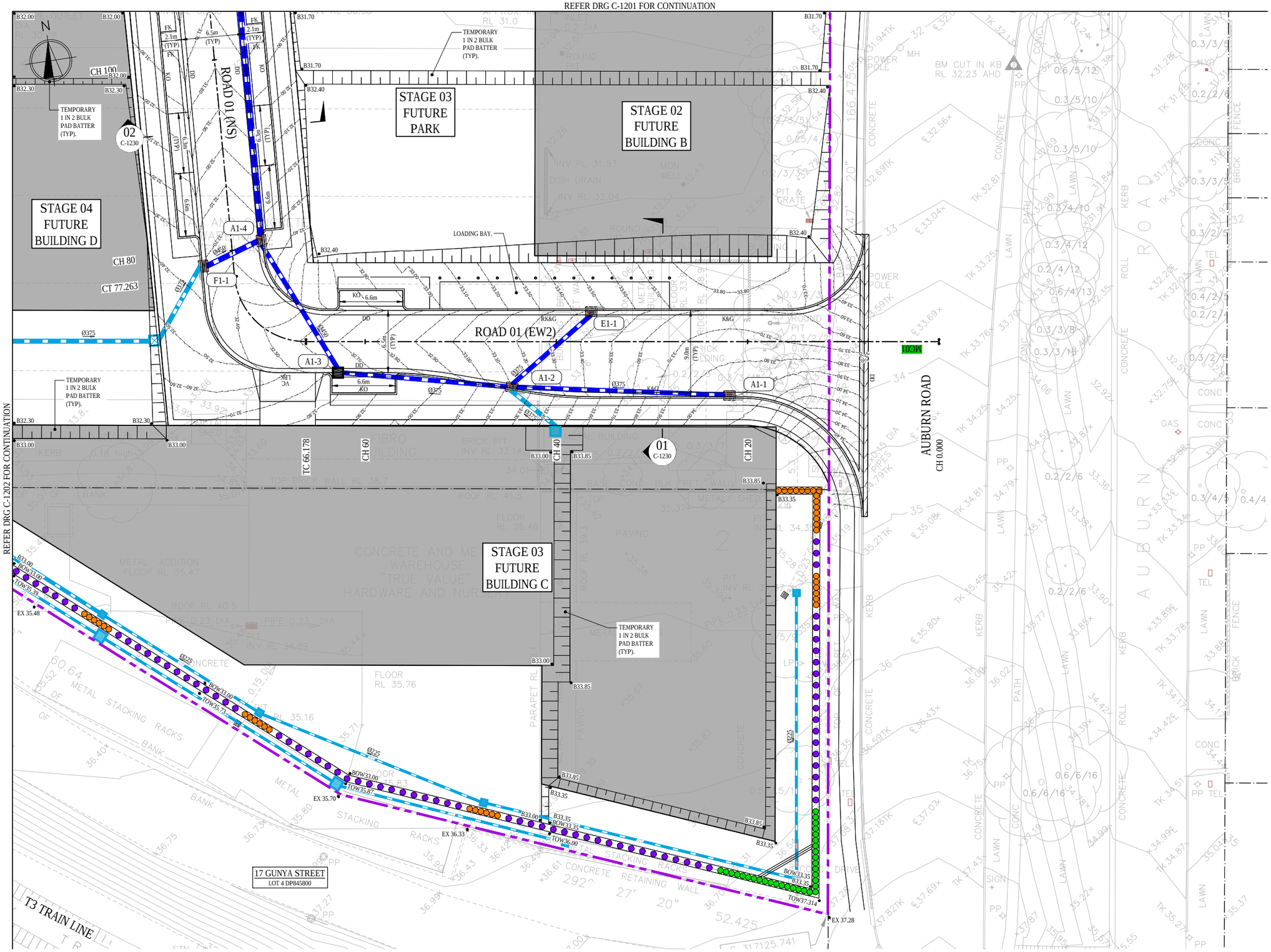
Engineering & Project Management
ABN / 72646014342
P / +61 435 144 005
E / admin@skyeng.com.au
www.skyeng.com.au

Project No.	Drawing No.	Issue
SY23-120	-C-1202	C

F:\SY23-120 Regents Park\Drgs\1000 - Stage 1\AutoCad\SY23-120-C-1202.dwg

REFER DRG C-1201 FOR CONTINUATION

REFER DRG C-1202 FOR CONTINUATION



LEGEND

EXISTING

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- EXISTING CADASTRAL BOUNDARY
- EXISTING EASEMENT
- EXISTING CONTOURS
- EXISTING SEWER
- EXISTING WATER
- EXISTING COMM
- EXISTING ELEC
- EXISTING STORMWATER

NEW

- DESIGN SURFACE CONTOURS
- BATTER
- F83.56 FINISH SURFACE LEVEL
- KERB ONLY
- KERB AND GUTTER
- DISH DRAIN
- KERB RAMP
- VEHICLE CROSSING / LAYBACK
- RETAINING WALL TYPE 01
- PILE RETAINING WALL TYPE 01
- PILE RETAINING WALL TYPE 02
- PILE RETAINING WALL TYPE 03
- Ø375 STORMWATER PIPE
- A1-06 STORMWATER PIT REFERENCE NO.
- GROSS POLLUTANT TRAP (GTP)
- GRATED INLET/JUNCTION PIT
- KERB INLET PIT
- INDICATIVE FUTURE SURFACE INLET PIT
- INDICATIVE FUTURE STORMWATER PIPE
- OSD TANK
- RAINWATER REUSE TANK
- SILT ARRESTOR PIT
- FUTURE ROAD WORKS
- FUTURE RETAINING WALL

CIVIL SITEWORKS & DRAINAGE PLAN

SCALE 1:200

C	ISSUED FOR APPROVAL			05/12/2023
B	ISSUED FOR APPROVAL			30/10/2023
A	ISSUED FOR APPROVAL			06/09/2023
P2	PRELIMINARY ISSUE			15/08/2023
P1	PRELIMINARY ISSUE			04/08/2023
REV	DESCRIPTION	BY	APRVD	DATE

REVISIONS

BAR SCALES

0 2 4 6 8 10 12m

SCALE 1:200 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: CIVIL SITEWORKS & DRAINAGE PLAN SHEET 4

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE	
AHD	MGA	1:200	AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-1203	C

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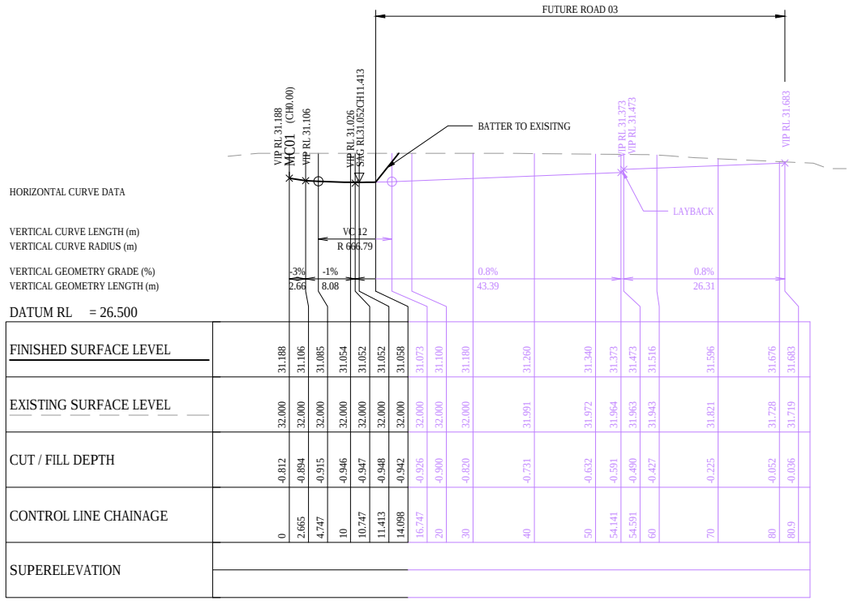
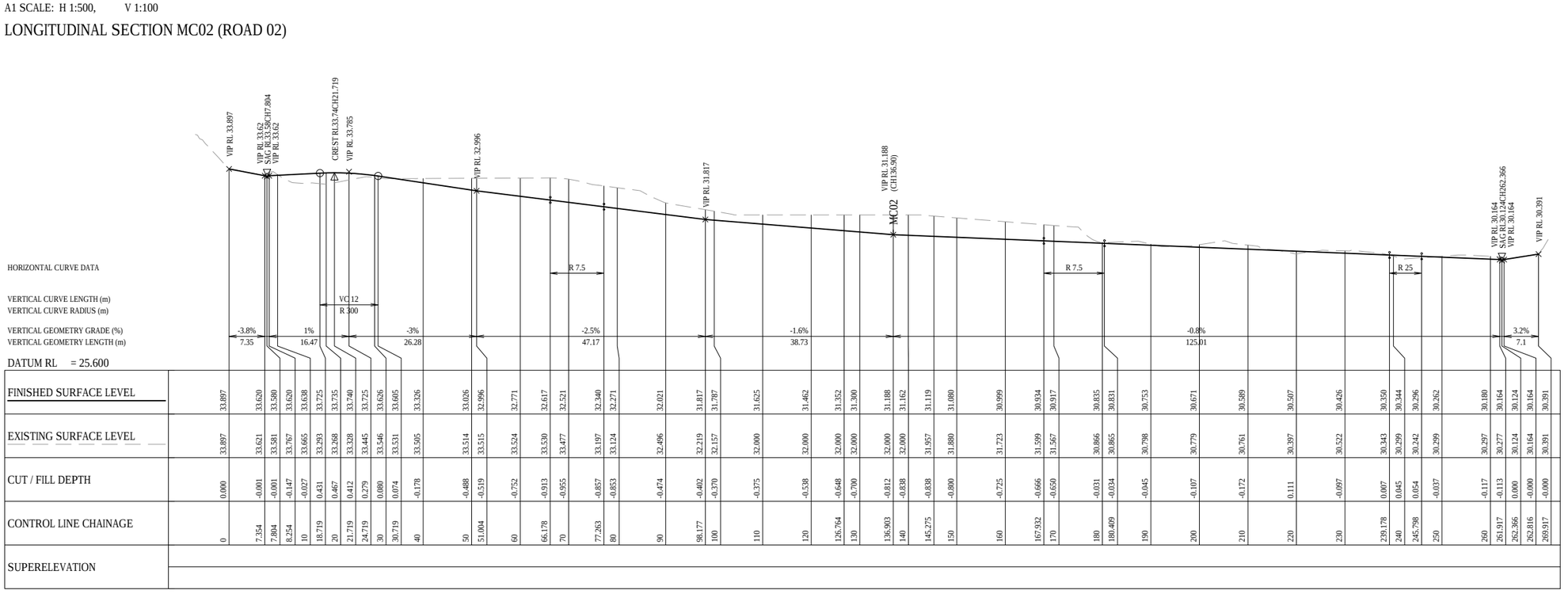
DIAL BEFORE YOU DIG www.1100.com.au



A1 SCALE: H 1:500, V 1:100

LONGITUDINAL SECTION MC02 (ROAD 02)



A1 SCALE: H 1:500, V 1:100

LONGITUDINAL SECTION MC01 (ROAD 01)

REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL			05/12/2023
B	ISSUED FOR APPROVAL			30/10/2023
A	ISSUED FOR APPROVAL			06/09/2023
P2	PRELIMINARY ISSUE			15/08/2023
P1	PRELIMINARY ISSUE			04/08/2023

REVISIONS

BAR SCALES

0 1 2 3 4 5 6m
SCALE 1:100 AT A1 SIZE

0 5 10 15 20 25 30m
SCALE 1:500 AT A1 SIZE

CLIENT

30 AUBURN ROAD PTY. LTD.

PROJECT

30-46 AUBURN ROAD
REGENTS PARK NSW 2143
RESIDENTIAL DEVLOPMENT

TITLE

ROADWORKS
LONGITUDINAL SECTIONS

STATUS

ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	1:500(H) 1:50(V) AT A1 SIZE

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www.skyeng.com.au

Project No.	Drawing No.	Issue
SY23-120	-C-1210	C

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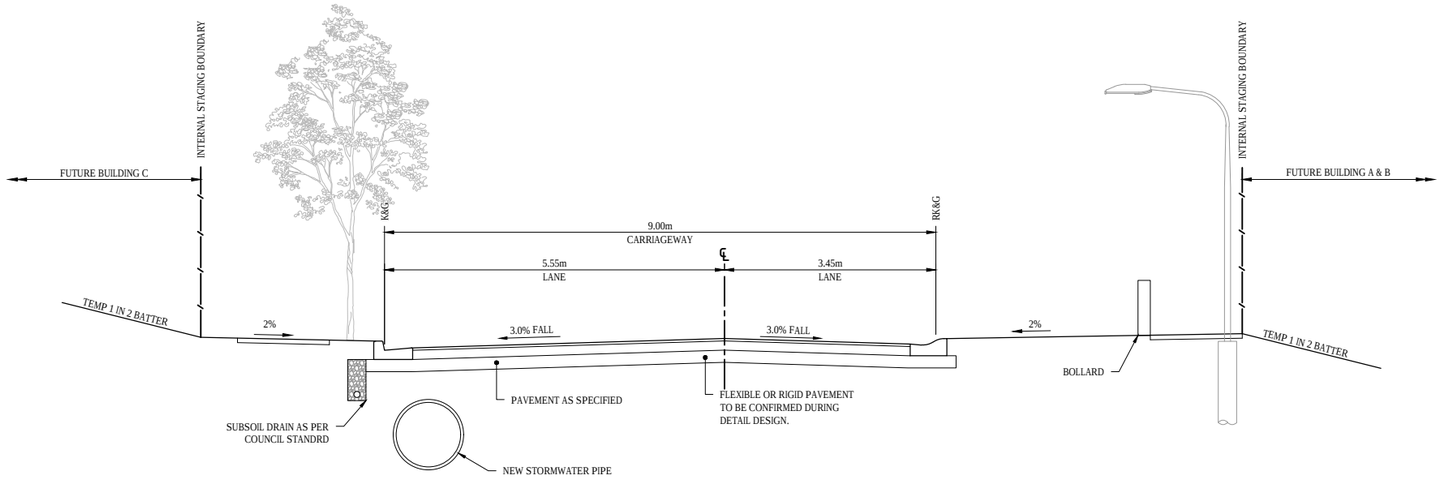
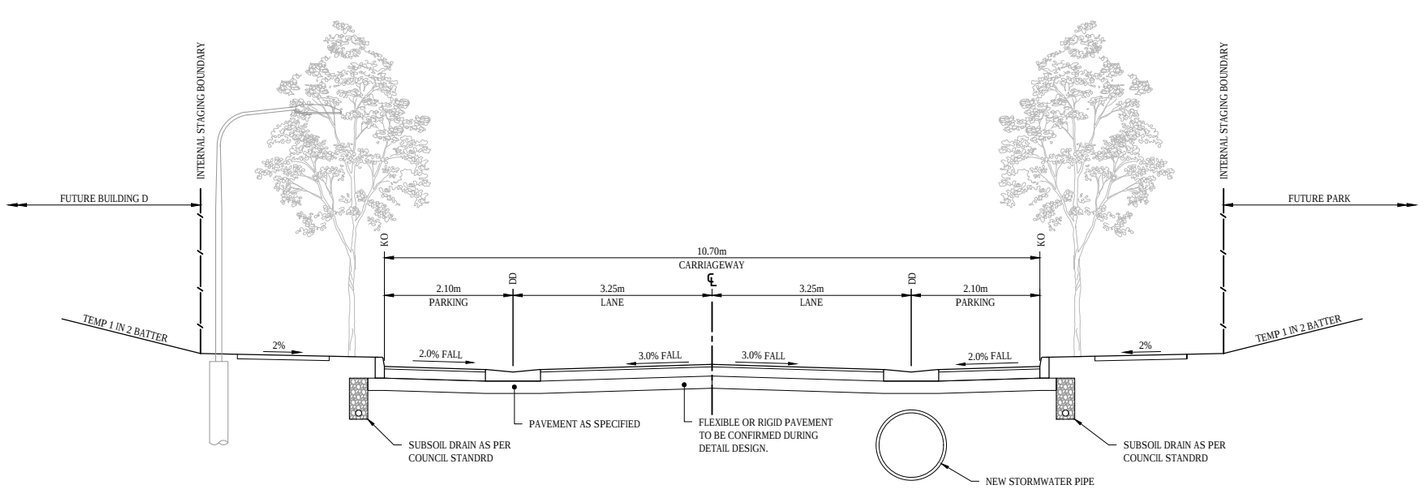


ROAD 01 TYPICAL SECTION (CH20.0 - CH40.0) - PRIVATE INTERNAL ROAD 01

SCALE 1:50 C-1203



ROAD 01 TYPICAL SECTION (CH82- CH122) - PRIVATE INTERNAL ROAD 02

SCALE 1:50 C-1201 & 1203

REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023
B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
A	ISSUED FOR APPROVAL	RT	FX	06/09/2023
P2	PRELIMINARY ISSUE	RT	FX	15/08/2023
P1	PRELIMINARY ISSUE	RT	FX	04/08/2023

REVISIONS

BAR SCALES

0 0.5 1.0 1.5 2.0 2.5 3.0m
SCALE 1:50 AT A1 SIZE

CLIENT

PROJECT
30-46 AUBURN ROAD
REGENTS PARK NSW 2143
RESIDENTIAL
DEVLOPMENT

TITLE
ROADWORKS
TYPICAL
SECTIONS
SHEET 1

STATUS
ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	1:50 AT A1 SIZE

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Project Management
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Project No.	Drawing No.	Issue
SY23-120	-C-1 230	C

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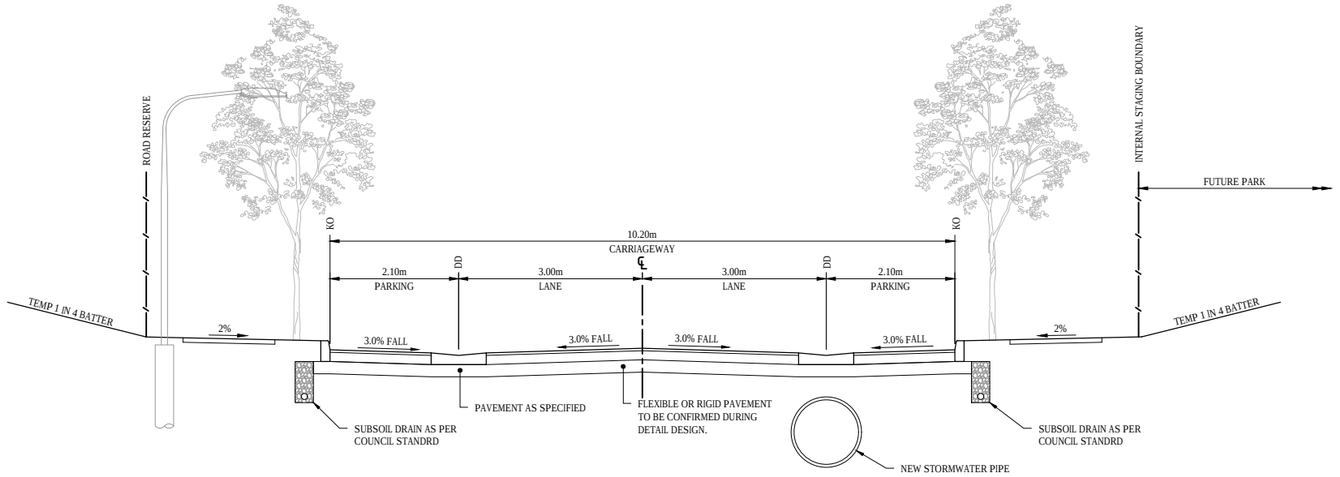
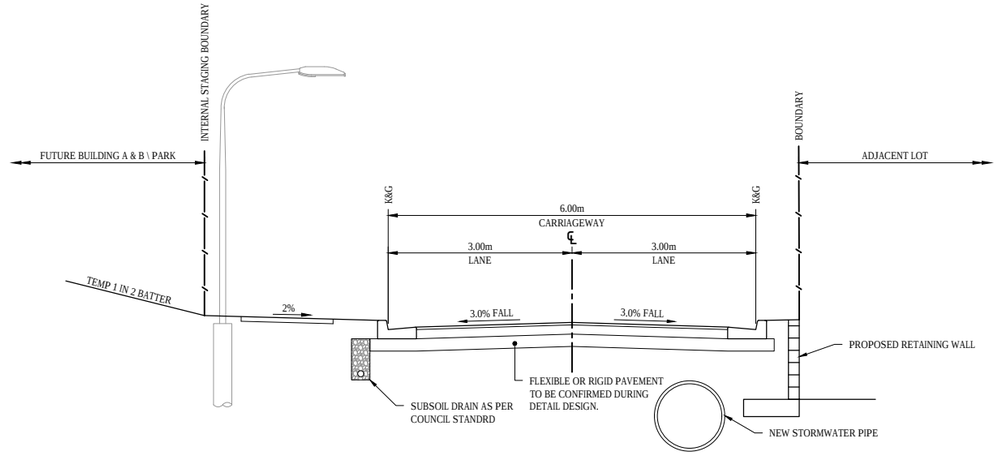


ROAD 01 TYPICAL SECTION (CH146 - CH166) - PRIVATE INTERNAL ROAD

SCALE 1:50

03
C-1201



ROAD 01 TYPICAL SECTION (CH180 - CH260) - PRIVATE INTERNAL ROAD

SCALE 1:50

04
C-1201

REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023
B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
A	ISSUED FOR APPROVAL	RT	FX	06/09/2023
P2	PRELIMINARY ISSUE	RT	FX	15/08/2023
P1	PRELIMINARY ISSUE	RT	FX	04/08/2023

REVISIONS

BAR SCALES

0 0.5 1.0 1.5 2.0 2.5 3.0m
SCALE 1:50 AT A1 SIZE

CLIENT

PROJECT

30-46 AUBURN ROAD
REGENTS PARK NSW 2143
RESIDENTIAL
DEVLOPMENT

TITLE

ROADWORKS
TYPICAL
SECTIONS
SHEET 2

STATUS

ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	1:50 AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-1 231	C

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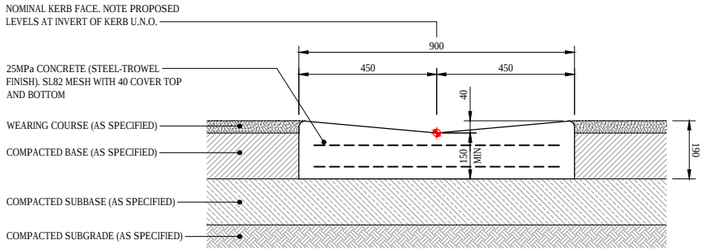
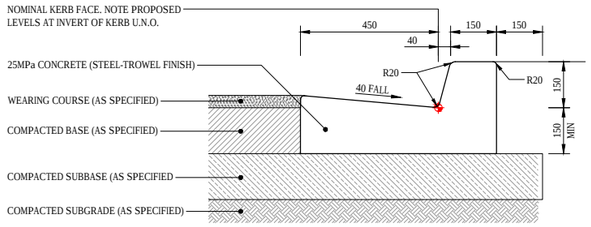


DISH DRAIN - 900 WIDE 'DD'

SCALE 1:10

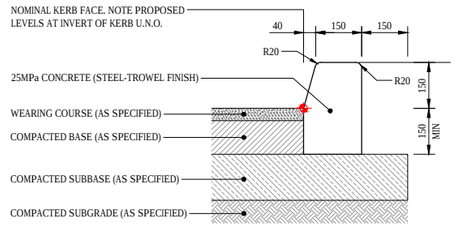
NOTES
1. REFER TO PCC STANDARD DRG SD1003/2 FOR DETAIL & NOTES
2. DISHDRAIN TO BE MIN. 25 MPa CONCRETE UNLESS NOTED OTHERWISE
3. DISHDRAIN TO BE STEEL TROWEL FINISHED
4. ALL EDGES SHALL BE TOOL FINISHED WITH 20 RAD 50mm WIDE EDGING TOOL
5. EXPANSION JOINTS SHALL BE PLACED AT 15m INTERVALS AND THE INTERFACE WITH OTHER FIXED STRUCTURES



KERB & GUTTER 'KG'

SCALE 1:10

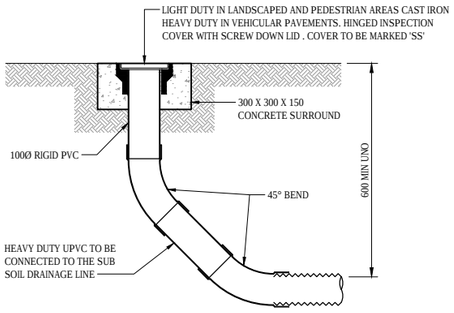
NOTES
1. REFER TO PCC STANDARD DRG SD1003/1 & SD1003/2 FOR NOTES
2. ALL KERBS TO BE MIN. 25 MPa CONCRETE UNLESS NOTED OTHERWISE
3. ALL KERBS TO BE STEEL TROWEL FINISHED
4. ALL EDGES SHALL BE TOOL FINISHED WITH 20 RAD 50mm WIDE EDGING TOOL
5. EXPANSION JOINTS SHALL BE PLACED AT 15m INTERVALS AND THE INTERFACE WITH OTHER FIXED STRUCTURES



