

Lucas Estate - Stage K4, Alfredton

Level 1 Inspection & Testing Report

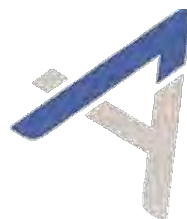
Reference: 1120 0399-1



Prepared for:

Bild Group

March 2023



**A&Y ASSOCIATES**  
GEOTECHNICAL ENGINEERING CONSULTANTS

# Document Control Record

Prepared by:

A&Y Associates Pty Ltd

ABN 92 614 244 665

5/16 Network Drive

Truganina, VIC 3029

T: (03) 8754 8325

E: info@ayassociates.com.au

W: www.ayassociates.com.au

## Document control

Report title	Level 1 Inspection & Testing				
Project reference number	1120 0399-1				
Client	Bild Group				
Contact name	Andrew Siemek				
Contact number	0475 010 866				
Contact e-mail	andrew.siemek@bild.group				
Revision	Date	Descriptions/Status	Author	Reviewer	Approver
0	07/03/2023	First Issue	Y Zheng	A Tan	A Tan

## Approver



Alvin Tan

(BE Civil and Infrastructure), MIEAust

Senior Geotechnical Engineer

E: alvin@ayassociates.com.au | M: 0449 288 338



ENGINEERS  
AUSTRALIA  
Professional Engineer  
MEMBER

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## Disclaimer

The findings and conclusions contained in this report are made based on site conditions that existed at the time this work was conducted. The conclusions present in this report are relevant to the conditions of the site and the state of legislation currently enacted as at the date of this report.

Findings and conclusions are made assuming that the soil, groundwater, geological and chemical conditions detailed within this report are accurate and remain applicable to the site at the time of writing. No other warranties are made or intended.

A&Y Associates (A&Y) Pty Ltd has used a degree of skill and care ordinarily exercised by reputable members of our profession practicing in the same or similar locality.

A&Y does not make any representation or warranty that the conclusions in this report will be applicable in the future as there may be changes in the condition of the site, applicable legislation or other factors that would affect the conclusions contained in this report.

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## Applicability

This report has been prepared for the benefit for our client with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose without our prior review and agreement.

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## 1 Introduction

This report presents the results of the Level 1 Inspection and Testing for the construction of the fill platforms located in Lucas Estate - Stage K4.

## 2 Project Summary

It is understood that Bild Group require the fill platforms within Stage K4 to be constructed under Level 1 Inspection and Testing undertaken by a Geotechnical Inspection and Testing Authority (GITA).

Level 1 Inspection and Testing, as defined in AS3798-2007 "Guidelines on Earthworks for Commercial and Residential Development," provides for full time inspection of the construction of controlled fill and field and laboratory testing in accordance with AS1289 "Methods of Testing Soils for Engineering Purposes".

The Level 1 inspection was undertaken by a Geotechnician from A&Y Associates over a period of 3 working days from the 3<sup>rd</sup> of December 2022 to 6<sup>th</sup> of December 2022.

This report is applicable for fill placed by Bild Group for the following lots located in Lucas Estate - Stage K4, as shown in Appendix A – Site Plan.

- Lot 2164 – 2165.

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### 3 Project Specifications

Project specification has been provided in drawing no. 1800971-K4-001-RevA prepared by Beveridge Williams for the construction works in Lucas Estate - Stage K4. The supervision and inspections were performed based on AS3798 and the project specification. A short summary of the requirements is provided below:

AS3798. A short summary of the requirements outline in AS3798 is provided below:

- Material to be used for fill construction shall satisfy the requirements of AS3798-2007 "Guidelines on Earthworks for Commercial and Residential Developments". Material used shall be free of:
  - Organic soils, such as topsoils, severely root affected subsoil and peat;
  - Contaminated soils;
  - Materials which undergo volume change or loss of strength when disturbed and exposed to moisture;
  - Silts, or materials that have deleterious engineering properties of silt;
  - Fill that contains wood, metal, plastic, boulders, or other deleterious material, in sufficient proportions to affect the required performance of fill;
  - The maximum particle size of any rocks or other lump, within the layer, has not exceeded two-thirds (2/3) of the compacted layer thickness.
- Compaction to achieve a dry density ratio of at least 95% Standard, as the project was classified as Residential.

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## 4 Subgrade Assessment

The subgrade was assessed by A&Y Associates following the topsoil removal and before any fill was placed. The subgrade assessment was undertaken on the 3<sup>rd</sup> of December 2022 as mentioned in report 1120 0399-1 (SSI1).

The exposed subgrade material comprised natural silty clay. No wet or soft patches were found during the inspection. No evidence of deleterious material was found during the inspection.

## 5 Earthworks

The earthworks for this project included stripping of topsoil, removing of tree roots, proof rolling the subgrade and placement and compaction of fill to construct engineered platforms.

Based on design plans and site inspection, it appears that the fill thickness placed is approximately 600mm. The fill layers or thickness nominated in this report are provided as a guide on the amounts of fill placed and do not necessarily reflect an accurate survey of the fill levels.

## 6 Fill Material

The fill material used for the platform consisted of site derived material. The material was predominantly comprising of Silty Clay.

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## 7 Testing

Field density testing was undertaken on the compacted fill at a frequency of a minimum of 3 tests per lot (AS3798 Table 8.1).

Tests were performed using a Nuclear Density Gauge for field density determination as per AS 1289.5.8.1. Testing was completed at a minimum rate of 3 field density tests per day's production based on the minimum requirements of AS 3798-2007 and taken from each layer of fill placed.

A total of 9 field density tests were performed during the earthworks. All of the test results met the specified compaction requirement of 95% Standard Compaction.

The locations of the 9 field density tests are shown in Appendix B – Test Locations. A summary of the test results obtained from the field density testing is presented in Appendix C – Test Results Summary. The laboratory test reports of the field density tests are presented in Appendix D – NATA Test Results.

