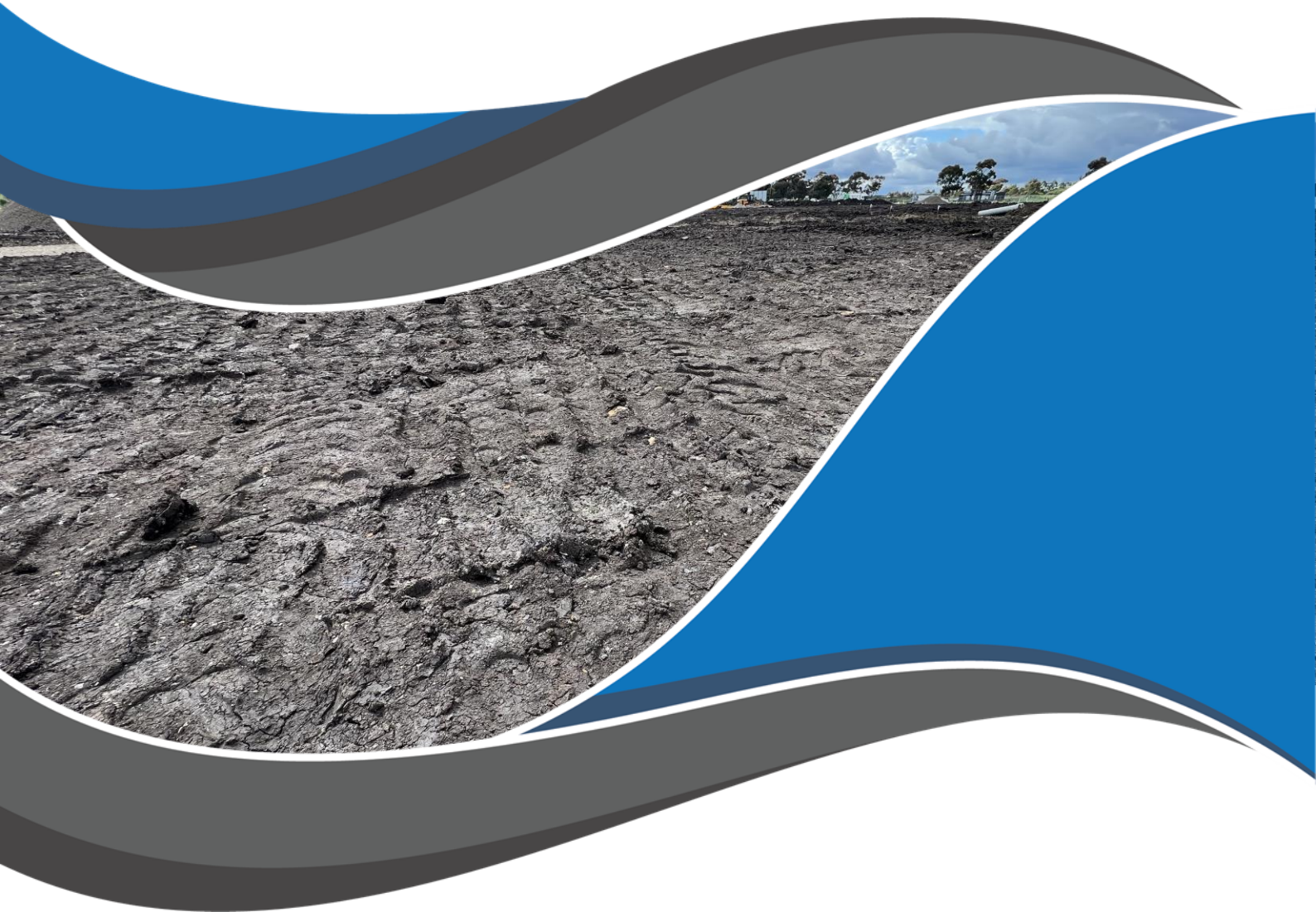


Timbarra Estate - Stage 3, Beveridge

Level 1 Inspection & Testing Report

Reference: 1120 0367-1



Prepared for:

Bild Group

April 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 0367-1				
Client	Bild Group				
Contact name	Deeya Modun				
Contact number	0409 169 479				
Contact e-mail	deeya.modun@bild.group				
Revision	Date	Descriptions/Status	Author	Reviewer	Approver
0	04/04/2023	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

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.

This report has been prepared exclusively for use by our client. This report cannot be reproduced without the written authorisation of A&Y and then can only be reproduced in its entirety.

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.

No responsibility for this report will be taken by A&Y if it is altered in any way, or not reproduced in full.

Contents

1	Introduction	3
2	Project Summary	3
3	Project Specifications	4
4	Subgrade Assessment	5
5	Earthworks.....	5
6	Fill Material.....	5
7	Testing	6
8	Finished Surface Levels	6
9	Exclusion.....	6
10	Conclusion	7
	Appendix A - Site Plan.....	8
	Appendix B – Test Locations	10
	Appendix C – Test Results Summary	12
	Appendix D – NATA Test Results.....	15

1 Introduction

This report presents the results of the Level 1 Inspection and Testing for the construction of the fill platforms located in Timbarra Estate - Stage 3 in Beveridge.

2 Project Summary

It is understood that Bild Group require the fill platforms 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 13 (thirteen) working days from 6th of October 2022 to 11th of November 2022.

This report is applicable for fill placed by Bild Group for the following lots located in Timbarra Estate - Stage 3 in Beveridge, as shown in Appendix A – Site Plan.

- Lot 302 - 326

3 Project Specifications

No specification has been provided for the construction works in Timbarra Estate - Stage 3. The supervision and inspections were performed based on 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**.

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 6th of October 2022 and 11th of October 2022 mentioned in report *1120 0367-1 (SS1)*.

The exposed subgrade material was found comprised of 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 200-800mm. 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 with gravels.

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 39 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 39 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

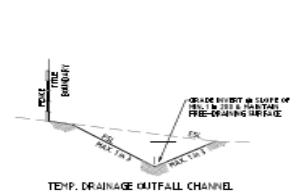
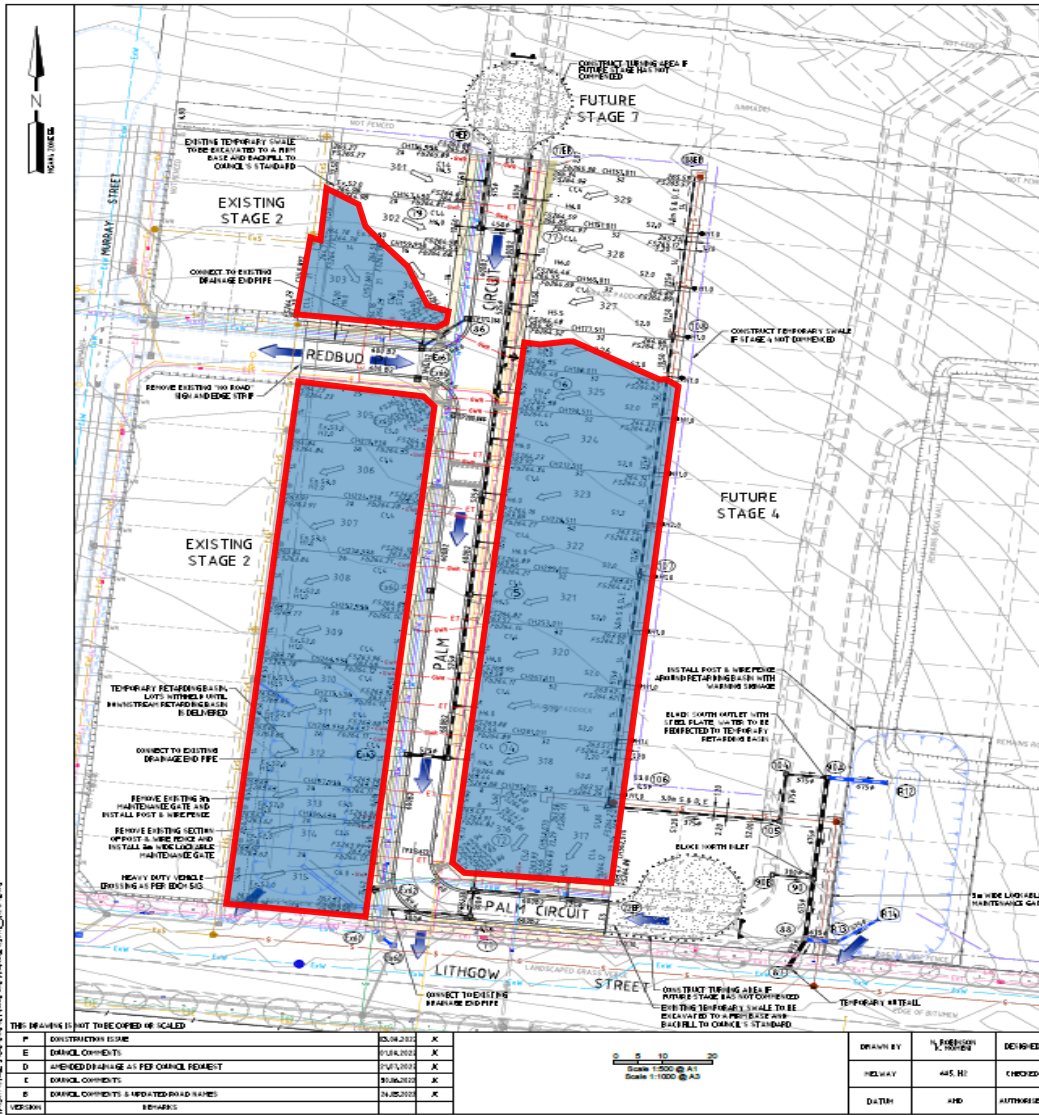
A&Y Associates was not involved in monitoring and testing the following works and as such are not included in the Level 1 report.

- 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.

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.

Appendix A - Site Plan



LEGEND

—	PROPOSED WATER MAIN	—	E-W	E-W	E-W WATER MAIN
—	NON-DRAINING WATER MAIN	—	EW-N	EW-N	EW-NON-DRAINING WATER MAIN
—	PROPOSED SEWER	—	E-S	E-S	E-S SEWER
—	PROPOSED GAS MAIN	—	E-G	E-G	E-G GAS MAIN & VALVE
—	PROPOSED ELECTRICAL CABLES	—	E-C	E-C	E-C ELECTRICAL CABLE
—	PROPOSED COMM. CABLES	—	E-C	E-C	E-C COMM. CABLES
—	PROPOSED DRAIN & FIT	—	E-D	E-D	E-D DRAIN & FIT
—	PROPOSED HOUSE DRAIN	—	E-HD	E-HD	E-HD HOUSE DRAIN
—	PROPOSED PRIORITY INLET	—	—	—	—
—	PROPOSED TIE-UP BATTER	—	—	—	—
—	PROPOSED TIE-UP BATTER	—	—	—	—
—	OVERALL DIRECTION TO LOCAL POINT OF DISCHARGE	—	—	—	—
—	TEMPORARY DRAINAGE	—	—	—	—
—	TEMPORARY DRAIN SHALE	—	—	—	—
E1	300mm WIDTH EDGE STRIP AS PER EACH 301				
E2	600mm WIDTH E2 TYPE BASSINET EDGE AS PER EACH 301				
E3	600mm WIDTH E3 TYPE BASSINET EDGE AS PER EACH 301				
—	DRAINAGE FIT NUMBER				
—	FILL IN EXCESS OF 200mm				
—	CUT IN EXCESS OF 200mm				

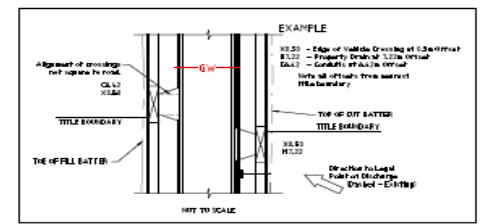
THIS PLAN SHOWS APPROXIMATE EXISTENCE OF AND ALL TO BE EXISTING AND TO BE CONSTRUCTED BY THE OWNER BASED ON THE EXISTING SITE SURFACE LEVELS AND PROVIDED FINISHED LEVELS DRAWN.

THE EXTENT OF FILL, 300mm IS BASED ON DESIGN AND MAY BE SUBJECT TO CHANGE DURING CONSTRUCTION.

THE DEPTH OF THE DRAINAGE FILL MAY VARY BY UP TO 0.5m.

PROPOSED BASED PAVEMENT.

TEMPORARY TYPING AREA TO BE EXCAVATED TO A FINISH BULK AND BACKFILL TO GRADE WITH SAND.



WARNING

BEWARE OF UNDERGROUND SERVICES
 THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THERE IS A RISK OF DAMAGE TO EXISTING SERVICES IF YOU DO NOT CHECK FOR ALL EXISTING SERVICES BEFORE ANY CONSTRUCTION WORK.

