Level One Supervision 121770/B006-B007 Lucas L2 Lucas Estate

Report Prepared for: Den Ouden Contracting Den Ouden Contracting / ATT: Billy Den Ouden billy@denoudencontracting.com.au Report Prepared by H.Pyke- A.S. James Pty Ltd 26<sup>th</sup> July 2022



A.S. JAMES Pty Ltd

Geotechnical & Environmental Engineers Since 1963

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Level One Supervisi ement of Comp

> Managing Director: T.J. Holt MIEAust CPEng NER APEC Engineer IntPE(Aus) PE0003708 Directors: D.C. Gunn AMIEAust CEngA NER & G.P. Luther BSc(Hons) Geology, MAIG, RPGeo 10184



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### **1. INTRODUCTION**

This report summarises inspections, Level 1 site testing and compaction results in accordance with the relevant Australian Standards for the earthworks undertaken for general site filling at Lucas L2, Lucas Estate. The fill works were carried out in proposed House Lot 2047 only.

### **Background**:

Level 1 supervision and testing was provided during site filling works on Lucas L2 House Lot 2047 to bring this lot to Finished Fill Level.

### **Testing Methods:**

Inspections, testing and supervision have been carried out by our trained field and laboratory technicians. The testing commenced at a maximum depth of 400mm below finished fill level and extended to finished fill level. The levels given in the reports are approximate levels and some small variation in levels may be expected.

The Level 1 Inspections and Testing covers the highlighted area across House Lot 2047 only (Refer to Plan).

In situ density testing carried out using a nuclear density gauge in accordance with AS 1289.5.8.1. Laboratory standard hilf compaction testing carried out in accordance with AS 1289.5.7.1 'Methods of Testing Soils for Engineering Purposes'.

Based on the inspections and testing carried out by this office between the 30/6/2022 and 7/7/2022, the fill placed on the above mentioned lot satisfies the requirements of AS 3798 SECTION 8.2 and therefore can be categorised as controlled fill.

### 2. RESULTS

#### **Inspections:**

Initial inspections were carried out on the natural subgrade prior to filling works commencing. These included the removal of vegetation and deleterious material as well proof rolling of the prepared base taking place to ensure the integrity of the sub-grade material before to any filling works commenced.

## Materials Used:

The material used during supervised works was the onsite generated material. All material was of a good quality and close to optimum moisture content when excavated on site. Please see individual daily report for material descriptions.

## **Testing:**

Density testing was carried out on a routine basis, testing each compacted layer that generally did not exceed 300mm in thickness.

A total of 3 tests were carried out during these works, with all tested locations achieving a final standard density ratio, at or greater than the specified 95%, and at a moisture content that was between the required 85% to 115% moisture ratio.

Testing for Lucas L2 is covered in reports 121770/B006-B007. Testing frequency has been adopted in accordance with Australian standard as specified in AS 3798 – 2007.

## Note:

All excavations and backfilling works for sewer and drainage services have not been covered under Level 1 supervision.

A copy of all testing reports, both field and laboratory, along with inspection and daily field activity reports is attached.

The results of these works indicate acceptable compliance to these compaction requirements.

## **3. STATEMENT OF COMPLIANCE**

A.S. James has undertaken supervision and testing on a level 1 basis in accordance with AS 3798 'Guidelines of earthworks for residential developments'.

If the site is left for extended periods and is not free draining and is unprotected/un-maintained, softening of the surface fills may occur between the date of earthworks completion and building construction commencing.

If this is the case, it may be necessary at the commencement of construction to assess the site and determine the depth of moisture penetration into the surface fills and based on this information recommendations to either strip/rework may need to be provided.



