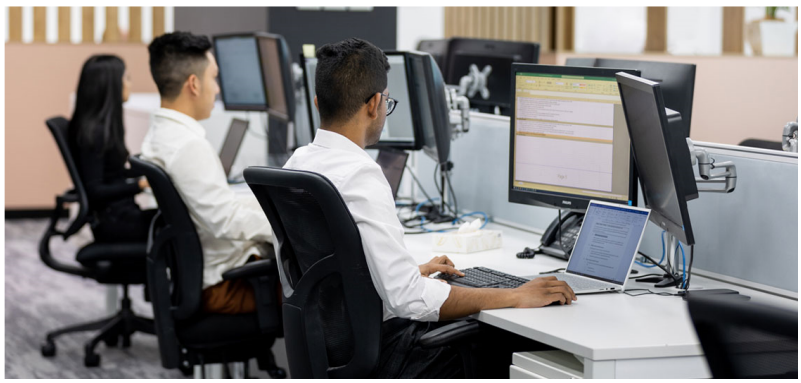
Demolition & Construction Waste Management Plan

Development Application
Sydney Science Park Luddenham Road LUD3



December 2023

Prepared for Celestino

Orion Group

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Commercial in Confidence

Document Control

Revision	Prepared	Reviewed	Approved	Date	Description
DR	Daniel Derby	Tom Herbert	-	-	Draft
00	Tom Herbert	Natalie Galea	Natalie Galea	02/05/2023	DA Issue
01	Tom Herbert	Natalie Galea	Natalie Galea	27/06/2023	DA Issue
02	Tom Herbert	Ben Hawkins	Ben Hawkins	05/12/2023	DA Issue

Table of Contents

1 Introduction

1.1 Site Description

The site encompasses a section of the existing road reserve on Luddenham Road (approximately 650m) and land within properties on either side of this section as noted below:

i) Lot 204 DP 1280188 (Celestino) known as 581 Luddenham Road, Luddenham

ii) Lot 206 DP 1280188 (Celestino) known as 599 Luddenham Road, Luddenham

iii) Lot 205 DP 1280188 (Metro)

iv) Lot 24 DP1277418 (Metro)

v) Lot 26 DP1277418 (Metro)

vi) Road reserve (Penrith City Council)

The proposal is generally referred as 'LUD3 Intersection'.

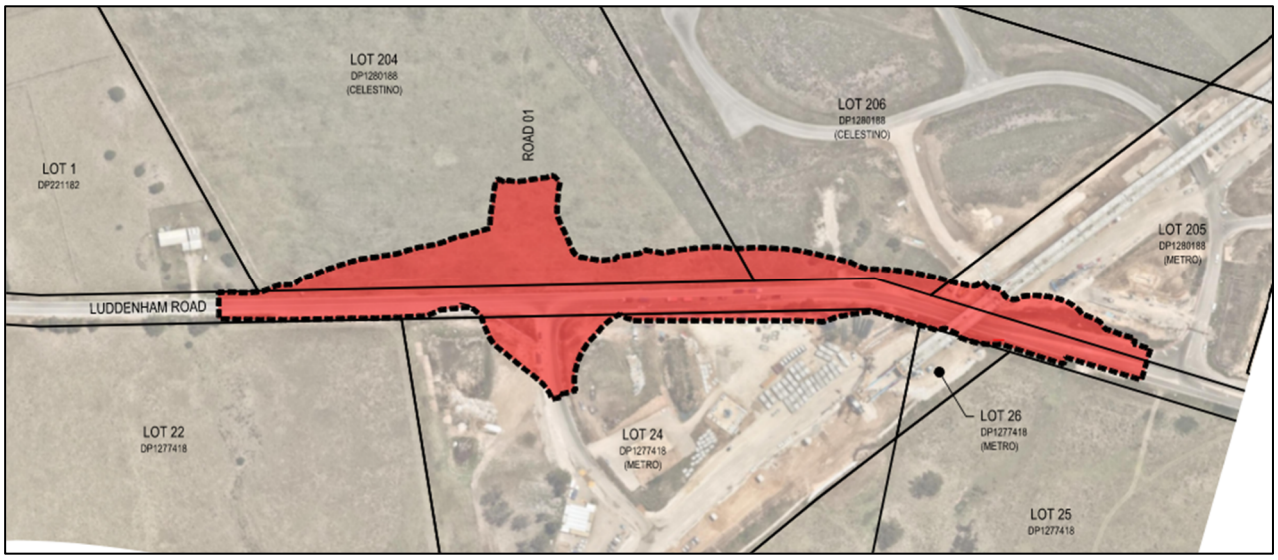


Figure 1 – Site Locality (Image courtesy of Enspire Solutions 180001-01-DA-CO1.01)