CONSTRUCTION PLAN

REVISIONS TO BE MADE TO THIS PLAN

F	CONSTRUCTION ISSUE	20/04/2022	J
E	DRAWING COMMENTS	20/04/2022	J
D	APPROVED DRAINAGE AS PER COUNCIL REQUIREMENT	20/04/2022	J
C	DRAWING COMMENTS	20/04/2022	J
B	DRAWING COMMENTS & MODIFIED DRAWING NAME	20/04/2022	J

SCALE	1:1000
DATE	20/04/2022
DRAWN BY	J. HARRISON
CHECKED BY	J. HARRISON
DATE	20/04/2022

DRAWN BY	J. HARRISON	CHECKED BY	J. HARRISON
DATE	20/04/2022	APPROVED BY	C. BARRINGTON

REEDS CONSULTING

LAND SURVEYING
 CIVIL ENGINEERING
 PLANNING
 LANDSCAPE ARCHITECTURE
 DEVELOPMENT CONSULTING

100-102 South Street, Melbourne Victoria 3000
 Australia
 Phone: +61 3 9593 9999
 Fax: +61 3 9593 9998
 Email: info@reedsconsulting.com.au
 Copyright © 2022 Reeds Consulting

MITCHELL SHIRE COUNCIL TIMBARRA ESTATE STAGE 3 LAYOUT PLAN		DRAWING No.	3R2	VERSION	F
		PROJECT	23017E/3		
		SHEET	2	OF	13

PROJECT:
Timbarra Estate – Stage 3 (Level 1)

CLIENT:
Bild Group (Urban)

LOCATION:
Beveridge

PROJECT No:
1120 0367-1

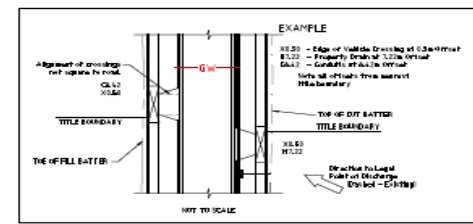
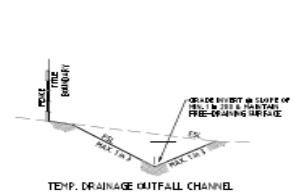
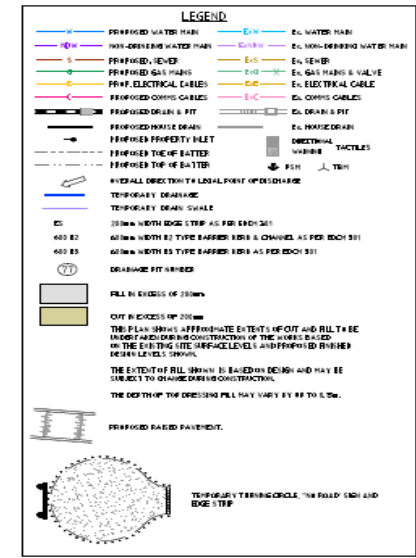
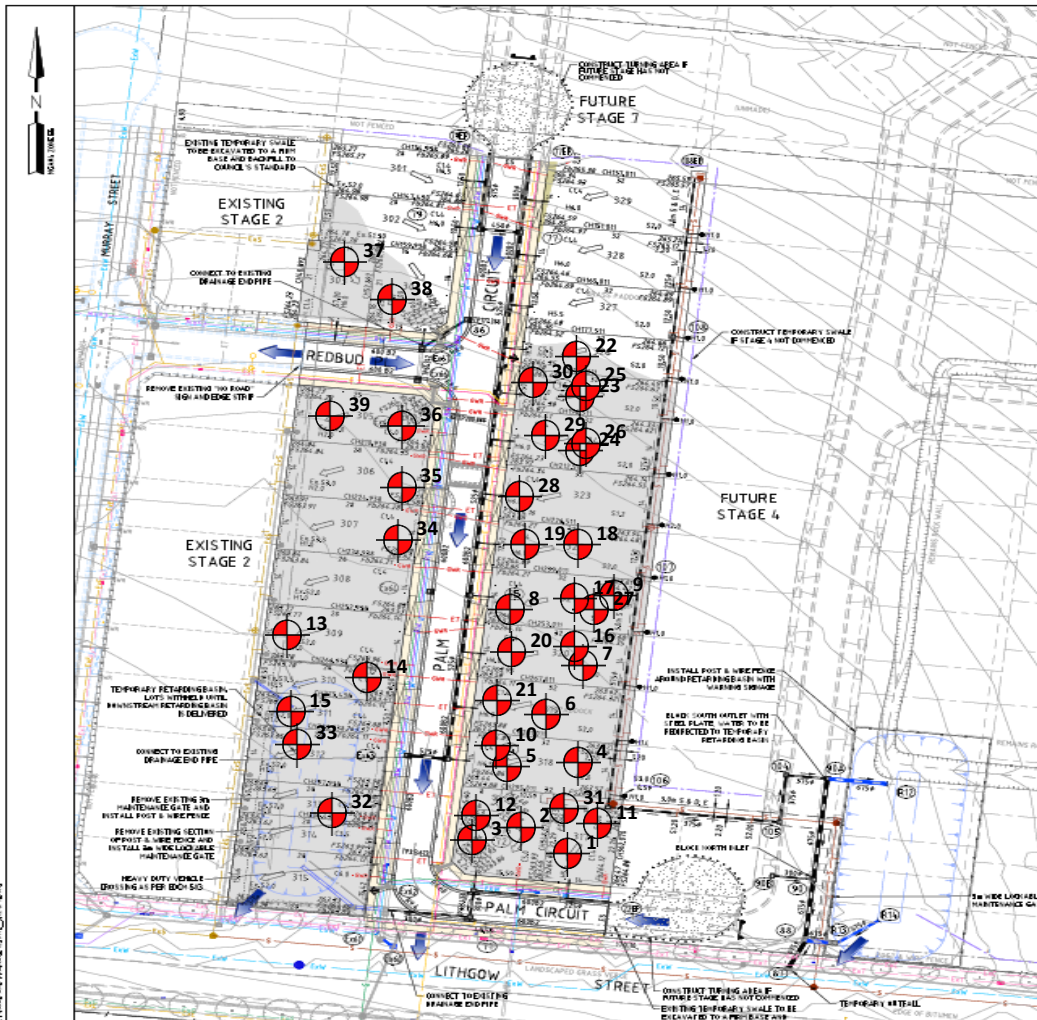
SITE PLAN SKETCH—NOT TO SCALE



Appendix B – Test Locations



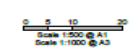
Indicative Test Location



WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THERE IS A RISK OF DAMAGE TO THESE SERVICES IF YOU DIG WITHOUT CHECKING THE LOCATION OF SERVICES.
CHECK THAT ALL EXISTING SERVICES ARE MARKED.

CONSTRUCTION PLAN

THIS DRAWING IS NOT TO BE USED IF NOT CALLED			
P	CONSTRUCTION ISSUE	03/04/2022	K
E	DESIGN COMMENTS	03/04/2022	K
D	APPROVED DRAWING AS PER COUNCIL REQUIREMENT	03/04/2022	K
C	DESIGN COMMENTS	03/04/2022	K
B	DESIGN COMMENTS & MODIFIED DRAWING NAME	04/06/2022	K



DRAWN BY	N. PETERSON	DENIED BY	A. CHN
CHECKED BY	445. HI	CHECKED BY	A. CHN
DATE	4/10	AUTHORIZED BY	C. BAYRESON



LAND SURVEYING
CIVIL ENGINEERING
PLANNING
LANDSCAPE ARCHITECTURE
DEVELOPMENT CONSULTING

MITCHELL SHIRE COUNCIL
TIMBARRA ESTATE
STAGE 3
LAYOUT PLAN

DRAWING No.	3R2	VERSION	F
PROJECT	23017E/3		
SHEET	2	OF	13

PROJECT:
Timbarra Estate – Stage 3 (Level 1)

CLIENT:
Bild Group (Urban)

LOCATION:
Beveridge

PROJECT No.:
1120 0367-1

SITE PLAN SKETCH—NOT TO SCALE



Appendix C – Test Results Summary

Project No		1120 0367-1			Client	Bild Group				
Project Name		Timbarra Estate - Stage 3			Specification			Density Ratio \geq 95% of Peak Wet Density		
Location		Beveridge								
Test No	Retest of Test	Date	Location	Layer	Oversize	Density Ratio	Moisture Ratio	Moisture Variation	Pass / Fail	Retest
#	#		Lot #	#	%	%	%	%		Pass / Fail
1	-	06/10/2022	-	1	0.0	97.0	107.0	1.5	Pass	-
2	-	06/10/2022	-	1	0.0	97.5	107.5	1.5	Pass	-
3	-	06/10/2022	-	1	0.0	96.5	106.0	1.5	Pass	-
4	-	07/10/2022	-	1	2.0	96.0	95.5	-1.0	Pass	-
5	-	07/10/2022	-	1	2.5	97.0	109.0	2.0	Pass	-
6	-	07/10/2022	-	1	1.8	95.5	99.5	-0.5	Pass	-
7	-	10/10/2022	-	1	0.0	97.0	99.0	-0.5	Pass	-
8	-	10/10/2022	-	1	0.0	96.0	105.5	1.5	Pass	-
9	-	10/10/2022	-	1	0.0	96.0	108.0	2.0	Pass	-
10	-	11/10/2022	-	2	0.0	98.5	106.0	1.5	Pass	-
11	-	11/10/2022	-	2	0.0	99.0	96.5	-0.5	Pass	-
12	-	11/10/2022	-	2	0.0	99.5	95.5	-1.0	Pass	-
13	-	26/10/2022	-	1	0.0	96.5	107.5	1.5	Pass	-
14	-	26/10/2022	-	1	0.0	95.5	107.0	1.5	Pass	-
15	-	26/10/2022	-	1	0.0	96.0	99.0	-0.5	Pass	-
16	-	27/10/2022	-	1	0.0	96.5	98.5	-0.5	Pass	-
17	-	27/10/2022	-	1	0.0	96.0	108.0	2.0	Pass	-
18	-	27/10/2022	-	1	0.0	95.5	106.0	1.5	Pass	-
19	-	03/11/2022	-	2	4.9	96.5	108.0	2.0	Pass	-
20	-	03/11/2022	-	2	3.4	96.0	98.5	-0.5	Pass	-
21	-	03/11/2022	-	2	3.8	97.5	106.0	2.0	Pass	-
22	-	04/11/2022	-	1	4.3	97.0	109.0	1.5	Pass	-
23	-	04/11/2022	-	1	5.6	95.5	98.5	-0.5	Pass	-

** Negative (-) value indicates that the field moisture content is drier than the optimum moisture content (OMC)

** Positive (+) value indicates that the field moisture content is wetter than the optimum moisture content (OMC)



24	-	04/11/2022	-	1	4.1	96.0	108.0	1.5	Pass	-
25	-	05/11/2022	-	1	4.8	96.0	108.5	2.0	Pass	-
26	-	05/11/2022	-	1	3.7	98.0	99.0	-0.5	Pass	-
27	-	05/11/2022	-	1	5.2	96.0	96.0	-1.0	Pass	-
28	-	07/11/2022	-	1	3.4	96.5	97.0	-0.5	Pass	-
29	-	07/11/2022	-	1	4.9	95.0	107.0	1.5	Pass	-
30	-	07/11/2022	-	1	4.1	96.5	96.5	-0.5	Pass	-
31	-	09/11/2022	-	3	5.0	97.0	97.0	-0.5	Pass	-
32	-	09/11/2022	-	3	4.3	96.5	108.0	2.0	Pass	-
33	-	09/11/2022	-	3	3.6	96.0	109.5	2.0	Pass	-
34	-	10/11/2022	-	FSL	5.0	97.0	97.0	-0.5	Pass	-
35	-	10/11/2022	-	FSL	4.6	96.5	107.0	1.5	Pass	-
36	-	10/11/2022	-	FSL	3.8	96.5	108.0	2.0	Pass	-
37	-	11/11/2022	-	FSL	5.2	96.5	97.5	-0.5	Pass	-
38	-	11/11/2022	-	FSL	4.1	96.0	98.0	-0.5	Pass	-
39	-	11/11/2022	-	FSL	3.5	97.0	107.5	2.0	Pass	-

** Negative (-) value indicates that the field moisture content is drier than the optimum moisture content (OMC)

** Positive (+) value indicates that the field moisture content is wetter than the optimum moisture content (OMC)



Appendix D – NATA Test Results

Field Density Test Results

AS1289.5.7.1

Client:	Bild Group (Urban)	Job No:	BDG2477
Project:	Timbarra Estate - Stage 3 (Level 1)	Report:	1
Location:	Beveridge		


Sample No	1	2	3			
Date Tested	6/10/2022	6/10/2022	6/10/2022			
Time Tested	PM	PM	PM			

Test Location	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 ³ 1.79	t/m ³ 1.83	t/m ³ 1.81			
Field Moisture Content	% 24.6	% 23.2	% 23.9			
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 ³	1.85	1.88	1.87		
Optimum Moisture Content	%	23	21.5	22.5		

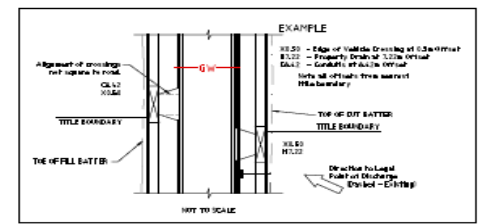
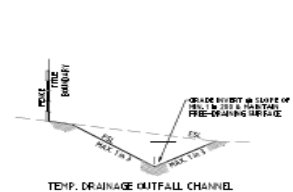
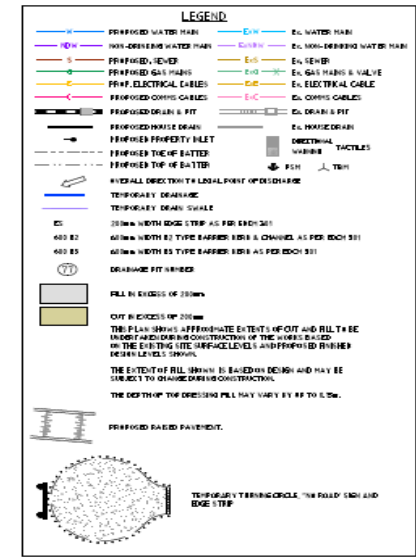
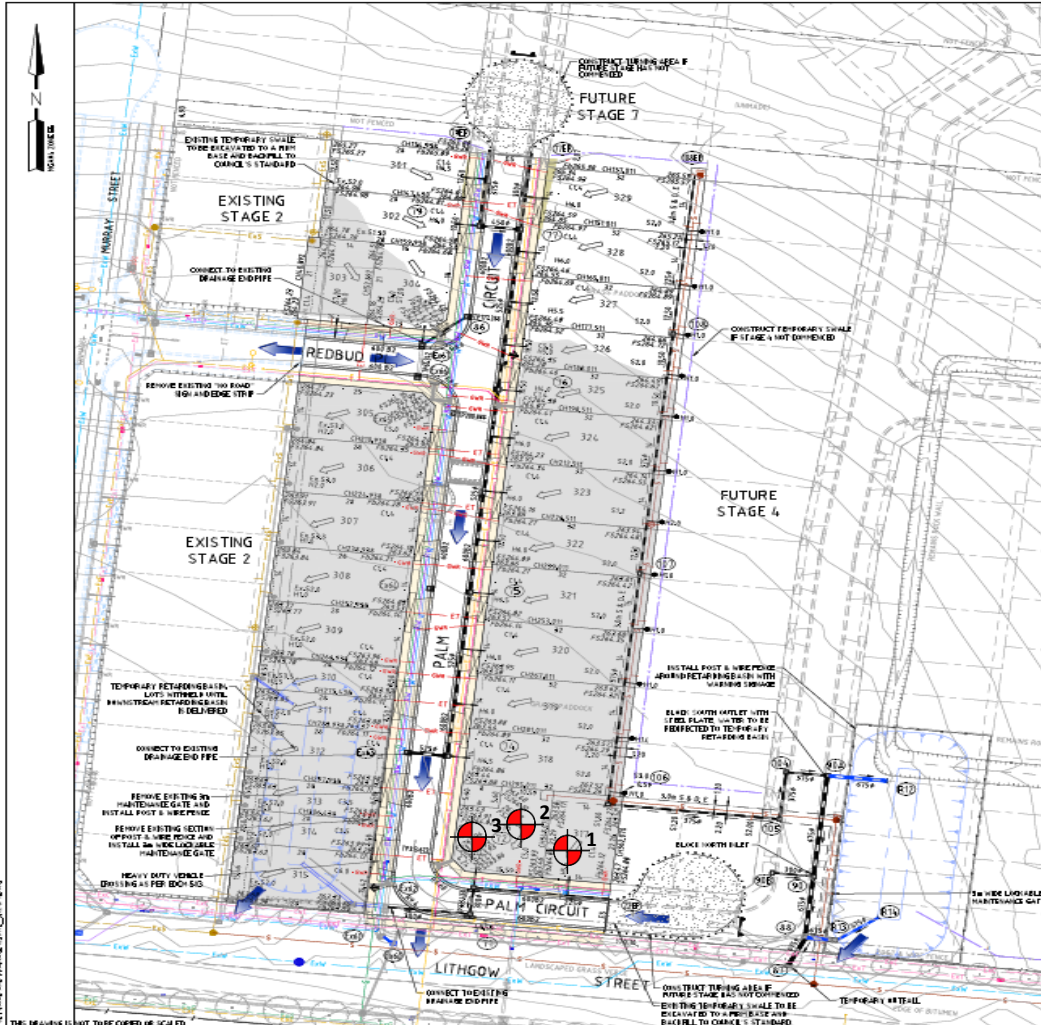
Moisture Ratio	%	107	107.5	106		
Moisture Variation from OMC	%	1.5	1.5	1.5		
Density Ratio	%	97.0	97.5	96.5		

Specification:	95% STD	Test Selection:	N/A
Notes:	Ref : 1120 0367-1 (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)

	<p>NATA Accredited Laboratory No. 20172</p> <p>Accreditation for compliance with ISO/IEC 17025 - Testing</p> <p>The results of tests, calibrations and/or measurements included in this document, are traceable to Australian / National Standards</p>	<p>Approved Signatory:</p> 	<p>David Burns</p> <p>Date: 26/10/2022</p>
---	--	--	--



Test Location



WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THERE IS A RISK OF DAMAGE TO THESE SERVICES IF YOU DIG WITHOUT KNOWING THAT ALL EXISTING SERVICES ARE SHOWN.