## 8 Finished Surface Levels

It should be noted that even though the final fill layer meets the specification requirements, over time, the material may be subject to adverse weather conditions resulting in either surface softening or drying and cracking. The top 150mm – 200mm of the fill will deteriorate with time and should be considered by the foundation engineer.

## 9 Exclusion

A&Y Associates was not involved in monitoring and testing the following works and as such are not included in the Level 1 report.

- Any trenches excavated and backfilled on site for the installation of underground services such as sewers, electrical conduits, water mains etc.
- Footpaths in front of the lots that may be excavated and filled after the Level 1 supervision conducted by A&Y Associates.
- Uncontrolled fill and topsoil that may have been placed as part of the landscaping of the site following the completion of the engineered fill construction.



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## 10 Conclusion

On the completion of the earthworks and after analysing the materials used, it has been concluded that the filling procedure conducted by Bild Group appears to be consistent with the requirements of AS 3798 in regards to the placement of fill materials on a project under Level 1 Supervision and in accordance with the project specification as provided to A&Y Associates.

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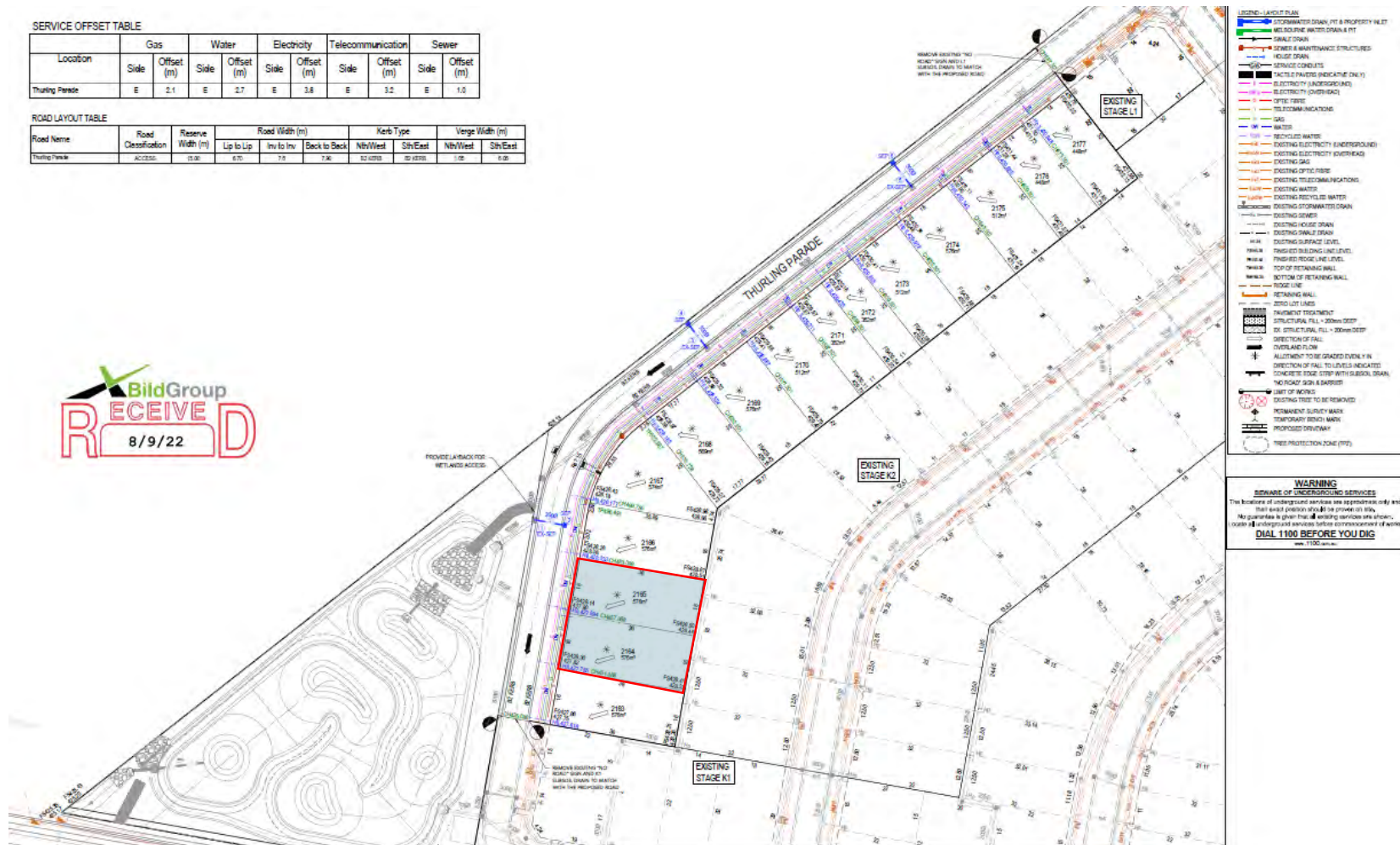
# Appendix A - Site Plan

**SERVICE OFFSET TABLE**

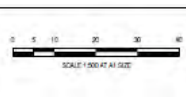
Location	Gas		Water		Electricity		Telecommunication		Sewer	
	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)
Thurling Parade	E	2.1	E	2.7	E	3.8	E	3.2	E	1.0

**ROAD LAYOUT TABLE**

Road Name	Road Classification	Reserve Width (m)	Road Width (m)				Kerb Type		Verge Width (m)	
			Lip to Lip	Inv to Inv	Back to Back	Nth/West	Sh/East	Nth/West	Sh/East	
Thurling Parade	ACCESS	10.00	6.70	7.5	7.50	10.00/10.00	10.00/10.00	1.00	6.00	



