

THIS FORM IS TO REMAIN AT THE FRONT OF THIS FILE!

## CAUTION / HAZARD RECORD.

CAUTION- is a potential or existing risk of known effect.

HAZARD- is a potential or existing risk of unknown effect.

For example:

Uncontrolled filling would be a HAZARD, or

A controlled fill certified as suitable for residential development would be a CAUTION.

This property is to be registered with; CAUTION ☒, or HAZARD ☐.

Address of Property: 38 Gemini Pl

Valuation Number: \_\_\_\_\_

Legal Description: Lot 6 DPS 79547 & Lot 15 (Access Lot)

Property File Number: 60102 Planning Map Number: 14

Associated Subdivision File or Other File Number (for cross reference): 6596090

### NATURE OF CAUTION OR HAZARD:

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> FILL                                       | <input type="checkbox"/> VOLCANIC                 |
| <input type="checkbox"/> EROSION   | <input type="checkbox"/> GEOTHERMAL               |
| <input type="checkbox"/> SLIPPAGE  | <input type="checkbox"/> SEISMIC                  |
| <input type="checkbox"/> FALLING DEBRIS  | <input type="checkbox"/> HAZARDOUS CONTAMINATION  |
| <input type="checkbox"/> SUBSIDENCE  | <input type="checkbox"/> PLANNING RESTRICTIONS    |
| <input type="checkbox"/> AVULSION <small>(Taking of land by flooding)</small>  | <input type="checkbox"/> BUILDING RESTRICTIONS    |
| <input type="checkbox"/> ALLUVION <small>(Deposition of land by flood)</small> | <input type="checkbox"/> STATUTORY CLASSIFICATION |
| <input type="checkbox"/> INUNDATION <small>(Flooding)</small>                  | <input type="checkbox"/> OTHER                    |

EXPLANATION (This Must Be Filled In):

Controlled filling as part of subdivision works  
- suitable for normal residential development.  
See attached report from BSK Consulting Engineers

Is there any other information (Plans, Correspondence, Reports etc.) which support this record: YES ☒ NO ☐.

DETAILS: BSK report attached

NAME: Paula McElite

APPROVED: [Signature]

POSITION: Resource Technician

DATE: 4-6-98

DATE: 25.5.98

SIGNED: [Signature]

18 March 1998

The Resource Engineer  
Rotorua District Council  
Private Bag RO 3029  
**ROTORUA**

Dear Sir,

**RE: G. HARPER, GEMINI PLACE, ROTORUA**  
**LOTS 5 - 12 AND LOT 15 BEING SUBDIVISION OF LOT 1 DPS 79664**  
**OUR REF: 9648a**

We confirm that we visited the above site at the completion of excavation works on Lots 6, 7, and 15 of this subdivision, and have carried out a number of Scala Penetrometer tests in the earth fills placed on Lots 6 and 7.

The sections were completely excavated to clean sandy subsoils prior to the placing and compaction by static rolling of the fill materials.

The results of these tests are shown on BSK Consulting Engineers drawing Ref: 9648A.

In addition to the above, Opus International Consultants have carried out a number of Density tests in the fill that completely fills the three lots, the results of which are noted in their reports dated 27 June 1997 and 12 March 1998.

The filling in these lots comprises both a Pumice Ash / Lappilli mix and crushed Ignumbrite rock to depths varying from approximately zero at the Gemini Street boundary to approximately 1.5 metres at the northern corner of Lot 7.

The test results are all consistent with allowable bearing pressures of 100 KPa and better below normal founding depths of 300mm for Light Timber Framed construction. The results of the Density tests varied between 91.4% and 96.7% indicating that compaction achieved was within the requirements of the Rotorua District Council Subdivisional requirements.

We are, therefore, of the opinion that the filling carried out on Lots 6, 7 and 15 is suitable for the erection of Light Timber Framed Buildings not requiring specific design.

*DIRECTORS*

*E. Don Stotter*

*C.Eng., M.I.C.E.,*

*M.I.P.E.N.Z*

*Reg. Engineer*

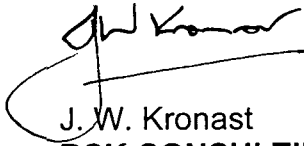
*John W Kronast*

*B.E., M.I.P.E.N.Z*

*Reg. Engineer*

We trust this provides the information you require at this time. Please contact the writer should you require any additional information regarding this matter.