KERB ONLY 'KO'

SCALE 1:10

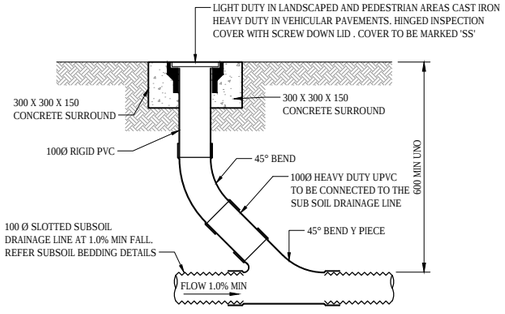
NOTES
1. REFER TO PCC STANDARD DRG SD1003/1 & SD1003/2 FOR NOTES
2. ALL KERBS TO BE MIN. 25 MPa CONCRETE UNLESS NOTED OTHERWISE
3. ALL KERBS TO BE STEEL TROWEL FINISHED
4. ALL EDGES SHALL BE TOOL FINISHED WITH 20 RAD 50mm WIDE EDGING TOOL
5. EXPANSION JOINTS SHALL BE PLACED AT 15m INTERVALS AND THE INTERFACE WITH OTHER FIXED STRUCTURES



FLUSHING POINT (FP)

SCALE 1:10

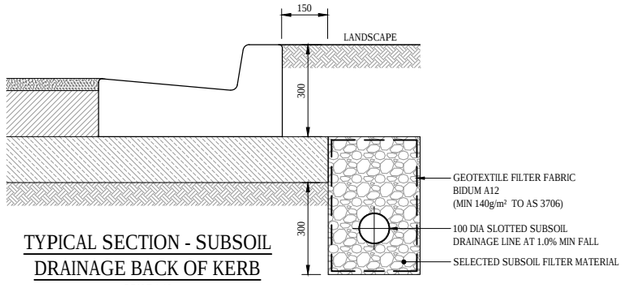
NOTE: SLOTTED RIGID PVC PIPE AND FITTINGS MAY BE USED



INTERMEDIATE RISER (IR)

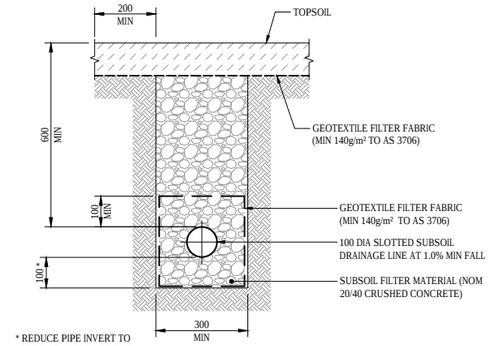
SCALE 1:10

NOTE: SLOTTED RIGID PVC PIPE AND FITTINGS MAY BE USED



TYPICAL SECTION - SUBSOIL DRAINAGE BACK OF KERB

SCALE 1:10



SUBSOIL IN LANDSCAPED AREAS

SCALE 1:10

NOTES:
1. PROVIDE FLUSHING POINTS AT MAX 50M CENTRES AND OUTLETS AT MAX 100m CENTRES.
2. uPVC PIPE AND FITTINGS SHALL BE MIN CLASS 12
3. ROAD CROSSINGS TO BE SEWER HEAVY GRADE uPVC PIPE

REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023
B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
A	ISSUED FOR APPROVAL	RT	FX	06/09/2023
P2	PRELIMINARY ISSUE	RT	FX	15/08/2023
P1	PRELIMINARY ISSUE	RT	FX	04/08/2023

REVISIONS

BAR SCALES

0 0.1 0.2 0.3 0.4 0.5 0.6m
SCALE 1:10 AT A1 SIZE

0 0.2 0.4 0.6 0.8 1.0 1.2m
SCALE 1:20 AT A1 SIZE

CLIENT

PROJECT
30-46 AUBURN ROAD
REGENTS PARK NSW 2143
RESIDENTIAL
DEVLOPMENT

TITLE
CIVIL SITEWORKS
DETAILS

STATUS
ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	AS SHOWN AT A1 SIZE

Engineering & Project Management
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www.skyeng.com.au

Project No.	Drawing No.	Issue
SY23-120	-C-1 330	C

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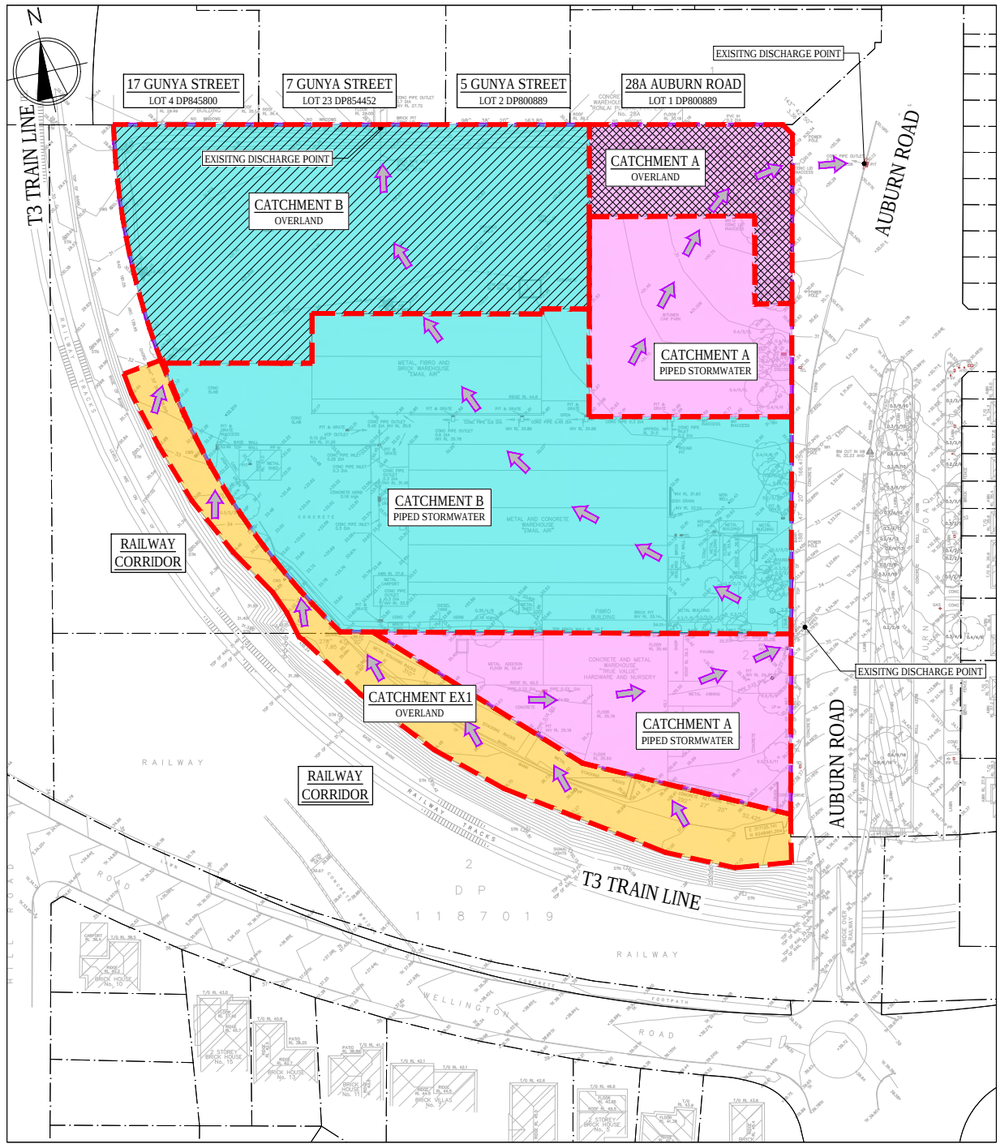
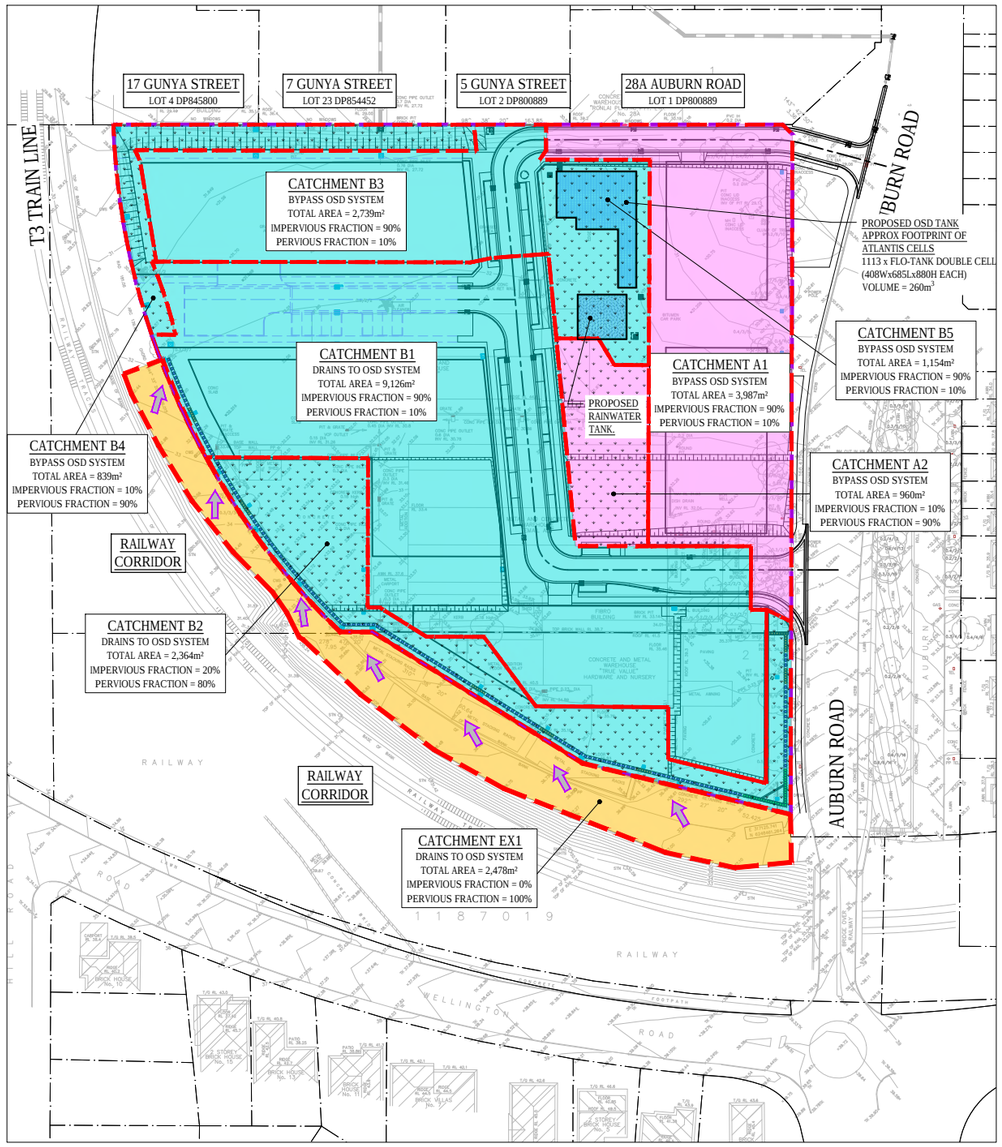


EXISTING CATCHMENT

SCALE 1:750m



POST DEVELOPMENT CATCHMENT

SCALE 1:750m

LEGEND

EXISTING

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- EXISTING CADASTRAL BOUNDARY
- EXISTING EASEMENT
- EXISTING CADASTRAL TO BE ABANDONED
- EXISTING CONTOURS
- EXISTING SEWER

EXISTING CATCHMENT

- CATCHMENT A PIPED STORMWATER
- CATCHMENT A OVERLAND FLOWS
- CATCHMENT B PIPED STORMWATER
- CATCHMENT B OVERLAND FLOW
- CATCHMENT EX1 OVERFLOW (EXTERNAL CATCHMENT)

POST DEVELOPMENT CATCHMENT

- CATCHMENT BOUNDARY
- CATCHMENT A
- CATCHMENT A - LANDSCAPING
- CATCHMENT B
- CATCHMENT B - LANDSCAPING
- CATCHMENT EX1 OVERFLOW (EXTERNAL CATCHMENT)

CATCHMENT LABEL (ID)	AREA(m²)	CONNECTION	PERVIOUS FRACTION (%)	IMPERVIOUS FRACTION (%)
A	2,758	PIPED 46 AUBURN ROAD	5.00%	95.00%
	2,239	PIPED 30 AUBURN ROAD	10.00%	90.00%
	1,307	OVERLAND	100.00%	0.00%
B	9,146	PIPED	5.00%	95.00%
	5,719	OVERLAND	90.00%	10.00%
EX1	2,478	OVERLAND	100.00%	0.00%
TOTAL CATCHMENT AREA	23,647			

PRE-DEVELOPMENT - IMPERVIOUS VS PERVIOUS AREA

N.T.S

CATCHMENT LABEL (ID)	AREA(m²)	CONNECTION	PERVIOUS FRACTION (%)	IMPERVIOUS FRACTION (%)
A1	3,987	BYPASS OSD SYSTEM	10.00%	90.00%
A2	960	BYPASS OSD SYSTEM	90.00%	10.00%
B1	9,126	PIPED TO OSD	5.00%	95.00%
B2	2,364	PIPED TO OSD	80.00%	20.00%
B3	2,739	BYPASS OSD SYSTEM	10.00%	90.00%
B4	839	BYPASS OSD SYSTEM	90.00%	10.00%
B5	1,154	BYPASS OSD SYSTEM	10.00%	90.00%
EX1	2,478	PIPED TO OSD	100.00%	0.00%
TOTAL CATCHMENT AREA	23,647			

POST DEVELOPMENT - IMPERVIOUS VS PERVIOUS AREA

N.T.S

REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023
B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
A	ISSUED FOR APPROVAL	RT	FX	06/09/2023
P2	PRELIMINARY ISSUE	RT	FX	15/08/2023
P1	PRELIMINARY ISSUE	RT	FX	04/08/2023

REVISIONS

BAR SCALES

0 7.5 15 22.5 30 37.5 45m

SCALE 1:750 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: STORMWATER CATCHMENT PLAN

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	1:400 AT A1 SIZE

Engineering & Project Management
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Project No.	Drawing No.	Issue
SY23-120	-C-1430	C

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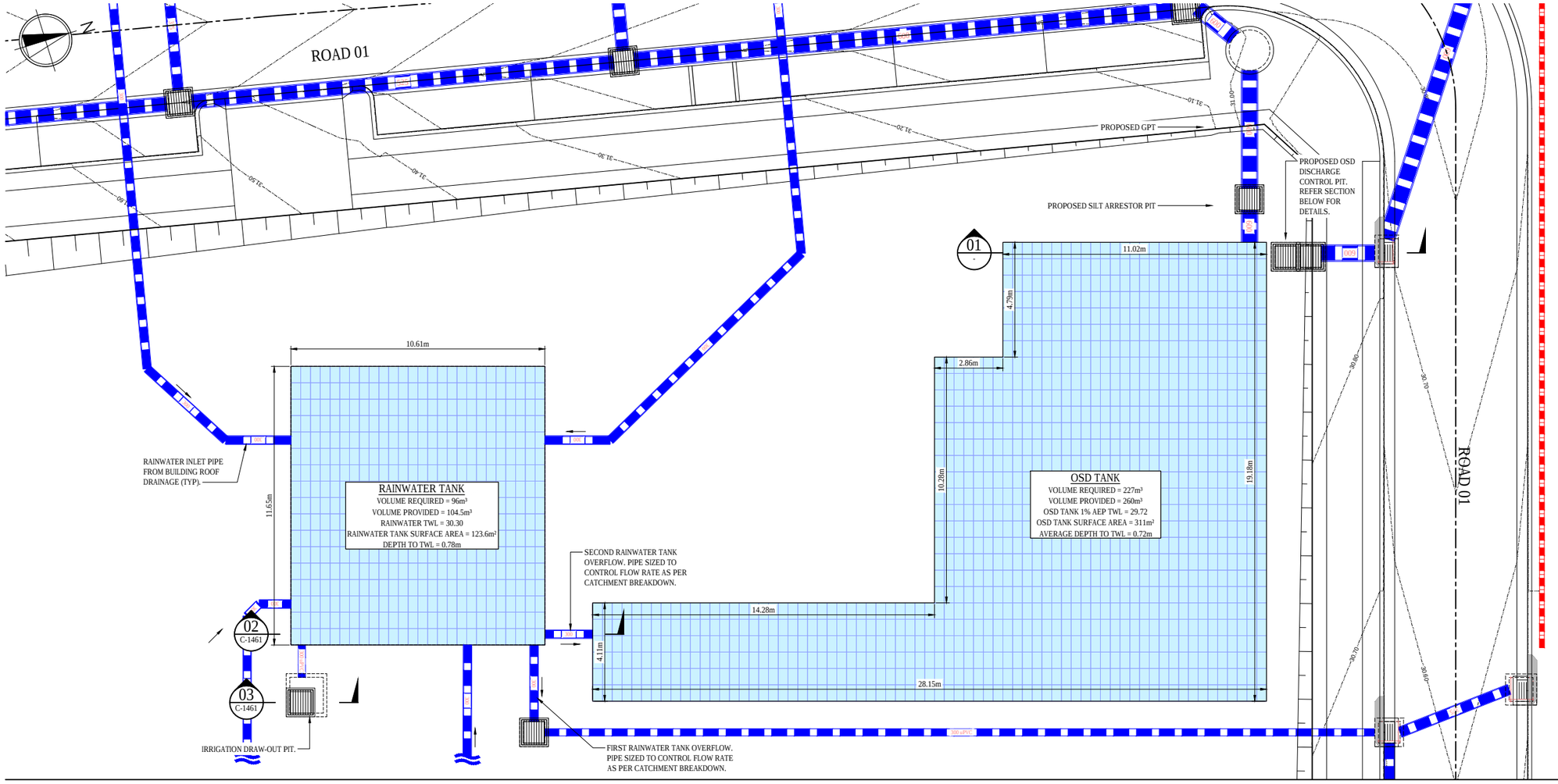


LEGEND

EXISTING

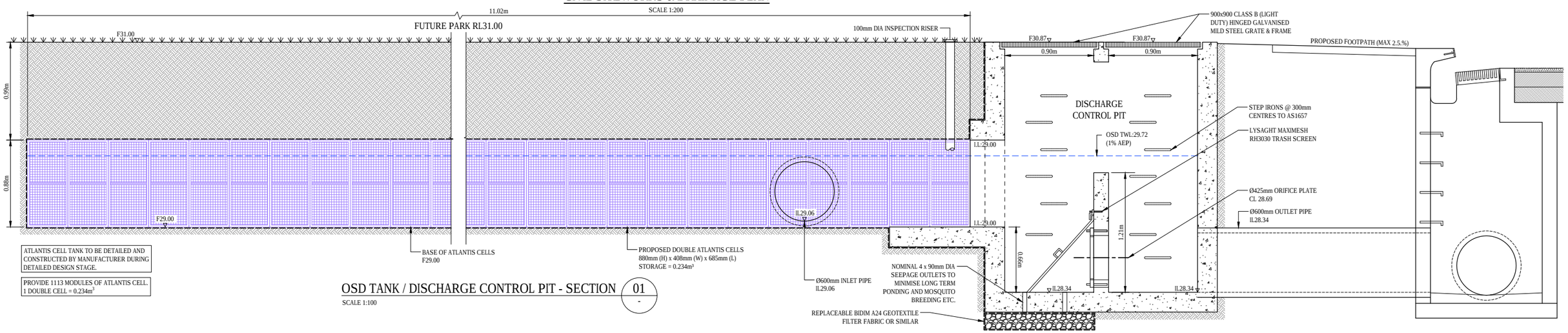
- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- EXISTING CADASTRAL BOUNDARY
- EXISTING EASEMENT
- EXISTING CONTOURS
- EXISTING SEWER
- EXISTING WATER
- EXISTING COMM
- EXISTING ELEC
- EXISTING STORMWATER

NEW

- DESIGN SURFACE CONTOURS
- BATTER
- F83.56 — FINISH SURFACE LEVEL
- KO — KERB ONLY
- K&G — KERB AND GUTTER
- DD — DISH DRAIN
- KR — KERB RAMP
- VC / LBK — VEHICLE CROSSING / LAYBACK
- RW — RETAINING WALL TYPE 01
- PILE RETAINING WALL TYPE 01
- PILE RETAINING WALL TYPE 02
- PILE RETAINING WALL TYPE 03
- Ø375 — STORMWATER PIPE
- A1-06 — STORMWATER PIT REFERENCE NO.
- GROSS POLLUTANT TRAP (GTP)
- GRATED INLET/JUNCTION PIT
- KERB INLET PIT
- INDICATIVE FUTURE SURFACE INLET PIT
- INDICATIVE FUTURE STORMWATER PIPE
- OSD TANK
- RAINWATER REUSE TANK

CIVIL SITEWORKS & DRAINAGE PLAN

SCALE 1:200



OSD TANK / DISCHARGE CONTROL PIT - SECTION 01

SCALE 1:100

REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023
B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
A	ISSUED FOR APPROVAL	RT	FX	06/09/2023
P2	PRELIMINARY ISSUE	RT	FX	15/08/2023
P1	PRELIMINARY ISSUE	RT	FX	04/08/2023

REVISIONS

BAR SCALES

0 1 2 3 4 5 6m
SCALE 1:100 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: OSD TANK PLAN AND SECTION

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	AS SHOWN AT A1 SIZE

Engineering & Project Management
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www.skyeng.com.au

Project No.	Drawing No.	Issue
SY23-120	-C-1460	C

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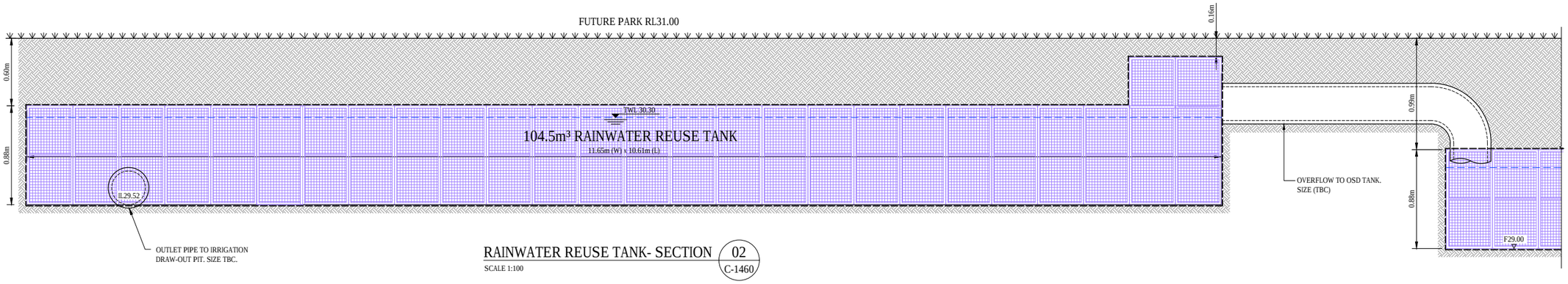
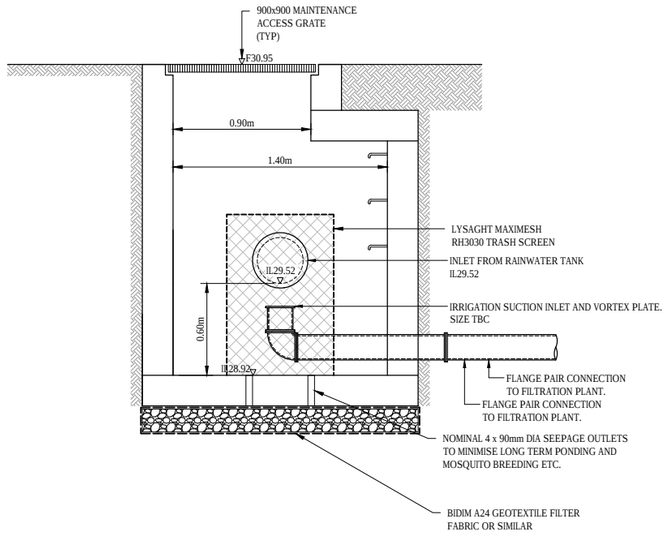


RAINWATER REUSE TANK- SECTION 02
SCALE 1:100 C-1460



IRRIGATION DRAW-OUT PIT - SECTION 03
SCALE 1:100 C-1460

REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023
B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
A	ISSUED FOR APPROVAL	RT	FX	06/09/2023
P2	PRELIMINARY ISSUE	RT	FX	15/08/2023
P1	PRELIMINARY ISSUE	RT	FX	04/08/2023