1.2 Objectives

The purpose of this report is to identify the methods for reuse of, or disposal of waste and present a complete and thorough waste management strategy. The strategy considers:

i) General waste production because of demolition works on site as per the attached demolition plan.

ii) Management of contaminated waste and materials that may be found/ uncovered because of excavation and on-going site works.

iii) On-going waste management throughout construction for reuse or disposal.

iv) Waste management controls to ensure the development will not have adverse impacts on the environment and health of the site and surrounding areas.

2 Data Sources

2.1 Detail Survey Data

Detailed survey data was provided by Proust & Gardner Consulting Pty Limited (01/03/2023). The data used for the survey, Civil plans, and demolition plans have been prepared in accordance with GDA2020.

2.2 Establishment and Demolition Plan

Establishment and Demolition plans created by Enspire Solutions dated 24/11/2023, ref. 180001-01-DA-C02.01 Rev 5 and 180001-01-DA-C02.02 Rev 5 were used in the calculation of material volumes and masses. These plans used the latest detail survey data from Proust & Gardner Consulting Pty Limited for locations identified for clearing/demolition.

2.3 Bulk Earthworks Cut and Fill Plan

The Bulk Earthworks Cut and Fill Plan created by Enspire Solutions dated 24/11/2023, ref. 180001-01-DA-C04.01 Rev 5 was used in the calculation of Excavated Material estimated quantities in section 3.1. This plan used the latest detail survey data from Proust & Gardner Consulting Pty Limited for level adjustments.

3 Legislative Framework

3.1 Aerotropolis Precinct Plan

Table 1 below provides an overview of the pertinent legislation and guidance outlined in the Aerotropolis Precinct Plan. These regulatory frameworks play a crucial role in informing the Waste Management requirements detailed in this report.

Section	Provisions	Comments
4.7 Sustainability and Resilience	Plan for, and achieve, leading industry targets by 2025 and from 2026 beyond to achieve sustainable regenerative targets: i. 10% reduction of waste generation. ii. 85% reduction in construction waste.	A 10% reduction in waste generation is achieved through a contemplated design. Special consideration has been given to minimise waste generation whilst ensuring the intersection design meets its functional objectives. Only waste unsuitable for re-use or re-cycling will be disposed of by the contractor to the nearest waste facility. Materials will be reused and recycled where suitable as outlined in section 4.1. An 85% reduction in construction waste will be achieved through the implementation of a recycling program both on and off-site, as outlined in section 4.1. The proposal thus promotes waste reduction and recycling strategies to minimise environmental impacts and achieve sustainability and resilience objectives.

4 Waste Management Plan

4.1 Demolition Materials Waste Management

Where possible, all material waste generated in the demolition process will be reused on-site with a focus on sustainability and minimising ecological impacts.

Waste Materials	**Estimated Quantity (m^3)**	**Destination**		
		Reuse or Recycling		**Disposal**
Type		**On-Site**	**Off-Site**	**Contractor/Disposal Site**
Gravel and Bitumen	1,769	-	Recycling facility intended to be contracted for management of road / gravel waste.	Unusable waste to be disposed of at appropriate disposal facility – to be determined by contractor.
Timber/ Green Waste	298	Timber and framing with the potential to be reused on site for concrete formwork or like be retained for this purpose. Trees and Green waste to be mulched and stockpiled.	-	-
General/ Mixed Waste	As generated	-	-	Skip bins to be utilised on-site and replaced as necessary.
Excavated Material	-16,134 cu.m Cut 10,451 cu.m Fill 5,683 cu.m Export	All suitable excavated material will be systematically stockpiled on-site and, whenever feasible, repurposed for reuse. The development has a net export of excavated material. Such material may be properly stored on land owned by the proponent, with the intention of utilising it in future developments within Sydney Science Park.	-	-

4.2 Green Waste Management

All green waste will be assessed for its potential to be reused for onsite purposes such as mulching, replanting and regrowth of tree grove areas. Additionally, topsoil will be managed onsite to allow for reuse later in landscape areas. The proposal involves removal of trees and vegetation.