CONSTRUCTION PLAN

THIS DRAWING IS NOT TO BE COPIED OR REPRODUCED

P	CONSTRUCTION ISSUE	03/04/2022	J
E	DRAWING COMMENTS	01/04/2022	J
D	AMENDED DRAINAGE AS PER COUNCIL REQUIREMENT	21/01/2022	J
C	DRAWING COMMENTS	01/06/2022	J
B	DRAWING COMMENTS & MODIFIED DRAWING NAME	04/08/2022	J



DRAWN BY	N. PETERSON	DENIED BY	A. CHN
CHECKED BY	445. HI	CHECKED BY	A. CHN
DATE	4/10	AUTHORIZED BY	C. BAVERGEM



LAND SURVEYING
CIVIL ENGINEERING
PLANNING
LANDSCAPE ARCHITECTURE
DEVELOPMENT CONSULTING

111 & 113 Mitchell Street, Melbourne VIC 3000
PH 03 9594 8888
Copyright © 2022 Reeds Consulting

MITCHELL SHIRE COUNCIL
TIMBARRA ESTATE
STAGE 3
LAYOUT PLAN

DRAWING NO.	3R2	VERSION	F
PROJECT	23017E/3		
SHEET	2	OF	13

PROJECT:
Timbarra Estate – Stage 3 (Level 1)

CLIENT:
Bild Group (Urban)

DATE:
06/10/2022

LOCATION:
Beveridge

PROJECT No:
1120 0367-1 (SI01)

SITE PLAN SKETCH—NOT TO SCALE





Field Density Test Results

AS1289.5.7.1

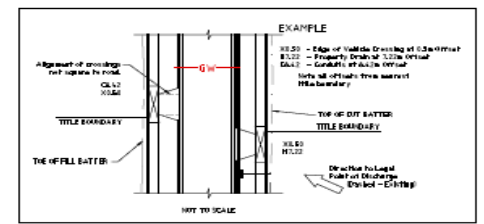
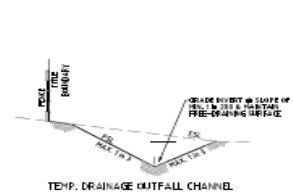
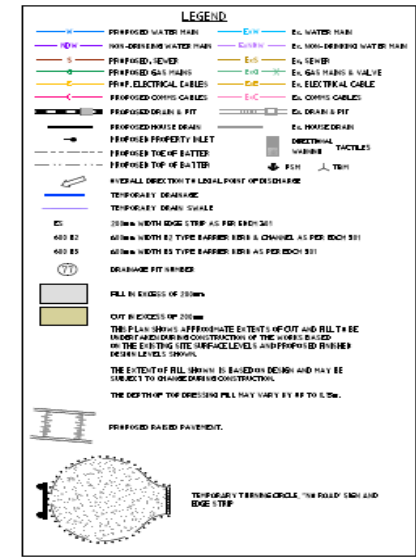
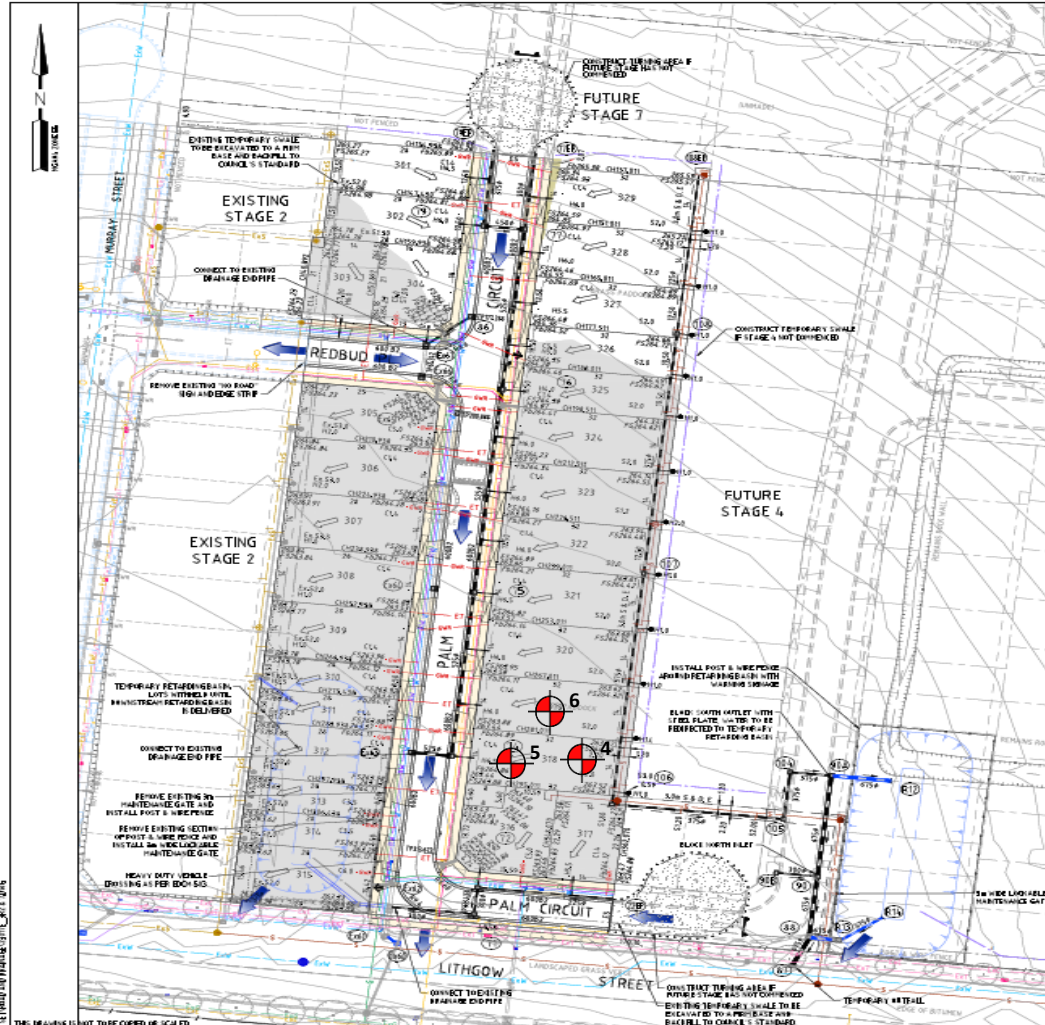
Client:	Bild Group (Urban)	Job No:	BDG2477
Project:	Timbarra Estate - Stage 3 (Level 1)	Report:	2
Location:	Beveridge		
Sample No	4	5	6
Date Tested	7/10/2022	7/10/2022	7/10/2022
Time Tested	AM	AM	AM
Test Location	Refer to Plan	Refer to Plan	Refer to Plan
Level/Layer	1	1	1
Layer Thickness	mm 200	mm 200	mm 200
Test Depth	mm 175	mm 175	mm 175
Field Wet Density	t/m ³ 1.81	t/m ³ 1.83	t/m ³ 1.79
Field Moisture Content	% 23.9	% 24.0	% 24.4
Material:	Site Derived Clay	Site Derived Clay	Site Derived Clay
Oversize Material	WET, % 2.0	WET, % 2.5	WET, % 1.8
Sieve Size	mm 19	mm 19	mm 19
Peak Converted Wet Density	t/m ³ 1.88	t/m ³ 1.90	t/m ³ 1.87
Optimum Moisture Content	% 25	% 22	% 24.5
Moisture Ratio	% 95.5	% 109	% 99.5
Moisture Variation from OMC	% -1.0 Drier	% 2.0 Wetter	% -0.5 Drier
Density Ratio	% 96.0	% 97.0	% 95.5

Specification:	95% STD	Test Selection:	N/A
Notes:	Ref : 1120 0367-1 (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)

	<p>NATA Accredited Laboratory No. 20172</p> <p>Accreditation for compliance with ISO/IEC 17025 - Testing</p> <p>The results of tests, calibrations and/or measurements included in this document, are traceable to Australian / National Standards</p>	<p>Approved Signatory:</p> 	<p>David Burns</p> <p>Date: 26/10/2022</p>
---	--	--	--



Test Location



WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THERE IS A RISK OF COLLISION DURING THE CONSTRUCTION OF THE WORK. ALL EXISTING SERVICES ARE SHOWN.

CONSTRUCTION PLAN

REVISIONS TO THIS DRAWING ARE SHOWN IN THE REVISION TABLE

THIS DRAWING IS NOT TO BE COPIED OR REPRODUCED

NO.	DESCRIPTION	DATE	BY
1	CONSTRUCTION ISSUE	20/04/2022	J. CIBN
2	DESIGN COMMENTS	20/04/2022	J. CIBN
3	AMENDED DRAINAGE AS PER COUNCIL FEEDBACK	20/04/2022	J. CIBN
4	DESIGN COMMENTS	20/04/2022	J. CIBN
5	DESIGN COMMENTS & MODIFIED ROAD NAMES	24/05/2022	J. CIBN



DRAWN BY	IN CHARGE	DESIGNED BY	CHECKED BY	DATE	AUTHORIZED BY
MELBAJ	445 MI	CHECKED BY	J. CIBN		C. BARRISON



LAND SURVEYING
CIVIL ENGINEERING
PLANNING
LANDSCAPE ARCHITECTURE
DEVELOPMENT CONSULTING

MITCHELL SHIRE COUNCIL
TIMBARRA ESTATE
STAGE 3
LAYOUT PLAN

DRAWING NO.	VERSION
3R2	F
PROJECT NO.	23017E/3
SHEET	2 OF 13

PROJECT:
Timbarra Estate – Stage 3 (Level 1)

CLIENT:
Bild Group (Urban)

DATE:
07/10/2022

LOCATION:
Beveridge

PROJECT No:
1120 0367-1 (SI02)

SITE PLAN SKETCH—NOT TO SCALE



Field Density Test Results

AS1289.5.7.1

Client:	Bild Group (Urban)	Job No:	BDG2477
Project:	Timbarra Estate - Stage 3 (Level 1)	Report:	3
Location:	Beveridge		

Sample No	7	8	9			
Date Tested	10/10/2022	10/10/2022	10/10/2022			
Time Tested	PM	PM	PM			

Test Location	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 ³ 1.82	t/m ³ 1.80	t/m ³ 1.79			
Field Moisture Content	% 23.8	% 24.3	% 24.8			
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 ³	1.88	1.87	1.87		
Optimum Moisture Content	%	24	23	23		

Moisture Ratio	%	99	105.5	108		
Moisture Variation from OMC	%	-0.5 Drier	1.5 Wetter	2.0 Wetter		
Density Ratio	%	97.0	96.0	96.0		

Specification:	95% STD	Test Selection:	N/A
Notes:	Ref : 1120 0367-1 (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
The results of tests, calibrations and/or measurements included
in this document, are traceable to Australian / National Standards

Approved Signatory:

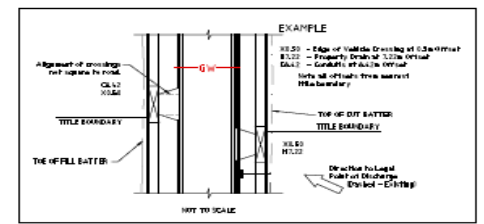
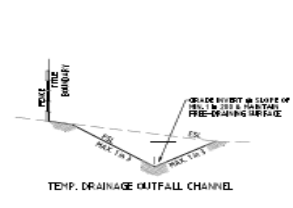
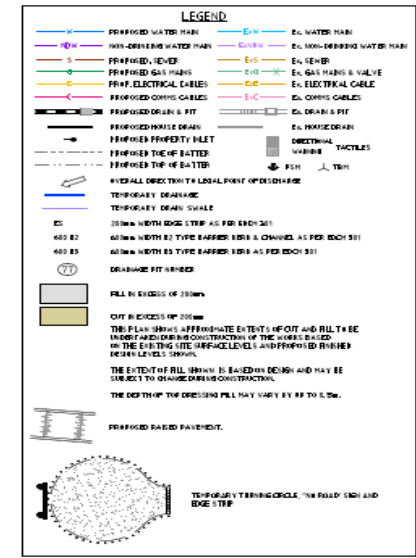
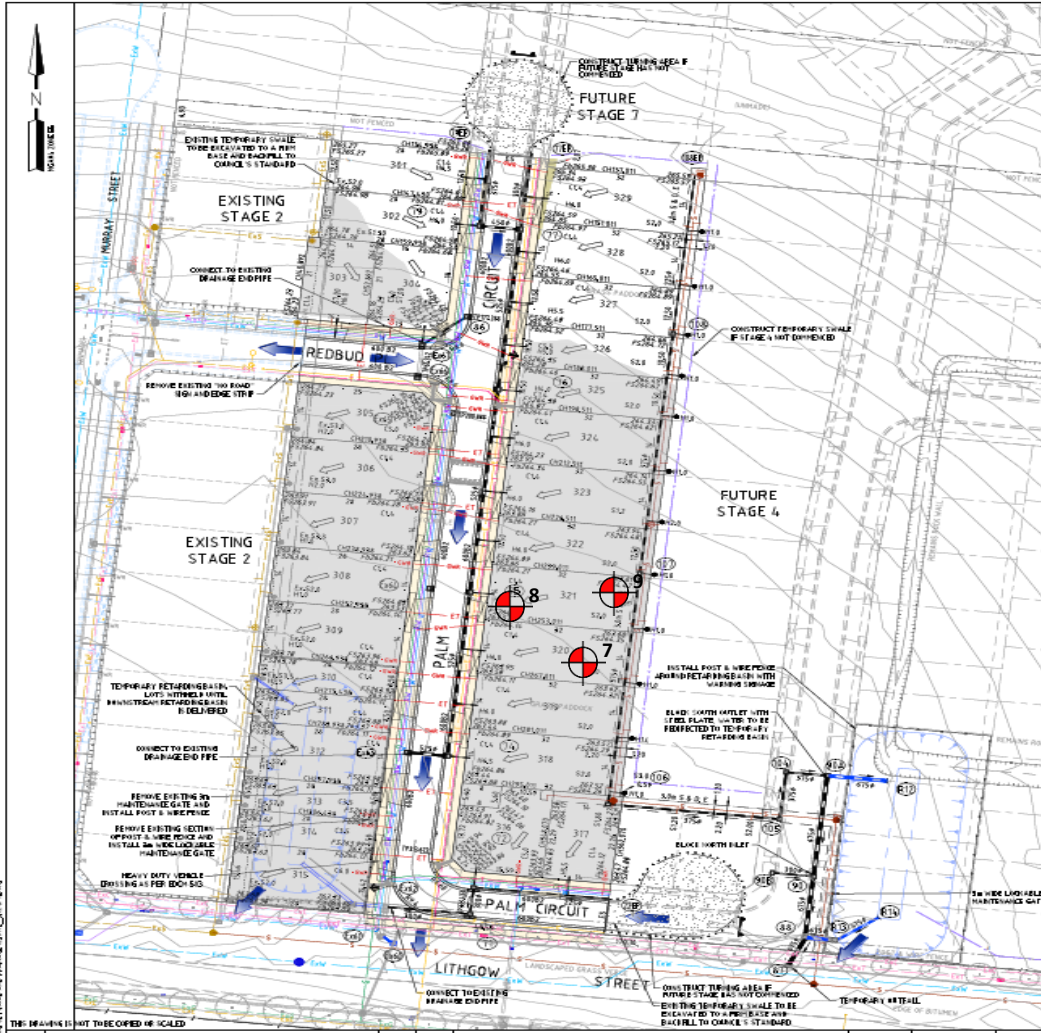


David Burns

Date: 26/10/2022



Test Location



WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THERE IS A RISK OF COLLISION WITH EXISTING SERVICES. VERIFY ALL EXISTING SERVICES ARE MARKED.

CONSTRUCTION PLAN

THIS DRAWING IS NOT TO BE COPIED OR REPRODUCED

REV	DESCRIPTION	DATE	BY
A	CONSTRUCTION ISSUE	20/04/2022	K
E	DRAWING COMMENTS	20/04/2022	K
D	AMENDED DRAINAGE AS PER COUNCIL FEEDBACK	20/04/2022	K
C	DRAWING COMMENTS	20/04/2022	K
B	DRAWING COMMENTS & MODIFIED DRAWING NAME	24/02/2022	K

DRAWN BY	N. PETERSON	DENIED BY	A. CIBI	
CHECKED BY	MELBAJ	445 HI	CHECKED BY	A. CIBI
DATE	4/10	AUTHORIZED BY	C. BARRISON	



LAND SUBDIVISION
CIVIL ENGINEERING
PLANNING
LANDSCAPE ARCHITECTURE
DEVELOPMENT CONSULTING

MITCHELL SHIRE COUNCIL
TIMBARRA ESTATE
STAGE 3
LAYOUT PLAN

DRAWING NO.	3R2	VERSION	F
PROJECT	23017E/3		
SHEET	2	OF	13

PROJECT:
Timbarra Estate – Stage 3 (Level 1)

LOCATION:
Beveridge

CLIENT:
Bild Group (Urban)

PROJECT No:
1120 0367-1 (SI03)

DATE:
10/10/2022

SITE PLAN SKETCH—NOT TO SCALE



Field Density Test Results

AS1289.5.7.1

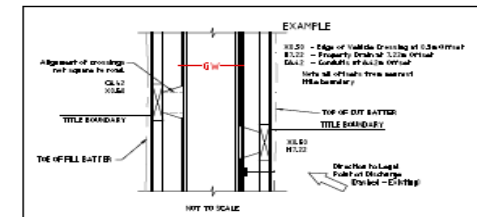
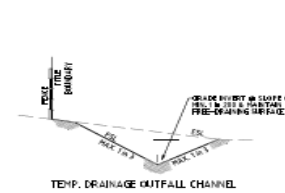
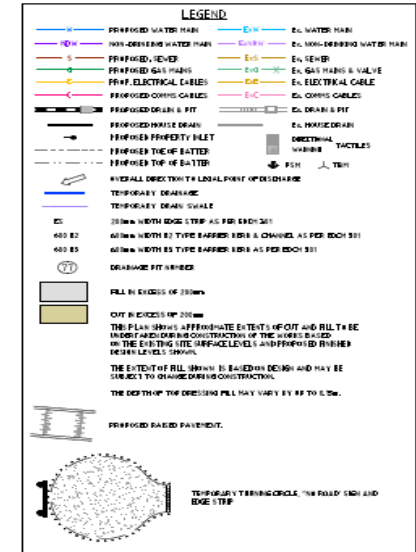
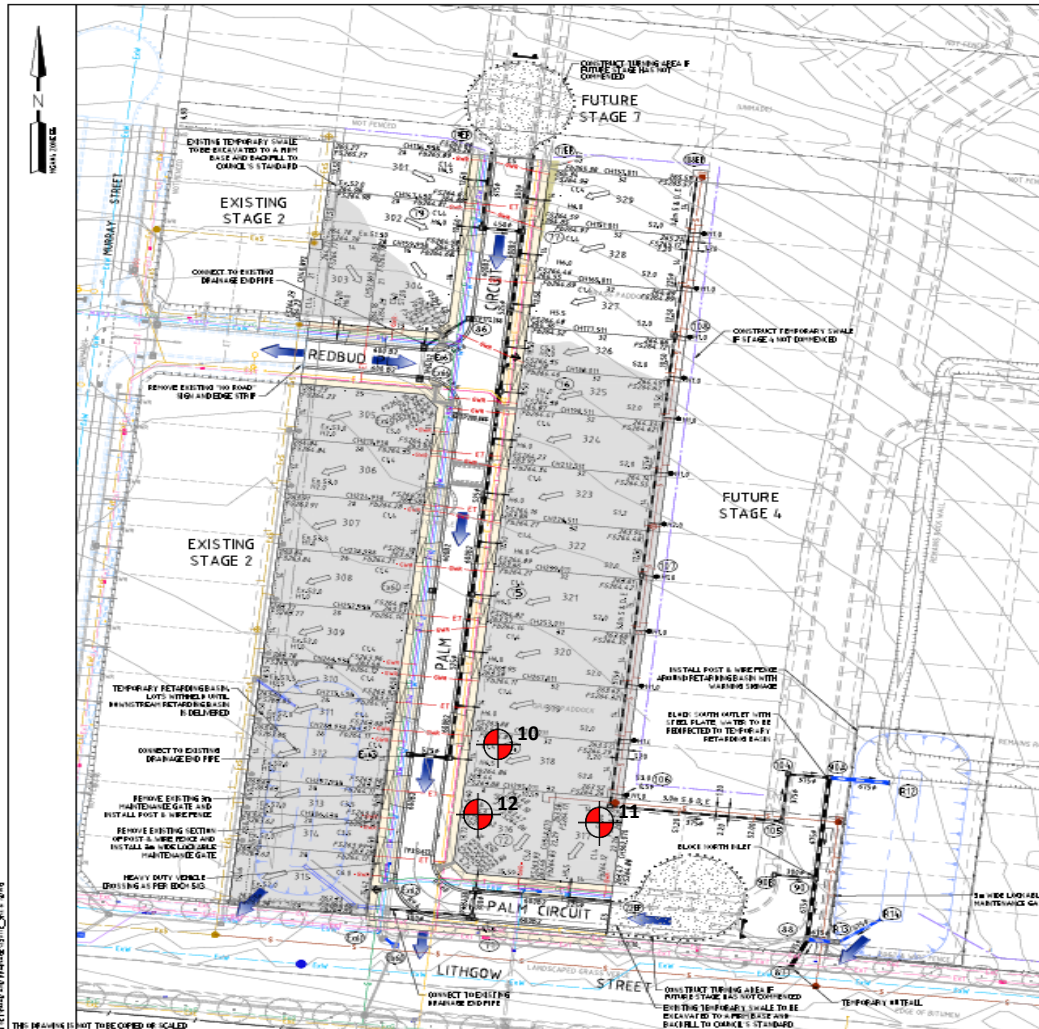
Client:	Bild Group (Urban)	Job No:	BDG2477
Project:	Timbarra Estate - Stage 3 (Level 1)	Report:	4
Location:	Beveridge		
Sample No	10	11	12
Date Tested	11/10/2022	11/10/2022	11/10/2022
Time Tested	AM	AM	AM
Test Location	Refer to Plan	Refer to Plan	Refer to Plan
Level/Layer	2	2	2
Layer Thickness	mm 200	mm 200	mm 200
Test Depth	mm 175	mm 175	mm 175
Field Wet Density	t/m ³ 1.89	t/m ³ 1.88	t/m ³ 1.99
Field Moisture Content	% 26.0	% 26.6	% 25.3
Material:	Site Derived Clay	Site Derived Clay	Site Derived Clay
Oversize Material	WET, % 0.0	WET, % 0.0	WET, % 0.0
Sieve Size	mm 19	mm 19	mm 19
Peak Converted Wet Density	t/m ³ 1.92	t/m ³ 1.90	t/m ³ 2.00
Optimum Moisture Content	% 24.5	% 27.5	% 26.5
Moisture Ratio	% 106	% 96.5	% 95.5
Moisture Variation from OMC	% 1.5 Wetter	% -0.5 Drier	% -1.0 Drier
Density Ratio	% 98.5	% 99.0	% 99.5

Specification:	95% STD	Test Selection:	N/A
Notes:	Ref : 1120 0367-1 (SI04)		
Test Method	AS1289 5.8.1, 5.7.1, 2.1.1, 1.1	Sampling Method:	AS 1289 1.2.1 6.4(b)

	<p>NATA Accredited Laboratory No. 20172</p> <p>Accreditation for compliance with ISO/IEC 17025 - Testing</p> <p>The results of tests, calibrations and/or measurements included in this document, are traceable to Australian / National Standards</p>	<p>Approved Signatory:</p> 	<p>David Burns</p> <p>Date: 17/10/2022</p>
---	--	--	--



Test Location

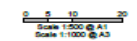


WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THERE IS A RISK OF DAMAGE TO THESE SERVICES IF THEY ARE NOT IDENTIFIED PRIOR TO CONSTRUCTION.
CHECK THAT ALL EXISTING SERVICES ARE MARKED.

CONSTRUCTION PLAN

THIS DRAWING IS NOT TO BE COPIED OR REPRODUCED

P	CONSTRUCTION ISSUE	03/04/2022	J
E	DRAWING COMMENTS	01/04/2022	K
D	AMENDED DRAINAGE AS PER COUNCIL FEEDBACK	01/04/2022	K
C	DRAWING COMMENTS	01/04/2022	K
B	DRAWING COMMENTS & MODIFIED DRAWING NAME	04/02/2022	K



DRAWN BY	N. PHILLIPS	DENIED BY	A. COH	
CHECKED BY	MELBAJ	445 HI	CHECKED BY	A. COH
DATE	4/10	AUTHORIZED BY	C. BAVERSON	

REEDS CONSULTING

LAND SUBDIVISION
CIVIL ENGINEERING
PLANNING
LANDSCAPE ARCHITECTURE
DEVELOPMENT CONSULTING

www.reedsconsulting.com.au
enquiries@reedsconsulting.com.au

101 & 102 Woodhill Street, Melbourne VIC 3002
P 03 9592 8999

Copyright © 2022 Reeds Consulting

MITCHELL SHIRE COUNCIL
TIMBARRA ESTATE
STAGE 3
LAYOUT PLAN

DRAWING NO.	3R2	VERSION	F
PROJECT	23017E/3		
SHEET	2 OF 13		

PROJECT:
Timbarra Estate – Stage 3 (Level 1)

CLIENT:
Bild Group (Urban)

DATE:
11/10/2022

LOCATION:
Beveridge

PROJECT No:
1120 0367-1 (SI04)

SITE PLAN SKETCH—NOT TO SCALE



Field Density Test Results AS1289.5.7.1

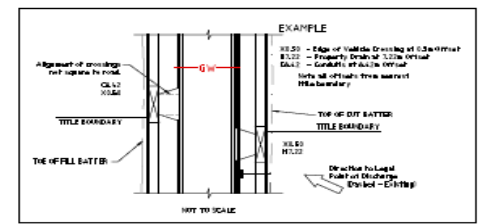
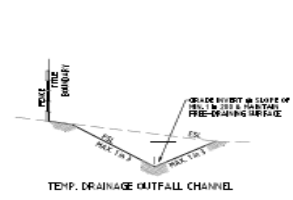
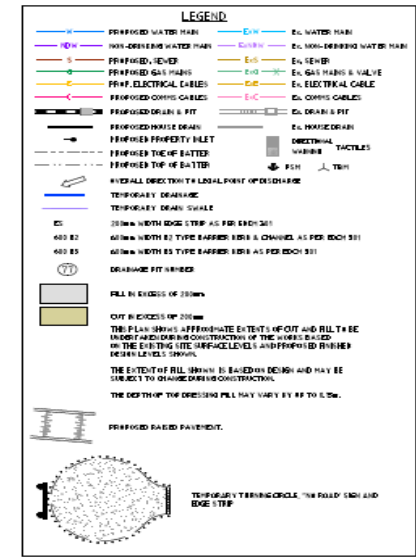
Client:	Bild Group (Urban)	Job No:	BDG2477
Project:	Timbarra Estate - Stage 3 (Level 1)	Report:	5
Location:	Beveridge		
Sample No	13	14	15
Date Tested	26/10/2022	26/10/2022	26/10/2022
Time Tested	AM	AM	AM
Test Location	Refer to Plan	Refer to Plan	Refer to Plan
Level/Layer	1	1	1
Layer Thickness	mm 200	mm 200	mm 200
Test Depth	mm 175	mm 175	mm 175
Field Wet Density	t/m ³ 1.79	t/m ³ 1.83	t/m ³ 1.82
Field Moisture Content	% 25.3	% 23.5	% 24.3
Material:	Site Derived Clay	Site Derived Clay	Site Derived Clay
Oversize Material	WET, % 0.0	WET, % 0.0	WET, % 0.0
Sieve Size	mm 19	mm 19	mm 19
Peak Converted Wet Density	t/m ³ 1.86	t/m ³ 1.92	t/m ³ 1.89
Optimum Moisture Content	% 23.5	% 22	% 24.5
Moisture Ratio	% 107.5	% 107	% 99
Moisture Variation from OMC	% 1.5 Wetter	% 1.5 Wetter	% -0.5 Drier
Density Ratio	% 96.5	% 95.5	% 96.0

Specification:	95% STD	Test Selection:	N/A
Notes:	Ref : 1120 0367-1 (SI05)		
Test Method	AS1289 5.8.1, 5.7.1, 2.1.1, 1.1	Sampling Method:	AS 1289 1.2.1 6.4(b)

 <p>NATA WORLD RECOGNISED ACCREDITATION</p>	<p>NATA Accredited Laboratory No. 20172</p> <p>Accreditation for compliance with ISO/IEC 17025 - Testing</p> <p>The results of tests, calibrations and/or measurements included in this document, are traceable to Australian / National Standards</p>	<p>Approved Signatory:</p> <div style="text-align: center;">  David Burns </div>	<p>Date:</p> <p style="text-align: center;">31/10/2022</p>
---	--	--	--



Test Location

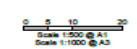


WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THERE IS A RISK OF COLLISION WITH EXISTING SERVICES. VERIFY THE LOCATION OF ALL EXISTING SERVICES ARE SHOWN.