Yours faithfully

A handwritten signature in black ink, appearing to read 'J. W. Kronast', with a large, sweeping flourish underneath.

J. W. Kronast  
**BSK CONSULTING ENGINEERS LTD**

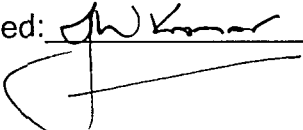
To: District Engineer  
Rotorua District Council  
Private Bag  
ROTORUA

STATEMENT OF PROFESSIONAL OPINION AS TO SUITABILITY OF LAND  
FOR BUILDING DEVELOPMENT

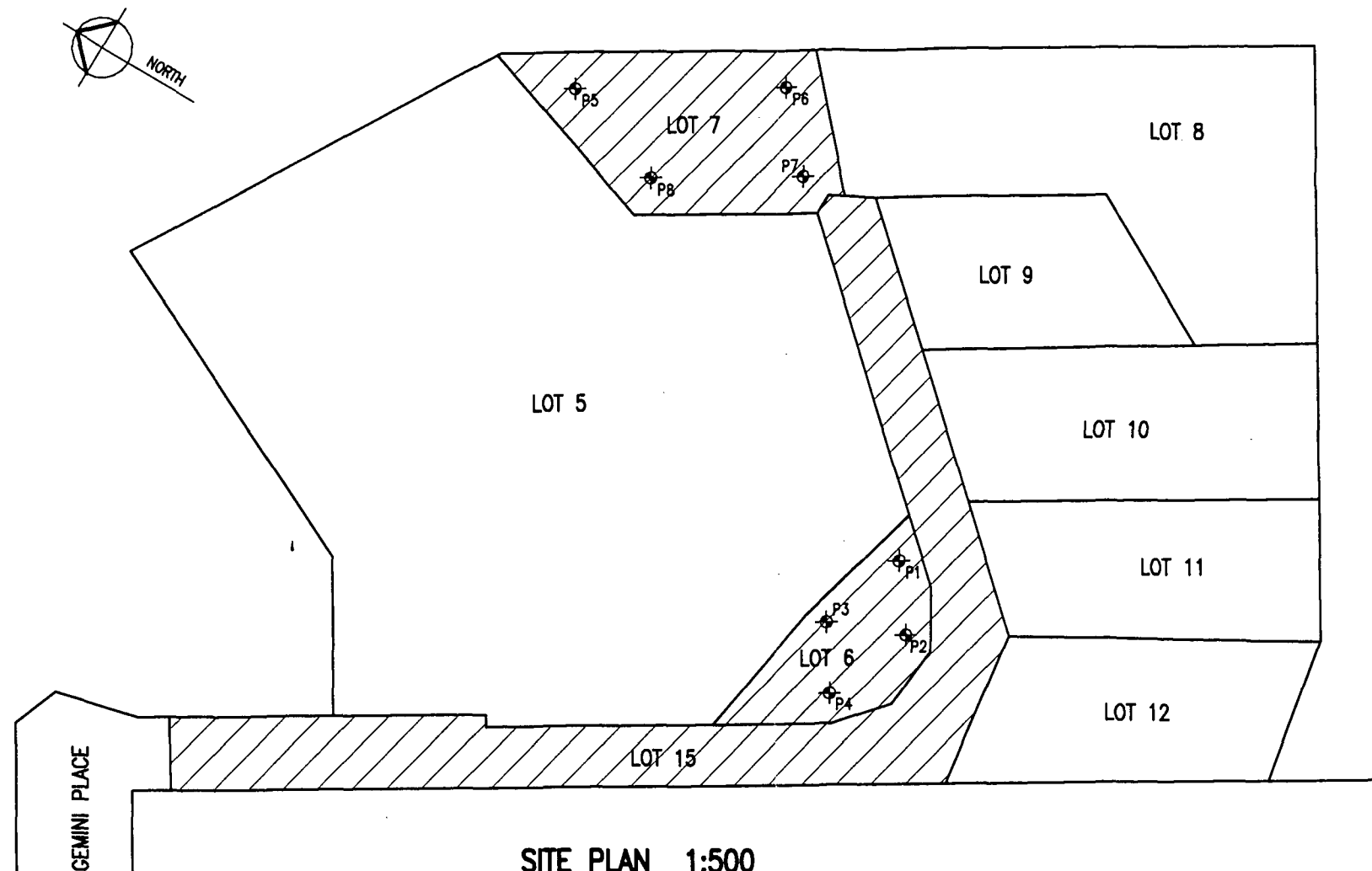
Subdivision: Lots 5 to 12, and Lot 15 (Being subdivision of Lot 1 DPS  
79664)  
Owner / Developer: Mr G. Harper  
Location: Gemini Place, Rotorua