4.3 Construction Waste Management

During demolition and construction, the following waste will be produced and managed accordingly:

i) General Construction Waste - Papers, Plastics and Metal waste will be generated in construction process. This will be disposed of/recycled where possible off site. Skip Bins are to be placed around construction works to collect this waste and be removed/replaced on an as needed basis.

ii) Asbestos/contamination - Should any asbestos or contaminated material be discovered in the construction process, refer to the Unexpected Finds Protocol contained as part of the application. Ref. 64659– 150773.

iii) Timber - All framing and formwork timbers are to be reused for formwork if possible and disposed of through general waste skip bins if not.

Records of all waste disposal are to be kept demonstrating the type, quantity, and facility of disposal.

ANNEXURE A – Demolition Plan

180001-01-DA-C02.01 and 180001-01-DA-C02.02

LEGEND

- EXISTING TREE TO BE RETAINED
- EXISTING TREE TO BE REMOVED
- EXISTING PAVEMENT TO BE REMOVED
- e o/h — EXISTING OVERHEAD ELECTRICAL
- 132kV — EXISTING 132kV ELECTRICAL
- W — EXISTING POTABLE WATER MAIN
- T — EXISTING TELECOMMUNICATIONS LINE

LOT 204
DP1280188
(CELESTINO)

LOT 206
DP1280188
(CELESTINO)

LOT 1
DP221182

EXISTING OVERHEAD ELECTRICAL TO BE RELOCATED.

LUDDENHAM ROAD

3,116.09 sq m

EXISTING 132kV ELECTRICAL TO REMAIN.

EXISTING STORMWATER INLET AND OUTLET HEADWALLS TO BE REMOVED.

EXISTING DN450 WATER MAIN TO REMAIN.

EXISTING TELECOMMUNICATIONS TO BE RELOCATED.

EXISTING DRIVEWAY TO BE REMOVED BY METRO AS PART OF SEPARATE SCOPE OF WORKS.

LOT 22
DP1277418

LOT 24
DP1277418
(METRO)

FOR CONTINUATION REFER DRG: C02.02

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
5	24/11/2023	ISSUED FOR DEVELOPMENT APPLICATION	MDH	JS	-	SH
4	8/05/2023	ISSUED FOR DEVELOPMENT APPLICATION	CWH	JS	-	SH
3	27/04/2023	ISSUED FOR DEVELOPMENT APPLICATION	GJI	JS	-	SH
2	6/04/2023	90% PROGRESS ISSUE FOR REVIEW	CWH	JS	-	SH
1	23/12/2022	70% PROGRESS ISSUE FOR REVIEW	CWH	JS	-	SH

Client: SYDNEY SCIENCE PARK — CELESTINO

Scale: 0 10 20 30 40 50m
SCALE 1:500 @A1

North

Enspire Solutions Pty Ltd
Level 4, 153 Walker Street, North Sydney NSW 2060
ABN: 71 624 801 690
Phone: 02 9922 6135