CONSTRUCTION PLAN

THIS DRAWING IS NOT TO BE COPIED OR REPRODUCED

P	CONSTRUCTION ISSUE	20/04/2022	K
E	DESIGN COMMENTS	20/04/2022	K
D	AMENDED DRAINAGE AS PER COUNCIL FEEDBACK	20/04/2022	K
C	DESIGN COMMENTS	20/04/2022	K
B	DESIGN COMMENTS & MODIFIED ROAD NAMES	24/02/2022	K



DRAWN BY	N. PETERSON	DENIED BY	A. CHN	
CHECKED BY	MELBAJ	445 HI	CHECKED BY	A. CHN
DATE	4/10	AUTHORIZED BY	C. BARRISON	



LAND SURVEYING
CIVIL ENGINEERING
PLANNING
LANDSCAPE ARCHITECTURE
DEVELOPMENT CONSULTING

MITCHELL SHIRE COUNCIL
TIMBARRA ESTATE
STAGE 3
LAYOUT PLAN

DRAWING NO.	3R2	VERSION	F
PROJECT	23017E/3		
SHEET	2	OF	13

PROJECT:
Timbarra Estate – Stage 3 (Level 1)

CLIENT:
Bild Group (Urban)

DATE:
26/10/2022

LOCATION:
Beveridge

PROJECT No:
1120 0367-1 (SI05)

SITE PLAN SKETCH—NOT TO SCALE



Field Density Test Results AS1289.5.7.1

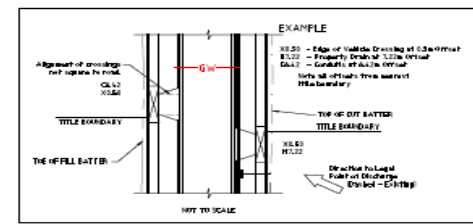
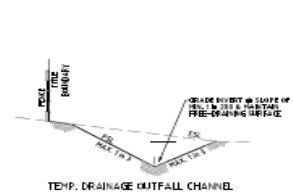
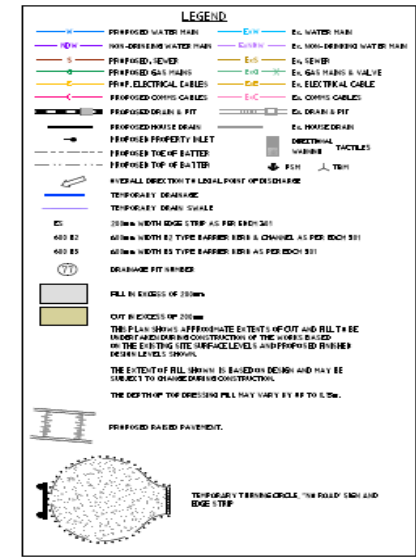
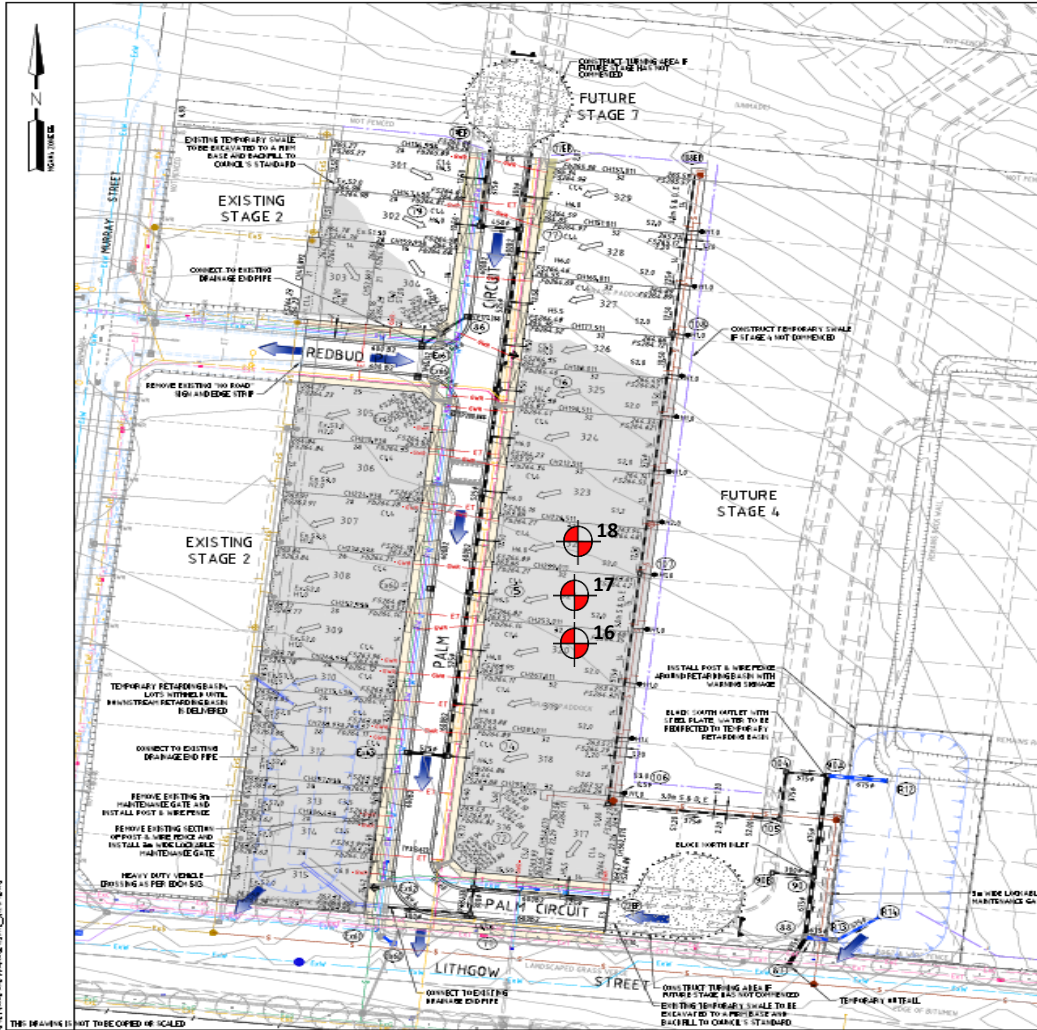
Client:	Bild Group (Urban)	Job No:	BDG2477
Project:	Timbarra Estate - Stage 3 (Level 1)	Report:	6
Location:	Beveridge		
Sample No	16	17	18
Date Tested	27/10/2022	27/10/2022	27/10/2022
Time Tested	AM	AM	AM
Test Location	Refer to Plan	Refer to Plan	Refer to Plan
Level/Layer	1	1	1
Layer Thickness	mm 200	mm 200	mm 200
Test Depth	mm 175	mm 175	mm 175
Field Wet Density	t/m ³ 1.81	t/m ³ 1.80	t/m ³ 1.80
Field Moisture Content	% 23.7	% 24.3	% 25.5
Material:	Site Derived Clay	Site Derived Clay	Site Derived Clay
Oversize Material	WET, % 0.0	WET, % 0.0	WET, % 0.0
Sieve Size	mm 19	mm 19	mm 19
Peak Converted Wet Density	t/m ³ 1.87	t/m ³ 1.88	t/m ³ 1.88
Optimum Moisture Content	% 24	% 22.5	% 24
Moisture Ratio	% 98.5	% 108	% 106
Moisture Variation from OMC	% -0.5 Drier	% 2.0 Wetter	% 1.5 Wetter
Density Ratio	% 96.5	% 96.0	% 95.5

Specification:	95% STD	Test Selection:	N/A
Notes:	Ref : 1120 0367-1 (SI06)		
Test Method	AS1289 5.8.1, 5.7.1, 2.1.1, 1.1	Sampling Method:	AS 1289 1.2.1 6.4(b)

 <p>NATA WORLD RECOGNISED ACCREDITATION</p>	<p>NATA Accredited Laboratory No. 20172</p> <p>Accreditation for compliance with ISO/IEC 17025 - Testing</p> <p>The results of tests, calibrations and/or measurements included in this document, are traceable to Australian / National Standards</p>	<p>Approved Signatory: </p> <p>David Burns</p> <p>Date: 31/10/2022</p>
---	--	---



Test Location

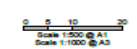


WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THERE IS A RISK OF COLLISION WITH EXISTING SERVICES. VERIFY THE LOCATION OF ALL EXISTING SERVICES ARE SHOWN.

CONSTRUCTION PLAN

THIS DRAWING IS NOT TO BE COPIED OR REPRODUCED

P	CONSTRUCTION ISSUE	20/04/2022	K
E	DESIGN COMMENTS	20/04/2022	K
D	APPROVED DRAINAGE AS PER COUNCIL REQUIREMENT	20/04/2022	K
C	DESIGN COMMENTS	20/04/2022	K
B	DESIGN COMMENTS & MODIFIED DRAWING NAME	20/04/2022	K



DRAWN BY	N. PHEASANT	CHECKED BY	A. COHN
DATE	14/10/2022	AUTHORIZED BY	C. BAVERGEM



LAND SURVEYING
CIVIL ENGINEERING
PLANNING
LANDSCAPE ARCHITECTURE
DEVELOPMENT CONSULTING

MITCHELL SHIRE COUNCIL
TIMBARRA ESTATE
STAGE 3
LAYOUT PLAN

DRAWING NO.	VERSION
3R2	F
PROJECT	23017E/3
SHEET	2 OF 13

PROJECT:
Timbarra Estate – Stage 3 (Level 1)

CLIENT:
Bild Group (Urban)

DATE:
27/10/2022

LOCATION:
Beveridge

PROJECT No:
1120 0367-1 (SI06)

SITE PLAN SKETCH—NOT TO SCALE



Field Density Test Results AS1289.5.7.1

Client:	Bild Group (Urban)	Job No:	BDG2477
Project:	Timbarra Estate - Stage 3 (Level 1)	Report:	7
Location:	Beveridge		

Sample No	19	20	21			
Date Tested	03/11/2022	03/11/2022	03/11/2022			
Time Tested	AM	AM	AM			

Test Location	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 ³ 1.89	t/m ³ 1.81	t/m ³ 1.82			
Field Moisture Content	% 28.1	% 31.0	% 30.8			
Material:	Site Derived Clay Fill	Site Derived Clay Fill	Site Derived Clay Fill			

Oversize Material	WET, %	4.9	3.4	3.8		
Sieve Size	mm	19	19	19		
Peak Converted Wet Density	t/m ³	1.94	1.87	1.87		
Optimum Moisture Content	%	26	31.5	29		

Moisture Ratio	%	108	98.5	106		
Moisture Variation from OMC	%	2.0 Wetter	-0.5 Drier	2.0 Wetter		
Density Ratio	%	96.5	96.0	97.5		

Specification:	95% STD	Test Selection:	N/A
Notes:	Ref : 1120 0367-1 (SI07)		
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
The results of tests, calibrations and/or measurements included in this document, are traceable to Australian / National Standards

Approved Signatory:

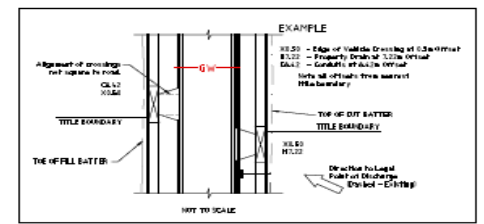
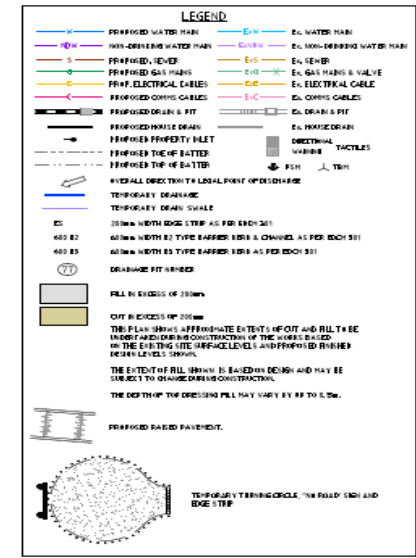
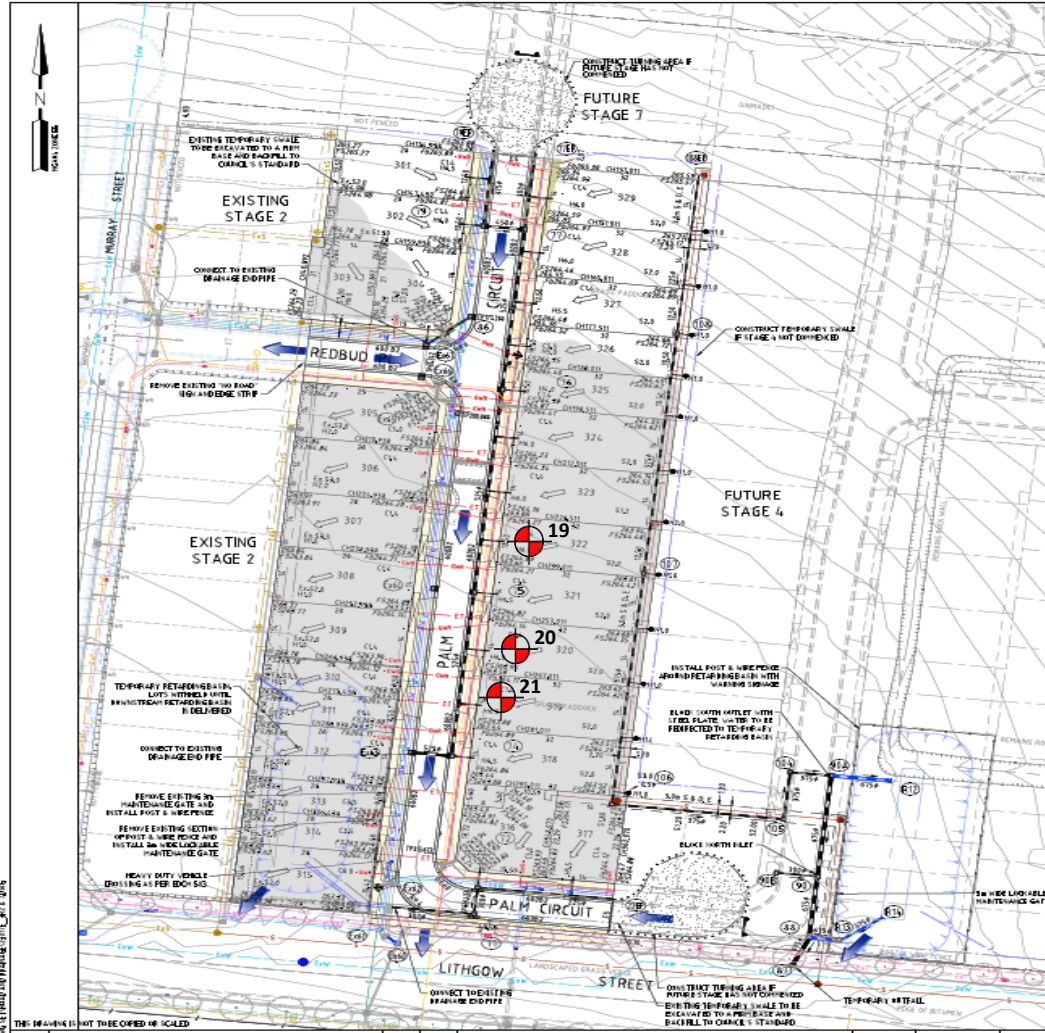


David Burns

Date: 15/11/2022



Test Location



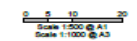
WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THERE IS A CHANCE OF OMISSIONS. VERIFY THE LOCATION OF ALL EXISTING SERVICES BEFORE ANY CONSTRUCTION WORK COMMENCES.

CONSTRUCTION PLAN

REVISIONS TO THIS DRAWING ARE SHOWN IN THE REVISION TABLE

THIS DRAWING IS NOT TO BE COPIED OR REPRODUCED

NO.	DESCRIPTION	DATE	BY
1	CONSTRUCTION ISSUE	03/11/2022	J. CIB
2	REVISIONS TO THIS DRAWING ARE SHOWN IN THE REVISION TABLE		



DRAWN BY	DATE	CHECKED BY	DATE
MELBAJ	04/11/2022	J. CIB	04/11/2022



LAND SURVEYING
CIVIL ENGINEERING
PLANNING
LANDSCAPE ARCHITECTURE
DEVELOPMENT CONSULTING

MITCHELL SHIRE COUNCIL
TIMBARRA ESTATE
STAGE 3
LAYOUT PLAN

DRAWING NO.	VERSION
3R2	F
PROJECT NO. 23017E/3	
SHEET 2 OF 13	

PROJECT:
Timbarra Estate – Stage 3 (Level 1)

CLIENT:
Bild Group (Urban)

DATE:
03/11/2022

LOCATION:
Beveridge

PROJECT No:
1120 0367-1 (SI07)

SITE PLAN SKETCH—NOT TO SCALE



Field Density Test Results AS1289.5.7.1

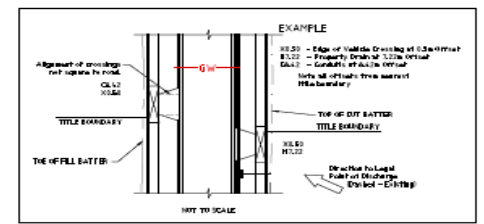
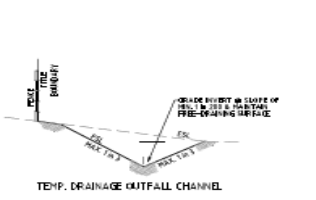
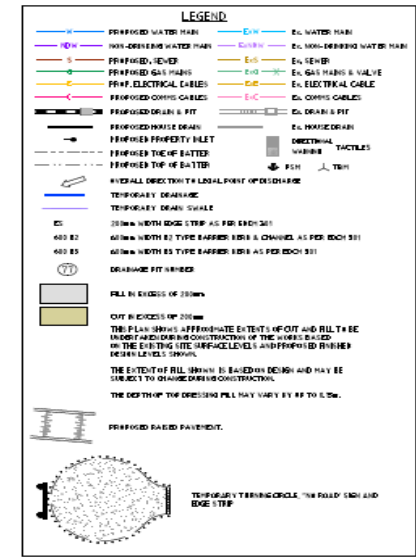
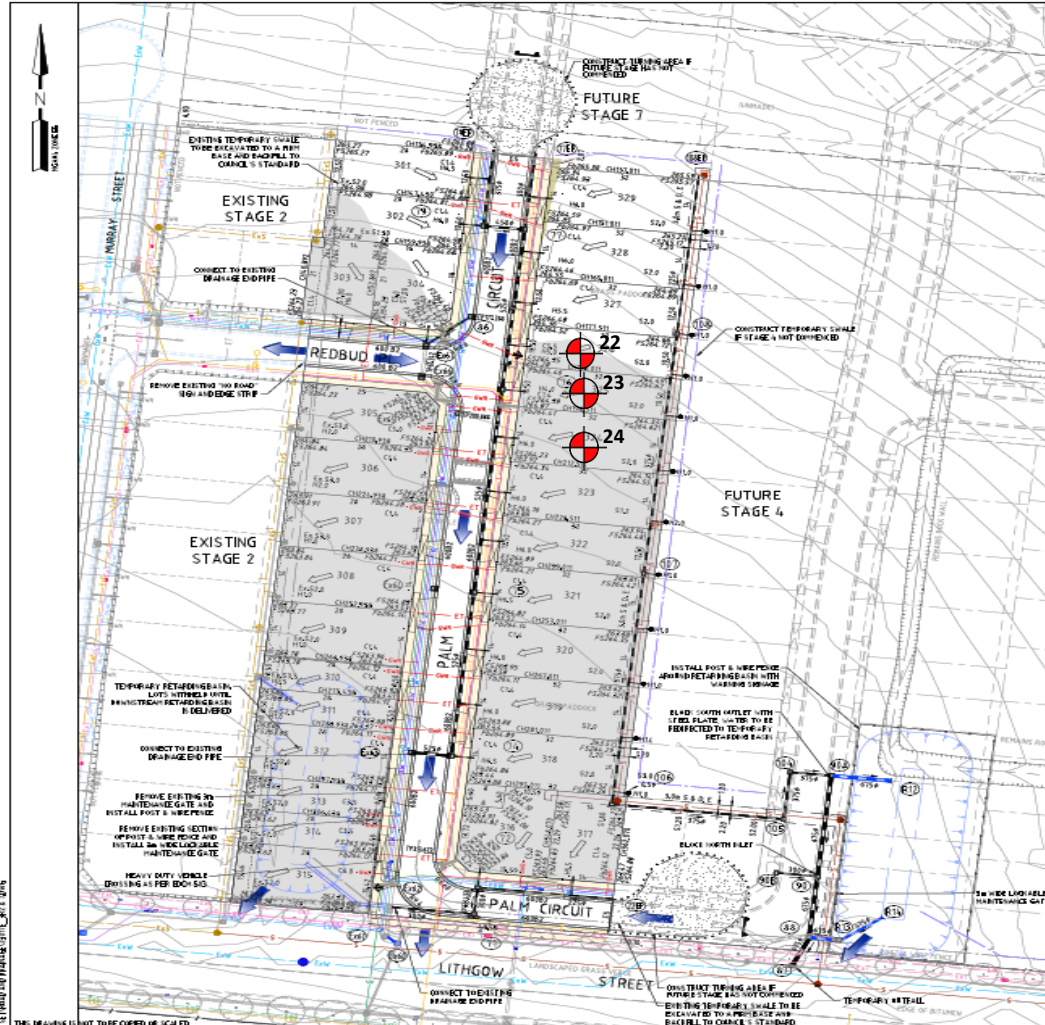
Client:	Bild Group (Urban)	Job No:	BDG2477
Project:	Timbarra Estate - Stage 3 (Level 1)	Report:	8
Location:	Beveridge		
Sample No	22	23	24
Date Tested	04/11/2022	04/11/2022	04/11/2022
Time Tested	AM	AM	PM
Test Location	Refer to Plan	Refer to Plan	Refer to Plan
Level/Layer	1	1	1
Layer Thickness	mm 200	mm 200	mm 200
Test Depth	mm 175	mm 175	mm 175
Field Wet Density	t/m ³ 1.89	t/m ³ 1.94	t/m ³ 1.86
Field Moisture Content	% 24.0	% 23.2	% 24.8
Material:	Site Derived Clay Fill	Site Derived Clay Fill	Site Derived Clay Fill
Oversize Material	WET, % 4.3	WET, % 5.6	WET, % 4.1
Sieve Size	mm 19	mm 19	mm 19
Peak Converted Wet Density	t/m ³ 1.94	t/m ³ 2.02	t/m ³ 1.92
Optimum Moisture Content	% 22	% 23.5	% 23
Moisture Ratio	% 109	% 98.5	% 108
Moisture Variation from OMC	% 1.5 Wetter	% -0.5 Drier	% 1.5 Wetter
Density Ratio	% 97.0	% 95.5	% 96.0

Specification:	95% STD	Test Selection:	N/A
Notes:	Ref : 1120 0367-1 (SI08)		
Test Method	AS1289 5.8.1, 5.7.1, 2.1.1, 1.1	Sampling Method:	AS 1289 1.2.1 6.4(b)

 <p>NATA WORLD RECOGNISED ACCREDITATION</p>	<p>NATA Accredited Laboratory No. 20172</p> <p>Accreditation for compliance with ISO/IEC 17025 - Testing</p> <p>The results of tests, calibrations and/or measurements included in this document, are traceable to Australian / National Standards</p>	<p>Approved Signatory:</p> <div style="text-align: center;">  David Burns </div>	<p>Date:</p> <p style="text-align: center;">15/11/2022</p>
---	--	--	--



Test Location

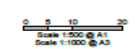


WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THERE IS A RISK OF COLLISION WITH EXISTING SERVICES. VERIFY THE LOCATION OF ALL EXISTING SERVICES BEFORE COMMENCING WORK.

CONSTRUCTION PLAN

THIS DRAWING IS NOT TO BE COPIED OR REPRODUCED

REV	DESCRIPTION	DATE	BY
A	CONSTRUCTION ISSUE	20/04/2022	JK
E	DESIGN COMMENTS	20/04/2022	JK
D	APPROVED DRAINAGE AS PER COUNCIL REQUIREMENT	20/04/2022	JK
C	DESIGN COMMENTS	20/04/2022	JK
B	DESIGN COMMENTS & MODIFIED DRAWING NAME	24/02/2022	JK



DRAWN BY	J. PHELAN	DESIGNED BY	J. CHN
CHECKED BY	445.HI	AUTHORIZED BY	C. BARRISON



LAND SURVEYING
CIVIL ENGINEERING
PLANNING
LANDSCAPE ARCHITECTURE
DEVELOPMENT CONSULTING

MITCHELL SHIRE COUNCIL
TIMBARRA ESTATE
STAGE 3
LAYOUT PLAN

DRAWING NO.	3R2	VERSION	F
PROJECT NO.	23017E/3		
SHEET	2	OF	13

PROJECT:
Timbarra Estate – Stage 3 (Level 1)

CLIENT:
Bild Group (Urban)

DATE:
04/11/2022

LOCATION:
Beveridge

PROJECT No:
1120 0367-1 (SI08)

SITE PLAN SKETCH—NOT TO SCALE



Field Density Test Results AS1289.5.7.1

Client:	Bild Group (Urban)	Job No:	BDG2477
Project:	Timbarra Estate - Stage 3 (Level 1)	Report:	9
Location:	Beveridge		
Sample No	25	26	27
Date Tested	05/11/2022	05/11/2022	05/11/2022
Time Tested	AM	AM	AM
Test Location	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 ³ 1.87	t/m ³ 1.84	t/m ³ 1.92
Field Moisture Content	% 23.8	% 24.3	% 23.0
Material:	Site Derived Clay Fill	Site Derived Clay Fill	Site Derived Clay Fill
Oversize Material	WET, % 4.8	WET, % 3.7	WET, % 5.2
Sieve Size	mm 19	mm 19	mm 19
Peak Converted Wet Density	t/m ³ 1.94	t/m ³ 1.87	t/m ³ 1.99
Optimum Moisture Content	% 22	% 24.5	% 24
Moisture Ratio	% 108.5	% 99	% 96
Moisture Variation from OMC	% 2.0 Wetter	% -0.5 Drier	% -1.0 Drier
Density Ratio	% 96.0	% 98.0	% 96.0

Specification:	95% STD	Test Selection:	N/A
Notes:	Ref : 1120 0367-1 (SI09)		
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 <small>WORLD RECOGNISED ACCREDITATION</small>	<p>NATA Accredited Laboratory No. 20172</p> <p>Accreditation for compliance with ISO/IEC 17025 - Testing</p> <p>The results of tests, calibrations and/or measurements included in this document, are traceable to Australian / National Standards</p>	<p>Approved Signatory:</p> <div style="text-align: center;">  David Burns </div>	<p>Date:</p> <div style="text-align: center;"> 15/11/2022 </div>
---	--	--	--