I, John William Kronast of BSK Consulting Engineers Ltd, 144 Hinemoa Street  
Rotorua, hereby confirm that -

- (1) I am a Registered Engineer experienced in the field of soils engineering  
and was retained by the owner as the Soils Engineer on the above  
subdivision.
- (2) The results of all tests carried out are described in my report dated  
18/3/98.
- (3) In my professional opinion, not to be construed as a guarantee, I certify  
that -
  - (a) The earth fills shown on the attached plan No. 9648A have been placed in  
compliance with the Code of Practice of the Rotorua District Council.
  - (b) The filled ground on Lots 6 and 7 (Being subdivision of Lot 1 DPS 79664)  
is suitable for the erection thereon of residential buildings not  
requiring specific design in terms of the New Zealand Building Act 1991,  
New Zealand Building Regulations 1992, and related documents.
- (4) This professional opinion is furnished to the Council and the owner for  
their purposes alone on the express condition that it will not be relied upon  
by any other person and does not remove the necessity for the normal  
inspection of foundation conditions at the time of erection of the dwelling.

Signed: 

18 March 1998



# **SITE PLAN 1:500**

LOTS 5 - 12 & LOT 15 BEING SUBDIVISION  
OF LOT 1 DPS 79664

✦ SCALA PENETROMETER TEST LOCATIONS

REFER ALSO TO PHIPPS HAWLEY LTD  
DRAWING DPS 79547

GROUND LEVEL	P1	P2	P3	P4	P5	P6	P7	P8
500	1 1 1 2	2 1 1 4	2 1 1 2	2 1 1 1	3 2 2 2	6 3 2 1	4 3 2 1	9 5 3 1
1000	2 1 1 2	4 2 4 3	1 1 1 1	1 2 2 2	3 3 3 5	2 2 2 2	2 2 1 2	2 1 1 2
1500	1 1 1 1	3 3 4 1	2 1 1 2	2 2 1 1	4 4 4 2	2 2 2 2	2 2 2 2	2 2 1 1
2000		1 1 1 1			3 2 2 3	1 1 1 2	2 1 1 2	2 1 1 3
2500					2 2 2 2	1 1 1 1	1 2 1 1	2 2 3 3

## **SCALA PENETROMETER RESULTS IN CM/BLOW**

REVISION	DATE	DESCRIPTION
<b>bsk</b> CONSULTING ENGINEERS LTD PO BOX 23, 144 HINEMOA STREET, ROTORUA NEW ZEALAND PHONE (07) 348 5394 FAX (07) 348 2311 EMAIL: BSK.144@CLEAR.NET.NZ		
PROJECT: <b>G. HARPER GEMINI PLACE ROTORUA</b>		
CONTENTS: <b>PART KAWAHA 3E BLOCK SUBDIVISION SUBSOILS (LOTS 6 &amp; 7)</b>		
DRAWN: MM	DATE: MARCH 1998	
CHECKED: JWK	JOB REF NO: 9648A	
SCALES: 1:500	SHEET NO: 1 OF 1	

13/3/98



Inquires to: J P O'Connor

12-Mar-98

Project No: 287030.00

Dossier No: '98/035

BKS Consulting Engineering Ltd  
P O Box 23  
ROTORUA

Attention: Mr J Kronast

Dear Sir,

**DENSITY TESTING , LOT 6, KAWAHA 3E BLOCK SUBDIVISION.**

Please find attached results of Spot Desity testing carried out on site on the 10th March 1998.

Testing was carried out in accordance with specification NZS 4407:1991

Yours Faithfully  
**OPUS INTERNATIONAL CONSULTANTS**

A handwritten signature in black ink, appearing to be "JP O'Connor", written over the typed name and title.