Project: SYDNEY SCIENCE PARK
LUDDENHAM ROAD LUD3
CIVIL ENGINEERING WORKS

Scale: 1:500
Date: 23/12/2022
Size: A1
Datum: MGA2020

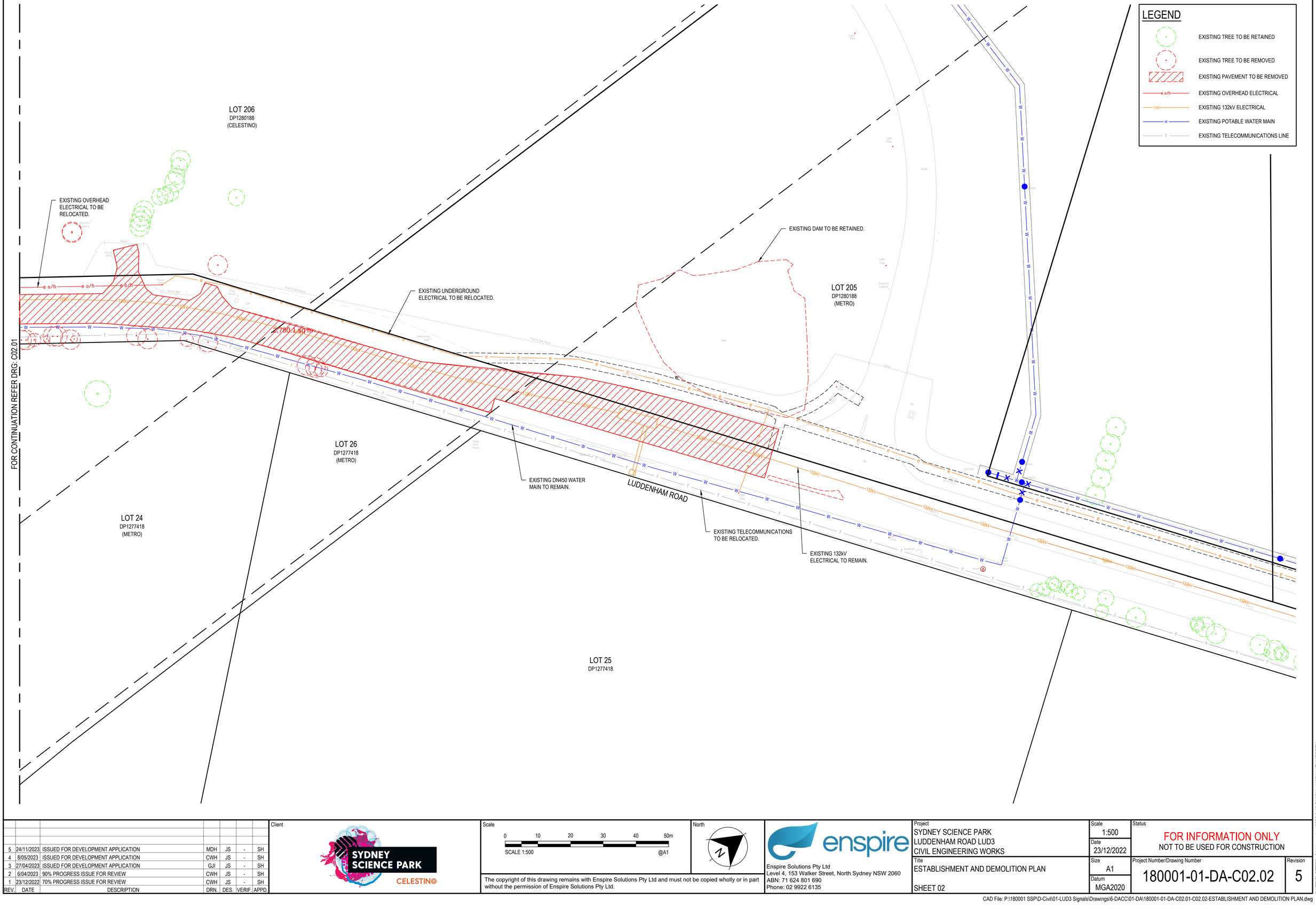
Status: FOR INFORMATION ONLY
NOT TO BE USED FOR CONSTRUCTION

Title: ESTABLISHMENT AND DEMOLITION PLAN
SHEET 01

Project Number/Drawing Number: 180001-01-DA-C02.01
Revision: 5

DATE PLOTTED: 24 November 2023 3:48 PM BY : MARK HENNESSEY

CAD File: P:\180001 SSP\D-Civil\01-LUD3 Signals\Drawings\6-DACC\01-DA\180001-01-DA-C02.01-C02.02-ESTABLISHMENT AND DEMOLITION PLAN.dwg



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4	8/05/2023	ISSUED FOR DEVELOPMENT APPLICATION	CWH	JS	-	SH
3	27/04/2023	ISSUED FOR DEVELOPMENT APPLICATION	GJI	JS	-	SH
2	6/04/2023	90% PROGRESS ISSUE FOR REVIEW	CWH	JS	-	SH
1	23/12/2022	70% PROGRESS ISSUE FOR REVIEW	CWH	JS	-	SH