NO.	DESCRIPTION	DATE	BY	CHK	APP
1	ISSUED FOR CONSTRUCTION	27/04/2021	J. ZAK		
2	ISSUED FOR CONSTRUCTION (COMMENT)	27/04/2021	J. ZAK		
3	ISSUED FOR CONSTRUCTION	13/06/2021	J. ZAK		



Prepared: T. THOMAS, 08/07/2017  
 Checked: L. FALSTON  
 Drawn: J. ZAK, 13/06/2021  
 Project: 11200399

Beveridge Williams  
 5001 A. DEE BLVD  
 SUITE 100, 4040  
 JAN 26 2021 10:00  
 www.beveridgewilliams.com.au

Client: LUCAS ESTATE  
 STAGE K4  
 CITY OF BALLARAT  
 Project: LAYOUT PLAN

ISSUED FOR CONSTRUCTION

Sheet 03 of 08  
 Scale: 1:500 @ A1  
 Project No: 1800971 K4 010 A

**PROJECT:**  
Lucas Estate – Stage-K4 (Level 1)

**LOCATION:**  
Alfredton

**CLIENT:**  
Bild Group

**PROJECT No:**  
1120 0399-1

**SITE PLAN SKETCH—NOT TO SCALE**



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## Appendix B – Test Locations



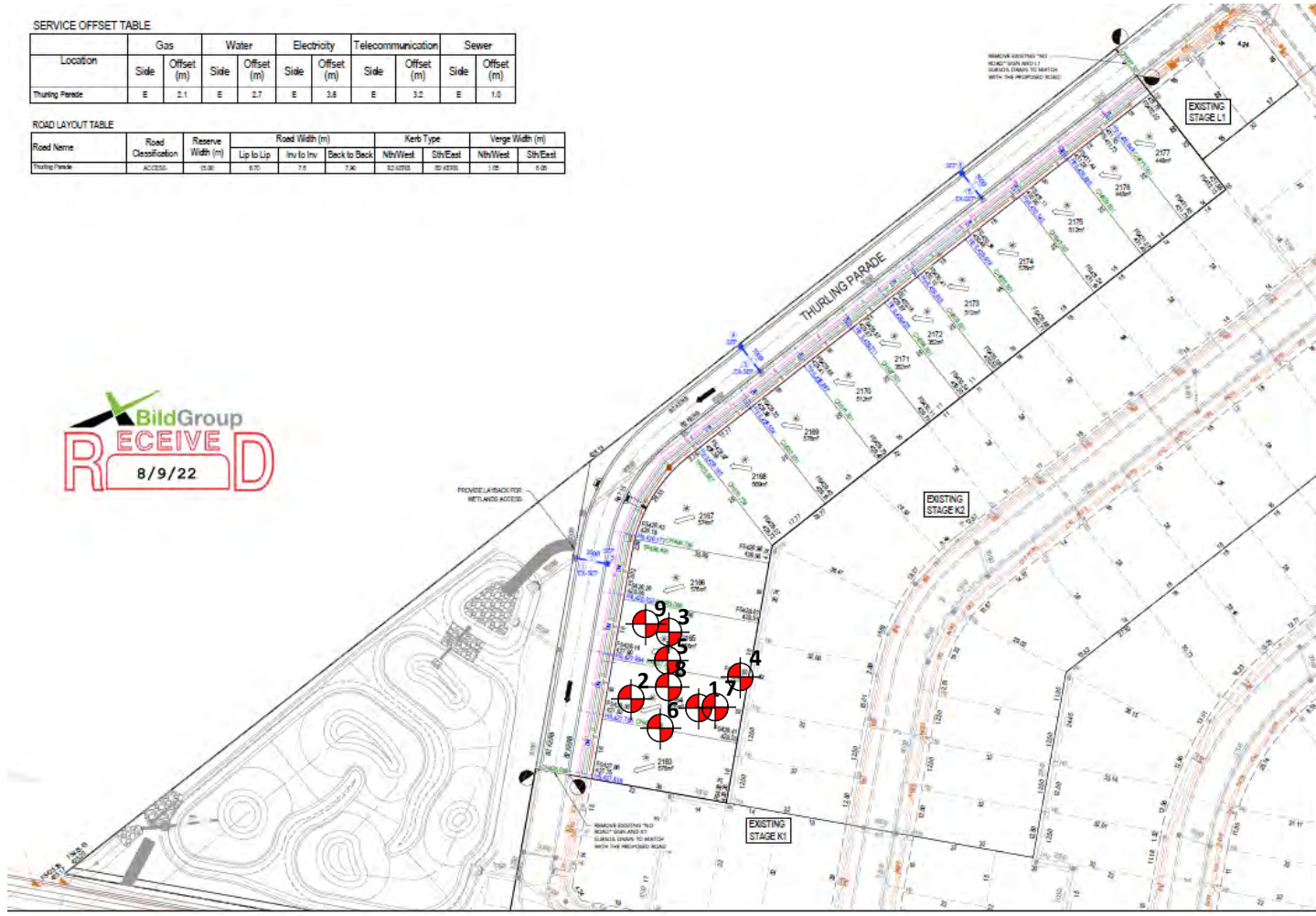
Indicative Test Location

**SERVICE OFFSET TABLE**

Location	Gas		Water		Electricity		Telecommunication		Sewer	
	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)
Thurling Parade	E	2.1	E	2.7	E	3.8	E	3.2	E	1.0

**ROAD LAYOUT TABLE**

Road Name	Road Classification	Reserve Width (m)	Road Width (m)				Kerb Type		Verge Width (m)	
			Lip to Lip	Inv to Inv	Back to Back	Nth/West	Sh/East	Nth/West	Sh/East	
Thurling Parade	ACCESS	15.00	6.70	7.5	7.50	10.00	10.00	1.00	6.00	