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H2rj

H.I.PYKE Senior Soil Technician <u>A.S. JAMES PTY LTD</u>

D.C. GUNN AMIE Aust CEngA NER Director <u>A.S. JAMES PTY LTD</u>



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	SINCL 1905					
Ballarat Fa	acility	JOB:		JOB No:	121770	
P.O. Box '	1319 Bakery Hill Vic.	Stage L2		REPORT No:	B006	
A.S.James	S Contact H.Pyke	Lucas Estate		DATE:	26/07/2022	
0409 090 :	233 heathp@asjames.com.au					
REPORT	OF SITE INSPECTION					
Client	Den Ouden Contracting	Site Contact	Billy Den Ou	n Ouden		
	PO Box 345	Contact Email	billy@denou	billy@denoudencontracting.com.au		
	SEBASTOPOL VIC 3356					

**TYPE OF INSPECTION: Visual** 

LOCATION: House Lot 2047

MEAN LEVEL: Finished Subgrade Level - Approximately 0.6-0.8m Below Finished Fill Level

MATERIAL TYPE: Silty CLAY

EQUIPMENT USED: N/A

**OBSERVATIONS:** The constructor has stripped the proposed area free of organics, topsoil and silt to expose the anticipated underlying natural Silty CLAY.

**CONCLUSIONS AND REMARKS:** The constructor was advised to padfoot the base of the prepared area prior to commencing the placement of the proposed fill material.

DATE OF INSPECTION: 30/6/22

**INSPECTION CARRIED OUT BY: H.Pyke** 

IN THE PRESENCE OF: Damien (Den Ouden Contracting)

**CERTIFIED BY:** 

26/07/2022

#### A.S.JAMES SUPERVISING GEOTECHNICAL ENGINEER D.Gunn

Managing Director: T.J. Holt MIEAust CPEng NER APEC Engineer IntPE(Aus) PE0003708 Directors: D.C. Gunn AMIEAust CEngA NER & G.P. Luther BSc(Hons) Geology, MAIG, RPGeo 101



# Inspected Area

TESTED BY :	H.Pyke	FIGURE
CHECKED BY:	H.Pyke	2 of 2



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	JOB:			Job No.	121770
•	Stage L2			Report No.	B007
9	Lucas Estate				
es.com.au				Date	26/07/2022
Lot Fill		For	Den Ouden PO Box 345 SEBASTOP	Contracting OL VIC 335	6
		Att to	Billy Den Ou	uden	
	e es.com.au e Lot Fill	e Lucas Estate	e Lucas Estate es.com.au For Att to Email	e Lucas Estate es.com.au E Lot Fill For Den Ouden PO Box 345 SEBASTOP Att to Billy Den Ou Email billy@denou	e Lucas Estate Date Date Date Date Date Date Date

Test Number		64	65	66		
Date of Field Test		07/07/22	07/07/22	07/07/22		
Time of Field Test		10:37	10:40	10:42		
Date of Laboratory Test		08/07/22	08/07/22	08/07/22		
Location	Chainage:	See	See	See		
	Offset:	Sketch	Sketch	Sketch		
Depth of Test		400	300	FFL		
Test Layer Thickness (mm)		300	300	300		
Probe Depth (mm)		300	300	300		
Material Type		Silty CLAY, Gravelly	Silty CLAY, Gravelly	Silty CLAY, Gravelly		
Maximum Converted Wet Density (t/m3)		2.10	2.11	1.94		
Optimum Moisture Content (%)		19.5	25.0	30.5		
Field Wet Density (t/m3)		2.17	2.16	1.92		
Field Dry Density (t/m3)		1.81	1.76	1.47		
Field Moisture Content (%)		19.5	22.5	30.5		
Oversize Material (%)		0	8	1		
Compaction Type		Standard	Standard	Standard		
Oversize Retained on :		19mm	19mm	19mm		
Moisture Ratio (%)		100.0	91.5	100.0		
Moisture Variation (%)		0.0	2.0	0.0		
Wet/Dry of Optimum		Dry	Dry	Wet		
Hilf Density Ratio		103.5	102.5	99.5		

Notes: DEPTH OF TESTS TAKEN FROM BELOW & FINISHED FILL LEVEL



Accredited for compliance with ISO/IEC 17025 - Testing Accreditation No 9855

#2Pj

Approved Signatory

H.Pyke (Dip. Lab. Tech.)