Client: SYDNEY SCIENCE PARK CELESTINO

Scale: 0 10 20 30 40 50m — SCALE 1:500 @A1

North

enspire
Enspire Solutions Pty Ltd
Level 4, 153 Walker Street, North Sydney NSW 2060
ABN: 71 624 801 690
Phone: 02 9922 6135

Project: SYDNEY SCIENCE PARK
LUDDENHAM ROAD LUD3
CIVIL ENGINEERING WORKS

Title: ESTABLISHMENT AND DEMOLITION PLAN
SHEET 02

Scale: 1:500
Date: 23/12/2022
Size: A1
Datum: MGA2020

Status: FOR INFORMATION ONLY
NOT TO BE USED FOR CONSTRUCTION

Project Number/Drawing Number: 180001-01-DA-C02.02
Revision: 5

DATE PLOTTED: 24 November 2023 3:48 PM BY : MARK HENNESSEY

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ANNEXURE B – Bulk Earthworks Cut and Fill Plan

180001-01-DA-C04.01

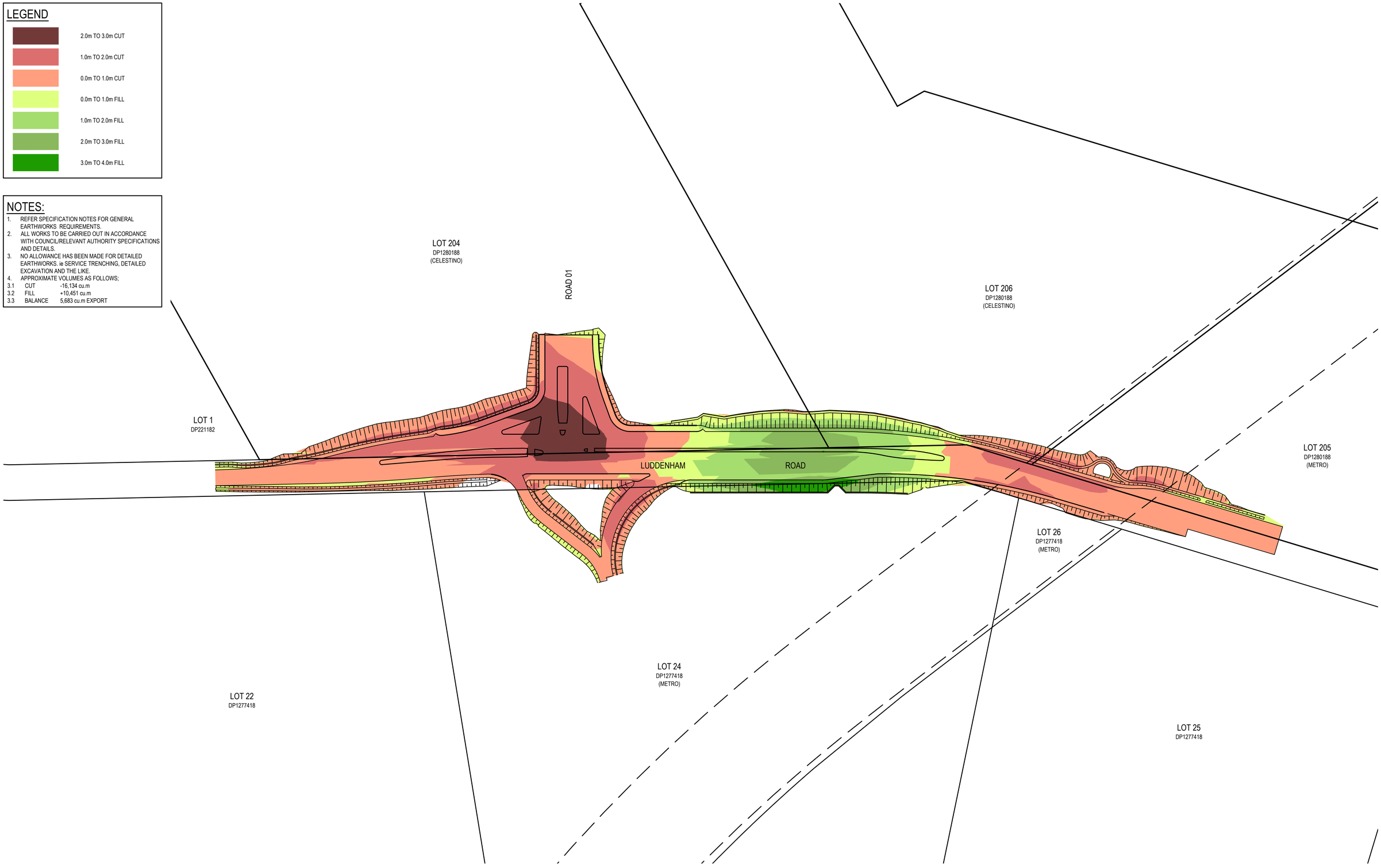
LEGEND

- 2.0m TO 3.0m CUT
- 1.0m TO 2.0m CUT
- 0.0m TO 1.0m CUT
- 0.0m TO 1.0m FILL
- 1.0m TO 2.0m FILL
- 2.0m TO 3.0m FILL
- 3.0m TO 4.0m FILL

NOTES:

1. REFER SPECIFICATION NOTES FOR GENERAL EARTHWORKS REQUIREMENTS.
2. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH COUNCIL/RELEVANT AUTHORITY SPECIFICATIONS AND DETAILS.
3. NO ALLOWANCE HAS BEEN MADE FOR DETAILED EARTHWORKS. ie SERVICE TRENCHING, DETAILED EXCAVATION AND THE LIKE.
4. APPROXIMATE VOLUMES AS FOLLOWS;

3.1	CUT	-16,134 cu.m
3.2	FILL	+10,451 cu.m
3.3	BALANCE	5,683 cu.m EXPORT



REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF	APPD.
5	24/11/2023	ISSUED FOR DEVELOPMENT APPLICATION	MDH	JS	-	SH
4	8/05/2023	ISSUED FOR DEVELOPMENT APPLICATION	CWH	JS	-	SH
3	27/04/2023	ISSUED FOR DEVELOPMENT APPLICATION	GJI	JS	-	SH
2	6/04/2023	90% PROGRESS ISSUE FOR REVIEW	CWH	JS	-	SH
1	23/12/2022	70% PROGRESS ISSUE FOR REVIEW	CWH	JS	-	SH

Client: SYDNEY SCIENCE PARK CELESTINO

Scale: 0 20 40 60 80 100m
SCALE 1:1000 @A1

North

enspire
Enspire Solutions Pty Ltd
Level 4, 153 Walker Street, North Sydney NSW 2060
ABN: 71 624 801 690
Phone: 02 9922 6135