REVISIONS

BAR SCALES
0 1 2 3 4 5 6m
SCALE 1:100 AT A1 SIZE

CLIENT

PROJECT
30-46 AUBURN ROAD
REGENTS PARK NSW 2143
RESIDENTIAL
DEVLOPMENT

TITLE
RAINWATER REUSE
TANK & IRRIGATION
DRAW-OUT PIT
SECTION

STATUS
ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	1:20 AT A1 SIZE

Engineering &
Project Management
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Project No.	Drawing No.	Issue
SY23-120	-C-1 461	C

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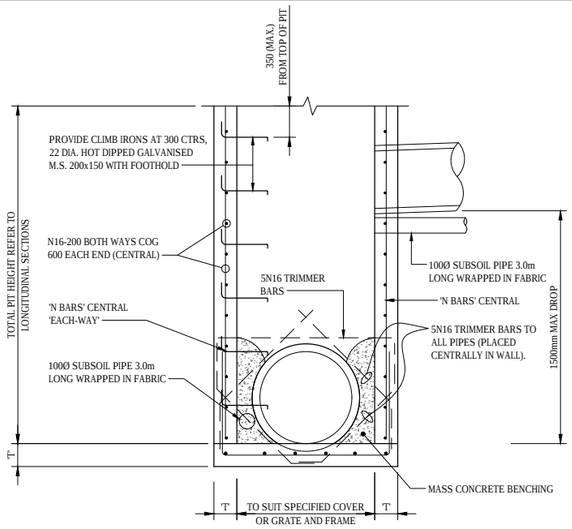
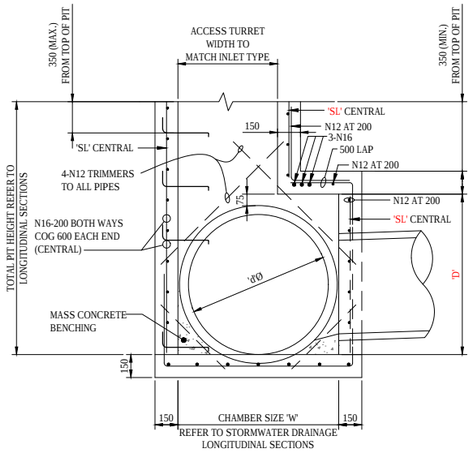


PIT CHAMBER DETAIL (TYPE A) FOR PIPES UP TO 520Ø

SCALE 1:20



PIT CHAMBER DETAIL (TYPE B) FOR PIPES FROM 600Ø TO 1200Ø

(ENLARGED CHAMBER)

SCALE 1:20

PIPE DIA. 'dØ'	WIDTH 'W'	DEPTH 'D'	WALL 'T'	BARS 'N'
375	900	2100	180	N12-200
	900	2400	180	N12-200
	900	3200	200	N16-200
450	900	2100	180	N12-200
	900	2400	180	N12-200
	900	3200	200	N16-200
525	900	2100	180	N12-200
	900	2400	180	N12-200
	900	3200	200	N16-200
600	900	2100	180	N12-200
	900	2400	180	N12-200
	900	3200	200	N16-200

PIPE DIA. 'dØ'	WIDTH 'W'	DEPTH 'D'	WALL 'T'	FABRIC/COV 'SL'
600 to 675	900	1200-2400		SL72
750	1000	1200-2400		SL72
825	1150	1200-2400		SL72
900	1200	1200-2400		SL82
1050	1350	1300-2400		SL92
1200	1500	1500-2800		SL102

CHAMBER DEPTH EXCEEDING 2.99m IN HEIGHT WILL BE DESIGNED AND APPROVED BY STRUCTURAL ENGINEER

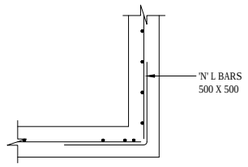
NOTE

1. STANDARD GULLY PITS REFER TO PENRITH CITY COUNCIL STANDARD DRG SD2001/2 & SD2001/3 FOR DETAILS

FOR INLET SIZE REFER TO STORMWATER LONGITUDINAL SECTIONS ON DRAWING C1450-C1456

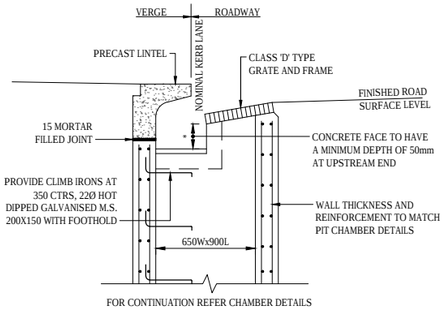
2. FOR PIT CHAMBER SIZE AND SETOUT REFER TO STORMWATER LONGITUDINAL SECTIONS ON DRAWING C1450-C1456
3. REINFORCING MESH IS TO BE BENT TO LAP 200 AROUND ALL CORNERS. VERTICAL BARS ARE NOT TO BE CUT. ALTERNATELY PROVIDE N12 "L" BARS (500x500) AT 400 VERTICAL CTS.
4. COMPRESSIVE STRENGTH (Fc) FOR CAST IN SITU CONCRETE SHALL BE A MINIMUM 32 MPa AT 28 DAYS.
5. TOP OF BENCHING SHALL BE ½ OF OUTLET PIPE DIAMETER.
6. 100mm SUBSOIL DRAINAGE PIPE 3000 LONG WRAPPED IN FABRIC SOCK TO BE PROVIDE ADJACENT TO INLET PIPES.
7. ALL PITS SHALL BE PROVIDED WITH A LOCKING CLIP.
8. PIT GRATE TO BE 'WELDLOK' GULLY GRATE GG 78-50 OR APPROVED EQUIVALENT.
9. DURING INSTALLATION OF GRATE AND FRAME CONTRACTOR IS TO ENSURE CLEARANCE BETWEEN LINTEL AND OPENED GRATE (REFER TO INSTALLATION TOLERANCE).
10. PROVIDE STEP IRONS AS INDICATED FOR PITS DEEPER THAN 1200.
11. N12 AT 200 CENTRALLY PLACED MAY BE USED IN LIEU OF MESH. LAP 500 AT CORNERS
12. MINIMUM REINFORCEMENT COVER TO BE 45mm UNLESS NOTED OTHERWISE
15. CHAMBER DEPTH EXCEEDING 2.99m IN HEIGHT WILL BE DESIGNED AND APPROVED BY STRUCTURAL ENGINEER
16. CONCRETE STRENGTH: - UNLESS NOTED OTHERWISE

ELEMENT	f'c MPa (28 DAYS)	SLUMP	MAX AGG SIZE	CEMENT TYPE
PITS	32	80mm	20mm	GP



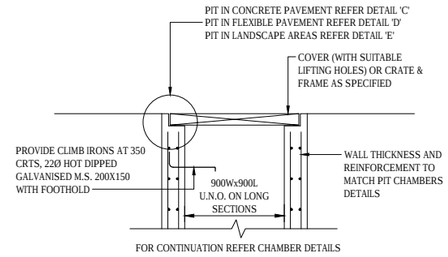
TYPICAL CORNER DETAIL

SCALE 1:20



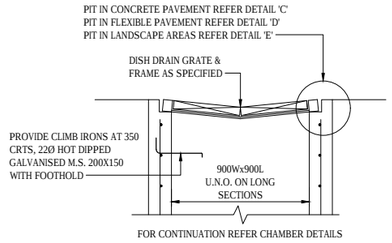
STANDARD GRATED KERB INLET PIT WITH LINTEL

SCALE 1:20



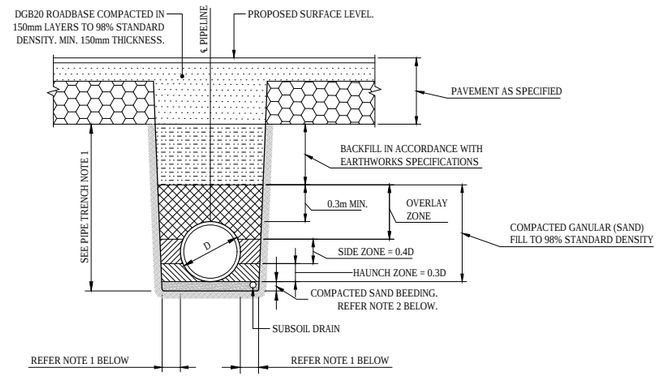
STANDARD SURFACE INLET OR SEALED JUNCTION PIT

SCALE 1:20



STANDARD DISH DRAIN SURFACE INLET PIT

SCALE 1:20



PIPE TRENCH BELOW PAVEMENT

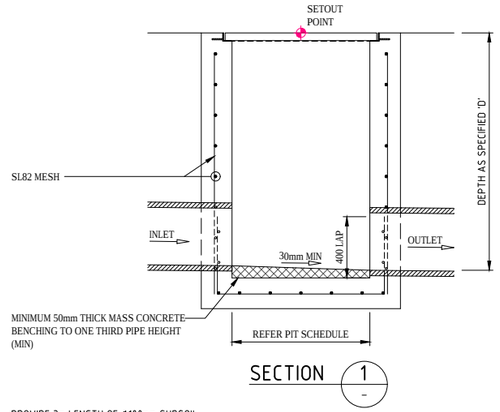
N.T.S

NOTE

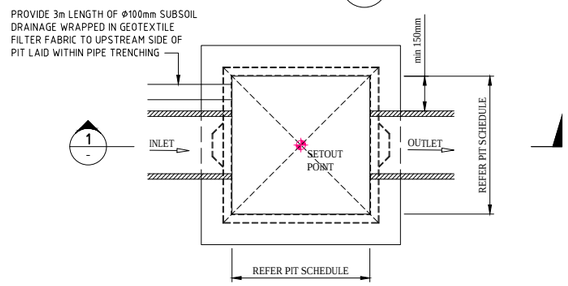
1. ≥0.2D OR 0.3m (WHICHEVER IS GREATER)
2. 100mm FOR PIPE DIA. ≤1500

PIPE TRENCH NOTES

1. IN UNDERTAKING TRENCH EXCAVATION, THE CONTRACTOR SHALL PROVIDE ANY SHORING, SHEET PILING OR OTHER STABILISATION OF THE TRENCH NECESSARY TO COMPLY WITH OH&S REGULATION REQUIREMENTS. THE SIDES ARE NOT TO BE LOADED & SHALL BE KEPT CLEAR OF LOOSE MATERIAL ETC. SAFE ACCESS & EGRESS SHALL BE PROVIDED AT ALL TIMES.
2. THE TRENCH SHALL BE EXCAVATED TO A WIDTH 1.4 TIMES THE EXTERNAL DIAMETER OF THE PIPE, OR TO THE EXTERNAL DIAMETER OF THE PIPE PLUS 300mm ON EACH SIDE, WHICHEVER IS THE GREATER.

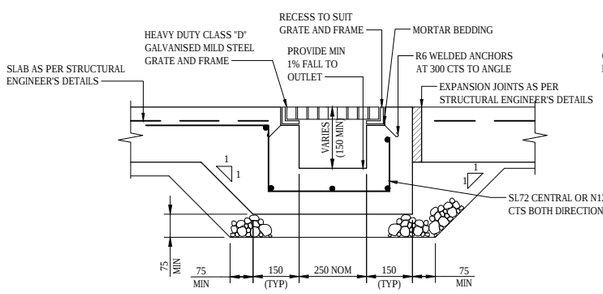


SECTION 1



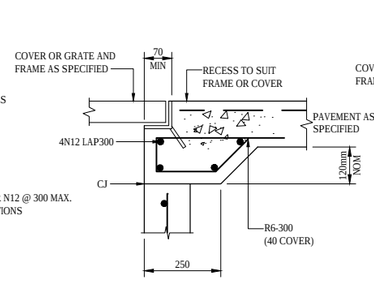
PLAN SURFACE INLET 'SIP' / JUNCTION PIT 'JP'

PIT STRUCTURE TO BE 200mm THICK UNLESS SHOWN OTHERWISE. DRILL AND EPOXY PLASTIC PROPRIETARY STEP IRONS IN ACCORDANCE WITH AUSTRALIAN STANDARDS AND MANUFACTURERS SPECIFICATIONS (PITS > 1000mm DEPTH).
REFER PIT INTERFACE DETAIL 'F' FOR CORNER REINFORCEMENT



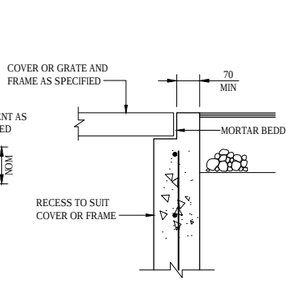
GRATED DRAIN (GTD)

SCALE 1:10



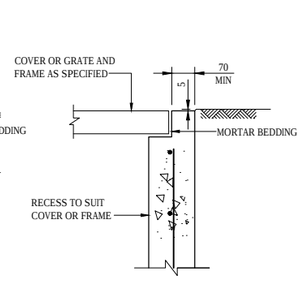
DETAIL 'C'

SCALE 1:10



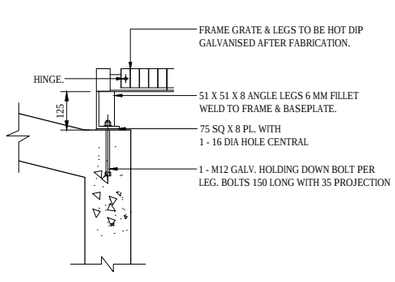
DETAIL 'D'

SCALE 1:10



DETAIL 'E'

SCALE 1:10



DETAIL 'G'

SCALE 1:10

REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023
B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
A	ISSUED FOR APPROVAL	RT	FX	06/09/2023
P2	PRELIMINARY ISSUE	RT	FX	15/08/2023
P1	PRELIMINARY ISSUE	RT	FX	04/08/2023

REVISIONS

BAR SCALES

0 1 2 3 4 5 6m

SCALE 1:100 AT A1 SIZE

CLIENT

PROJECT

30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE

STORMWATER DRAINAGE DETAILS

STATUS

ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	AS SHOWN AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-1470	C

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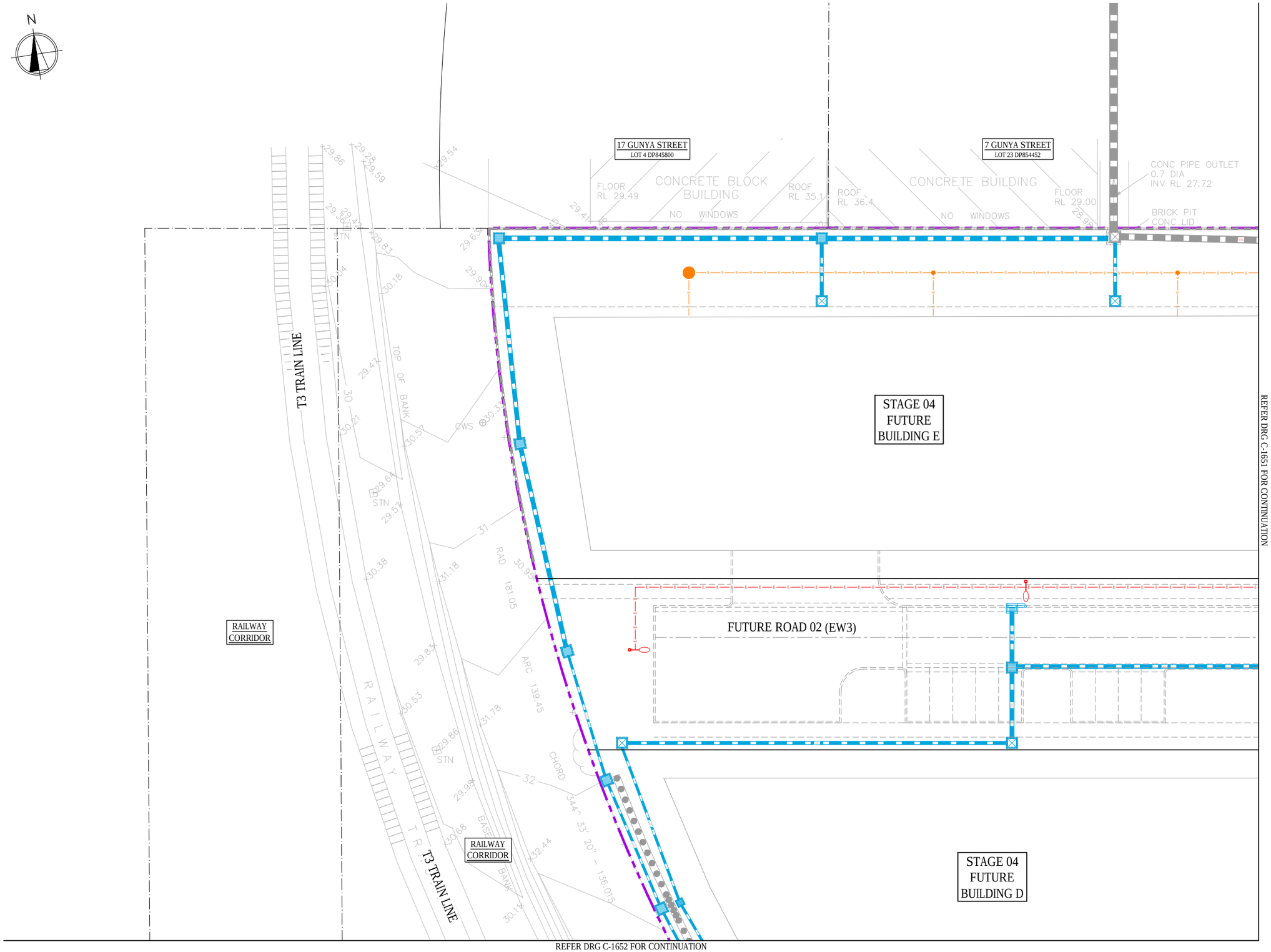

UTILITIES LAYOUT PLAN

SCALE 1:200

LEGEND

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- EXISTING CADASTRAL BOUNDARY

EXISTING	NEW	
		WATER MAIN
		SEWER PIPE
		GAS PIPE
		POWER/ELECTRICAL
		TELSTRA CABLES
		NBN CABLES
		WATER (FIRE MAIN)
		POWER (HIGH VOLTAGE)
		POWER (LOW VOLTAGE)
		IRRIGATION PIPE
		SINGLE LIGHT POLE

NEW

- STORMWATER PIPE
- GROSS POLLUTANT TRAP (GTP)
- GRATED INLET/JUNCTION PIT
- KERB INLET PIT
- INDICATIVE FUTURE SURFACE INLET PIT
- INDICATIVE FUTURE STORMWATER PIPE

NOTES

1. PROPOSED UNDERGROUND UTILITIES ARE SHOWN ON PLAN INDICATIVE ONLY. FINAL LAYOUT IS SUBJECT TO DETAIL DESIGN.

DIAL BEFORE YOU DIG www.1100.com.au

REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023
B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
A	ISSUED FOR APPROVAL	RT	FX	06/09/2023
P2	PRELIMINARY ISSUE	RT	FX	15/08/2023
P1	PRELIMINARY ISSUE	RT	FX	04/08/2023

REVISIONS

BAR SCALES

0 2 4 6 8 10 12m
SCALE 1:200 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: UTILITIES LAYOUT PLAN SHEET 1

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	1:200 AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-1 650	C

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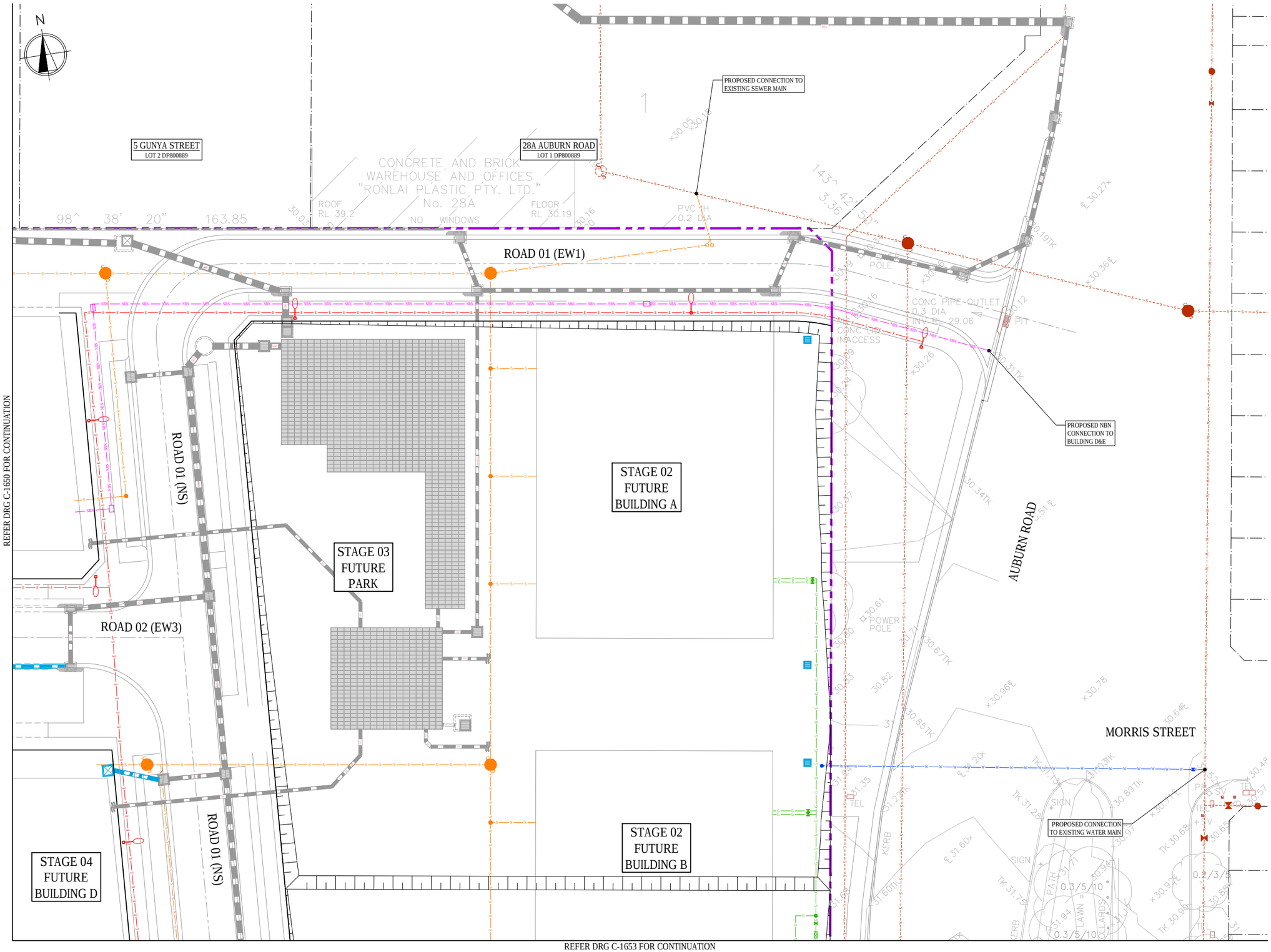

UTILITIES LAYOUT PLAN

SCALE 1:200

LEGEND

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- EXISTING CADASTRAL BOUNDARY

EXISTING	NEW	
		WATER MAIN
		SEWER PIPE
		GAS PIPE
		POWER/ELECTRICAL
		TELSTRA CABLES
		NBN CABLES
		WATER (FIRE MAIN)
		POWER (HIGH VOLTAGE)
		POWER (LOW VOLTAGE)
		IRRIGATION PIPE
		SINGLE LIGHT POLE

NEW

- STORMWATER PIPE
- GROSS POLLUTANT TRAP (GTP)
- GRATED INLET/JUNCTION PIT
- KERB INLET PIT
- INDICATIVE FUTURE SURFACE INLET PIT
- INDICATIVE FUTURE STORMWATER PIPE

NOTES

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REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023
B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
P1	PRELIMINARY ISSUE	RT	FX	05/10/2023

REVISIONS

BAR SCALES

0 2 4 6 8 10 12m
SCALE 1:200 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: UTILITIES LAYOUT PLAN SHEET 2

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	1:200 AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-1651	C