J P O'Connor  
**LABORATORY MANAGER**

Page 1 of 2





Max. control level  
280.1

LOT 18

290 m<sup>2</sup>

TO VEST AS  
RECREATION  
RESERVE

PT 3E  
ML8666

LOT 5  
9200 m<sup>2</sup>

LOT 9

1000 m<sup>2</sup>

LOT 10

1000 m<sup>2</sup>

LOT 11

1080 m<sup>2</sup>

LOT 12

1140 m<sup>2</sup>

LOT 3

1390 m<sup>2</sup>

LOT 4

1000 m<sup>2</sup>

LOT 2

LOT 1

1450 m<sup>2</sup>  
1340 m<sup>2</sup>

LOT 15

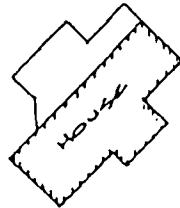
ACCESS LOT

LOT 16

260 m<sup>2</sup>

TO VEST AS ROAD  
IN ROTORUA DIST.  
COUNCIL

grge site



Septic tank

gum tree

SW SECONDARY  
FLOW PATH  
EASMENT

LIBRA PL.

LIBRA PL.

I, Paul Jeffrey Andrews, F  
Surveyor, hereby certify  
scheme plan has been pr  
by me in accordance with  
provisions of the Resour.  
Management Act 1991.

## PROPOSED SUBDIVISION OF PART KAWAHA 3E BLOCK.

PREPARED FOR G. HARPER

CT 52^/431

ROTORUA DISTRICT

Phipps Hawkey L

REGISTERED SURVEYOR  
20 Haupapa Street,  
P.O. Box 190, Rotorua.  
Phone (073) 476-995  
Fax: (073) 476-991





Inquires to: J P O'Connor

27-Jun-97

bsk Consulting Engineers Ltd  
P O Box 23,  
ROTORUA

Project No: 287030.00  
Dossier No: 97/384

Attention Mr J Kronast

Dear Sir

**DENSITY TESTING OF PART KAWAHA 3E BLOCK SUBDIVISION FILLS.**

Please find attached results for density testing carried out on Lots 1,2,3 4 & 15 of the Kawaha 3E Block subdivision. Testing was carried out on the 26 of June 1997.

Spot density tests were carried out and samples were taken for standard compaction in the laboratory. Results attached show field density result as a percentage of that obtained in the laboratory. Laboratory Water Contents were used for calculations.

Testing was carried out in accordance with specification NZS 4407:1991.

Yours Faithfully  
**OPUS INTERNATIONAL CONSULTANTS**

  
J P O'Connor  
**LABORATORY MANAGER**

Page 1 of 5

<b>INSITU DENSITY/ LAB DENSITY COMPARISION TESTING</b>		Project Number	287030
		Dossier Number	97/384
Field Test by	J O'Connor	Lab Test by	J OConnor
Date Tested	26/6/97	Date Tested	26/6/97

#### Sample # 1

refer plan for location

Light brown fine SAND & SILT with some pumice Stone.

	Field (NDM)	Proctor (recompacted natural)
Wet Density (t/m3)	1.599	1.658
Moisture Content (%)	38.4	38.4
Dry Density (t/m3)	1.155	1.200

Percentage of Proctor 96.3 %

#### Sample # 2

refer attached plan for test location

Light brown fine SAND & SILT with some pumice Stone.

	Field (NDM)	Proctor (recompacted natural)
Wet Density (t/m3)	1.598	1.655
Moisture Content (%)	44.0	44.0
Dry Density (t/m3)	1.110	1.150

Percentage of Proctor 96.5 %

#### Sample # 3

refer attached plan for test location

Light brown fine SAND & SILT with some pumice Stone.

	Field (NDM)	Proctor (recompacted natural)
Wet Density (t/m3)	1.687	1.683
Moisture Content (%)	34.7	34.7
Dry Density (t/m3)	1.252	1.250

Percentage of Proctor 100.2 %

#### Sample # 4

refer attached plan for test locations

Light brown fine SAND & SILT with some pumice Stone.