26-Jul-22

HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD	TESTED BY :	H.Pyke	FIGURE
AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1			
A.S.JAMES FORM No: LR005 FIG 1 / REV 12 / 12/11/21	CHECKED BY:	H.Pyke	1 of 2





HILF DENSITY/MOISTURE RATIO, NUCLEAR GAUGE METHOD	TESTED BY :	H.Pyke	FIGURE
AS PER AS1289 - 1.1, 1.2.1(6.4),2.1.1,5.7.1,5.8.1			
A.S.JAMES FORM No: LR005 FIG 3 / REV 3 / 30/01/03	CHECKED BY:	H.Pyke	2 of 2

N.T.S

A.S.JAMES PTY LTD ACN 004 584 534 ABN 40 004 584 534 Geotechnical Engineers SINCE 1963	Cla E: me	VIC HEAD OFFICE 15 Libbett Avenue tyton South VIC 3169 T: 03 9547 4811 b@asjames.com.au	<b>BALLARAT</b> 73-77 Humffray Ballarat East T: 03 5 E: ballarat@asjame	OFFICEWSt NorthVIC 3350333 5911s.com.auE: asjlabs	ILLASTON OFFICE 1/12 Theen Avenue Willaston SA 5118 T: 08 8504 7467 ia@asjames.com.au
Ballarat Facility	JOB:			JOB No:	121770
P.O. Box 1319 Bakery Hill Vic.	Stage L2			REPORT No:	B007/1
A.S.James Contact H.Pyke	Lucas Estate			DATE:	26/07/2022
0409 090 233 heathp@asjames.com.au					
DAILY GEOTECHNICAL ACTIVITY REPORT	On Site: 10:00		Off Site: 11:00		
Developer : Constructor: [	Den Ouden Cor	ntracting	Superintendent: [	Damien	
Veather Conditions: Overcast, Showery	brief:	Level one Super	vision by Testing	Authority	
Equipment on Site					Not in Lloo
	ר ר	Mater cert		in Ose	NOL IN USE
Pad Foot vibrating roller v		Nater cart			-
815 Compactor		Dump Truck (On	Site)		
Grader		Trucks (From off	site)		
Works in progress	-	Υ.	,	-	
Location					
Stripping					
Excavating					
Rolling House Lot					
Comments, Details & Observations:					
due to the weather conditions in an attempt to finish the appearing to be well compacted and slightly dry of optin the level 1 supervision and testing for this lot.	e area. Testing l num moisture c	has been carried ontent. Assuming	out at varying dep that the tests tak	oths with the mate	erial tested complete
Inspection Type & Location:					
Comments & Details:					
Material Type / Quality / Source / Approval:					
Gravelly Silty CLAY - Site won, material appears suitab	le for immediate	e placement and i	s close to optimu	m moisture conte	nt.
Compaction Testing:					
Numbers performed 3 Test No.s	64-66	Location	House Lot		
Numbers performed Test No.s		Location			
Numbers performed lest No.s		Location			
Specification Requirements Standard / He Standard	dified_ ]	Density Ratio (% Moisture Ratio (%	) %)	98 85 - 115	
Conforming Tests		Non Conforming	Tests		
Density 64,65,66					
Site Instructions Given (Tick box)   Approval to Place Fill [v]   Filling Method   Stripped surface Not./ Approved [v]   Filled Area Ur   Comments & Details	ls Approved nder Review [	[v] ]	Rework / Re-roll I Moisture Conditic	required [] oning required []	
Lovel 1 supervision daily apotochaical report summary					
Level 1 supervision daily geotechnical report summary		Operator:	H.Pyke		