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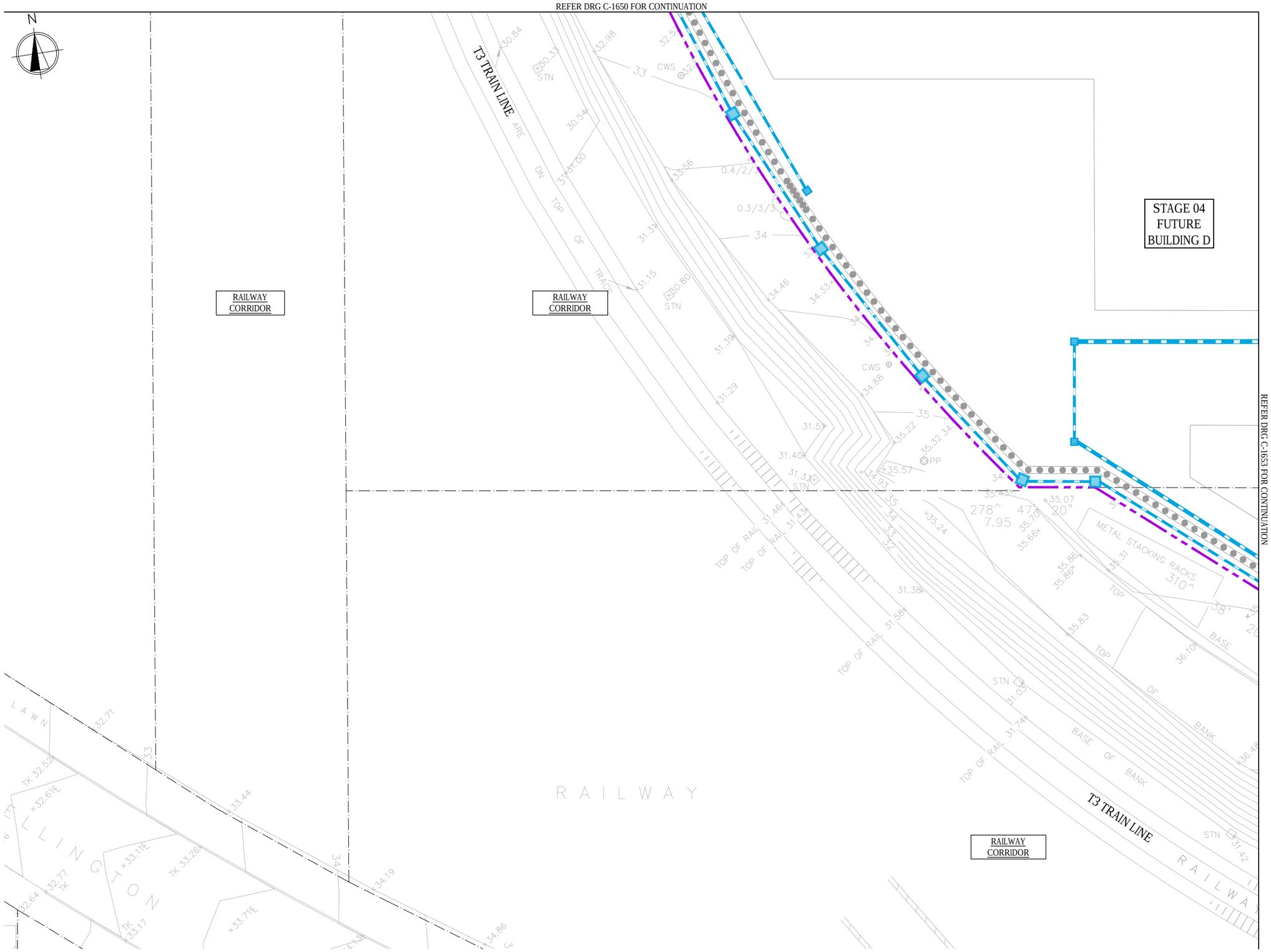

LEGEND

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- EXISTING CADASTRAL BOUNDARY

EXISTING	NEW	
		WATER MAIN
		SEWER PIPE
		GAS PIPE
		POWER/ELECTRICAL
		TELSTRA CABLES
		NBN CABLES
		WATER (FIRE MAIN)
		POWER (HIGH VOLTAGE)
		POWER (LOW VOLTAGE)
		IRRIGATION PIPE
		SINGLE LIGHT POLE

NEW

- STORMWATER PIPE
- GROSS POLLUTANT TRAP (GTP)
- GRATED INLET/JUNCTION PIT
- KERB INLET PIT
- INDICATIVE FUTURE SURFACE INLET PIT
- INDICATIVE FUTURE STORMWATER PIPE

NOTES

1. PROPOSED UNDERGROUND UTILITIES ARE SHOWN ON PLAN INDICATIVE ONLY. FINAL LAYOUT IS SUBJECT TO DETAIL DESIGN.

UTILITIES LAYOUT PLAN

SCALE 1:200

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REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023
B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
P1	PRELIMINARY ISSUE	RT	FX	05/10/2023

REVISIONS

BAR SCALES

0 2 4 6 8 10 12m
SCALE 1:200 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: UTILITIES LAYOUT PLAN SHEET 3

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	1:200 AT A1 SIZE

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www.skyeng.com.au

Project No.	Drawing No.	Issue
SY23-120	-C-1652	C

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REFER DRG C-1651 FOR CONTINUATION

REFER DRG C-1652 FOR CONTINUATION

N

ROAD 01 (NS)

STAGE 03 FUTURE PARK

STAGE 02 FUTURE BUILDING B

STAGE 04 FUTURE BUILDING D

ROAD 01 (EW2)

STAGE 03 FUTURE BUILDING C

AUBURN ROAD

PROPOSED CONNECTION TO EXISTING GAS MAIN

PROPOSED ELECTRICAL CONNECTION TO BUILDING A&B

PROPOSED SUBSTATION

PROPOSED ELECTRICAL CONNECTION TO BUILDING C

PROPOSED ELECTRICAL CONNECTION TO BUILDING D & E.

PROPOSED NBN CONNECTION TO BUILDING C

DECOMMISSION EXISTING HV AND LV TO EXISTING SUBSTATION AND EXISTING DISTRIBUTORS TO BE OFFLOADED TO NEW SUBSTATIONS.

PROPOSED FIRE MAIN TO FEED OFF WATER MAIN

PROPOSED CONNECTION TO EXISTING WATER MAIN

17 GUNYA STREET
LOT 4 DP845800

T3 TRAIN LINE

BM CUT IN KB
RL 32.23 AHD

LEGEND

	LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
	EXISTING CADASTRAL BOUNDARY

EXISTING	NEW	
W	W	WATER MAIN
S	S	SEWER PIPE
G	G	GAS PIPE
E	E	POWER/ELECTRICAL
T	T	TELSTRA CABLES
NBN	NBN	NBN CABLES
F	F	WATER (FIRE MAIN)
HV	HV	POWER (HIGH VOLTAGE)
LV	LV	POWER (LOW VOLTAGE)
IR	IR	IRRIGATION PIPE
		SINGLE LIGHT POLE

NEW

- STORMWATER PIPE
- GROSS POLLUTANT TRAP (GTP)
- GRATED INLET/JUNCTION PIT
- KERB INLET PIT
- INDICATIVE FUTURE SURFACE INLET PIT
- INDICATIVE FUTURE STORMWATER PIPE

NOTES

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UTILITIES LAYOUT PLAN

SCALE 1:200

REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023
B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
P1	PRELIMINARY ISSUE	RT	FX	05/10/2023

REVISIONS

BAR SCALES

0 2 4 6 8 10 12m
SCALE 1:200 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: UTILITIES LAYOUT PLAN SHEET 4

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	1:200 AT A1 SIZE

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www.skyeng.com.au

Project No.	Drawing No.	Issue
SY23-120	-C-1653	C

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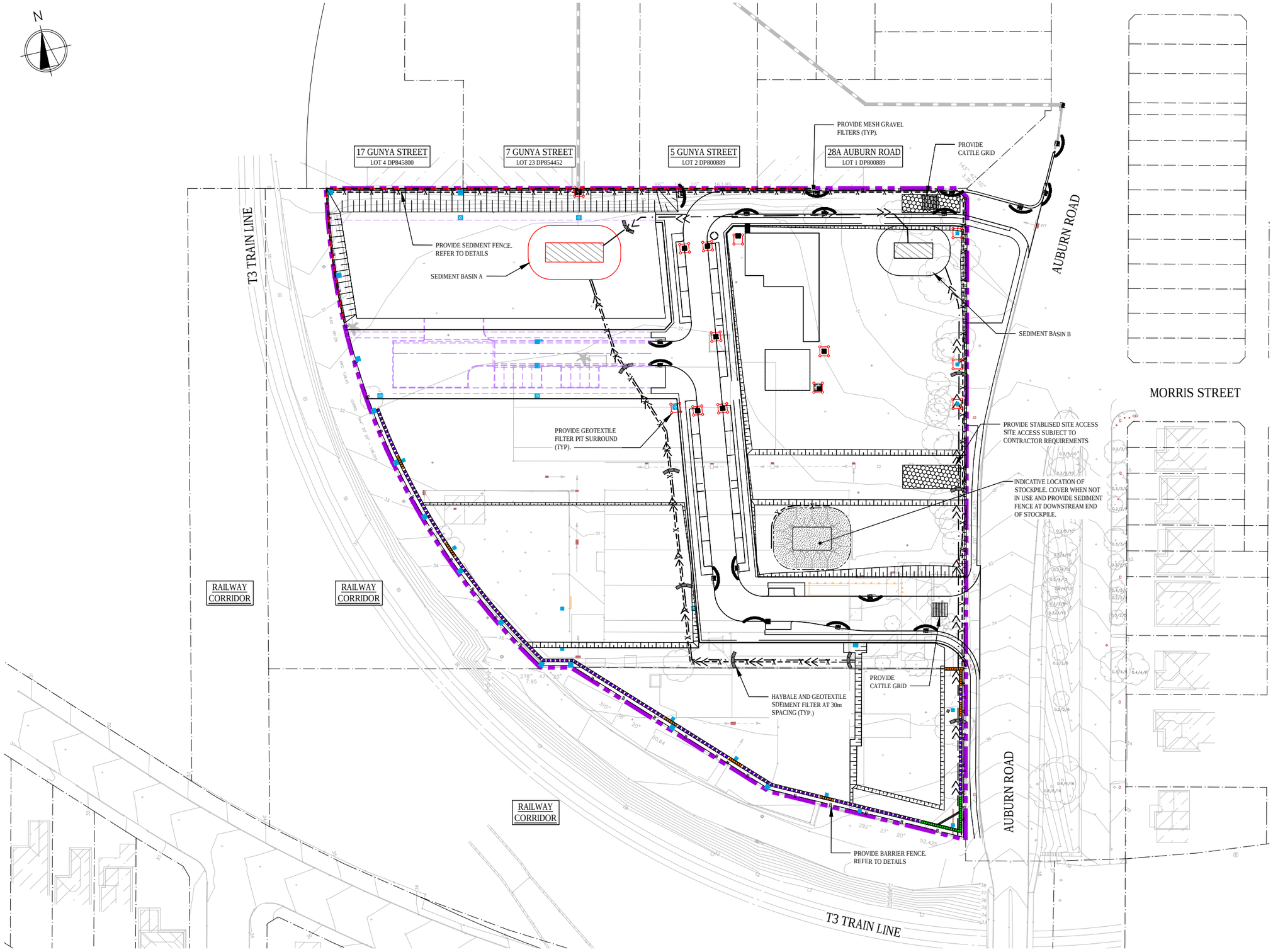


EROSION AND SEDIMENT CONTROL PLAN

SCALE 1:500

LEGEND

EXISTING

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- EXISTING CADASTRAL BOUNDARY
- EXISTING EASEMENT
- EXISTING CADASTRAL TO BE ABANDONED
- EXISTING CONTOURS

NEW

- CONSTRUCTION VEHICLE EXIT
- BARRIER FENCE
- SEDIMENT FENCE
- GEOTEXTILE INLET FILTER TYPE A
- MESH AND GRAVEL INLET FILTER
- STRAW BALE FILTER (SD 6-7)
- DIVERSION DRAIN
- SITE ACCESS GATE

SEDIMENTATION STAGING PLAN

STAGE 01
INTERNAL ROADWORKS AND BULK EARTHWORKS

1. PROVIDE SITE AND SECURITY FENCE
2. PROVIDE SEDIMENT FENCE TO DOWNSTREAM SIDE OF SITE
3. CONSTRUCT SEDIMENT BASIN 'A' & 'B' TO CAPTURE EROSION AND SEDIMENTATION FROM FORMATION OF BULK PAD AND ROAD WORKS.
4. PROVIDE DIVERSION SWALE TO CAPTURE SEDIMENT TOWARDS SEDIMENT BASIN.
5. PROVIDE SANDBAG AND FILTER SURROUND FOR ALL CONSTRUCTED PITS

STAGE 02
BUILDING 'A' & 'B'

6. DECOMMISSION SEDIMENT BASIN 'B' FOR BASEMENT EXCAVATION OF BUILDINGS 'A' & 'B'
7. MAINTAIN EXISTING SEDIMENT BASIN 'A'

STAGE 03
BUILDING 'C' & COMMUNAL PARK

8. PROVIDE SITE FENCING FOR COMMUNAL PARK AND ADDITIONAL SEDIMENT FENCE.
9. MAINTAIN EXISTING SEDIMENT BASIN 'A'

STAGE 03
BUILDING 'D' & 'E'

10. DECOMMISSION SEDIMENT BASIN 'A' FOR BASEMENT EXCAVATION OF BUILDINGS 'D' & 'E'

Total Basin Volume

Site	C	R (-day y-ville)	Total catchment area (ha)	Settling zone volume (m^3)	Sediment storage volume (m^3)	Total basin volume (m^3)
SITE	0.5*	25	2.542	266.9435	135	404.87825
CAT A	0.5*	25	1.4615	186.34726	93	279.01375
CAT B	0.5*	25	0.6595	83.57825	42	125.36475

DIAL BEFORE YOU DIG www.1100.com.au

REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023
B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
A	ISSUED FOR APPROVAL	RT	FX	06/09/2023
P2	PRELIMINARY ISSUE	RT	FX	15/08/2023
P1	PRELIMINARY ISSUE	RT	FX	04/08/2023

REVISIONS

BAR SCALES

0 5 10 15 20 25 30m
SCALE 1:500 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: EROSION AND SEDIMENTATION CONTROL PLAN

STATUS: ISSUED FOR APPROVAL

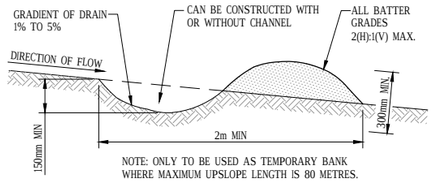
Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	1:400 AT A1 SIZE

SKY Engineering & Project Management
ABN / 72646014342
P / +61 435 144 005
E / admin@skyeng.com.au
www.skyeng.com.au

Project No.	Drawing No.	Issue
SY23-120	-C-1 700	C

F:\SY23-120 Regents Park\Drgs\1000 - Stage 1\AutoCad\SY23-120-C-1700.dwg

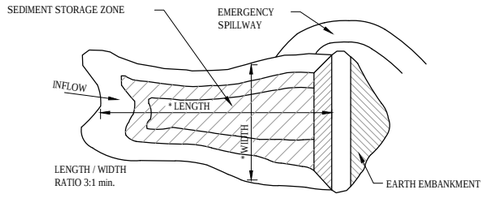


EARTH BANK CONSTRUCTION NOTES:

1. BUILD WITH GRADIENTS BETWEEN 1% AND 5%.
2. AVOID REMOVING TREES AND SHRUBS IF POSSIBLE - WORK AROUND THEM.
3. ENSURE THE STRUCTURES ARE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT COULD IMPEDE WATER FLOW.
4. BUILD THE DRAINS WITH CIRCULAR, PARABOLIC OR TRAPEZOIDAL CROSS-SECTIONS, NOT "V" SHAPED.
5. ENSURE BANKS ARE PROPERLY COMPACTED TO PREVENT FAILURE.
6. COMPLETE PERMANENT OR TEMPORARY STABILISATION WITHIN 10 DAYS OF CONSTRUCTION.

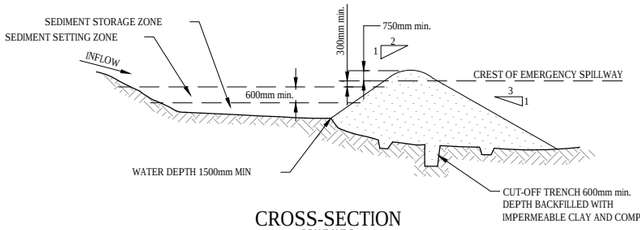
EARTH BANK (LOW FLOW)

SCALE N.T.S



PLAN VIEW

SCALE N.T.S.



CROSS-SECTION

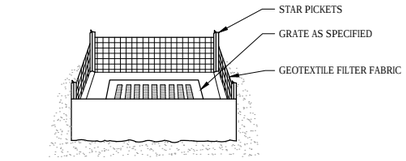
SCALE N.T.S.

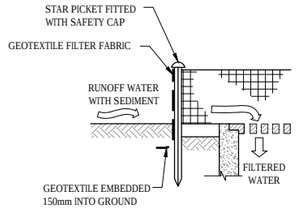
EARTH BASIN WET CONSTRUCTION NOTES:

1. REMOVE ALL VEGETATION AND TOPSOIL FROM UNDER THE DAM WALL AND FROM WITHIN THE STORAGE AREA.
2. * CONSTRUCT A CUT-OFF TRENCH 500mm DEEP AND 1,200mm WIDE ALONG THE CENTRELINE OF THE EMBANKMENT EXTENDING TO A POINT ON THE GULLY WALL LEVEL WITH THE RISER CREST.
3. * MAINTAIN THE TRENCH FREE OF WATER AND RECOMPACT THE MATERIALS WITH EQUIPMENT AS SPECIFIED IN THE SWMP TO 95% STANDARD PROCTOR DENSITY.
4. * SELECT FILL FOLLOWING THE SWMP THAT IS FREE OF ROOTS, WOOD, ROCK, LARGE STONE OR FOREIGN MATERIAL.
5. * PREPARE THE SIRE UNDER THE EMBANKMENT BY RIPPING TO AT LEAST 100mm TO HELP BOND COMPACTED FILL TO THE EXISTING SUBSTRATE.
6. * SPREAD THE FILL IN 100mm TO 150mm LAYERS AND COMPACT IT AT OPTIMUM MOISTURE CONTENT FOLLOWING THE SWMP.
7. CONSTRUCT THE EMERGENCY SPILLWAY.
8. REHABILITATE THE STRUCTURE FOLLOWING THE SWMP.

EARTH BASIN - WET

SCALE: N.T.S



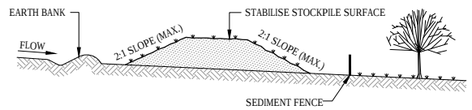


GEOTEXTILE INLET FILTER CONSTRUCTION NOTES:

1. FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE OR STRAW BALES.
2. PICKET SPACING TO BE A MAXIMUM 1.0m CENTRES.
3. IN WATERWAYS, ARTIFICIAL SAG POINTS CAN BE CREATED WITH SANDBAGS OR EARTH BANKS AS SHOWN IN THE DRAWING.
4. DO NOT COVER THE INLET WITH GEOTEXTILES UNLESS THE DESIGN IS ADEQUATE TO ALLOW FOR ALL WATERS TO BYPASS IT.

GEOTEXTILE INLET FILTER - TYPE A

SCALE N.T.S

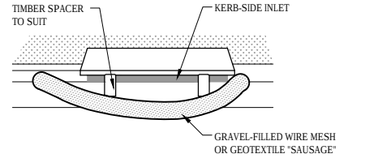


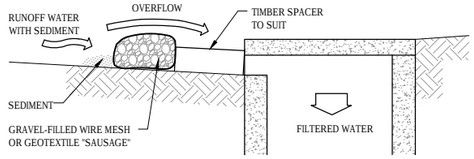
STOCKPILE CONSTRUCTION NOTES:

1. PLACE STOCKPILES MORE THAN 2 (PREFERABLY 5) METRES FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METRES IN HEIGHT.
4. WHERE THEY ARE TO BE PLACE FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED ESCP OR SWMP TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
5. CONSTRUCT EARTH BANKS ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES 1 TO 2 METRES DOWNSLOPE.

STOCKPILES

SCALE N.T.S



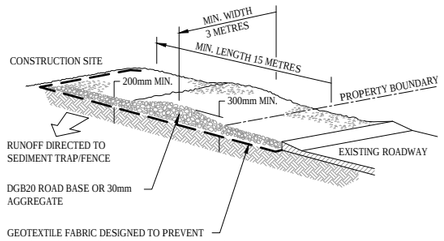


MESH & GRAVEL INLET FILTER CONSTRUCTION NOTES:

1. INSTALL FILTERS TO KERB INLETS ONLY AT SAG POINTS.
2. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT AND FILL IT WITH 25mm TO 50mm GRAVEL.
3. FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm HIGH x 400mm WIDE.
4. PLACE THE FILTER AT THE OPENING LEAVING AT LEAST A 100mm SPACE BETWEEN IT AND THE KERB INLET. MAINTAIN THE OPENING WITH SPACER BLOCKS.
5. FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING THE FILTER.
6. SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY CAN FIRMLY ABUT EACH OTHER AND SEDIMENT-LADEN WATERS CANNOT PASS BETWEEN.

MESH & GRAVEL INLET FILTER

SCALE N.T.S



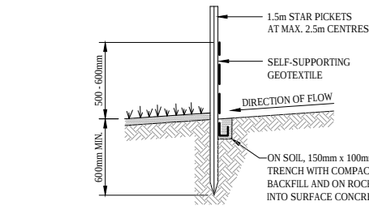
GEOTEXTILE MAY BE A WOVEN OR NEEDLE-PUNCHED PRODUCT WITH A MINIMUM CBR BURST STRENGTH (AS3706.4-90) OF 2500 N.

STABILISED SITE ACCESS CONSTRUCTION NOTES:

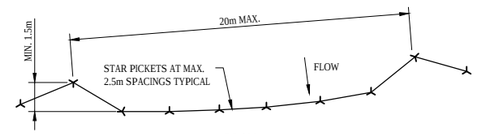
1. STRIP THE TOPSOIL, LEVEL THE SITE AND COMPACT THE SUBGRADE.
2. COVER THE AREA WITH NEEDLE-PUNCHED GEOTEXTILE
3. CONSTRUCT A 200mm THICK PAD OVER THE GEOTEXTILE USING ROAD BASE OR 30mm AGGREGATE.
4. ENSURE THE STRUCTURE IS AT LEAST 15 METRES LONG OR TO BUILDING ALIGNMENT AND AT LEAST 3 METRES WIDE.
5. WHERE A SEDIMENT FENCE JOINS ONTO THE STABILISED ACCESS, CONSTRUCT A HUMP IN THE STABILISED ACCESS TO DIVERT WATER TO THE SEDIMENT FENCE.