	Field (NDM)	Proctor (recompacted natural)
Wet Density (t/m3)	1.614	1.697
Moisture Content (%)	37.2	37.2
Dry Density (t/m3)	1.176	1.240

Percentage of Proctor 94.8 %

#### Test Methods

Nuclear Densometer Field Testing: NZS 4407:1991 Test 4.2.1

Proctor Compaction: NZS 4402:1986 Test 4.1.1 (in part)

Reported by: 

Approved Signatory 

Checked by: 

Designation

Lab Manager

Date 27-Jun-97

<b>INSITU DENSITY/ LAB DENSITY COMPARISION TESTING</b>		Project Number	287030
		Dossier Number	97/384
Field Test by	J O'Connor	Lab Test by	J O'Connor
Date Tested	26/6/97	Date Tested	26/6/97

#### Sample # 5

refer plan for location

Light brown fine SAND & SILT with some pumice Stone.

	Field (NDM)	Proctor (recompacted natural)
Wet Density (t/m3)	1.664	1.701
Moisture Content (%)	35.3	35.3
Dry Density (t/m3)	1.230	1.260

Percentage of Proctor 97.6 %

#### Sample # 6

refer attached plan for test location

Light brown fine SAND & SILT with some pumice Stone.

	Field (NDM)	Proctor (recompacted natural)
Wet Density (t/m3)	1.698	1.728
Moisture Content (%)	32.8	32.8
Dry Density (t/m3)	1.279	1.301

Percentage of Proctor 98.3 %

#### Sample # 7 Suspect reading due to depth of meter in hole

refer attached plan for test location

Light brown fine SAND & SILT with some pumice Stone.

	Field (NDM)	Proctor (recompacted natural)
Wet Density (t/m3)	1.630	1.774
Moisture Content (%)	31.5	31.5
Dry Density (t/m3)	1.240	1.349

Percentage of Proctor 91.9 %

#### Sample # 8

refer attached plan for test locations

Light brown fine SAND & SILT with some pumice Stone.

	Field (NDM)	Proctor (recompacted natural)
Wet Density (t/m3)	1.539	1.646
Moisture Content (%)	38.3	38.3
Dry Density (t/m3)	1.113	1.190

Percentage of Proctor 93.5 %

#### Test Methods

Nuclear Densometer Field Testing: NZS 4407:1991 Test 4.2.1

Proctor Compaction: NZS 4402:1986 Test 4.1.1 (in part)

Reported by: Edy

Approved Signatory

Checked by: an

Designation

Date 27-Jun-97

Lab Manager

<b>INSITU DENSITY/ LAB DENSITY COMPARISION TESTING</b>		Project Number	287030
		Dossier Number	97/384
Field Test by	J O'Connor	Lab Test by	J O'Connor
Date Tested	26/6/97	Date Tested	26/6/97

<b>Sample # 9</b>		
refer plan for location		
Light brown fine SAND & SILT with some pumice Stone.		
	Field (NDM)	Proctor (recompacted natural)
Wet Density (t/m3)	1.583	1.648
Moisture Content (%)	38.8	38.8
Dry Density (t/m3)	1.140	1.187
<b>Percentage of Proctor</b>		<b>96.0 %</b>

<b>Sample # 10</b>		
refer attached plan for test location		
Crushed Ignimbrite rock		
	Field (NDM)	Proctor (recompacted natural)
Wet Density (t/m3)	1.693	1.757
Moisture Content (%)	26.0	26.0
Dry Density (t/m3)	1.344	1.394
<b>Percentage of Proctor</b>		<b>96.4 %</b>

<b>Sample # 11</b>		
refer attached plan for test location		
Crushed Ignimbrite rock		
	Field (NDM)	Proctor (recompacted natural)
Wet Density (t/m3)	1.703	1.760
Moisture Content (%)	26.2	26.2
Dry Density (t/m3)	1.349	1.395
<b>Percentage of Proctor</b>		<b>96.7 %</b>

	Field (NDM)	Proctor (recompacted natural)
Wet Density (t/m3)		
Moisture Content (%)		
Dry Density (t/m3)		
		<b>%</b>

#### Test Methods

Nuclear Densometer Field Testing: NZS 4407:1991 Test 4.2.1

Proctor Compaction: NZS 4402:1986 Test 4.1.1 (in part)