**EXISTING LAYOUT PLAN**

- STORMWATER DRAIN, PIT & PROPERTY SILET
- MELBOURNE WATER DRAIN & PIT
- SMALL DRAIN
- EXISTING MAINTENANCE STRUCTURES
- HOUSE DRAIN
- SEWERAGE CONDUITS
- POLE PASSES (INDICATE ONLY)
- ELECTRICITY (UNDERGROUND)
- ELECTRICITY (OVERHEAD)
- TELECOMMUNICATIONS
- SEWER
- WATER
- RECYCLED WATER
- EXISTING ELECTRICITY (UNDERGROUND)
- EXISTING ELECTRICITY (OVERHEAD)
- EXISTING GAS
- EXISTING OPTIC FIBRE
- EXISTING TELECOMMUNICATIONS
- EXISTING WATER
- EXISTING RECYCLED WATER
- EXISTING STORMWATER DRAIN
- EXISTING SEWER
- EXISTING HOUSE DRAIN
- EXISTING SWALE DRAIN
- EXISTING SURFACE LEVEL
- FINISHED BUILDING LEVEL
- FINISHED ROUGE LINE LEVEL
- TOP OF RETAINING WALL
- BOTTOM OF RETAINING WALL
- ROUGE LINE
- RETAINING WALL
- PROPOSED LINES
- ENVIRONMENT TREATMENT
- STRUCTURAL FILL - 200mm DEEP
- SO. STRUCTURAL FILL - 300mm DEEP
- DIRECTION OF FILL
- OVERLAND FLOW
- ALLOTMENT TO BE GRAZED EVENLY IN DIRECTION OF FILL TO LEVELS INDICATED
- CONCRETE SIDE STRIP WITH SUBSOIL DRAIN
- NO ROAD SIGN & BARRETS
- LIMIT OF WORKS
- EXISTING TREE TO BE PRESERVED
- PERMANENT SURVEY MARK
- TEMPORARY BENCH MARK
- PROPOSED DRIVEWAY
- TREE PROTECTION ZONE (TPZ)

**WARNING**  
 BEWARE OF UNDERGROUND SERVICES  
 The location of underground services are approximate only and their exact position should be proven on site.  
 No guarantee is given that existing services are shown, unless it is indicated otherwise.  
 DIAL 1100 BEFORE YOU DIG  
 www.1100.gov.au

NO.	DESCRIPTION	DATE	BY	CHK	APP
1	ISSUED FOR CONSTRUCTION	27/08/2022	TT	TT	TT
2	ISSUED FOR PROVISIONAL COMMENT	27/08/2022	TT	TT	TT
3	ISSUED FOR APPROVAL	13/09/2022	TT	TT	TT



Prepared: T. THOMAS, 08/07/2021  
 Checked: L. PALSTON  
 Drawn: J. ZHANG, 10/08/2021  
 Project Number: 1800971

**BW Beveridge Williams**  
 SUITE 6, 280 BLANCKHORN DRIVE  
 CARLETON VIC 3061  
 PH: 08 8337 5000  
 www.beveridgewilliams.com.au

Client: LUCAS ESTATE  
 STAGE K4  
 CITY OF BALLARAT

Project Name: LAYOUT PLAN

ISSUED FOR CONSTRUCTION

Sheet 03 of 08  
 Scale: 1:500 @ A1  
 Project No: 1800971 K4 010 A

**PROJECT:**  
 Lucas Estate – Stage-K4 (Level 1)

**CLIENT:**  
 Bild Group

**LOCATION:**  
 Alfredton

**PROJECT No.:**  
 1120 0399-1

**SITE PLAN SKETCH—NOT TO SCALE**




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## Appendix C – Test Results Summary

Project No		1120 0399-1			Client	Bild Group				
Project Name		Lucas Estate - Stage K4			Specification			Density Ratio $\geq$ 95% of Peak Wet Density		
Location		Alfredton								
Test No	Retest of Test	Date	Location	Layer	Oversize	Density Ratio	Moisture Ratio	Moisture Variation	Pass / Fail	Retest
#	#		Lot #	#	%	%	%	%		Pass / Fail
1	-	3/12/2022	2164	1	0.0	98.0	100.0	0.0	Pass	-
2	-	3/12/2022	2164	1	0.0	97.5	101.0	0.0	Pass	-
3	-	3/12/2022	2165	1	0.0	98.0	100.0	0.0	Pass	-
4	-	5/12/2022	2165	2	0.0	98.0	100.0	0.0	Pass	-
5	-	5/12/2022	2165	2	0.0	97.5	99.5	0.0	Pass	-
6	-	5/12/2022	2164	2	0.0	98.0	100.0	0.0	Pass	-
7	-	6/12/2022	2164	3	0.0	98.0	100.5	0.0	Pass	
8	-	6/12/2022	2164	3	0.0	97.5	101.5	0.0	Pass	
9	-	6/12/2022	2165	3	0.0	98.0	100.0	0.0	Pass	

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** Negative (-) value indicates that the field moisture content is drier than the optimum moisture content (OMC)	 <small>GEOTECHNICAL ENGINEERING CONSULTANTS</small>
** Positive (+) value indicates that the field moisture content is wetter than the optimum moisture content (OMC)	

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## Appendix D – NATA Test Results



Client:	Bild Group	Job No:	BDG2653
Project:	Lucas Estate - Stage K4 (Level 1)	Report:	1
Location:	Alfredton		

Sample No	1	2	3			
Date Tested	03/12/2022	03/12/2022	03/12/2022			
Time Tested	PM	PM	PM			

Test Location	Lot 2164	Lot 2164	Lot 2165			
	Refer to Plan	Refer to Plan	Refer to Plan			
Level/Layer	1	1	1			
Layer Thickness	mm 200	mm 200	mm 200			
Test Depth	mm 175	mm 175	mm 175			
Field Wet Density	t/m <sup>3</sup> 1.95	t/m <sup>3</sup> 1.97	t/m <sup>3</sup> 1.96			
Field Moisture Content	% 23.5	% 22.2	% 23.0			
Material:	Site Derived Clay	Site Derived Clay	Site Derived Clay			