STABILISED SITE ACCESS

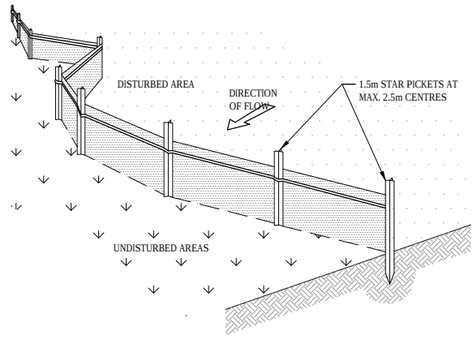
SCALE N.T.S



SECTION DETAIL



PLAN



SEDIMENT FENCE CONSTRUCTION NOTES:

1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
2. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5m LONG STAR PICKETS INTO GROUND AT 2.5m INTERVALS (MAX.) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

SEDIMENT FENCE

SCALE N.T.S

REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023
B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
A	ISSUED FOR APPROVAL	RT	FX	06/09/2023
P2	PRELIMINARY ISSUE	RT	FX	15/08/2023
P1	PRELIMINARY ISSUE	RT	FX	04/08/2023

REVISIONS

BAR SCALES

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: EROSION AND SEDIMENTATION CONTROL DETAILS

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	- AT A1 SIZE

Engineering & Project Management
ABN / 72646014342
P / +61 435 144 005
E / admin@skyeng.com.au
www.skyeng.com.au

Project No.	Drawing No.	Issue
SY23-120	-C-1 750	C

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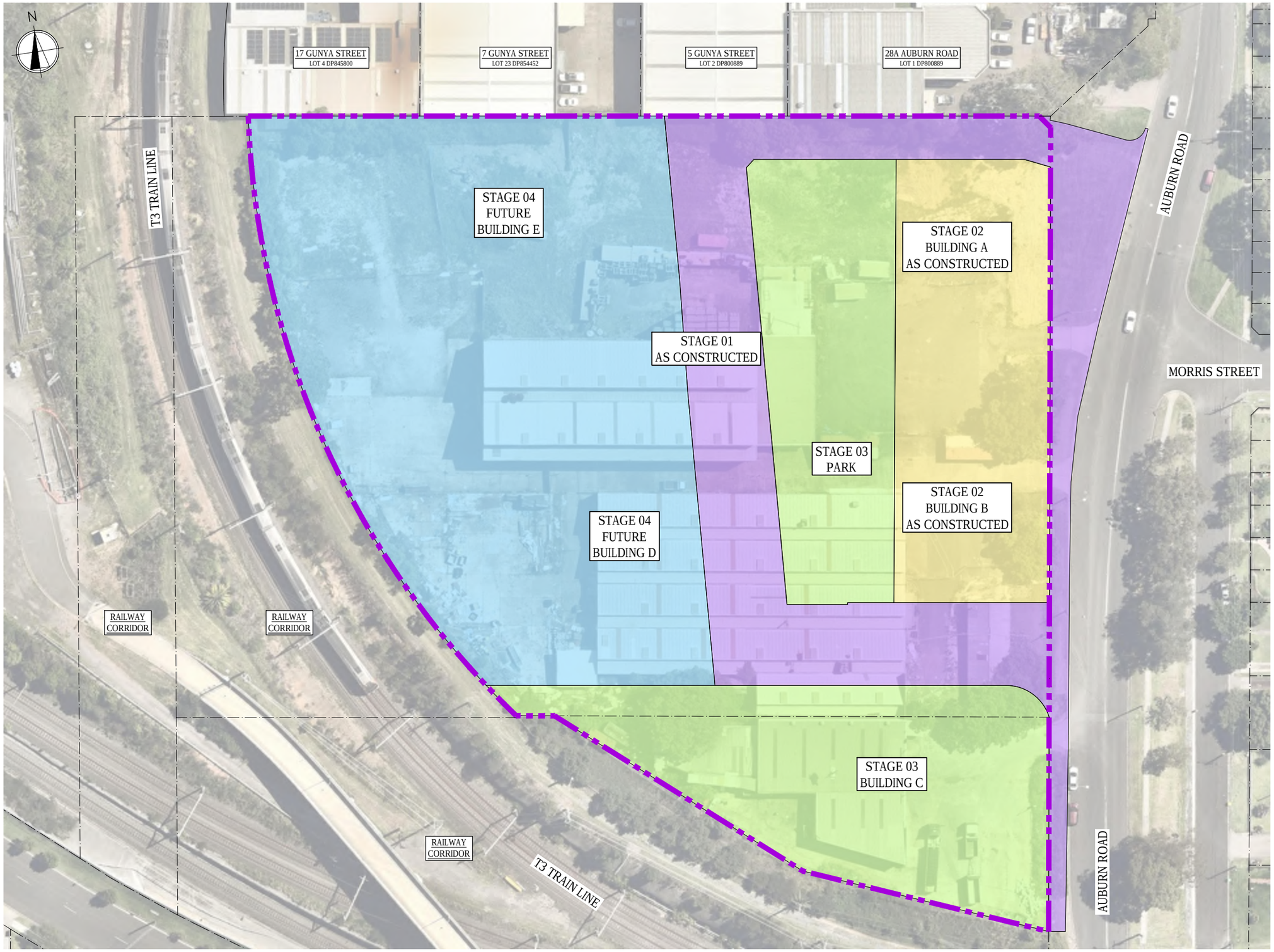
Appendix C – Staging Plan



LEGEND

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- STAGE 01 - ROADWORKS
- STAGE 02 - BUILDING A & B
- STAGE 03 - BUILDING C & COMMUNAL PARK
- STAGE 04 - BUILDING D & E

STAGING PLAN

SCALE 1:400

DIAL BEFORE YOU DIG www.1100.com.au

REV	DESCRIPTION	BY	APRVD	DATE
P1	ISSUED FOR DRAFT	JC	FX	10/01/2025

REVISIONS

BAR SCALES

0 4 8 12 16 20 24m
SCALE 1:400 AT A1 SIZE

CLIENT

30 AUBURN ROAD PTY. LTD.

PROJECT

30-46 AUBURN ROAD
REGENTS PARK NSW 2143
STAGE 3 - BUILDING
& CARPARK DEVLOPMENT

TITLE

STAGING PLAN

STATUS

ISSUED FOR DRAFT

Drawn	Designed	Checked	Approved
RT	RT	FX	FX

Height Datum	Grid	SCALE	
AHD	MGA	1:400	AT A1 SIZE

Engineering & Project Management
ABN / 72646014342
P / +61 435 144 005
E / admin@skyeng.com.au
www.skyeng.com.au

Project No.	Drawing No.	Issue
SY23-120	-C-3005	P1

F:\SY23-120 Regents Park\Drgs\3000 - Stage 3\AutoCad\SY23-120-C-3005.dwg

Appendix D – Council Stormwater System Report

Level 1, 66 - 72 Rickard Road, Bankstown NSW
PO Box 8, Bankstown NSW 1885
Tel: (02) 9707 9020 - Fax: (02) 9707 9560
DX 11220 BANKSTOWN
council@bankstown.nsw.gov.au

CANTERBURY-BANKSTOWN COUNCIL

To: Stanisic Architects
Level 2
243 Liverpool St
EAST SYDNEY NSW 2000

STORMWATER SYSTEM REPORT
30 - 46 Auburn Road, REGENTS PARK NSW 2143

Date: 23-Nov-2016
Ref: WP-SIA/1414/2016
Development type: **Residential Flat Building**

NO	FLOOD/OVERLAND FLOW STUDY REQUIRED

The site may be affected by the following Council stormwater system components:

- Overland flowpath [floodway] for excess stormwater runoff from the upstream catchment and associated with the drainage system located North & East of the site.

- Stormwater inundation from excess stormwater runoff from the upstream catchment and associated with the drainage system through Auburn Road.

The north-east corner of the site may be subject to stormwater inundation from this overland flowpath during large storm events. Refer to the attached **"100 Year ARI Flood Extent Maps from Duck River Catchment Study"** showing the flood contours to m AHD**. Provision should be made on site, and at boundary fences, for this stormwater runoff to pass unobstructed over the site. Stormwater flowing naturally onto the site must not be impeded or diverted.

The designed 100 year ARI* flood level at the site is RL 30.5 m AHD.**

For this development, a flood /overland flow] study to determine the 100 year ARI* water surface level is not necessary.

The Development Application submission shall be based on an AHD datum for levels where sites are affected by overland flow / flooding. Refer Bankstown Council's *Development Engineering Standards**.**

The proposed development including floor levels, shall comply with the development controls specified in Part B12 Schedule 5, of Bankstown's Development Control Plan 2015 - Catchments Affected by Stormwater Flooding.

Habitable floor levels are to be at least 500mm above the 100 year ARI* flood level at the site.

Runoff on the site, and naturally draining to it is to be collected and disposed of to Council's requirements detailed in Bankstown Council's *Development Engineering Standards****.

This report is given without the benefit of development plans or a site survey.

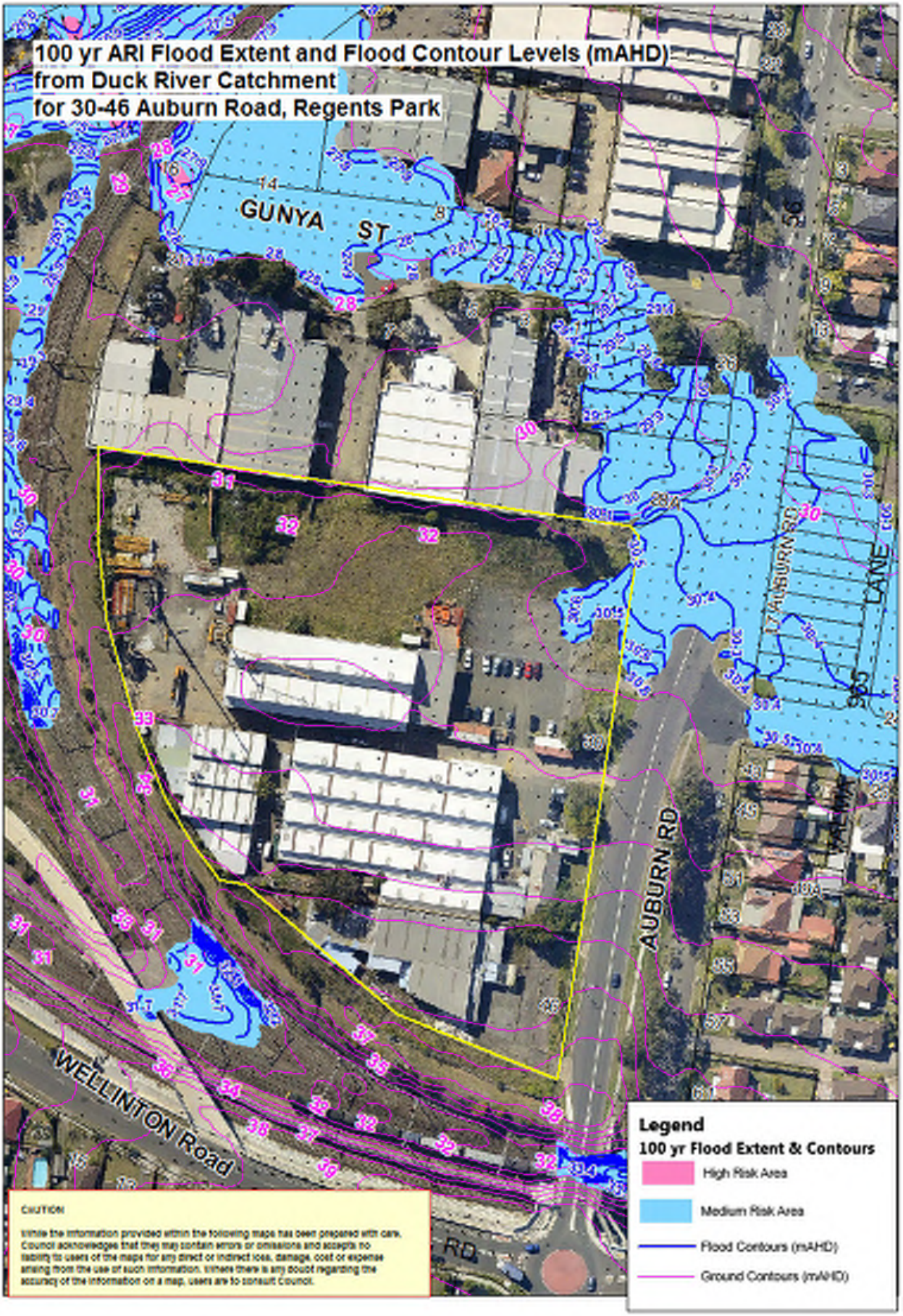
This report relates to the exposure of the subject site to Council's stormwater system, both underground and overland. It does not assess the suitability or otherwise of this site for the proposed development.

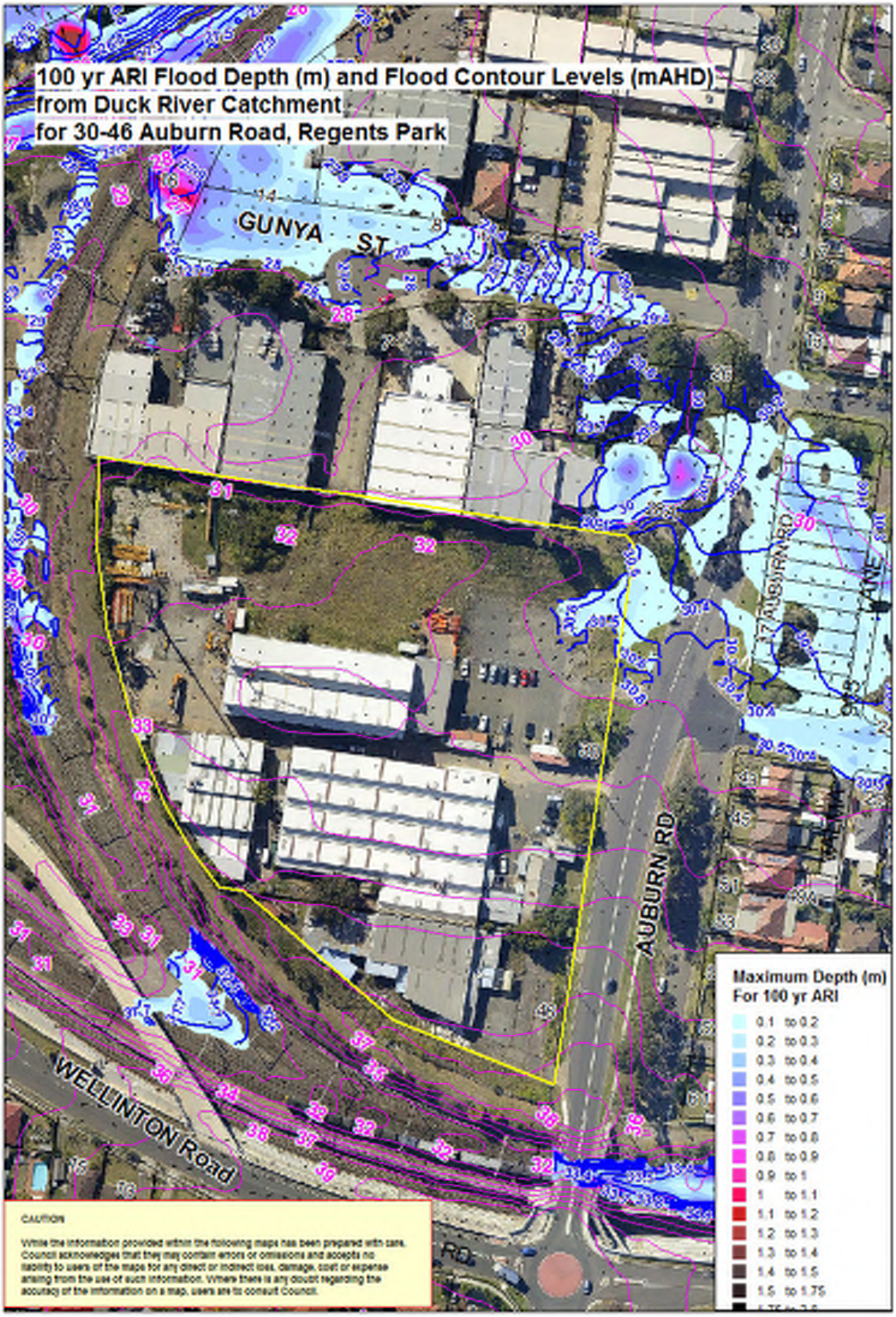
* Average Recurrence Interval

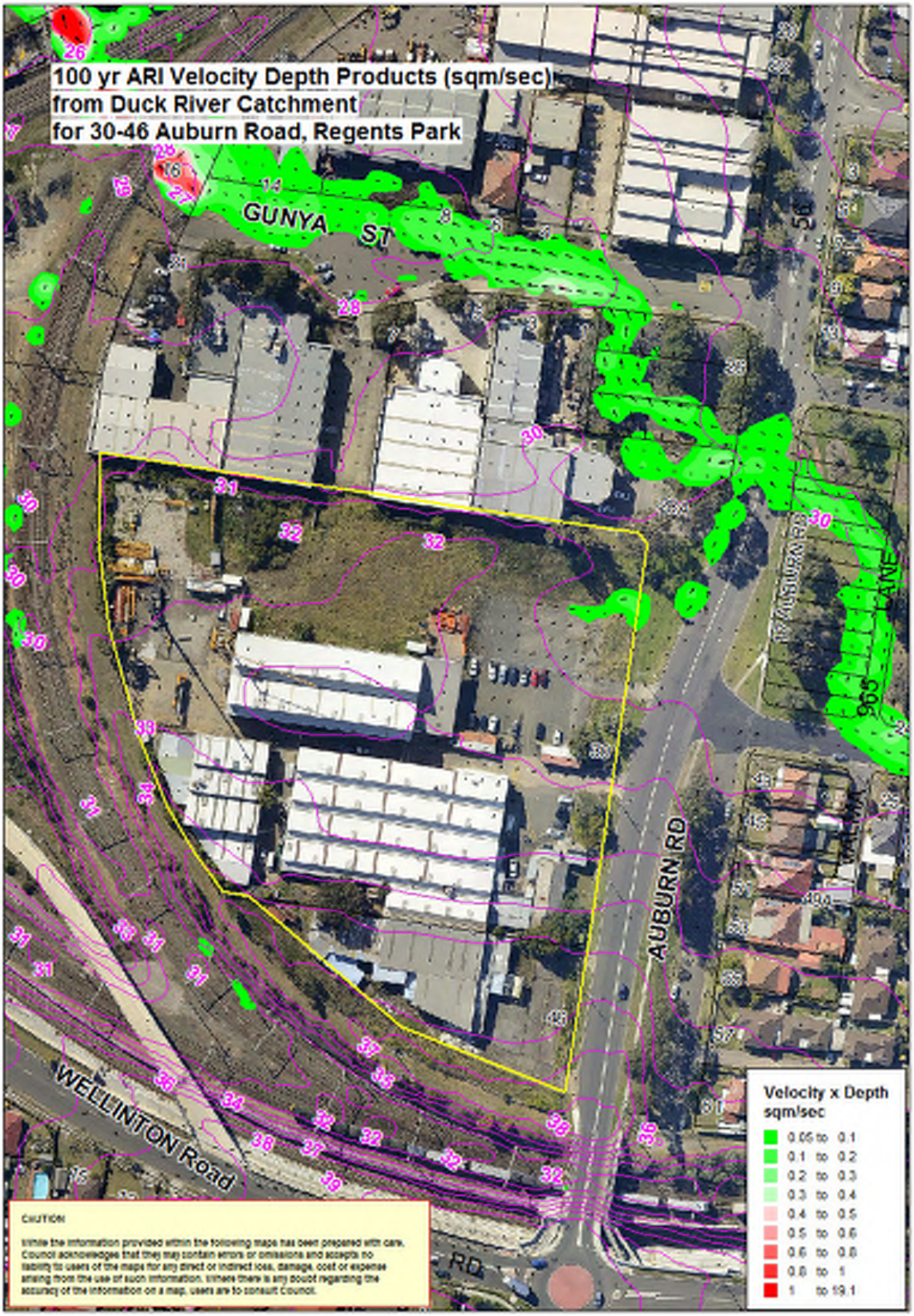
** Australian Height Datum

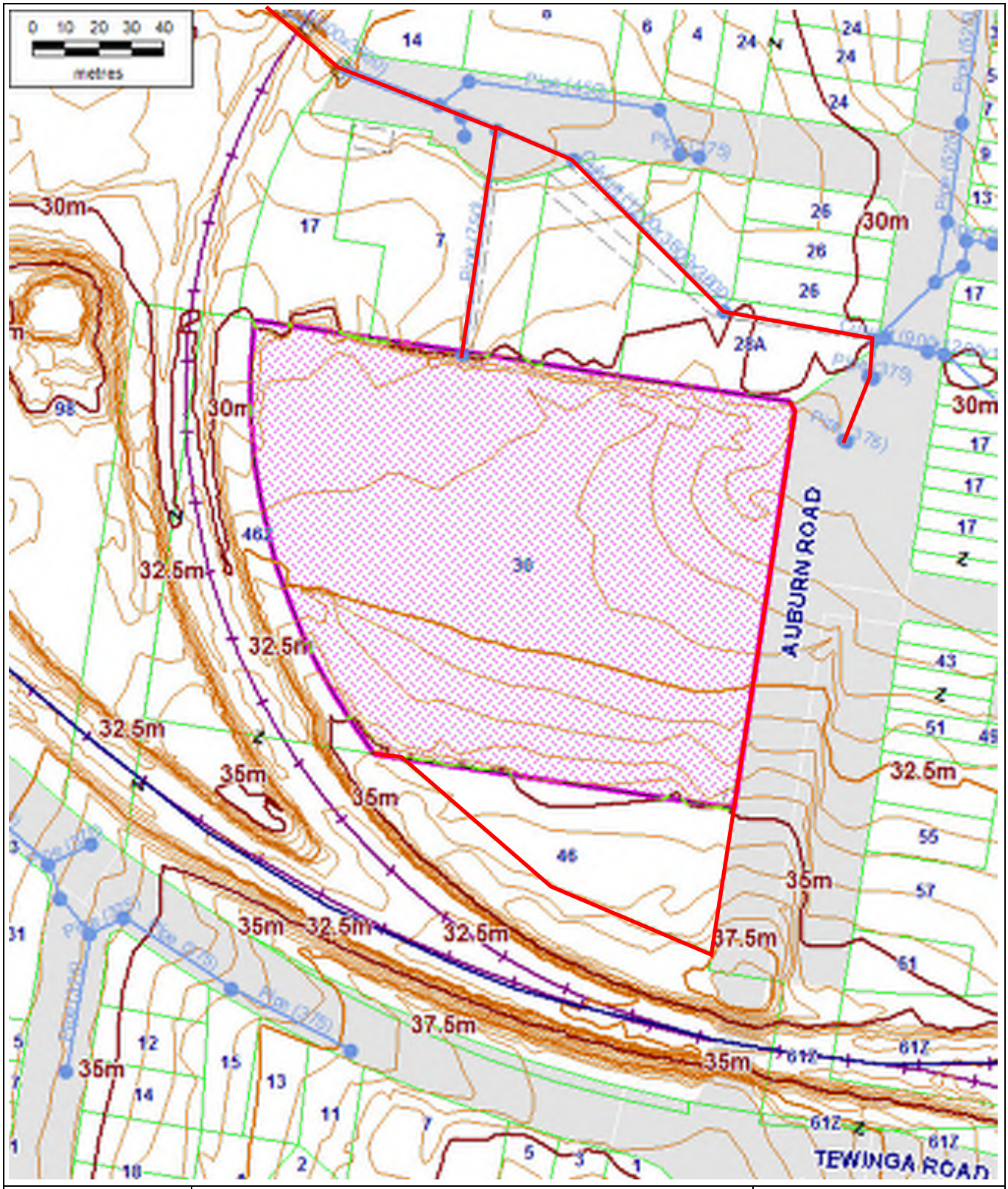
*** Bankstown Council's *Development Engineering Standards* and *Bankstown's Development Control Plan 2015* is available from Council's Customer Service Centre, and from http://www.bankstown.nsw.gov.au/planb/guidelines/dcp.cfm

Pushpa Goonetilleke
ENGINEER


100 yr ARI Flood Extent and Flood Contour Levels (mAHD)
from Duck River Catchment
for 30-46 Auburn Road, Regents Park
GUNYA ST
AUBURN RD
WELLINGTON Road
RD
LANE
CAUTION
While the information provided within the following maps has been prepared with care, Council acknowledges that they may contain errors or omissions and accepts no liability to users of the maps for any direct or indirect loss, damage, cost or expense arising from the use of such information. Where there is any doubt regarding the accuracy of the information on a map, users are to consult Council.
Legend
100 yr Flood Extent & Contours
High Risk Area
Medium Risk Area
Flood Contours (mAHD)
Ground Contours (mAHD)


100 yr ARI Flood Depth (m) and Flood Contour Levels (mAHD)
from Duck River Catchment
for 30-46 Auburn Road, Regents Park
GUNYA ST
AUBURN RD
AUBURN RD
WELLINTON Road
Maximum Depth (m)
For 100 yr ARI
0.1 to 0.2
0.2 to 0.3
0.3 to 0.4
0.4 to 0.5
0.5 to 0.6
0.6 to 0.7
0.7 to 0.8
0.8 to 0.9
0.9 to 1
1 to 1.1
1.1 to 1.2
1.2 to 1.3
1.3 to 1.4
1.4 to 1.5
1.5 to 1.75
CAUTION
While the information provided within the following maps has been prepared with care, Council acknowledges that they may contain errors or omissions and accepts no liability to users of the maps for any direct or indirect loss, damage, cost or expense arising from the use of such information. Where there is any doubt regarding the accuracy of the information on a map, users are to consult Council.


100 yr ARI Velocity Depth Products (sqm/sec)
from Duck River Catchment
for 30-46 Auburn Road, Regents Park
GUNYA ST
AUBURN RD
WELLINGTON Road
RD
Velocity x Depth
sqm/sec
0.05 to 0.1
0.1 to 0.2
0.2 to 0.3
0.3 to 0.4
0.4 to 0.5
0.5 to 0.6
0.6 to 0.8
0.8 to 1
1 to 19.1
CAUTION
While the information provided within the following maps has been prepared with care, Council acknowledges that they may contain errors or omissions and accepts no liability to users of the maps for any direct or indirect loss, damage, cost or expense arising from the use of such information. Where there is any doubt regarding the accuracy of the information on a map, users are to consult Council.