Field Density Test Results

AS1289.5.7.1

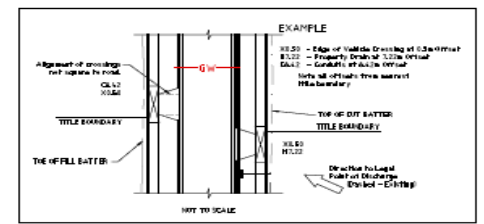
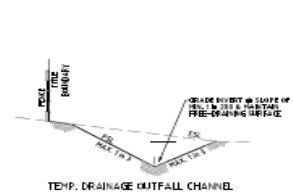
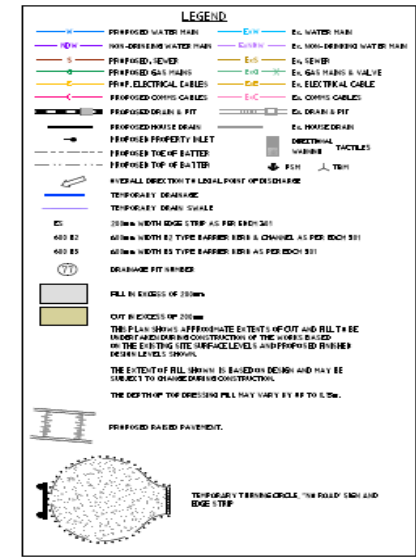
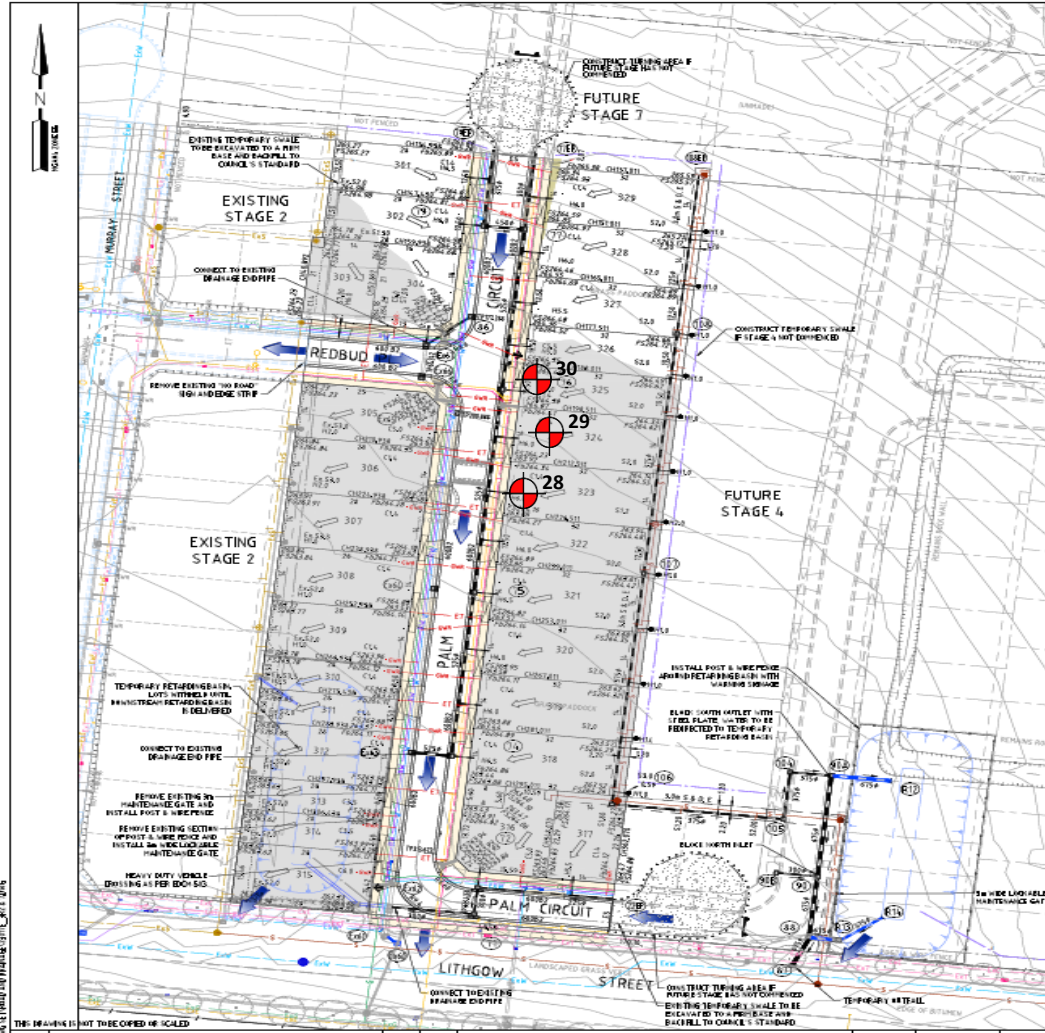
Client:	Bild Group (Urban)	Job No:	BDG2477
Project:	Timbarra Estate - Stage 3 (Level 1)	Report:	10
Location:	Beveridge		
Sample No	28	29	30
Date Tested	07/11/2022	07/11/2022	07/11/2022
Time Tested	AM	AM	AM
Test Location	Refer to Plan	Refer to Plan	Refer to Plan
Level/Layer	1	1	1
Layer Thickness	mm 200	mm 200	mm 200
Test Depth	mm 175	mm 175	mm 175
Field Wet Density	t/m ³ 1.82	t/m ³ 1.96	t/m ³ 1.85
Field Moisture Content	% 24.8	% 23.0	% 24.1
Material:	Site Derived Clay Fill	Site Derived Clay Fill	Site Derived Clay Fill
Oversize Material	WET, % 3.4	WET, % 4.9	WET, % 4.1
Sieve Size	mm 19	mm 19	mm 19
Peak Converted Wet Density	t/m ³ 1.88	t/m ³ 2.05	t/m ³ 1.90
Optimum Moisture Content	% 25.5	% 21.5	% 25
Moisture Ratio	% 97	% 107	% 96.5
Moisture Variation from OMC	% -0.5 Drier	% 1.5 Wetter	% -0.5 Drier
Density Ratio	% 96.5	% 95.0	% 96.5

Specification:	95% STD	Test Selection:	N/A
Notes:	Ref : 1120 0367-1 (SI10)		
Test Method	AS1289 5.8.1, 5.7.1, 2.1.1, 1.1	Sampling Method:	AS 1289 1.2.1 6.4(b)

 <p style="font-size: small;">WORLD RECOGNISED ACCREDITATION</p>	<p style="font-size: small;">NATA Accredited Laboratory No. 20172</p> <p style="font-size: small;">Accreditation for compliance with ISO/IEC 17025 - Testing</p> <p style="font-size: small;">The results of tests, calibrations and/or measurements included in this document, are traceable to Australian / National Standards</p>	<p>Approved Signatory:</p>  <p>David Burns</p>	<p>Date:</p> <p>15/11/2022</p>
---	--	---	--------------------------------



Test Location



WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THERE IS A RISK OF COLLISION WITH EXISTING SERVICES. VERIFY THE LOCATION OF ALL EXISTING SERVICES ARE SHOWN.

CONSTRUCTION PLAN

REVISIONS TO BE MADE TO THIS DRAWING TO BE MADE TO THE DATE OF THE LAST REVISION

THIS DRAWING IS NOT TO BE COPIED OR REPRODUCED

NO.	DESCRIPTION	DATE	BY
1	CONSTRUCTION ISSUE	20/04/2022	J. CIBN
2	DESIGN COMMENTS	20/04/2022	J. CIBN
3	APPROVED DRAINAGE AS PER COUNCIL REQUIREMENT	20/04/2022	J. CIBN
4	DESIGN COMMENTS	20/04/2022	J. CIBN
5	DESIGN COMMENTS & APPROVED FINISH DRAUGHTSMAN	20/04/2022	J. CIBN



DRAWN BY	NO. REVISIONS	DESIGNED BY	DATE
MELBAJ	445	HEI	20/04/2022
DATE	AND	AUTHORIZED BY	C. BARRINGTON



LAND SURVEYING
CIVIL ENGINEERING
PLANNING
LANDSCAPE ARCHITECTURE
DEVELOPMENT CONSULTING

MITCHELL SHIRE COUNCIL
TIMBARRA ESTATE
STAGE 3
LAYOUT PLAN

DRAWING NO.	VERSION
3R2	F
PROJECT NO. 23017E/3	
SHEET 2 OF 13	

PROJECT:
Timbarra Estate – Stage 3 (Level 1)

CLIENT:
Bild Group (Urban)

DATE:
07/11/2022

LOCATION:
Beveridge

PROJECT No:
1120 0367-1 (S10)

SITE PLAN SKETCH—NOT TO SCALE



Field Density Test Results AS1289.5.7.1

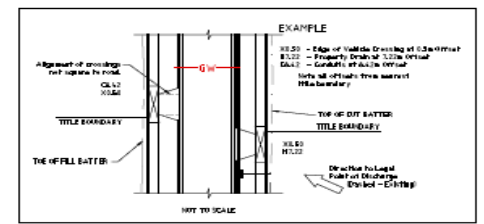
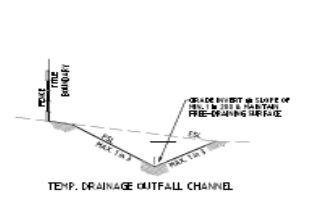
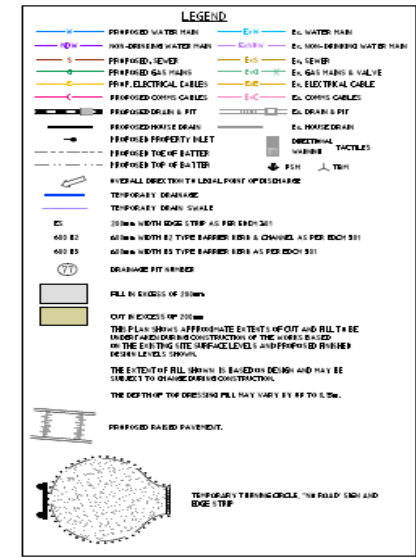
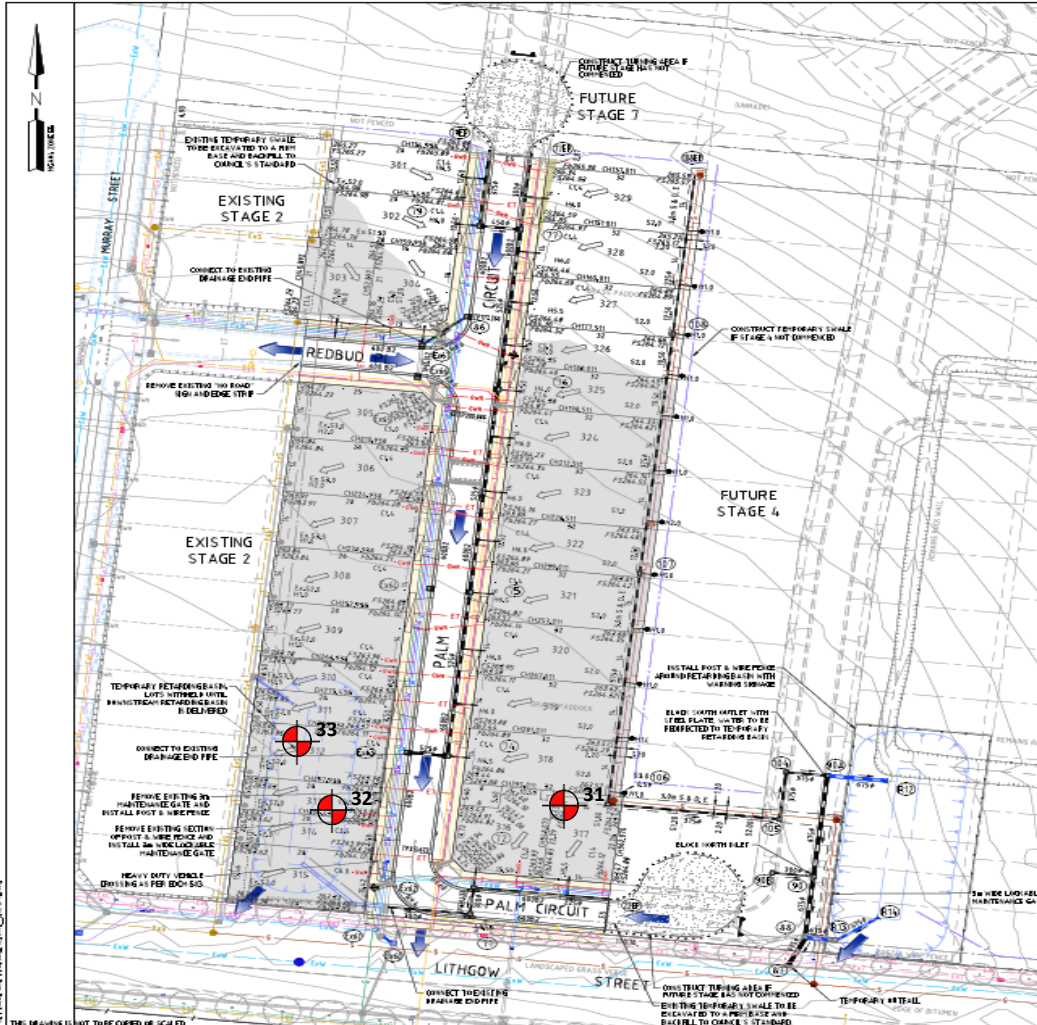
Client:	Bild Group (Urban)	Job No:	BDG2477
Project:	Timbarra Estate - Stage 3 (Level 1)	Report:	11
Location:	Beveridge		
Sample No	31	32	33
Date Tested	09/11/2022	09/11/2022	09/11/2022
Time Tested	AM	AM	AM
Test Location	Refer to Plan	Refer to Plan	Refer to Plan
Level/Layer	3	3	3
Layer Thickness	mm 200	mm 200	mm 200
Test Depth	mm 175	mm 175	mm 175
Field Wet Density	t/m ³ 1.95	t/m ³ 1.93	t/m ³ 1.82
Field Moisture Content	% 22.3	% 23.2	% 24.6
Material:	Site Derived Clay Fill	Site Derived Clay Fill	Site Derived Clay Fill
Oversize Material	WET, % 5.0	WET, % 4.3	WET, % 3.6
Sieve Size	mm 19	mm 19	mm 19
Peak Converted Wet Density	t/m ³ 1.99	t/m ³ 1.98	t/m ³ 1.88
Optimum Moisture Content	% 23	% 21.5	% 22.5
Moisture Ratio	% 97	% 108	% 109.5
Moisture Variation from OMC	% -0.5 Drier	% 2.0 Wetter	% 2.0 Wetter
Density Ratio	% 97.0	% 96.5	% 96.0

Specification:	95% STD	Test Selection:	N/A
Notes:	Ref : 1120 0367-1 (SI11)		
Test Method	AS1289 5.8.1, 5.7.1, 2.1.1, 1.1	Sampling Method:	AS 1289 1.2.1 6.4(b)

 <p>NATA WORLD RECOGNISED ACCREDITATION</p>	<p>NATA Accredited Laboratory No. 20172</p> <p>Accreditation for compliance with ISO/IEC 17025 - Testing</p> <p>The results of tests, calibrations and/or measurements included in this document, are traceable to Australian / National Standards</p>	<p>Approved Signatory:</p> <div style="text-align: center;">  David Burns </div>	<p>Date:</p> <p style="text-align: center;">15/11/2022</p>
---	--	--	--



Test Location

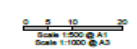


WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THERE IS A POSSIBILITY OF COLLISION WITH EXISTING SERVICES. VERIFY ALL EXISTING SERVICES ARE MARKED.