Oversize Material	WET, % 0.0	0.0	0.0			
Sieve Size	mm 19	mm 19	mm 19			
Peak Converted Wet Density	t/m <sup>3</sup> 1.99	t/m <sup>3</sup> 2.02	t/m <sup>3</sup> 2.00			
Optimum Moisture Content	% 23.5	% 22	% 23			

Moisture Ratio	% 100	% 101	% 100			
Moisture Variation	% 0.0	% 0.0	% 0.0			
from OMC	OMC	OMC	OMC			
Density Ratio	% 98.0	% 97.5	% 98.0			

Specification:	95% STD	Test Selection:	N/A
Notes:	Ref: 1120 0399-1 (SI01)		
Test Method	AS1289 5.8.1, 5.7.1, 2.1.1, 1.1	Sampling Method:	AS 1289 1.2.1 6.4(b)



NATA Accredited Laboratory No. 20172  
Accreditation for compliance with ISO/IEC 17025 - Testing

Approved Signatory:



David Burns

Date: 20/02/2023



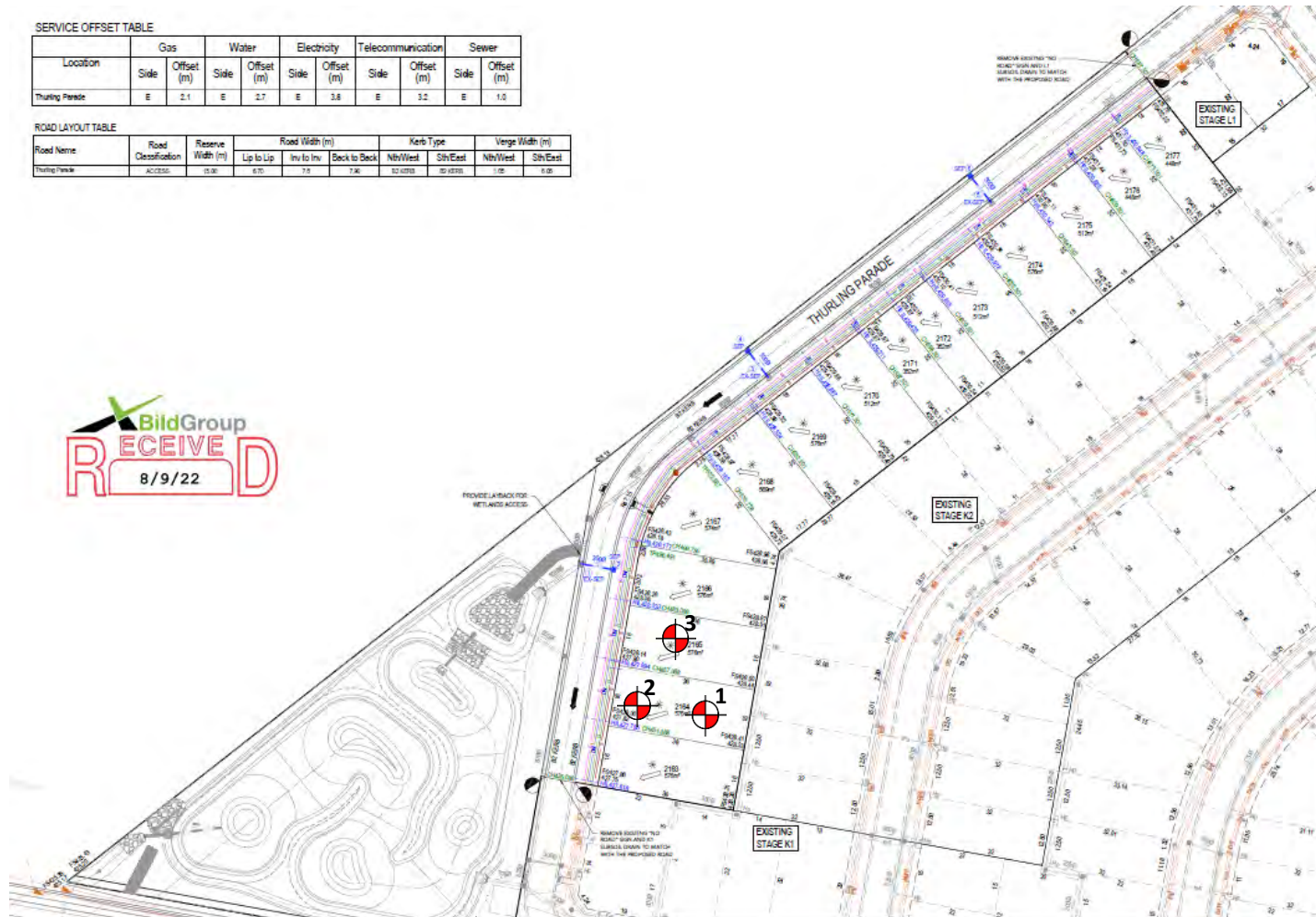
Test Location

SERVICE OFFSET TABLE

Location	Gas		Water		Electricity		Telecommunication		Sewer	
	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)
Thurling Parade	E	2.1	E	2.7	E	3.8	E	3.2	E	1.0

ROAD LAYOUT TABLE

Road Name	Road Classification	Reserve Width (m)	Road Width (m)				Kerb Type		Verge Width (m)	
			Lip to Lip	Inv to Inv	Back to Back	Nth/West	Sh/East	Nth/West	Sh/East	
Thurling Parade	ACCESS	18.00	6.70	7.5	7.50	12.00/10.00	10.00/10.00	1.00	6.00	