1:1,691
24 November 2016

30-46 Auburn Road, Regents Park

GIS Map

DISCLAIMER: COUNCIL EXPRESSLY DISCLAIMS ALL LIABILITY FOR ERRORS OR OMISSIONS.
THIS PLAN HAS NO LEGAL STANDING

The NEW City of CANTERBURY BANKSTOWN

1:1,691
24 November 2016

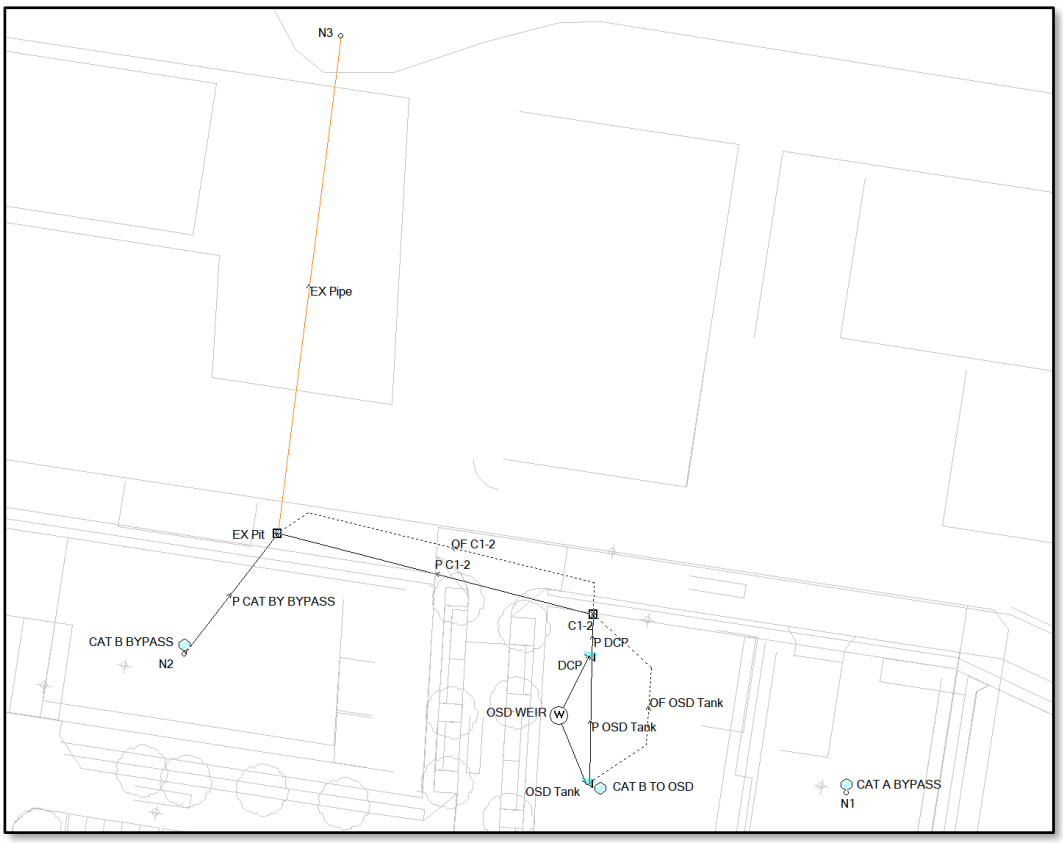
30-46 Auburn Road, Regents Park

Aerial Map Map

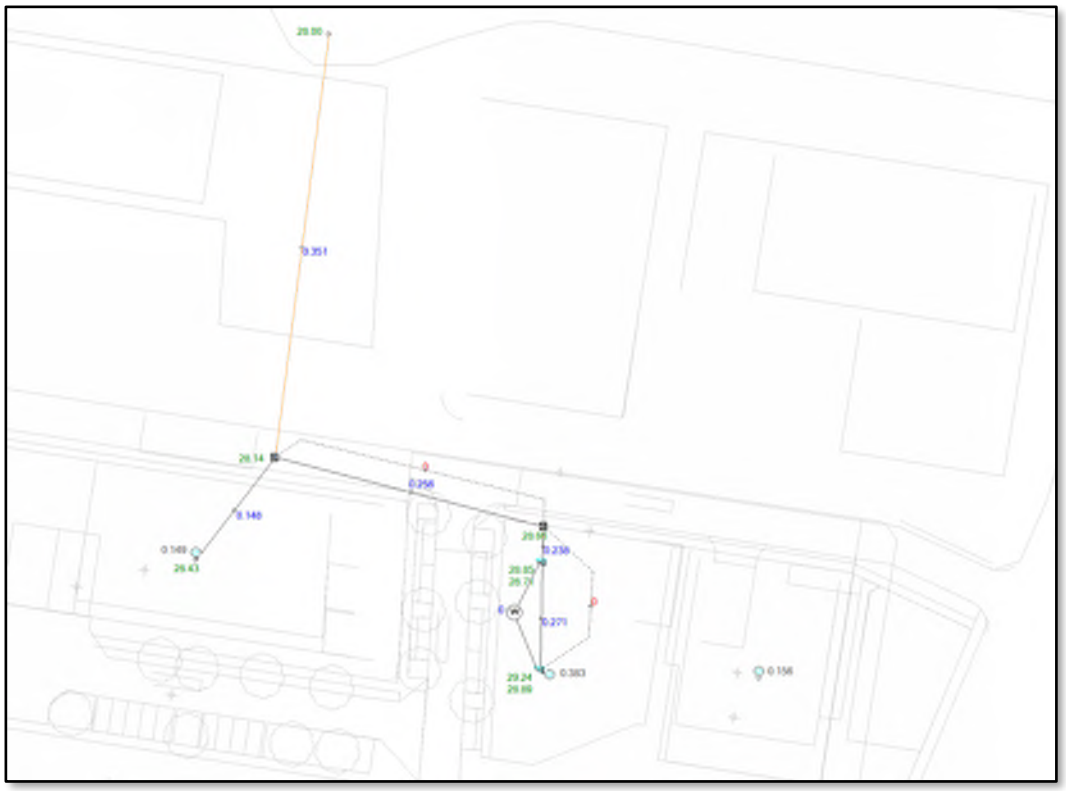
DISCLAIMER: COUNCIL EXPRESSLY DISCLAIMS ALL LIABILITY FOR ERRORS OR OMISSIONS.
THIS PLAN HAS NO LEGAL STANDING

The NEW City of CANTERBURY BANKSTOWN

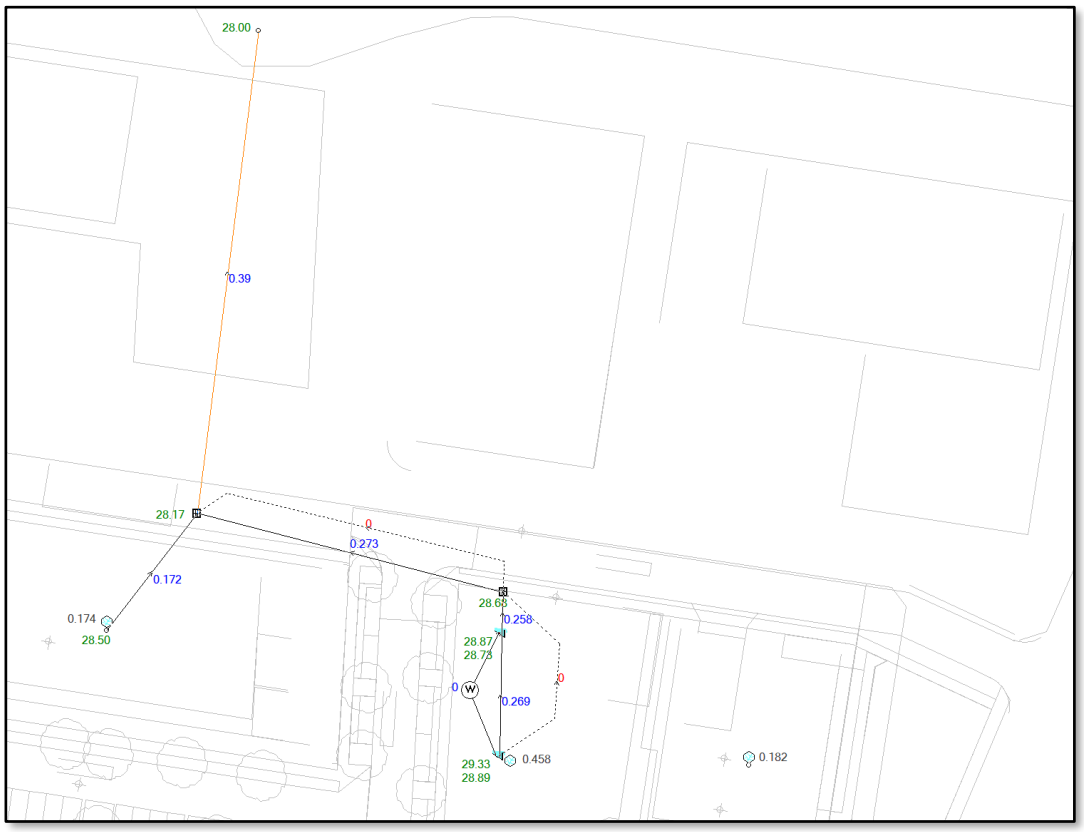
Appendix E – DRAINS Layout



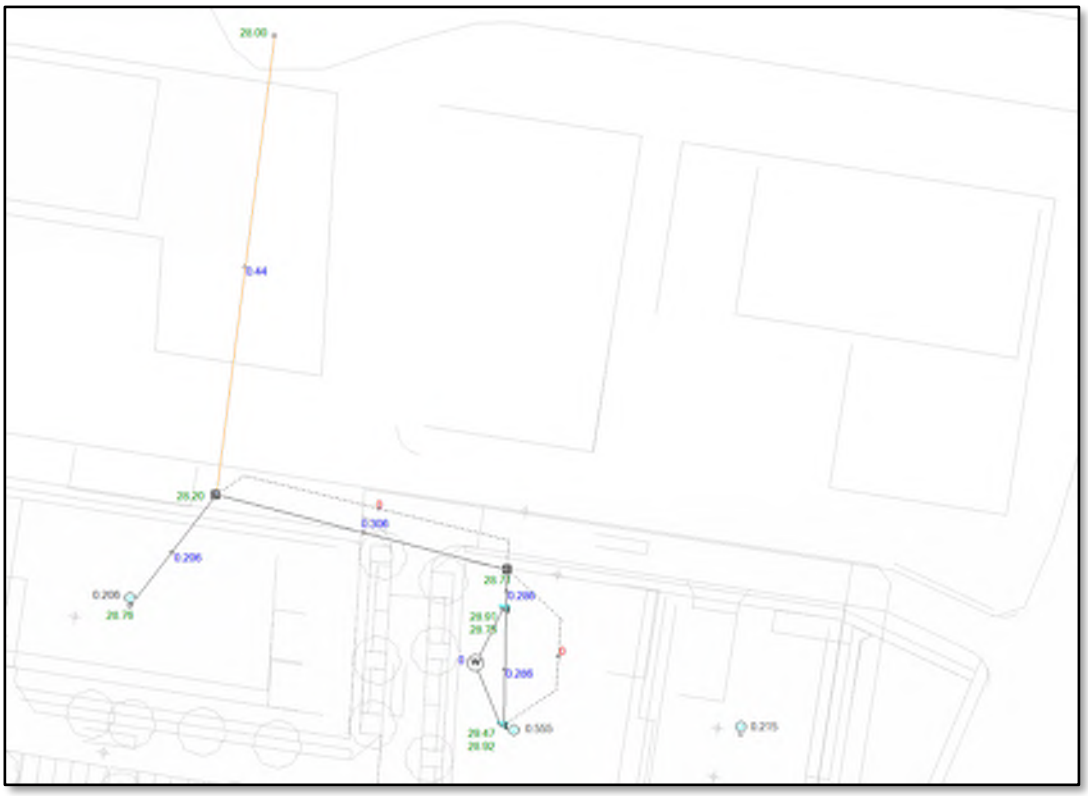
DRAINS (ILSAX) Model Layout



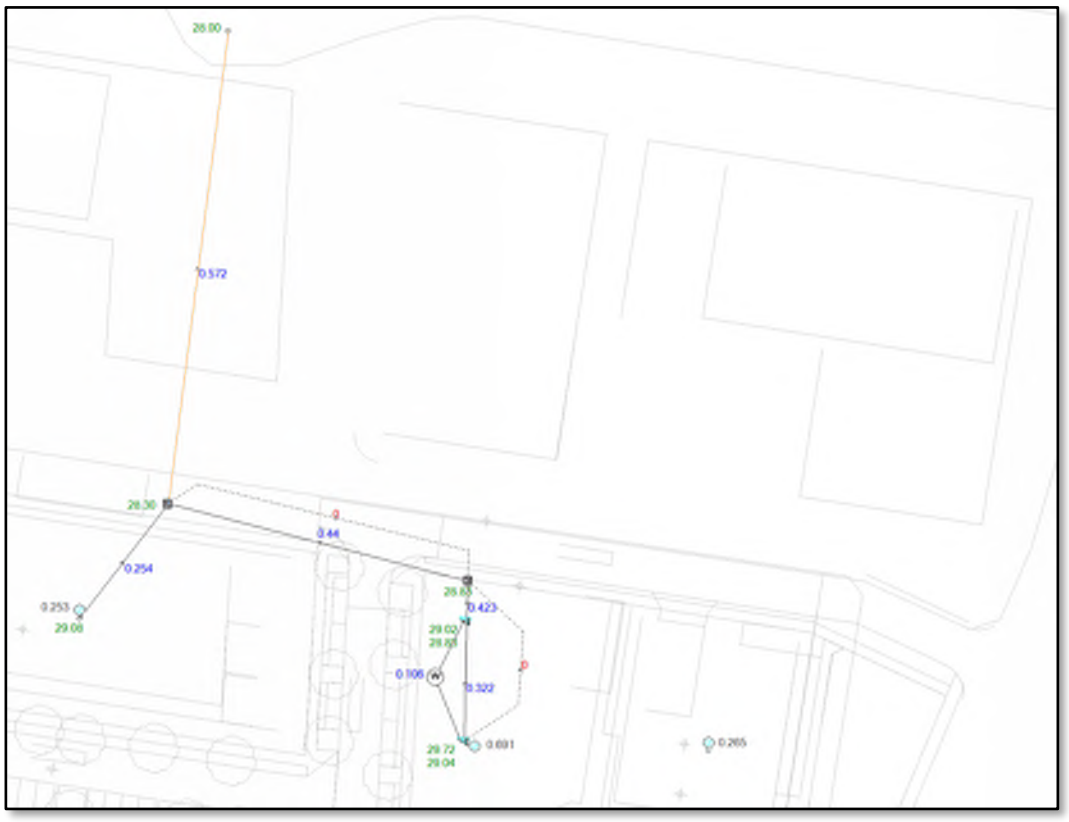
20% AEP Storm Event



10% AEP Storm Event



5% AEP Storm Event



1% AEP Storm Event

Appendix F – Water Quality Targets Correspondence with Canterbury – Bankstown Council Engineer

Lal, Harshil

From: Lal, Harshil
Sent: Friday, 5 November 2021 12:59 PM
To: 'Monir.Korkis@cbcity.nsw.gov.au'
Cc: Moreno, Miqueas
Subject: 301350631 - 30-46 Auburn Road, Regents Park (Stormwater Quality Requirements)

Hi Monir,

Thank you for your time earlier this morning.

As discussed, you have confirmed that Canterbury-Bankstown City Council does not have any specific stormwater quality requirements pertaining to this site (30-46 Auburn Road, Regents Park) and stormwater quality requirements are up to the discretion of the consultant.

For your reference, the location of the project is indicated below:

Please let me know if you have any questions.

Kind regards,

Harshil Lal
Undergraduate Civil Engineer

Harshil.Lal@stantec.com

Stantec
Level 6, Building B, 207 Pacific Highway
Sydney NSW 2065
AUSTRALIA

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Moreno, Miqueas

From: Monir Korkis <Monir.KORKIS@cbcity.nsw.gov.au>
Sent: Thursday, 25 November 2021 9:10 AM
To: Moreno, Miqueas
Subject: RE: 301350631 - 30-46 Auburn Road, Regents Park (Stormwater Quality Requirements)

Hi Miqueas,

On-site Detention (OSD) will be required for any proposed development on this site. The relevant control (attached to your email) does not apply here, simply because pre-development runoff from the site, cannot be calculated at a point of discharge into receiving system, because the existing structures (large sheds) and surfaces lack necessary stormwater network system, and therefore; cannot be compared with new development where all impervious (roof + surfaces) will be captured in new constructed stormwater system, which will produce high runoff concentration streamlined via network of pipes and pits and subsequently discharged via a controlled point.

Hope this clears all your concerns

Regards

Monir Korkis - Development Engineer
T 9707 9485 **M** 0407 418 019
E Monir.Korkis@cbcity.nsw.gov.au
www.cbcity.nsw.gov.au

@ourcbcity
Like & follow us

From: Moreno, Miqueas <Miqueas.Moreno@stantec.com>
Sent: Monday, 22 November 2021 12:21 PM
To: Monir Korkis <Monir.KORKIS@cbcity.nsw.gov.au>

Cc: Lal, Harshil <Harshil.Lal@stantec.com>
Subject: RE: 301350631 - 30-46 Auburn Road, Regents Park (Stormwater Quality Requirements)

Hi Monir,

Thank you for your time early on the phone.

As discussed, we want to clarify the OSD requirements for the site. As I mentioned, the Development Engineering Standards for City of Bankstown state the following:

10 ON-SITE DETENTION (OSD) SYSTEMS

10.1 General

10.1.1 Applicability

On Site Detention (OSD) is required where an increase in stormwater runoff, fro new development site, has an adverse affect to the receiving stormwater sys Provision of OSD is intended to reduce the potential for local flooding and damag existing properties by limiting runoff from new developments, to pre-developed level suitably qualified Civil Engineer shall be engaged to prepare calculations and desig accordance with these requirements. Notwithstanding the following criteria, Co may consider the need for OSD on a case-by-case basis where justified by so engineering principles.

10.1.2 Exemption To OSD

OSD will not be required where:

- It is proven to Council's satisfaction that the lack of OSD will not hav adverse effect on downstream drainage systems. A full local catchr analysis may be required. Developers are advised to contact Cour

Development Engineer to find out specific OSD requirements for catchment,

- single dwellings, family housing, outbuildings, have a combined imperv area of no more than 75% of the site area,
- dual occupancies have an impervious area of no more than 66% of the area,
- development / redevelopment is proposed which does not signific increase the post development stormwater run off from the site.
- A subdivision of land is proposed that does not involve the creation of a reserve. Council may require OSD as part of the future development or

It is noted that the proposed development will decrease the impervious area in about 6% from the existing 71% to 65%. Given this situation can you please confirm if OSD will be required and if so under which parameters we must be designed (Permissible Site Discharge/Volume)

Please let me know if you require any further information.

Regards,
Miqueas Moreno
Senior Civil Engineer

Direct: +61 2 8484 7096
Miqueas.Moreno@stantec.com

Stantec Australia Pty Ltd
Level 6, Building B, 207 Pacific Hwy
St Leonards
New South Wales 2065

Stantec

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From: Lal, Harshil <Harshil.Lal@stantec.com>
Sent: Friday, 5 November 2021 12:59 PM
To: Monir.Korkis@cbcity.nsw.gov.au
Cc: Moreno, Miqueas <Miqueas.Moreno@stantec.com>
Subject: 301350631 - 30-46 Auburn Road, Regents Park (Stormwater Quality Requirements)

Hi Monir,

Thank you for your time earlier this morning.

As discussed, you have confirmed that Canterbury-Bankstown City Council does not have any specific stormwater quality requirements pertaining to this site (30-46 Auburn Road, Regents Park) and stormwater quality requirements are up to the discretion of the consultant.

For your reference, the location of the project is indicated below:

Please let me know if you have any questions.

Kind regards,

Harshil Lal
Undergraduate Civil Engineer

Harshil.Lal@stantec.com

Stantec
Level 6, Building B, 207 Pacific Highway
Sydney NSW 2065
AUSTRALIA

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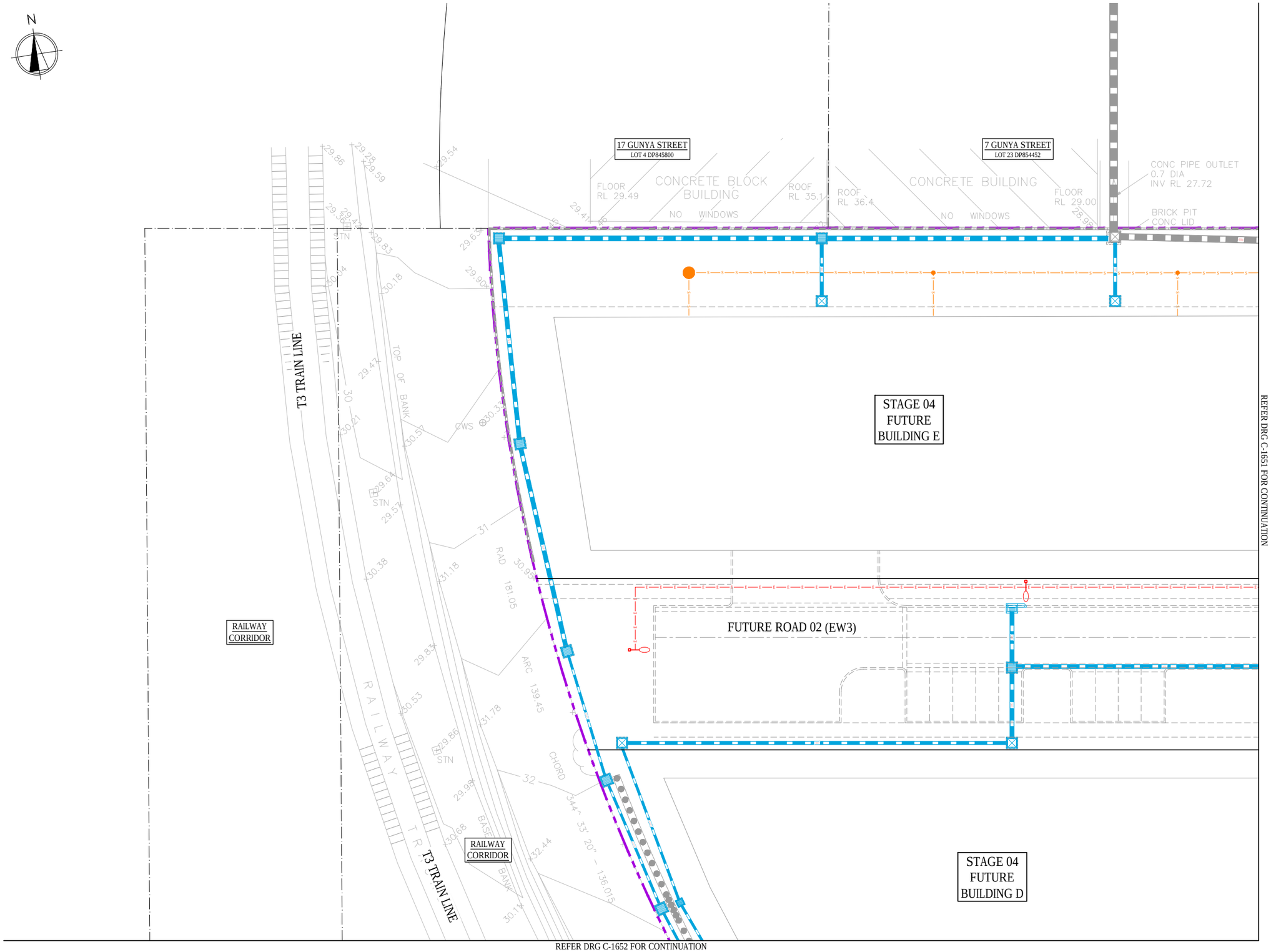
Appendix G – Stage 01 - Proposed Services and Road Layout Plan



UTILITIES LAYOUT PLAN

SCALE 1:200

LEGEND

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- EXISTING CADASTRAL BOUNDARY

EXISTING	NEW	
		WATER MAIN
		SEWER PIPE
		GAS PIPE
		POWER/ELECTRICAL
		TELSTRA CABLES
		NBN CABLES
		WATER (FIRE MAIN)
		POWER (HIGH VOLTAGE)
		POWER (LOW VOLTAGE)
		IRRIGATION PIPE
		SINGLE LIGHT POLE

NEW

- STORMWATER PIPE
- GROSS POLLUTANT TRAP (GTP)
- GRATED INLET/JUNCTION PIT
- KERB INLET PIT
- INDICATIVE FUTURE SURFACE INLET PIT
- INDICATIVE FUTURE STORMWATER PIPE

NOTES

1. PROPOSED UNDERGROUND UTILITIES ARE SHOWN ON PLAN INDICATIVE ONLY. FINAL LAYOUT IS SUBJECT TO DETAIL DESIGN.

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REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023
B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
A	ISSUED FOR APPROVAL	RT	FX	06/09/2023
P2	PRELIMINARY ISSUE	RT	FX	15/08/2023
P1	PRELIMINARY ISSUE	RT	FX	04/08/2023

REVISIONS

BAR SCALES

0 2 4 6 8 10 12m
SCALE 1:200 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: UTILITIES LAYOUT PLAN SHEET 1

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	1:200 AT A1 SIZE

Engineering & Project Management
ABN / 72646014342
P / +61 435 144 005
E / admin@skyeng.com.au
www.skyeng.com.au