CONSTRUCTION PLAN

THIS DRAWING IS NOT TO BE COPIED OR REPRODUCED

P	CONSTRUCTION ISSUE	20/04/2022	J
E	DRAWING COMMENTS	21/04/2022	J
D	APPROVED DRAWING AS PER COUNCIL REQUIREMENT	21/04/2022	J
C	DRAWING COMMENTS	21/04/2022	J
B	DRAWING COMMENTS & APPROVED DRAWING NAME	24/04/2022	J



DRAWN BY	N. PRITCHARD	DENIED BY	J. OBN
CHECKED BY	445.HI	CHECKED BY	J. OBN
DATE	4/10	AUTHORIZED BY	C. BAYRESON



LAND SURVEYING
CIVIL ENGINEERING
PLANNING
LANDSCAPE ARCHITECTURE
DEVELOPMENT CONSULTING

Let Us Help You
1022 BARR STREET
Copyright © 2022

MITCHELL SHIRE COUNCIL
TIMBARRA ESTATE
STAGE 3
LAYOUT PLAN

DRAWING No.	3R2	VERSION	F
PROJECT No.	23017E/3		
SHEET	2	OF	13

PROJECT:
Timbarra Estate – Stage 3 (Level 1)

CLIENT:
Bild Group (Urban)

DATE:
09/11/2022

LOCATION:
Beveridge

PROJECT No.:
1120 0367-1 (S11)

SITE PLAN SKETCH—NOT TO SCALE



Field Density Test Results AS1289.5.7.1

Client:	Bild Group (Urban)	Job No:	BDG2477
Project:	Timbarra Estate - Stage 3 (Level 1)	Report:	12
Location:	Beveridge		
Sample No	34	35	36
Date Tested	10/11/2022	10/11/2022	10/11/2022
Time Tested	AM	AM	AM
Test Location	Refer to Plan	Refer to Plan	Refer to Plan
Level/Layer	FSL	FSL	FSL
Layer Thickness	mm 200	mm 200	mm 200
Test Depth	mm 175	mm 175	mm 175
Field Wet Density	t/m ³ 1.93	t/m ³ 1.92	t/m ³ 1.87
Field Moisture Content	% 22.8	% 23.0	% 24.8
Material:	Site Derived Clay Fill	Site Derived Clay Fill	Site Derived Clay Fill
Oversize Material	WET, % 5.0	WET, % 4.6	WET, % 3.8
Sieve Size	mm 19	mm 19	mm 19
Peak Converted Wet Density	t/m ³ 1.98	t/m ³ 1.98	t/m ³ 1.93
Optimum Moisture Content	% 23.5	% 21.5	% 23
Moisture Ratio	% 97	% 107	% 108
Moisture Variation from OMC	% -0.5 Drier	% 1.5 Wetter	% 2.0 Wetter
Density Ratio	% 97.0	% 96.5	% 96.5

Specification:	95% STD	Test Selection:	N/A
Notes:	Ref : 1120 0367-1 (SI12)		
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 <small>WORLD RECOGNISED ACCREDITATION</small>	<p>NATA Accredited Laboratory No. 20172</p> <p>Accreditation for compliance with ISO/IEC 17025 - Testing</p> <p>The results of tests, calibrations and/or measurements included in this document, are traceable to Australian / National Standards</p>	<p>Approved Signatory:</p> <p style="text-align: center;"></p> <p>David Burns</p>	<p>Date:</p> <p>15/11/2022</p>
---	--	--	--------------------------------

Field Density Test Results

AS1289.5.7.1

Client:	Bild Group (Urban)	Job No:	BDG2477
Project:	Timbarra Estate - Stage 3 (Level 1)	Report:	13
Location:	Beveridge		

Sample No	37	38	39			
Date Tested	11/11/2022	11/11/2022	11/11/2022			
Time Tested	AM	AM	AM			

Test Location	Refer to Plan	Refer to Plan	Refer to Plan			
Level/Layer	FSL	FSL	FSL			
Layer Thickness	mm 200	mm 200	mm 200			
Test Depth	mm 175	mm 175	mm 175			
Field Wet Density	t/m ³ 1.92	t/m ³ 1.91	t/m ³ 1.87			
Field Moisture Content	% 24.8	% 25.0	% 25.8			
Material:	Site Derived Clay	Site Derived Clay	Site Derived Clay			

Oversize Material	WET, %	5.2	4.1	3.5		
Sieve Size	mm	19	19	19		
Peak Converted Wet Density	t/m ³	1.98	1.97	1.92		
Optimum Moisture Content	%	25.5	25.5	24		

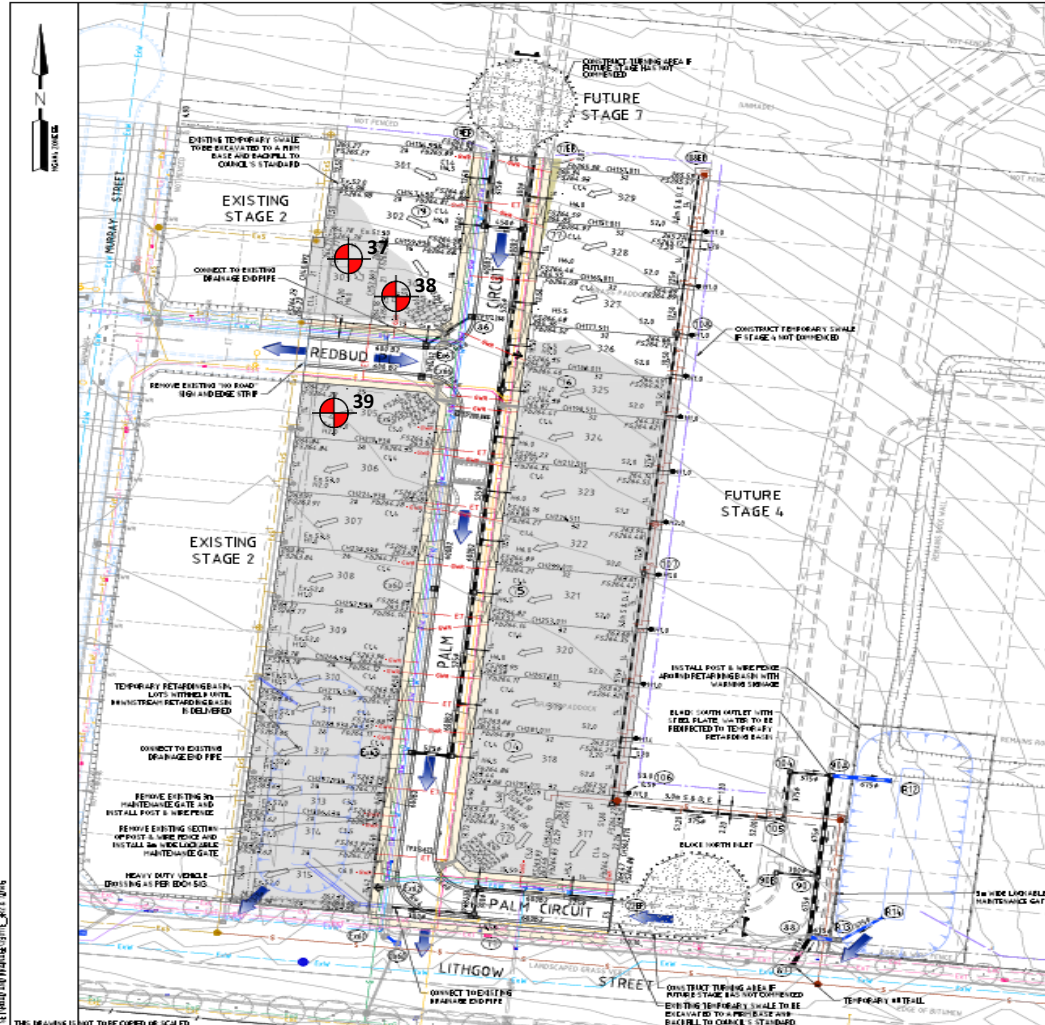
Moisture Ratio	%	97.5	98	107.5		
Moisture Variation from OMC	%	-0.5 Drier	-0.5 Drier	2.0 Wetter		
Density Ratio	%	96.5	96.0	97.0		

Specification:	95% STD	Test Selection:	N/A
Notes:	Ref : 1120 0367-1 (SI13)		
Test Method	AS1289 5.8.1, 5.7.1, 2.1.1, 1.1	Sampling Method:	AS 1289 1.2.1 6.4(b)

 <p style="font-size: small;">WORLD RECOGNISED ACCREDITATION</p>	<p style="font-size: small;">NATA Accredited Laboratory No. 20172</p> <p style="font-size: small;">Accreditation for compliance with ISO/IEC 17025 - Testing</p> <p style="font-size: small;">The results of tests, calibrations and/or measurements included in this document, are traceable to Australian / National Standards</p>	<p style="font-size: small;">Approved Signatory:</p>  <p style="font-size: small;">Date:</p>
		<p>David Burns</p> <p>15/11/2022</p>



Test Location



LEGEND

	PROPOSED WATER MAIN		E1 WATER MAIN
	NON-DRAINING WATER MAIN		E2 NON-DRAINING WATER MAIN
	PROPOSED SEWER		E3 SEWER
	PROPOSED GAS MAINS		E4 GAS MAINS & VALVE
	PROPOSED COUPLER CABLES		E5 ELECTRICAL CABLE
	PROPOSED COUPLER CABLES		E6 COUPLER CABLES
	PROPOSED DRAIN & FIT		E7 DRAIN & FIT
	PROPOSED HOUSE DRAIN		E8 HOUSE DRAIN
	PROPOSED PRIORITY FLEET		ORIENTATIONAL MARKERS
	PROPOSED TIE-IN BATTER		ORIENTATIONAL MARKERS
	PROPOSED TIE-IN BATTER		ORIENTATIONAL MARKERS
	OVERALL DIRECTION TO LOCAL POINT OF DISCHARGE		ORIENTATIONAL MARKERS
	TEMPORARY DRAINAGE		ORIENTATIONAL MARKERS
	TEMPORARY DRAIN SHALE		ORIENTATIONAL MARKERS
	200mm WIDTH EDGE STRIP AS PER EACH 301		ORIENTATIONAL MARKERS
	600mm WIDTH 80 TYPE BARRIER EDGE AS PER EACH 301		ORIENTATIONAL MARKERS
	600mm WIDTH 80 TYPE BARRIER EDGE AS PER EACH 301		ORIENTATIONAL MARKERS
	DRAINAGE FIT NUMBER		ORIENTATIONAL MARKERS
	FILL IN EXCESS OF 200mm		ORIENTATIONAL MARKERS
	CUT IN EXCESS OF 200mm		ORIENTATIONAL MARKERS

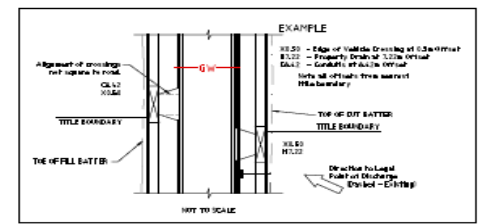
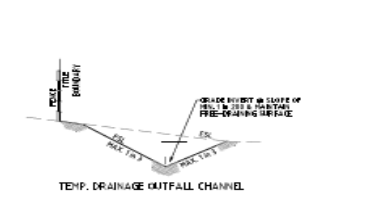
THIS PLAN SHOWS APPROXIMATE EXTENT OF CUT AND FILL TO BE MADE AND DOES NOT CONSTITUTE OF THE JUDICIAL BASIS ON THE EXISTING SITE SURFACE LEVEL AND PROPOSED FINISHED GRADE LEVELS SHOWN.

THE EXTENT OF FILL 300mm IS BASED ON DESIGN AND MAY BE SUBJECT TO CHANGE DURING CONSTRUCTION.

THE DEPTH OF THE DRAINAGE FILL MAY VARY BY UP TO 0.2m.

PROPOSED PAVED PAVEMENT.

TEMPORARY TYPING CIRCLE 150mm DIA AND EDGE STRIP

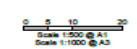


WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THERE IS A RISK OF COLLISION WITH EXISTING SERVICES. VERIFY THE LOCATION OF ALL EXISTING SERVICES ARE SHOWN.

CONSTRUCTION PLAN

THIS DRAWING IS NOT TO BE COPIED OR REPRODUCED

P	CONSTRUCTION ISSUE	20/11/2022	K
E	DESIGN COMMENTS	21/11/2022	K
D	APPROVED DRAINAGE AS PER COUNCIL REQUIREMENT	21/11/2022	K
C	DESIGN COMMENTS	21/11/2022	K
B	DESIGN COMMENTS & MODIFIED DRAWING NAME	21/11/2022	K



DRAWN BY	N. PETERSON	DESIGNED BY	J. CHEN	
CHECKED BY	MELBAJ	445 MI	CHECKED BY	J. CHEN
DATE	4/10	AUTHORIZED BY	C. BARRINGTON	

REEDS CONSULTING

LAND SURVEYING
CIVIL ENGINEERING
PLANNING
LANDSCAPE ARCHITECTURE
DEVELOPMENT CONSULTING

1100 BARR STREET, MELBOURNE VIC 3000
PH: 03 9594 2000
WWW.REEDSCONSULTING.COM.AU

MITCHELL SHIRE COUNCIL TIMBARRA ESTATE STAGE 3 LAYOUT PLAN	
DRAWING NO.	3R2
VERSION	F
PROJECT	23017E/3
SHEET	2 OF 13

PROJECT: Timbarra Estate – Stage 3 (Level 1)	CLIENT: Bild Group (Urban)	DATE: 11/11/2022
LOCATION: Beveridge	PROJECT No: 1120 0367-1 (S113)	SITE PLAN SKETCH—NOT TO SCALE