**EXISTING LAYOUT PLAN**

- STORMWATER DRAIN, PIT & PROPERTY SILET
- MELBOURNE WATER DRAIN & PIT
- SMALL DRAIN
- EXPOSED MAINTENANCE STRUCTURES
- HOUSE DRAIN
- SEWERAGE CONDUITS
- TRUCKLE PAVED ROADS (INDICATE ONLY)
- ELECTRICITY (UNDERGROUND)
- ELECTRICITY (OVERHEAD)
- OPTICAL FIBRE
- TELECOMMUNICATIONS
- GAZE
- WATER
- RECYCLED WATER
- EXISTING ELECTRICITY (UNDERGROUND)
- EXISTING ELECTRICITY (OVERHEAD)
- EXISTING GAS
- EXISTING OPTICAL FIBRE
- EXISTING TELECOMMUNICATIONS
- EXISTING WATER
- EXISTING RECYCLED WATER
- EXISTING STORMWATER DRAIN
- EXISTING SEWER
- EXISTING HOUSE DRAIN
- EXISTING SWALE DRAIN
- EXISTING SURFACE LEVEL
- PROPOSED BUILDING LEVEL
- FINISHED ROUGE LINE LEVEL
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- RETAINING WALL
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- ENVIRONMENT TREATMENT
- STRUCTURAL FILL - 200mm DEEP
- SO. STRUCTURAL FILL - 300mm DEEP
- DIRECTION OF FILL
- OVERLAND FLOW
- ALLOTMENT TO BE GRAZED FULLY IN
- DIRECTION OF FILL TO LEVELS INDICATED
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ISSUED FOR CONSTRUCTION

NO.	DESCRIPTION	DATE	BY	CHK	APP
1	ISSUED FOR CONSTRUCTION	03/12/2022	J. ZAK		
2	ISSUED FOR PERMIT APPLICATION	03/12/2022	J. ZAK		
3	ISSUED FOR APPROVAL	13/08/2022	J. ZAK		



Prepared: T. THOMAS 08/07/2021  
 Checked: L. RALSTON  
 Approved: J. ZAK 13/08/2022  
 Date: 03/12/2022  
 Project Number: 1800971

Beveridge Williams  
 SUITE A, 280 FLANDERS DRIVE  
 JERRARD VIC 3604  
 PH: 03 5437 5000  
 www.beveridgewilliams.com.au

Client: LUCAS ESTATE  
 Stage: K4  
 City: CITY OF BALLARAT  
 Name: LAYOUT PLAN

Sheet 03 of 08  
 Scale: 1:500 @ A1  
 Project No: 1800971  
 Stage: K4  
 Drawing No: 010  
 Rev: A

**PROJECT:**  
 Lucas Estate – Stage-K4 (Level 1)

**LOCATION:**  
 Alfredton

**CLIENT:**  
 Bild Group

**PROJECT No:**  
 1120 0399-1 (SI01)

**DATE:**  
 03/12/2022

**SITE PLAN SKETCH—NOT TO SCALE**



Client:	Bild Group	Job No:	BDG2653
Project:	Lucas Estate - Stage K4 (Level 1)	Report:	2
Location:	Alfredton		

Sample No	4	5	6			
Date Tested	05/12/2022	05/12/2022	05/12/2022			
Time Tested	PM	PM	PM			

Test Location	Lot 2165	Lot 2165	Lot 2164			
	Refer to Plan	Refer to Plan	Refer to Plan			
Level/Layer	2	2	2			
Layer Thickness	mm 200	mm 200	mm 200			
Test Depth	mm 175	mm 175	mm 175			
Field Wet Density	t/m <sup>3</sup> 1.92	t/m <sup>3</sup> 1.94	t/m <sup>3</sup> 1.96			
Field Moisture Content	% 22.5	% 21.9	% 23.5			
Material:	Site Derived Clay	Site Derived Clay	Site Derived Clay			

Oversize Material	WET, % 0.0	0.0	0.0			
Sieve Size	mm 19	mm 19	mm 19			
Peak Converted Wet Density	t/m <sup>3</sup> 1.96	t/m <sup>3</sup> 1.99	t/m <sup>3</sup> 2.00			
Optimum Moisture Content	% 22.5	% 22	% 23.5			

Moisture Ratio	% 100	% 99.5	% 100			
Moisture Variation	% 0.0	% 0.0	% 0.0			
from OMC	OMC	OMC	OMC			
Density Ratio	% 98.0	% 97.5	% 98.0			

Specification:	95% STD	Test Selection:	N/A
Notes:	Ref: 1120 0399-1 (SI02)		
Test Method	AS1289 5.8.1, 5.7.1, 2.1.1, 1.1	Sampling Method:	AS 1289 1.2.1 6.4(b)



NATA Accredited Laboratory No. 20172  
Accreditation for compliance with ISO/IEC 17025 - Testing

Approved Signatory:



David Burns

Date: 20/02/2023



Test Location

**SERVICE OFFSET TABLE**

Location	Gas		Water		Electricity		Telecommunication		Sewer	
	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)
Thurling Parade	E	2.1	E	2.7	E	3.8	E	3.2	E	1.0

**ROAD LAYOUT TABLE**

Road Name	Road Classification	Reserve Width (m)	Road Width (m)			Kerb Type		Verge Width (m)	
			Lip to Lip	Inv to Inv	Back to Back	Nth/West	Sh/East	Nth/West	Sh/East
Thurling Parade	ACCESS	15.00	6.70	7.5	7.50	10.00/10.00	10.00/10.00	1.00	6.00