Project: SYDNEY SCIENCE PARK
LUDDENHAM ROAD LUD3
CIVIL ENGINEERING WORKS

Title: BULK EARTHWORKS CUT AND FILL PLAN

Scale: 1:1000
Date: 23/12/2022
Size: A1
Datum: MGA2020

Status: FOR INFORMATION ONLY
NOT TO BE USED FOR CONSTRUCTION

Project Number/Drawing Number: 180001-01-DA-C04.01

Revision: 5

DATE PLOTTED: 24 November 2023 3:48 PM BY : MARK HENNESSEY

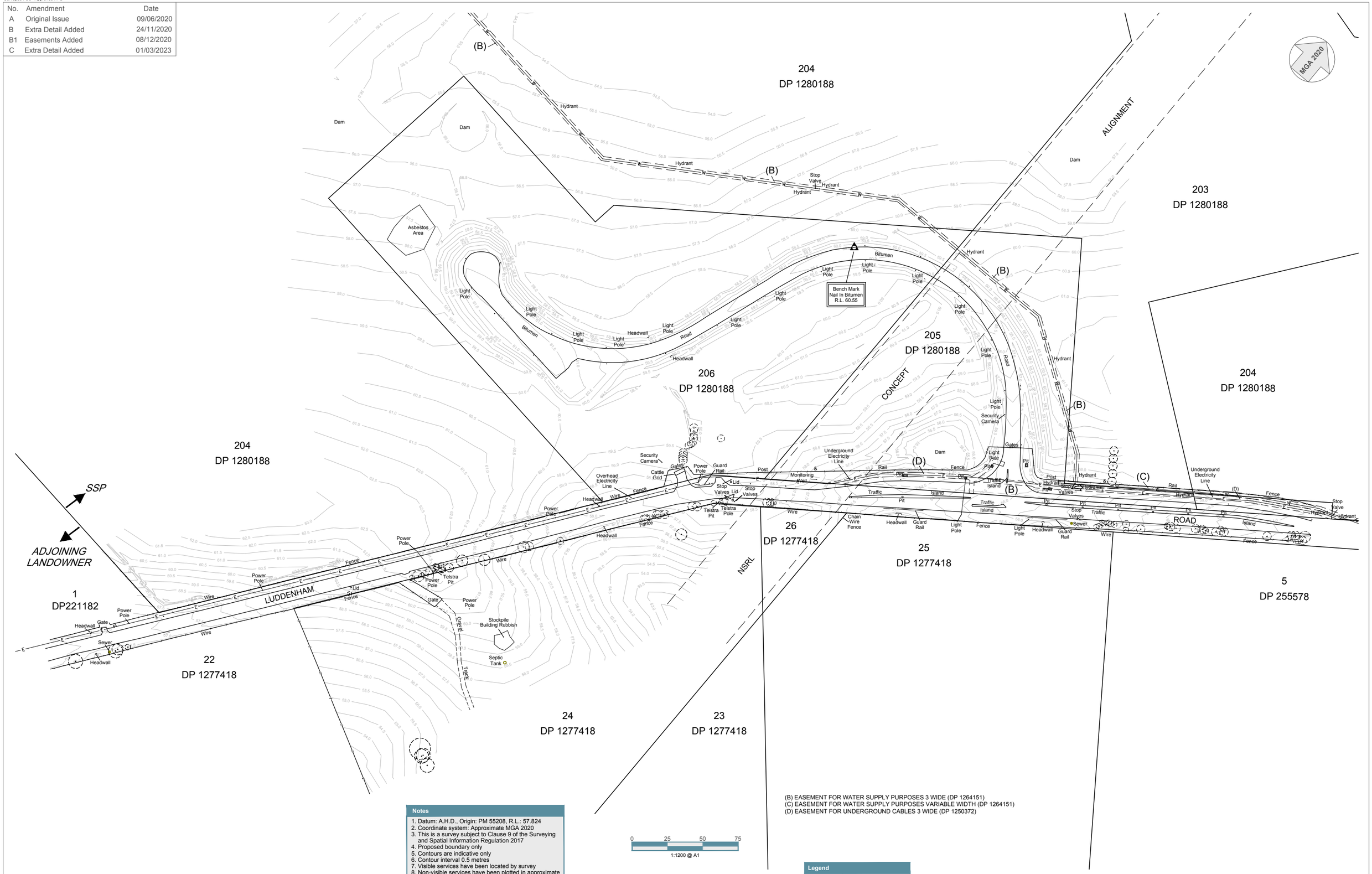
CAD File: P:\180001 SSP\D-Civil\01-LUD3 Signals\Drawings\6-DACC\01-DA\180001-01-DA-C04.01-BULK EARTHWORKS CUT AND FILL PLAN.dwg

ANNEXURE C – Detail Survey

23360-ERD

Surveyed : CB Approved : PG

No.	Amendment	Date
A	Original Issue	09/06/2020
B	Extra Detail Added	24/11/2020
B1	Easements Added	08/12/2020
C	Extra Detail Added	01/03/2023



Notes

1. Datum: A.H.D., Origin: PM 55208, R.L.: 57.824
2. Coordinate system: Approximate MGA 2020
3. This is a survey subject to Clause 9 of the Surveying and Spatial Information Regulation 2017
4. Proposed boundary only
5. Contours are indicative only
6. Contour interval 0.5 metres
7. Visible services have been located by survey
8. Non-visible services have been plotted in approximate position by reference to service authority diagrams
9. Contact 'Dial Before You Dig' (Ph. 1100) prior to any excavation for most recent service location records
10. This plan has been prepared from a combination of field survey and existing records for the purpose of showing the physical features of the land and any improvements to assist in designing future development and should not be used for any other purpose

0 25 50 75
1:1200 @ A1

(B) EASEMENT FOR WATER SUPPLY PURPOSES 3 WIDE (DP 1264151)
(C) EASEMENT FOR WATER SUPPLY PURPOSES VARIABLE WIDTH (DP 1264151)
(D) EASEMENT FOR UNDERGROUND CABLES 3 WIDE (DP 1250372)