Project No.	Drawing No.	Issue
SY23-120	-C-1 650	C

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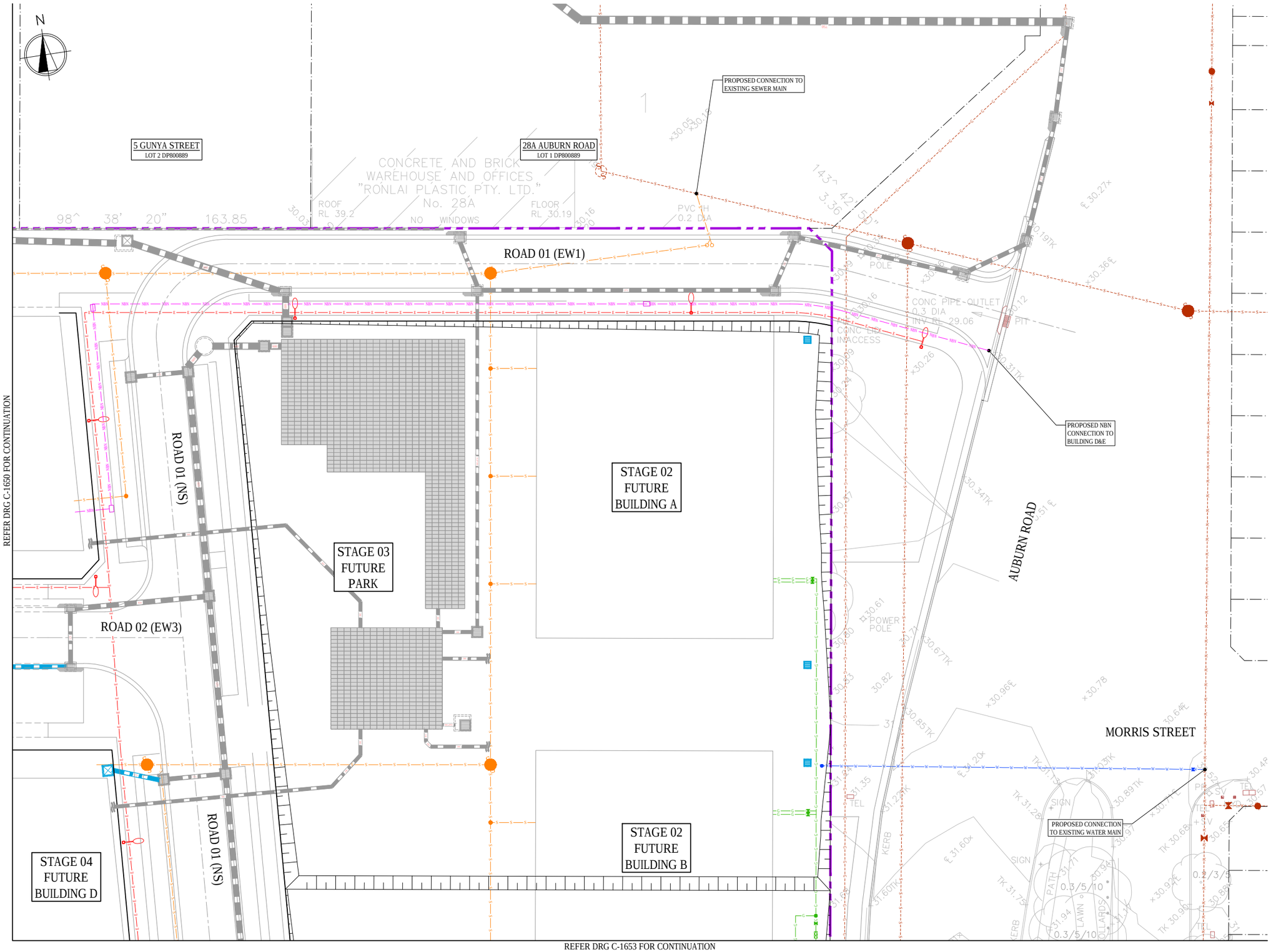

UTILITIES LAYOUT PLAN

SCALE 1:200

LEGEND

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- EXISTING CADASTRAL BOUNDARY

EXISTING	NEW	
		WATER MAIN
		SEWER PIPE
		GAS PIPE
		POWER/ELECTRICAL
		TELSTRA CABLES
		NBN CABLES
		WATER (FIRE MAIN)
		POWER (HIGH VOLTAGE)
		POWER (LOW VOLTAGE)
		IRRIGATION PIPE
		SINGLE LIGHT POLE

NEW

- STORMWATER PIPE
- GROSS POLLUTANT TRAP (GTP)
- GRATED INLET/JUNCTION PIT
- KERB INLET PIT
- INDICATIVE FUTURE SURFACE INLET PIT
- INDICATIVE FUTURE STORMWATER PIPE

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REV	DESCRIPTION	BY	APRVD	DATE
C	ISSUED FOR APPROVAL	RT	FX	05/12/2023
B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
P1	PRELIMINARY ISSUE	RT	FX	05/10/2023

REVISIONS

BAR SCALES

0 2 4 6 8 10 12m
SCALE 1:200 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: UTILITIES LAYOUT PLAN SHEET 2

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	1:200 AT A1 SIZE

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www.skyeng.com.au

Project No.	Drawing No.	Issue
SY23-120	-C-1651	C

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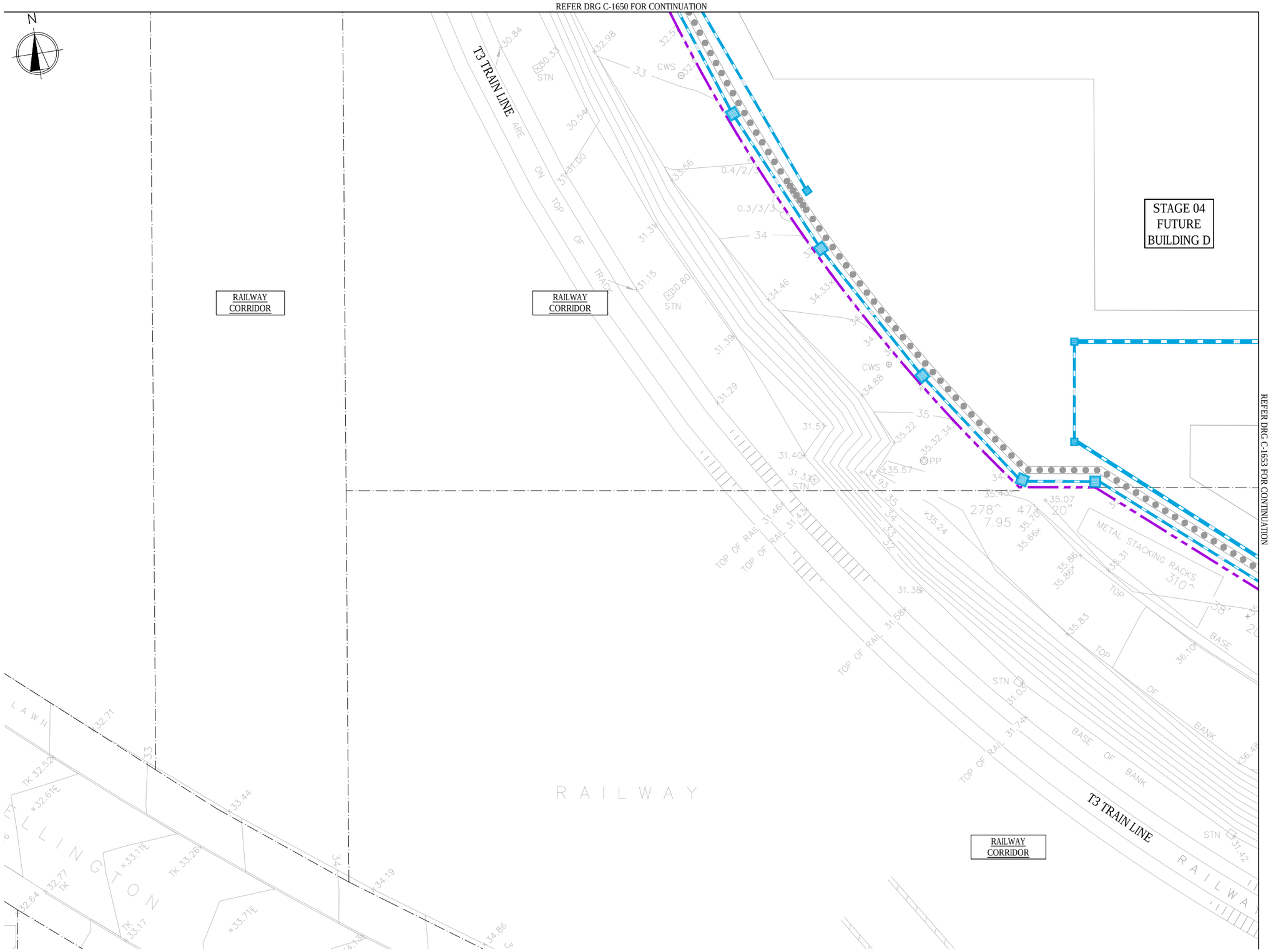

LEGEND

- LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
- EXISTING CADASTRAL BOUNDARY

EXISTING	NEW	
		WATER MAIN
		SEWER PIPE
		GAS PIPE
		POWER/ELECTRICAL
		TELSTRA CABLES
		NBN CABLES
		WATER (FIRE MAIN)
		POWER (HIGH VOLTAGE)
		POWER (LOW VOLTAGE)
		IRRIGATION PIPE
		SINGLE LIGHT POLE

NEW

- STORMWATER PIPE
- GROSS POLLUTANT TRAP (GTP)
- GRATED INLET/JUNCTION PIT
- KERB INLET PIT
- INDICATIVE FUTURE SURFACE INLET PIT
- INDICATIVE FUTURE STORMWATER PIPE

NOTES

1. PROPOSED UNDERGROUND UTILITIES ARE SHOWN ON PLAN INDICATIVE ONLY. FINAL LAYOUT IS SUBJECT TO DETAIL DESIGN.

UTILITIES LAYOUT PLAN

SCALE 1:200

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C	ISSUED FOR APPROVAL	RT	FX	05/12/2023
B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
P1	PRELIMINARY ISSUE	RT	FX	05/10/2023

REVISIONS

BAR SCALES

0 2 4 6 8 10 12m
SCALE 1:200 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: UTILITIES LAYOUT PLAN SHEET 3

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
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Height Datum	Grid	SCALE
AHD	MGA	1:200 AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-1652	C

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REFER DRG C-1651 FOR CONTINUATION

REFER DRG C-1652 FOR CONTINUATION

N

ROAD 01 (NS)

STAGE 03 FUTURE PARK

STAGE 02 FUTURE BUILDING B

STAGE 04 FUTURE BUILDING D

ROAD 01 (EW2)

STAGE 03 FUTURE BUILDING C

AUBURN ROAD

PROPOSED CONNECTION TO EXISTING GAS MAIN

PROPOSED ELECTRICAL CONNECTION TO BUILDING A&B

PROPOSED SUBSTATION

PROPOSED ELECTRICAL CONNECTION TO BUILDING C

PROPOSED ELECTRICAL CONNECTION TO BUILDING D & E.

PROPOSED NBN CONNECTION TO BUILDING C

DECOMMISSION EXISTING HV AND LV TO EXISTING SUBSTATION AND EXISTING DISTRIBUTORS TO BE OFFLOADED TO NEW SUBSTATIONS.

PROPOSED FIRE MAIN TO FEED OFF WATER MAIN

PROPOSED CONNECTION TO EXISTING WATER MAIN

17 GUNYA STREET
LOT 4 DP845800

T3 TRAIN LINE

BM CUT IN KB
RL 32.23 AHD

LEGEND

	LOT 1 DP656032 & LOT 2 DP433938CADASTRAL BOUNDARY
	EXISTING CADASTRAL BOUNDARY

EXISTING	NEW	
W	W	WATER MAIN
S	S	SEWER PIPE
G	G	GAS PIPE
E	E	POWER/ELECTRICAL
T	T	TELSTRA CABLES
NBN	NBN	NBN CABLES
F	F	WATER (FIRE MAIN)
HV	HV	POWER (HIGH VOLTAGE)
LV	LV	POWER (LOW VOLTAGE)
IR	IR	IRRIGATION PIPE
		SINGLE LIGHT POLE

NEW

- STORMWATER PIPE
- GROSS POLLUTANT TRAP (GTP)
- GRATED INLET/JUNCTION PIT
- KERB INLET PIT
- INDICATIVE FUTURE SURFACE INLET PIT
- INDICATIVE FUTURE STORMWATER PIPE

NOTES

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UTILITIES LAYOUT PLAN

SCALE 1:200

REV	DESCRIPTION	BY	APRVD	DATE
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B	ISSUED FOR APPROVAL	RT	FX	30/10/2023
P1	PRELIMINARY ISSUE	RT	FX	05/10/2023

REVISIONS

BAR SCALES

0 2 4 6 8 10 12m
SCALE 1:200 AT A1 SIZE

CLIENT: 30 AUBURN ROAD PTY. LTD.

PROJECT: 30-46 AUBURN ROAD REGENTS PARK NSW 2143 RESIDENTIAL DEVLOPMENT

TITLE: UTILITIES LAYOUT PLAN SHEET 4

STATUS: ISSUED FOR APPROVAL

Drawn	Designed	Checked	Approved
DD	DD	DD	DD

Height Datum	Grid	SCALE
AHD	MGA	1:200 AT A1 SIZE

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Project No.	Drawing No.	Issue
SY23-120	-C-1653	C

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Appendix H – Sydney Water Feasibility Letter

Case Number: 195305

March 27, 2023

30 Auburn Road Pty Ltd
c/- ROSE ATKINS RIMMER

Feasibility Letter

Developer:	**30 Auburn Road Pty Ltd**
Your reference:	**2/27140**
Development:	**Lot 2 DP433938 46-48 AUBURN RD, Regents Park**
Development Description:	**This development is mixed use comprising of residential and commercial components. The residential component will be a build-to-rent scheme incorporating 567 dwellings (approx.), with the application lodged under the Affordable Rental Housing SEPP. The commercial component consists of café/retail stores and a child care. Overall the development includes five key buildings 6, 8 and 12 storeys in height with basement car parking; and 5,700m2 of communal open space, including a 3,000m2 central open space area.**
Your application date:	**November 11, 2021**

Dear Applicant

This Feasibility Letter (Letter) is a guide only. It provides general information about what our requirements could be if you applied to us for a Section 73 Certificate (Certificate) for your proposed development. **The information is accurate at today's date only.**

We have not allocated any system capacity to your proposal from the investigation into this Feasibility advice. This advice is only an indication of our systems and possible requirements as of today. Where there is system capacity, it may have been fully utilised by the time you obtain a

Consent. The requirements applied to any approved Development proposal may differ significantly in the future since the original advice was issued.

If you obtain development consent for that development from your consent authority (this is usually your local Council) they will require you to apply to us for a Section 73 Certificate. You will need to submit a new application (and pay another application fee) to us for that Certificate by using your current or another Water Servicing Coordinator (WSC).

We'll then send you either a:

- Notice of Requirements (Notice) and Developer Works Deed (Deed)
  or
- Certificate.

These documents will be the definitive statement of our requirements.

There may be changes in our requirements between the issue dates of this Letter and the Notice or Certificate. The changes may be:

- if you change your proposed development eg the development description or the plan/site layout, after today, the requirements in this Letter could change when you submit your new application

- if you decide to do your development in stages then you must submit a new application (and pay another application fee) for each stage.

No warranties or assurances can be given about the suitability of this document or any of its provisions for any specific transaction. It does not constitute an approval from us and to the extent that it is able, we limit its liability to the reissue of this Letter or the return of your application fee. You should rely on your own independent professional advice.

What You Must Do To Get A Section 73 Certificate In The Future.

To get a Section 73 Certificate you must do the following things. You can also find out about this process by visiting Plumbing, building & developing page on our website.

1. **Obtain Development Consent from the consent authority for your development proposal.**

2. **Engage a Water Servicing Coordinator (WSC).**

   You must engage your current or another authorised WSC to manage the design and construction of works that you must provide, at your cost, to service your development. If you wish to engage another WSC (at any point in this process) you must write and tell us.

   You'll find a list of WSC's at Listed providers on our website.

   The WSC will be your point of contact with us. They can answer most questions that you might have about the process and developer charges and can give you a quote or information about costs for services/works (including our costs).

3. **Developer Works Deed**

   After the WSC has submitted your new application, they'll receive the our Notice and Developer Works Deed. You and your accredited Developer Infrastructure Providers (Providers) will need to sign and lodge both copies of the Deed with your nominated Coordinator. After we've signed the documents, one copy will be returned to the WSC.

   The Deed sets out for this project:
   - your responsibilities
   - our responsibilities
   - the Provider's responsibilities.

   You must do all the things that we ask you to do in that Deed. This is because your development does not have water and sewer services and you must construct and pay for the following works extensions under this Deed to provide these services.

   Note: The Coordinator must be fully authorised by us for the whole time of the agreement.

4. Water and Sewer Works

4.1 Water

Your development must have a frontage to a water main that is the right size and can be used for connection.

We've assessed your application and found that:

- The development is in Bankstown WSZ and the current system may have capacity to service the proposed development at this stage. This needs to be confirmed and re-assessed during Section 73 stage.
- The development needs a minimum of DN200 (to be confirmed during Section 73) based on the number of stories. The closest DN200 main is on Auburn Road near the intersection of Rodd Street. The length and scope of the augmentation needs to be confirmed during Section 73 stage.

All requirements will be reconfirmed during 73 application and advice is applicable only at the time of assessment. This does not commit or reserve any allocation of demand to this development.

Large Water Service Connection

A water main will be available, once you have completed your drinking water main construction to provide your development with a domestic supply. The size of your development means that you will need a connection larger than the standard domestic 20 mm size.

To get approval for your connection, you will need to lodge an application with Sydney Water Tap in ™. You, or your hydraulic consultant, may need to supply the following:

- a plan of the hydraulic layout
- a list of all the fixtures/fittings within the property
- a copy of the fireflow pressure inquiry issued by us
- a pump application form (if a pump is required)
- all pump details (if a pump is required).

You'll have to pay an application fee.

We don't consider whether a water main is adequate for fire fighting purposes for your development. We can't guarantee that this water supply will meet your Council's fire fighting requirements. The Council and your hydraulic consultant can help.

4.2 Sewer

Your development must have a sewer main that is the right size and can be used for connection. That sewer must also have a connection point within your development's boundaries.

We've assessed your application and found that:

- **You must construct a wastewater main extension to serve your development**.

The development is currently serviced by DN300 sewer main running to the north of the development.

- There is one overflow OF1368037 located downstream of the development of risk category 1. To protect the environment of receiving waterways, EPA puts requirements on spilling volume and frequency from the high-risk overflow. To meet EPA requirements, volume and frequency of spill from the overflow should not be increased due to any growth and development activities in the catchment.

  Hence, the developer must:

  - engage a hydraulic consultant to demonstrate that the current performance of the system does not deteriorate in both dry and wet weather due to the addition of the development

Figure 1 – Proposed Development and Sewer Layout.

This will be emailed to the Water Servicing Co-ordinator) as the layout does not appear in the document correctly

Stormwater

There are no specific Sydney Water's stormwater requirements for the proposed development at this location.

Funding of works

Under our 'Funding of infrastructure to service growth' policy we may agree to contribute towards a portion of the cost of the works you are required to build. This is done either by our Schedule of Rates or via the Procurement process. Your WSC can advise you in relation to this policy, the likelihood of us sharing a portion of the cost and the process you need to satisfy our probity requirements.

If you do choose to request a quote through the Schedule of Rates for our contribution you will avoid going through the full procurement process. Your WSC can advise you of this option.

The funding assessment will be made at the detailed design stage, prior to any construction works commencing. A firm commitment would not be made by us until we:

- Have reviewed the detailed design
- Have reviewed the detailed construction quotations needed to meet our probity requirements
- Come to an agreement on the amount.

5. Ancillary Matters

5.1 Asset adjustments

After we issue this Notice (and more detailed designs are available), we may require that the water main/sewer main/stormwater located in the footway/your property needs to be adjusted/deviated. If this happens, you'll need to do this work as well as the extension we have detailed above at your cost. The work must meet the conditions of this Notice and you will need to complete it **before we can issue the Certificate**. We'll need to see the completed designs for the work, and we'll require you to lodge a security. The security will be refunded once the work is completed.

5.2 Entry onto neighbouring property

If you need to enter a neighbouring property, you must have the written permission of the relevant property owners and tenants. You must use our **Permission to Enter** form(s) for this. You can get copies of these forms from your WSC or on our website. Your WSC can also negotiate on your behalf. Please make sure that you address all the items on the form(s) including payment of compensation and whether there are other ways of designing and constructing that could avoid or reduce their impacts. You will be responsible for all costs of mediation involved in resolving any disputes. Please allow enough time for entry issues to be resolved.

5.3 Costs

Construction of these **future** works will require you to pay project management, survey, design, and construction costs **directly to your suppliers**. Additional costs payable to us may include:

- water main shutdown and disinfection
- connection of new water mains to our system(s)
- design and construction audit fees
- contract administration, Operations Area Charge & Customer Redress prior to project finalisation
- creation or alteration of easements etc
- water usage charges where water has been supplied for building activity purposes prior to disinfection of a newly constructed water main.

Note: Payment for any Goods and Services (including Customer Redress) provided by Sydney Water will be required prior to the issue of the Section 73 Certificate or release of the Bank Guarantee or Cash Bond.

Your WSC can tell you about these costs.

6. Approval of your Building Plans

You must have your building plans approved **before the Certificate can be issued. Building construction work MUST NOT commence until we have granted approval.** Approval is needed because construction/building works may affect our assets (e.g. water and sewer mains).

Your WSC can tell you about the approval process including:

- Your provision, if required, of a “Services Protection Report” (also known as a “pegout”). This is needed to check whether the building and engineering plans show accurately where our assets are located in relation to your proposed building work. Your WSC will then either approve the plans or make requirements to protect those assets before approving the plans
- Possible requirements
- Their Costs
- Timeframes.

We recommend that you apply for Building Plan Approval early as in some instances your WSC may need to refer your building plans to us for detailed review. You'll be required to pay us for the costs associated with the detailed review.

You can also find information about this process (including technical specifications) on our Plumbing, building & developing page on our website or call us on 13 20 92.

Notes:

- **The Certificate will not be issued until the plans have been approved and, if required, our assets are altered or deviated**
- **You can only remove, deviate, or replace any of our pipes using temporary pipework if you have written approval from us. You must engage your WSC to arrange this approval**
- **You must obtain our written approval before you do any work on our systems. We'll take action to have work stopped on the site if you do not have that approval. We will apply Section 44 of the *Sydney Water Act 1994*.**

7. Special Requirements

Multi-level individual metering requirements

Your development must either allow for or provide individual metering. This means that you must:

1. comply at all times and in all respects with the requirements of our "*Multi-level Individual Metering Guide*". You can find this in the Meters & metered standpipes page on our website.

2. provide and install plumbing and space for individual metering in accordance with our "*Multi-level Individual Metering Guide*".

3. if and when you implement a strata/ stratum plan (or strata/ stratum subdivide) you must:

    a. engage an Accredited Metering Supplier ("**AMS**") to provide individual metering in accordance with the "*Multi-level Individual Metering Guide"* and meet the cost of the meters and metering system.

b. transfer the meters and metering system to us once the Testing Certificate has been issued by us to the AMS and the AMS has confirmed that payment for the meters and metering system has been paid in full.

Before the Section 73 Certificate can be issued, you will be required to sign an undertaking to show that you understand and accept these metering requirements and associated costs.

Visit Meters & metered standpipes to see the *Multi-level individual metering guide* and find out more.

OTHER THINGS YOU MAY NEED TO DO

Shown below are other things you need to do that are NOT a requirement for the Certificate. They may well be a requirement from us in the future because of the impact of your development on our assets. You must read them before you go any further.

Disused Sewerage Service Sealing

Please do not forget that you must pay to disconnect all disused private sewerage services and seal them at the point of connection to our sewer main. This work must meet our standards in the Plumbing Code of Australia (the Code) and be done by a licensed drainer. The licensed drainer must arrange for an inspection of the work by a NSW Fair Trading Plumbing Inspection Assurance Services (PIAS) officer. After that officer has looked at the work, the drainer can issue the Certificate of Compliance. The Code requires this.

Soffit Requirements

Please be aware that floor levels must be able to meet our soffit requirements for property connection and drainage.

Requirements for Business Customers for Commercial and Industrial Property Developments

If this property is to be developed for Industrial or Commercial operations, it may need to meet the following requirements:

Trade Wastewater Requirements

If this development is going to generate trade wastewater, the property owner must submit an application requesting permission to discharge trade wastewater to Sydney Water's sewerage system. You must wait for approval of this permit before any business activities can commence.

The permit application should be emailed to Sydney Water's Business Customer Services at businesscustomers@sydneywater.com.au

It is illegal to discharge Trade Wastewater into the Sydney Water sewerage system without permission.

A **Boundary Trap** is required for all developments that discharge trade wastewater where arrestors and special units are installed for trade wastewater pre-treatment.

If the property development is for Industrial operations, the wastewater may discharge into a sewerage area that is subject to wastewater reuse. Find out from Business Customer Services if this is applicable to your development.

Backflow Prevention Requirements

Backflow is when there is unintentional flow of water in the wrong direction from a potentially polluted source into the drinking water supply.

All properties connected to Sydney Water's supply must install a testable **Backflow Prevention Containment Device** appropriate to the property's hazard rating. Property with a high or medium hazard rating must have the backflow prevention containment device tested annually. Properties identified as having a low hazard rating must install a non-testable device, as a minimum.

Separate hydrant and sprinkler fire services on non-residential properties, require the installation of a testable double check detector assembly. The device is to be located at the boundary of the property.

Before you install a backflow prevention device:

1. Get your hydraulic consultant or plumber to check the available water pressure versus the property's required pressure and flow requirements.
2. Conduct a site assessment to confirm the hazard rating of the property and its services. Contact PIAS at NSW Fair Trading on **1300 889 099**.

For installation you will need to engage a licensed plumber with backflow accreditation who can be found on the Sydney Water website:
http://www.sydneywater.com.au/Plumbing/BackflowPrevention/

Water Efficiency Recommendations

Water is our most precious resource and every customer can play a role in its conservation. By working together with Sydney Water, business customers are able to reduce their water consumption. This will help your business save money, improve productivity and protect the environment.