Reported by:                     J. O'Connor                    

Approved Signatory:                     J. O'Connor                    

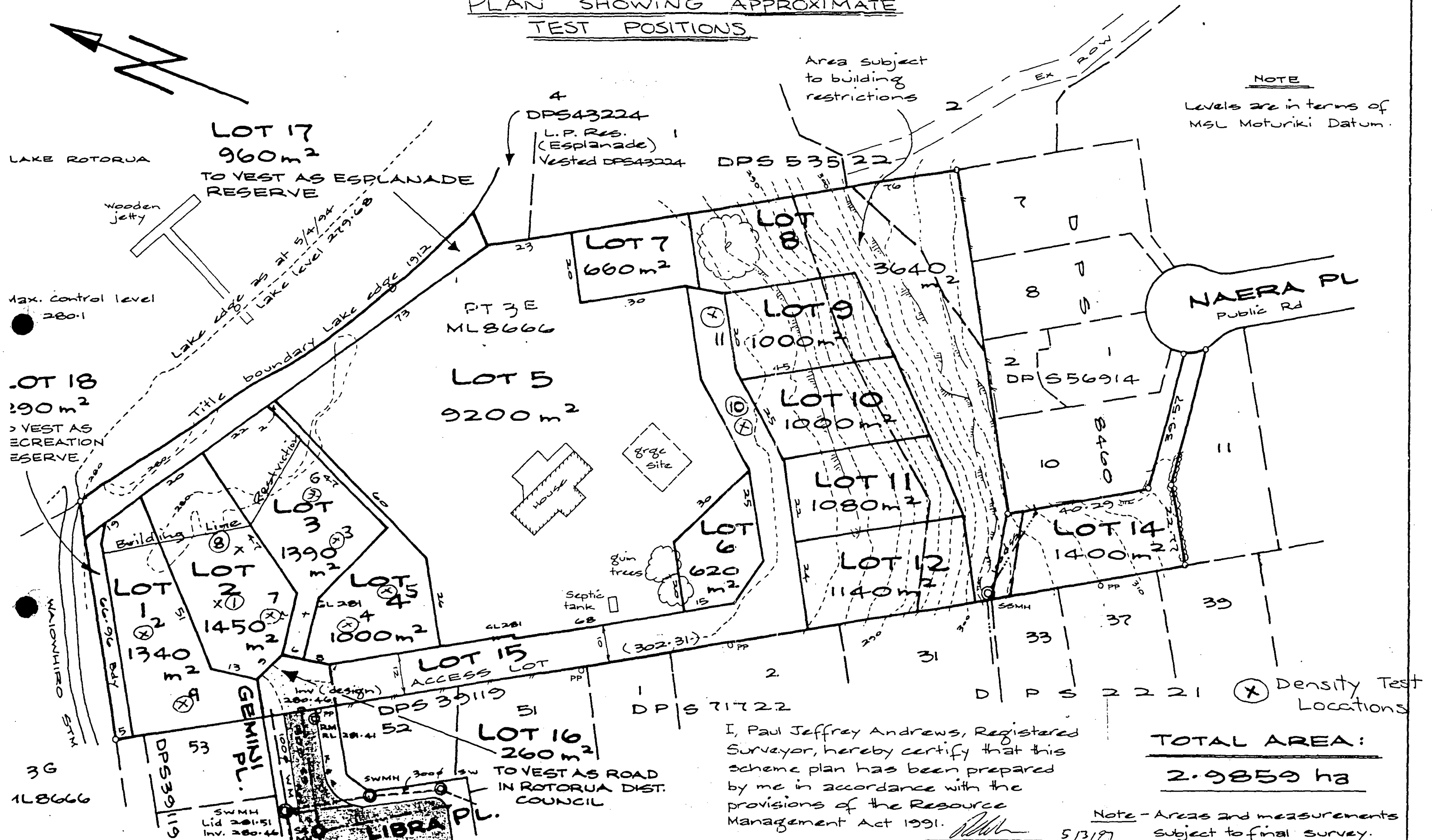
Checked by:                     J. O'Connor                    

Designation

Lab Manager

Date 27-Jun-97

PLAN SHOWING APPROXIMATE  
TEST POSITIONS



PROPOSED SUBDIVISION OF  
PART KAWAHA 3E BLOCK.

PREPARED FOR G. HARPER CT 52/431 ROTORUA DISTRICT

**Phipps Hawkey Ltd.**  
REGISTERED SURVEYOR  
20 Haupapa Street,  
P.O. Box 190, Rotorua.  
Phone (073) 478-995  
Fax (073) 478-991



SCALE 1:1000	DRAWING No. <b>22375</b>
DATE MAR, 1997	JF 4122