Legend

+60.75	Spot height
+55.59 TK	Top of kerb level
+55.10 EB	Edge of bitumen level
+54.51 EC	Edge of concrete level
+53.32 INV– 450	Invert of pipe & pipe size
T–0.2/4/6	Tree-trunk/spread/height
●	Street sign
—E—	Electricity line
—W—	Water main

PROUST&GARDNER
CONSULTING PTY LIMITED
SURVEYORS & PLANNERS
406 Pacific Highway
PO Box 132
Lindfield NSW 2070
Tel: 9416 1335
Email: png@png.com.au

ENTRY ROAD DETAIL SURVEY PLAN

SYDNEY SCIENCE PARK
LUDDENHAM ROAD
LUDDENHAM

Scale : 1:1200 @ A1 Date : 09/06/2020 Plan No. : 23360-ERD Issue : C

Filename : \\MICROSERVER\Projects\23360 Lots 1-4 Luddenham Road Luddenham\Drawings\Details\Entry Road Detail\23360-Entry Road Detail (C).dwg

Client : Celestino

Annexure D – Council Form

Waste Management Plan

WASTE MANAGEMENT PLAN
DEMOLITION, CONSTRUCTION AND USE OF PREMISES

If you need more space to give details, you are welcome to attach extra pages to this form.

PLEASE COMPLETE ALL PARTS OF THIS FORM THAT ARE RELEVANT TO YOUR DEVELOPMENT APPLICATION (DA).

IF YOU NEED MORE SPACE TO GIVE DETAILS, YOU ARE WELCOME TO ATTACH EXTRA PAGES TO THIS FORM.

Council will assess the information you provide on this form along with your attached plans. We will take into account the types and volumes of waste that could be produced as a result of your proposed development, and how you are planning to:

- minimise the amount of waste produced
- maximise re-use and recycling
- store, transport and dispose of waste safely and thoughtfully.

APPLICANT DETAILS

First name

Surname

Postal Address

Street No.

Street name

Suburb

Post code

Contact phone number

Email address

DETAILS OF YOUR PROPOSED DEVELOPMENT

Street No.

Street name

Lot 204-206 DP1280188 and Lot 24 & 26 DP1277418

Suburb

Luddenham

Post code

2745

What buildings and other structures are currently on the site?

Fencing.

Briefly describe your proposed development

The proposal involves construction of a 650m upgrade of part of Luddenham Road including provision of a new interim signalised intersection, relocation of services and associated site works.

Applicant Signature

Date

PENRITH CITY COUNCIL

SECTION 1: DEMOLITION

*Please include details on the plans you submit with this form, for example location of on-site storage areas/ containers, vehicle access point/s.

Materials		Destination		
		Re-use and recycling		Disposal
Material	Estimated volume (m^2 or m^3)	ON-SITE* Specify proposed re-use or on-site recycling	OFF-SITE Specify contractor and recycling facility	Specify contractor and landfill site
Excavation (eg soil, rock)				
Green waste	Refer to section 3.1 in attached WMP for details			
Bricks				
Concrete				
Timber (Please specify type/s)				
Plasterboard				
Metals (Please specify type/s)				
Other				

SECTION 2: CONSTRUCTION

*Please include details on the plans you submit with this form, for example location of on-site storage areas/ containers, vehicle access point/s.

Materials		Destination		
		Re-use and recycling		Disposal
Material	Estimated volume (m^2 or m^3)	ON-SITE* Specify proposed re-use or on-site recycling	OFF-SITE Specify contractor and recycling facility	Specify contractor and landfill site
Excavation (eg soil, rock)				
Green waste	Refer to section 3.1 in attached WMP for details			
Bricks				
Concrete				
Timber (Please specify type/s)				
Plasterboard				
Metals (Please specify type/s)				
Other				

SECTION 3: WASTE FROM ON-GOING USE OF PREMISES

If relevant, please list the type/s of waste that may be generated by on-going use of the premises after the development is finished.	Expected volume (average per week)

SECTION 4: ON-GOING MANAGEMENT OF PREMISES

If relevant, please give details of how you intend to manage waste on-site after the development is finished, for example through lease conditions for tenants or an on-site caretaker/manager. Describe any proposed on-site storage and treatment facilities. Please attach plans showing the location of waste storage and collection areas, and access routes for tenants and collection vehicles.