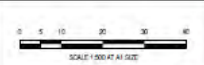
**EXISTING LAYOUT PLAN**

- STORMWATER DRAIN, PIT & PROPERTY SILET
- MELBOURNE WATER DRAIN & PIT
- SMALL DRAIN
- EXISTING MAINTENANCE STRUCTURES
- HOUSE DRAIN
- SEWER CONDUITS
- WATER PIPES (INDICATE ONLY)
- ELECTRICITY (UNDERGROUND)
- ELECTRICITY (OVERHEAD)
- OPTIC FIBRE
- TELECOMMUNICATIONS
- GAZE
- WATER
- RECYCLED WATER
- EXISTING ELECTRICITY (UNDERGROUND)
- EXISTING ELECTRICITY (OVERHEAD)
- EXISTING GAS
- EXISTING OPTIC FIBRE
- EXISTING TELECOMMUNICATIONS
- EXISTING WATER
- EXISTING RECYCLED WATER
- EXISTING STORMWATER DRAIN
- EXISTING SEWER
- EXISTING HOUSE DRAIN
- EXISTING SWALE DRAIN
- EXISTING SURFACE LEVEL
- PROPOSED BUILDING LEVEL
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- EXISTING TREE TO BE PRESERVED
- PERMANENT SURVEY MARK
- TEMPORARY BENCH MARK
- PROPOSED DRIVEWAY
- TREE PROTECTION ZONE (TPZ)

**WARNING**  
 BEWARE OF UNDERGROUND SERVICES  
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**DIAL 1100 BEFORE YOU DIG**  
 www.1100.gov.au

ISSUED FOR CONSTRUCTION

NO.	DESCRIPTION	DATE	BY	CHK	APP
1	ISSUED FOR CONSTRUCTION	05/12/2022	J. ZHANG		
2	ISSUED FOR PERMIT APPLICATION	05/12/2022	J. ZHANG		
3	ISSUED FOR APPROVAL	13/08/2022	J. ZHANG		



Prepared: T. THOMAS 08/07/2021  
 Checked: L. RALSTON  
 Approved: J. ZHANG 13/08/2022  
 Project Number: 1800971

Beveridge Williams  
 SUITE 6.000 RUSSELL DRIVE  
 JERRARD VIC 3600  
 PH: 08 8347 5000  
 www.beveridgewilliams.com.au

Client: LUCAS ESTATE  
 Stage: K4  
 City: CITY OF BALLARAT  
 Name: LAYOUT PLAN

Sheet 03 of 08  
 Scale: 1:500 @ A1  
 Project No: 1800971  
 Stage: K4  
 Drawing No: 010  
 Rev: A

**PROJECT:**  
 Lucas Estate – Stage-K4 (Level 1)

**LOCATION:**  
 Alfredton

**CLIENT:**  
 Bild Group

**PROJECT No:**  
 1120 0399-1 (SI02)

**DATE:**  
 05/12/2022

**SITE PLAN SKETCH—NOT TO SCALE**

**A&Y ASSOCIATES**  
 GEOTECHNICAL ENGINEERING CONSULTANTS

Client:	Bild Group	Job No:	BDG2653
Project:	Lucas Estate - Stage K4 (Level 1)	Report:	3
Location:	Alfredton		

Sample No	7	8	9			
Date Tested	06/12/2022	06/12/2022	06/12/2022			
Time Tested	PM	PM	PM			

Test Location	Lot 2164	Lot 2164	Lot 2165			
	Refer to Plan	Refer to Plan	Refer to Plan			
Level/Layer	3	3	3			
Layer Thickness	mm 200	mm 200	mm 200			
Test Depth	mm 175	mm 175	mm 175			
Field Wet Density	t/m <sup>3</sup> 1.97	t/m <sup>3</sup> 1.95	t/m <sup>3</sup> 1.93			
Field Moisture Content	% 23.6	% 23.9	% 23.0			
Material:	Site Derived Clay	Site Derived Clay	Site Derived Clay			

Oversize Material	WET, %	0.0	0.0	0.0		
Sieve Size	mm	19	19	19		
Peak Converted Wet Density	t/m <sup>3</sup>	2.01	2.00	1.97		
Optimum Moisture Content	%	23.5	23.5	23		

Moisture Ratio	%	100.5	101.5	100		
Moisture Variation	%	0.0	0.0	0.0		
from OMC	OMC	OMC	OMC	OMC		
Density Ratio	%	98.0	97.5	98.0		

Specification:	95% STD	Test Selection:	N/A
Notes:	Ref: 1120 0399-1 (SI03)		
Test Method	AS1289 5.8.1, 5.7.1, 2.1.1, 1.1	Sampling Method:	AS 1289 1.2.1 6.4(b)



NATA Accredited Laboratory No. 20172  
Accreditation for compliance with ISO/IEC 17025 - Testing

Approved Signatory:



David Burns

Date: 20/02/2023



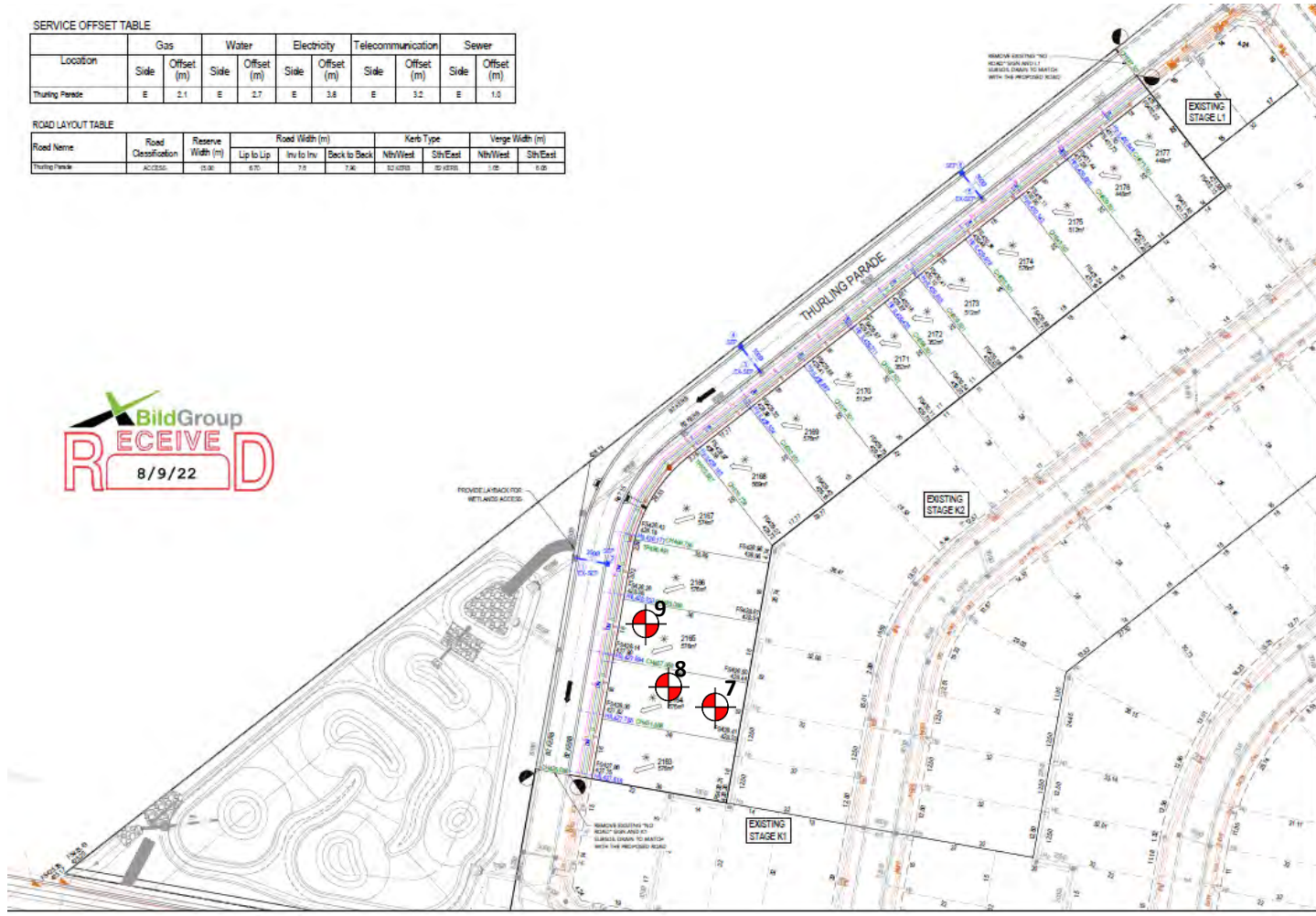
Test Location

**SERVICE OFFSET TABLE**

Location	Gas		Water		Electricity		Telecommunication		Sewer	
	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)
Thurling Parade	E	2.1	E	2.7	E	3.8	E	3.2	E	1.0

**ROAD LAYOUT TABLE**

Road Name	Road Classification	Reserve Width (m)	Road Width (m)			Kerb Type		Verge Width (m)	
			Lip to Lip	Inv to Inv	Back to Back	Nth/West	Sh/East	Nth/West	Sh/East
Thurling Parade	ACCESS	18.00	6.70	7.5	7.50	SI WEST	SI WEST	1.00	6.00



**EXISTING LAYOUT PLAN**

- STORMWATER DRAIN, PIT & PROPERTY SILET
- MELBOURNE WATER DRAIN & PIT
- SMALL DRAIN
- EXISTING MAINTENANCE STRUCTURES
- HOUSE DRAIN
- SEWER CONDUITS
- TRUCKLE PAVED INDICATOR ONLY
- ELECTRICITY (UNDERGROUND)
- ELECTRICITY (OVERHEAD)
- OPTIC FIBRE
- TELECOMMUNICATIONS
- GAZE
- WATER
- RECYCLED WATER
- EXISTING ELECTRICITY (UNDERGROUND)
- EXISTING ELECTRICITY (OVERHEAD)
- EXISTING GAS
- EXISTING OPTIC FIBRE
- EXISTING TELECOMMUNICATIONS
- EXISTING WATER
- EXISTING RECYCLED WATER
- EXISTING STORMWATER DRAIN
- EXISTING SEWER
- EXISTING HOUSE DRAIN
- EXISTING SWALE DRAIN
- EXISTING SURFACE LEVEL
- PROPOSED BUILDING LINE LEVEL
- FINISHED ROUGE LINE LEVEL
- TOP OF RETAINING WALL
- BOTTOM OF RETAINING WALL
- ROUGE LINE
- RETAINING WALL
- PROPOSED FENCES
- ENVIRONMENT TREATMENT
- STRUCTURAL FILL - 200mm DEEP
- SI CONSTRUCTION FILL - 300mm DEEP
- DIRECTION OF FILL
- OVERLAND FLOW
- ALLOTMENT TO BE GRAZED FULLY IN
- DIRECTION OF FILL TO LEVELS INDICATED
- CONCRETE SIDE STRIP WITH SUBSOIL DRAIN
- NO ROAD SIGN & BARRELS
- LIMIT OF WORKS
- EXISTING TREE TO BE PRESERVED
- PERMANENT SURVEY MARK
- TEMPORARY BENCH MARK
- PROPOSED DRIVEWAY
- TREE PROTECTION ZONE (TPZ)

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Prepared: T. THOMAS 06/12/2021  
 Checked: L. RALSTON  
 Approved: J. ZHANG 13/08/2022  
 Drawn: J. ZHANG  
 Scale: 1:500 AT ALL SIZES

Beveridge Williams  
 SUITE A, 280 FLANDERS DRIVE  
 LUCAS VALE, VIC 3040  
 PH: 03 9477 5000  
 www.beveridgewilliams.com.au

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Sheet 03 of 08  
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 Project No: 1800971  
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**PROJECT:**  
 Lucas Estate – Stage-K4 (Level 1)

**CLIENT:**  
 Bild Group

**DATE:**  
 06/12/2022

**LOCATION:**  
 Alfredton

**PROJECT No:**  
 1120 0399-1 (SI03)

**SITE PLAN SKETCH—NOT TO SCALE**