Some water efficiency measures that can be easily implemented in your business are:

- Install water efficiency fixtures to help increase your water efficiency, refer to WELS (Water Efficiency Labelling and Standards (WELS) Scheme, http://www.waterrating.gov.au/
- Consider installing rainwater tanks to capture rainwater runoff, and reusing it, where cost effective. Refer to http://www.sydneywater.com.au/Water4Life/InYourBusiness/RWTCalculator.cfm
- Install water-monitoring devices on your meter to identify water usage patterns and leaks.
- Develop a water efficiency plan for your business.

It is cheaper to install water efficiency appliances while you are developing than retrofitting them later.

Contingency Plan Recommendations

Under Sydney Water's **customer contract** Sydney Water aims to provide Business Customers with a continuous supply of clean water at a minimum pressure of 15meters head at the main tap. This is equivalent to 146.8kpa or 21.29psi to meet reasonable business usage needs.

Sometimes Sydney Water may need to interrupt, postpone or limit the supply of water services to your property for maintenance or other reasons. These interruptions can be planned or unplanned.

Water supply is critical to some businesses and Sydney Water will treat vulnerable customers, such as hospitals, as a high priority.

Have you thought about a **contingency plan** for your business? Your Business Customer Representative will help you to develop a plan that is tailored to your business and minimises productivity losses in the event of a water service disruption.

For further information please visit the Sydney Water website at: http://www.sydneywater.com.au/OurSystemsandOperations/TradeWaste/ or contact Business Customer Services on **1300 985 227** or businesscustomers@sydneywater.com.au

Fire Fighting

Definition of fire fighting systems is the responsibility of the developer and is not part of the Section 73 process. It is recommended that a consultant should advise the developer regarding the fire fighting flow of the development and the ability of our system to provide that flow in an emergency. Sydney Water's Operating Licence directs that our mains are only required to provide domestic supply at a minimum pressure of 15 m head.

A report supplying modelled pressures called the Statement of Available pressure can be purchased through Sydney Water Tap in ™ and may be of some assistance when defining the fire fighting system. The Statement of Available pressure may advise flow limits that relate to system capacity or diameter of the main and pressure limits according to pressure management initiatives. If mains are required for fire fighting purposes, the mains shall be arranged through the water main extension process and not the Section 73 process.

Disused Water Service Sealing

You must pay to disconnect all disused private water services and seal them at the point of connection to our water main. This work must meet our standards in the Plumbing Code of Australia (the Code) and be done by a licensed plumber. The licensed plumber must arrange for an inspection of the work by a NSW Fair Trading Plumbing Inspection Assurance Services (PIAS) officer. After that officer has looked at the work, the drainer can issue the Certificate of Compliance. The Code requires this.

Other fees and requirements

The requirements in this Notice relate to your Certificate application only. We may be involved with other aspects of your development and there may be other fees or requirements. These include:

- plumbing and drainage inspection costs
- the installation of backflow prevention devices;
- trade waste requirements
- large water connections and

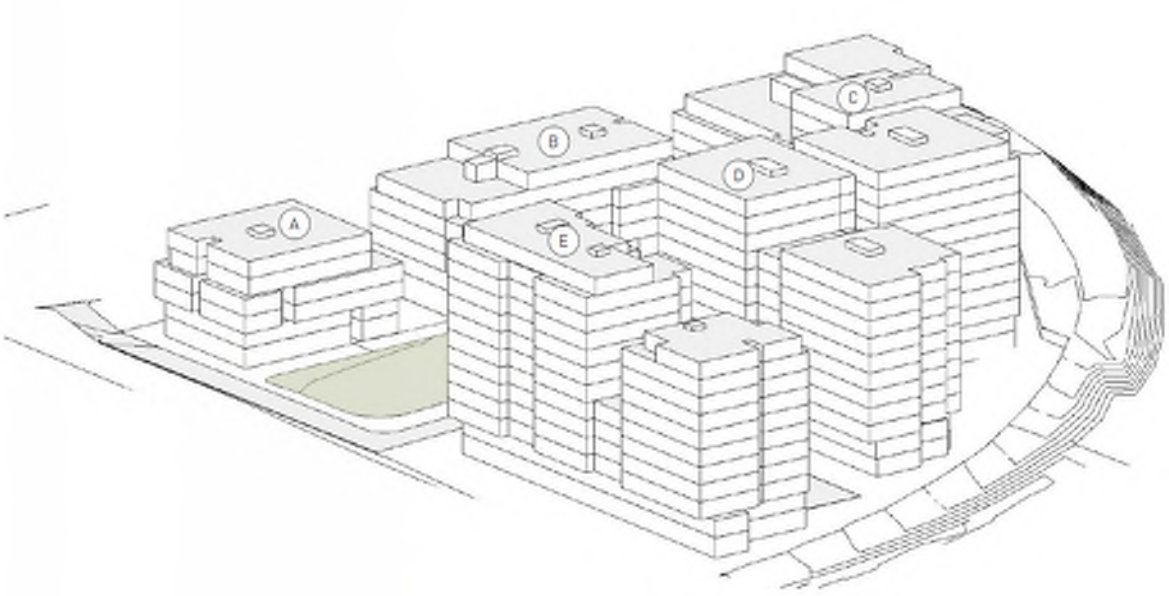
- council fire fighting requirements. (It will help you to know what the fire fighting requirements are for your development as soon as possible. Your hydraulic consultant can help you here.)

No warranties or assurances can be given about the suitability of this document or any of its provisions for any specific transaction. It does not constitute an approval from us and to the extent that it is able, we limit its liability to the reissue of this Letter or the return of your application fee. You should rely on your own independent professional advice.

END

Appendix I – Stage 1 – Hydraulic Services Site Infrastructure Report

Regents Park 'Build to Rent' Development



AT

30-46 Auburn Road Regents Park NSW

DOCUMENT

Stage 1 - Hydraulic Services Site Infrastructure Report

FOR

30 Auburn Road Pty Ltd

PREPARED BY

SCOTT COLLIS CONSULTING PTY LTD
HYDRAULIC AND FIRE

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ISSUE

P1 – 27 07 2023

DOCUMENT ISSUE CHRONICLE

ISSUE No.	DESCRIPTION OF ISSUE	DATE	APPROVED
P1	Preliminary Issue – 1 - Draft	27 07 2023	xx

ABBREVIATIONS, ACRONYMS & SYMBOLS

AHD	Australian Height Datum	L/sec	Litres/second
AS	Australian Standard	NCC	National Construction Code
AS/NZS	Australian Standard /New Zealand Standard	RL	Reduced Level
ESD	Ecological sustainable Development	SWC	Sydney Water Corporation
FU	Fixture Unit	VC	Vitreous Clay Pipe
kL	Kilo-litre	WSA	Water Services Association
Kl/AvDay	Kilo-litre/Average Day	WSC	Water Service Coordinator
kPa	Kilo-pascal	ø	Pipe Diameter

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CONTENTS

DOCUMENT ISSUE CHRONICLE 2
ABBREVIATIONS, ACRONYMS & SYMBOLS 2
CONTENTS 3
INTRODUCTION 4
EXECUTIVE SUMMARY 4
PROPERTY LOCATION & DESCRIPTION 4
PROPOSED DEVELOPMENT 5
CONSTRUCTION STAGING 5
STAGE 1 – ON-SITE HYDRAULIC INFRASTRUCTURE WORKS 5
STAGE 1 – OFF-SITE UTILITY INFRASTRUCTURE AUGMENTATION WORKS 7
INFRASTRUCTURE DEMANDS & LOADS 8
REFERENCE DOCUMENTS 9
REGULATION DOCUMENTS 9
APPENDICES 9
CONCEPT PLANS 10
DISCLAIMER 10
COPYRIGHT 10
APPENDIX 'A' - SWC Assets Diagram Excerpt 11
APPENDIX 'B' - JEMENA Assets Diagram Excerpt 12
APPENDIX 'C' - SWC Feasibility Letter 13
APPENDIX 'D' - SMITH & TZANNES Reference Scheme 14
APPENDIX 'E' - SMITH & TZANNES Staging Plan 15

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PHONE: (02) 8824 9500 MOBILE: 0433 665 388
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INTRODUCTION

Scott Collis Consulting Pty Ltd has been engaged by '30 Auburn Road Pty Ltd', the Owner, to undertake the design of the hydraulic services site infrastructure and to strategise interactions with Utility service providers as required to facilitate the proposed 'Regents Park Build to Rent' development situated on 30-46 Auburn Road, Regents Park NSW.

This follows from previous reporting by Stantec Australia Pty Ltd of circa December 2021, our site visitations garnering appreciation for local amenities, review of newly acquired record information, and liaisons with stakeholders as appropriate for this stage of the works.

The purpose of this report is to demonstrate the worthiness of the conceptualised hydraulic services site infrastructure and the suitability of the proposed utility interfaces required for the overall development.

Hydraulic services discussed in this report are as follows;

- Sanitary drainage routing,
- Domestic water supply,
- Fire water supply,
- Natural gas supply, and
- Irrigation.

Utility operators discussed in this report are as follows;

- Sydney Water Corporation [water and sewer network utilities], and
- Jemena [natural gas network utility].

The development will reach full maturity through several construction stages and this report is focused on the Stage 1 works.

EXECUTIVE SUMMARY

In conclusion, this report finds the Utility infrastructure, following completion of proposed augmentation works to the sewer and water mains, will have the capacity to support the proposed development.

PROPERTY LOCATION & DESCRIPTION

The property is located at 30-46 Auburn Road, Regents Park NSW and fronts; Auburn Road along the East property boundary, adjacent to the railway siding on the south and west curved boundary, and alongside neighbouring properties at the north boundary.

Currently, the site is occupied by several warehouse structures surrounded by pavement.

The natural site falls from a high point of RL37.0 at the south and towards RL29.0 to the north, relative to AHD71.

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The property comprises two land parcels described as Lot 1 DP656032 & Lot 2 DP433938 and having a gross area in the order of 2.117 hectares.

PROPOSED DEVELOPMENT

The proposed development comprises 5 residential towers identified as Blocks 'A' through to 'E', situated atop basement car parking. Towers A & B and Towers D & E are viewed as united buildings, having shared car parking levels, whereas Tower C stands alone.

The proposed overall development will provide a combination of one, two and three bedroom apartments totaling 543, vehicle parking, a child care centre, commercial spaces, communal facilities and open parkland.

The gross floor area measured above ground level totals around 52,905m^2.

Smith & Tzannes Architects have prepared the overall development scheme which is presented in their document identified as the 'Reference Scheme', and is appended at the rear of this document.

CONSTRUCTION STAGING

Program and planning determine the site will be developed over four stages identified as Stage 1 through to Stage 4, rolled out in numerical order, with each stage generally comprising of the following;

Stage 1 – Demolition, site roadworks and associated earthworks, and site infrastructure.
Stage 2 – Buildings 'A' & 'B' construction works.
Stage 3 – Building 'C' construction and communal parkland works.
Stage 4 - Buildings 'D' & 'E' construction works.

Smith & Tzannes Architects have prepared a drawing showing the staging which is appended at the rear of this document.

STAGE 1 – ON-SITE HYDRAULIC INFRASTRUCTURE WORKS

This segment of the report is about private assets that occupy the site and remain in ownership and the lifetime responsibility of the property holder(s).

This asset category encompasses the external community services reaching all buildings across the development from within the property boundaries.

The services afforded this category are individually described as follows;

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PHONE: (02) 8824 9500 MOBILE: 0433 665 388
ABN: 82 606 869 667

Sanitary Drainage –

The property sanitary drainage network will extend from connection to the Sydney Water Corporation ø300mm VC sewer main located alongside the north property boundary and reticulate across the site from downstream carriers to upstream reaches in sizes ranging from ø300mm to ø100mm, respectively.

The design and installation of these private sanitary drainage assets will comply with the National Construction Code Volume 3, which currently invokes the 'Deemed to Satisfy' provisions of AS/NZS3500.2-2021 and forms the basis for the concept design accompanying this report.

Notwithstanding the aforesaid, the existing property, having two land parcels, is believed to be furnished with two active sewer connections that will be preserved for construction proposes while useful to the program and will eventually be terminated at the Utility main(s) following Sydney Water Corporation's policy and before final certification is awarded in the later stages.

Domestic Water Supply –

The property domestic water network will ultimately extend from connection to the new Sydney Water Corporation ø200mm water main, augmented from the existing ø150mm main, located on the opposite side of Auburn Road.

The design and installation of these private water supply assets will comply with the National Construction Code Volume 3, which currently invokes the 'Deemed to Satisfy' provisions of AS/NZS3500.1-2021 and forms the basis for the concept design accompanying this report.

Notwithstanding the aforesaid, the existing property, having two land parcels, is believed to be furnished with two active domestic water connections to the existing SWC ø150mm main that will be preserved for construction proposes while useful to the program and will eventually be terminated at the Utility main together with redundant water meters repatriated following Sydney Water Corporation's policy and before final certification is awarded in the later stages.

Fire Water Supply –

The property fire water network will ultimately extend from connection to the new Sydney Water Corporation ø200mm water main, augmented from the existing ø150mm main, located on the opposite side of Auburn Road.

The design and installation of the private fire water supply asset will comply with the National Construction Code Volumes 1 & 3, which currently invokes predominant 'Deemed to Satisfy' provisions of the AS2118 series, AS2419.1, AS2941.1, AS/NZS3500.1 and forms the basis for the concept design accompanying this report.

Notwithstanding the aforesaid, the existing property is believed to be furnished with an active fire water connection to the existing SWC ø150mm main that will be preserved for construction proposes while useful to the program and will eventually be terminated at the Utility main following Sydney Water Corporation's policy and before final certification is awarded in the later stages.

Natural Gas Supply-

The property natural gas network will extend from connection to the Jemena ø50mm 210kPa gas main situated alongside the Auburn Road boundary.

This private system is provisional and provided in anticipation of potential restaurant tenancies desiring gas cooking facilities. It is not planned as an energy source for other equipment or apparatus elsewhere

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PHONE: (02) 8824 9500 MOBILE: 0433 665 388
ABN: 82 606 869 667

in the development.

The design and installation of the private gas supply asset will comply with the 'Deemed to Satisfy' provisions of AS/NZS5601.1 and Jemena's 'Network Operating Rules' and forms the basis for the concept design accompanying this report.

Irrigation Supply-
The property irrigation provisions will be founded through a collaborative design approach led by ESD initiatives.

The overall scheme captures clean rainwater from suitable catchments and directs them to a 96kl retention tank that is modelled on behaviors for seasonable rainfall yields and vegetation watering demands. For further clarification on these respective components refer to documents prepared by Seed Engineers [ESD], Sky Engineers [Stormwater], and Clouston Associates [Landscape].

The works covered under the hydraulic services entail the distribution network, being an interface between the retention tank and the local irrigation zoning stations. This comprises the supply from the tank and reticulation about the site via pumps and filtration, and incorporating a backup town's water supply ensuring sustainability in unseasonal periods.

Water economies exploring the extended draw-down of tank reserves will be investigated in the detailed irrigation design through evaluation of automated and programmable controls and watering equipment selections and techniques, conducted in later stages of the project.

STAGE 1 – OFF-SITE UTILITY INFRASTRUCTURE AUGMENTATION WORKS

This segment of the report is about Authority-owned utility assets that are off-site, usually located in public corridors and occasionally in private property.

The off-site Utility Infrastructure works afforded this category are individually described as follows;

Sydney Water Corporation Sewer Drainage –
A new ø300mm sewer sideline will extend from the Utility ø300mm sewer main located in the adjoining north property, and terminate inside the property with a connection suited to the new private sanitary drainage network.

This segment of the works will be designed, installed and supervised following Sydney Water Corporation's version of the Water Service Association of Australia's 'Sewerage Code WSA 02', under the governance of an accredited Water Service Coordinator and in accordance with the impending SWC 'Notice of Requirements' and Section 73 conditions.

The current concept design follows foreseen requirements outlined in the SWC 'Feasibility Letter' of March 27th 2023 and is appended at the rear of this document.

Sydney Water Corporation Water Mains –
The existing SWC ø150mm water main servicing this region will ultimately be augmented to ø200mm under the requirements of the Sydney Water Corporation. This augmented supply will, provisionally, extend from the ø200mm water main in Rodd Street located approximately 500m south of the property.

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ABN: 82 606 869 667

This segment of the works will be designed, installed and supervised following Sydney Water Corporation's version of the Water Service Association of Australia's 'Water Supply Code WSA 03', under the governance of an accredited Water Service Coordinator and in accordance with the impending SWC 'Notice of Requirements' and Section 73 conditions.

The current concept design follows foreseen requirements outlined in the SWC 'Feasibility Letter' of March 27th 2023 and is appended at the rear of this document.

Jemena Natural Gas Mains –
The existing Jemena ø50mm 210kPa gas main servicing this region will be found adequate for the limited loads this property will ultimately seek for diversity in commercial tenancy operations.

Accordingly, the routine for establishing a site supply with this loading is to extend the private main 225mm beyond the Auburn Road property boundary and terminate with a path valve for connection by Jemena, following approval of the Jemena 'Request for Gas Supply' process.

INFRASTRUCTURE DEMANDS & LOADS

We provide an overview of the total site demands and loadings forming the basis for the hydraulic services site infrastructure design, as follows;

Sanitary Drainage –
The property sanitary drainage loads are assessed in two methods, being;

For on-site infrastructure - to AS/NZS3500.2, which generates a load based on a system of 'Fixture Units'. This is a product from the tallying of fixtures and is presently estimated as having a value of 10178 FU's, resulting in a private drainage carrier of ø300mm, which based on sewer drainage principals translates into a peak flow in the order of 65L/sec.

For off-site infrastructure – to SWC design methods incorporating WSA Codes 02 & 03, the result is a product of the average daily water demand pattern [derived from records], around 80%, which resultantly is estimated to be in the order of 191.136kL/Av day. Ultimately, these flows will be investigated in the detailed design of the SWC sewer main extension by the WSC. The SWC 'Feasibility Letter' indicates these requirements can be met.

Domestic Water Supply –
The property domestic water supply demands are assessed in two methods, being;

For on-site infrastructure - to AS/NZS3500.1, which generates a load based on a system of 'Loading Units'. This is a product from the tallying of Apartments and ancillary spaces and is presently estimated as having a value of 26.91L/sec, resulting in a private water main of ø150mm.

For off-site infrastructure – to SWC design methods incorporating WSA Code 03, the result is a product of the average daily water demand pattern [derived from records], which is estimated to be in the order of 238.920kL/Av day. Ultimately, these flows will be investigated in the detailed design of the SWC water main augmentation works by the WSC. The SWC 'Feasibility Letter' indicates these requirements can be met.

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ABN: 82 606 869 667

Fire Water Supply –
The property fire water supply demands are assessed to NCC criterion employing the relevant fire service design codes AS 2118 [fire sprinklers] and AS 2419.1 [fire hydrants].

Currently, it is envisaged the buildings 'D & E' shared car park will have the greatest fire flow requirement.

Accordingly, the maximum fire flow demand sought will be in the order of 30L/sec, and well within the operating capacity limits of the proposed ø200mm water main. Ultimately, these flows will be investigated in the detailed design of the SWC water main augmentation works by the WSC. The SWC 'Feasibility Letter' indicates these requirements can be met.

REFERENCE DOCUMENTS

Further to documentation presented by other members of the project design team, this report draws upon information specific to our needs as listed below;

- SWC – Assets diagrams.
- Jemena – Assets diagrams.
- Historical water main pressure records [provided by Stantec].
- Stantec report dated 3rd December 2021.
- SWC – Water System Planning Guideline September 2014.

REGULATION DOCUMENTS

Regulation documents most relevant to this report are;

- NCC 2022 Volume 1.
- Australian Standard AS2118 series.
- Australian Standard AS2419 series
- Australian Standard AS2941 series
- Australian Standard AS/NZS3500 series.
- Water Services Association of Australia WSA Codes 02 & 03 [SWC amended].

APPENDICES

This document is accompanied by the following appendices;

- APPENDIX A – SWC assets diagram excerpt
- APPENDIX B – Jemena assets diagram excerpt
- APPENDIX C – SWC 'Feasibility Letter'
- APPENDIX D – Smith & Tzannes Reference Scheme
- APPENDIX E – Smith & Tzannes Staging Plan

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ABN: 82 606 869 667

CONCEPT PLANS

The concept plans accompanying this report are listed below;

- H-SS-01 - Hydraulic Services – Site Services Concept – Sanitary Drainage.
- H-SS-02 - Hydraulic Services – Site Services Concept – Domestic & Fire Water, & Gas.

These drawings are A0 size and detached from this document.

DISCLAIMER

This report has been assessed on industry guidelines and best practices, however, in some instances there remains an absence of definitive information prohibiting thorough determination for system profiles in their entirety. Consequently, we advise that stated outcomes dependent upon the functionality of unknown characteristics are not necessarily guaranteed.

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APPENDIX 'A' - SWC Assets Diagram Excerpt

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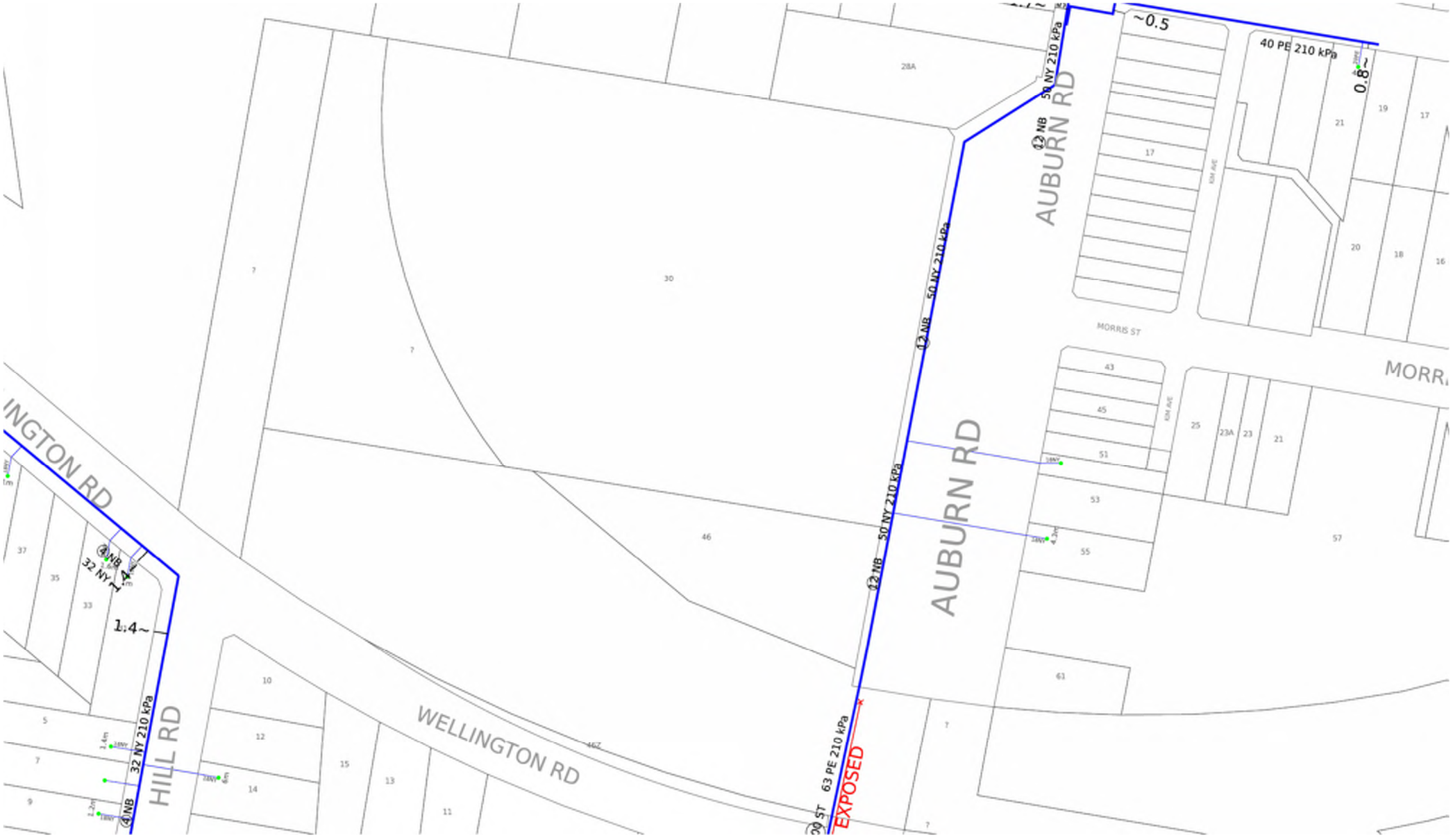
APPENDIX 'B' - JEMENA Assets Diagram Excerpt



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APPENDIX 'C' - SWC Feasibility Letter

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APPENDIX 'D' - SMITH & TZANNES Reference Scheme

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PHONE: (02) 8824 9500 MOBILE: 0433 665 388
ABN: 82 606 869 667

APPENDIX 'E' - SMITH & TZANNES Staging Plan

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