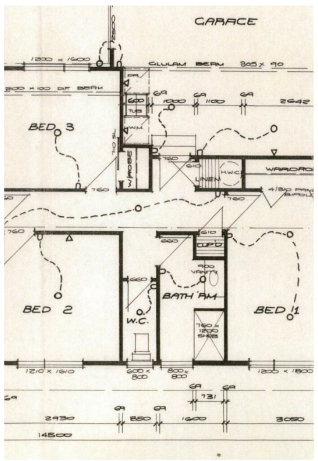
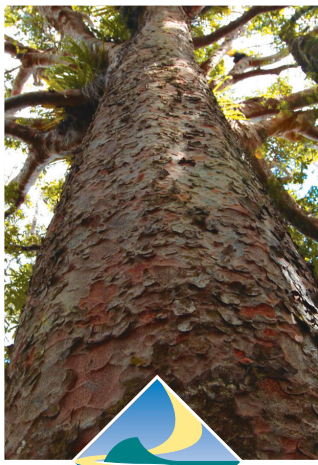
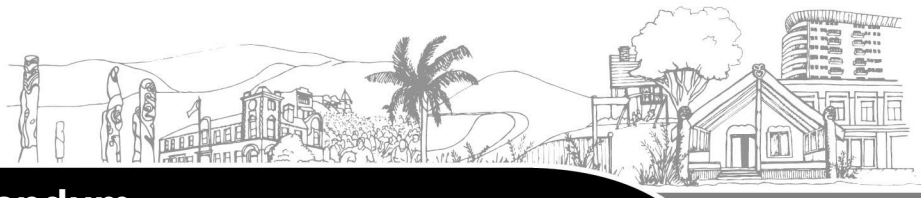
LIM

Land Information Memorandum





Tauranga City



Land Information Memorandum

This L.I.M. has been prepared for:

Applicant	**Ainsley Haslett**
Client	**Ainsley Haslett**
Property Address	**87 Falcon Drive** **Welcome Bay** **Tauranga**
Legal Description	**LOT 53 DP 389977**
Application Date	**19 November 2021**

This Land Information Memorandum has been prepared for the purposes of Section 44A of the Local Government Official Information and Meetings Act 1987 and, in addition to the information provided for under section 44A(2), may contain such other information concerning the land that Council considers, at its discretion, to be relevant. It is based on a search of Council records only. There may be other information relating to the land which is unknown to Council. The Council has not undertaken any inspection of the land or any building on it for the purpose of preparing this Land Information Memorandum. The applicant is solely responsible for ensuring that the land is suitable for a particular purpose.

It is recommended that the Certificate/Record of Title, which is not held by Council, be searched by the purchaser.

Contents

Services Information

Land information which is likely to be relevant includes information on private and public stormwater, water and sewer details. Please refer to the appropriate authorities for further information about network utility services.

Service Record

Copy of Deposited Plan Attached	**Yes**
Service Print Attached	**Yes**
Method of Sewer Disposal	**To Public Sewer**
Existing Method of Stormwater Disposal	**To Connection**
Drinking Water Supplied to the Land	**Yes**
Drinking Water Supplier Is:	
(I) Owner of the Land; or	**No Information Available**
(ii) Tauranga City Council [Water Supply Authority Unit (WSA)]; or	**Yes**
(iii) Another Networked Supplier	**No Information Available**
Any Information Notified Under Section 69ZH Health Act 1956	**No Information Available**

Note:

1. Please note that the existence of a watermain along a property frontage does not necessarily mean that a connection is available. This may need to be provided at the applicant's expense.
2. If the land is supplied with drinking water by Tauranga City Council as a Water Supply Authority, any conditions (generally set out in Tauranga City Council's "Supply of Water Bylaw 2019" – copy attached) applicable to that supply are included in this Land Information Memorandum.
3. If the land is supplied with drinking water by a networked supplier other than the WSA, any conditions that are applicable to that supply are included in this Land Information Memorandum.
4. If the land is supplied with drinking water by the owner of the land, any information Council has about the supply is included in this Land Information Memorandum.
5. Any information notified to the territorial authority by a drinking-water supplier under section 69ZH of the Health Act 1956 is included in this Land Information Memorandum.

Rating and Valuation Details

Tauranga City Council rates are billed twice a year on the last business day of August and February. Unpaid rates for each instalment will incur a 10% penalty. The Capital Valuation details are based on a revision date of 1 July 2018.

Valuation Details

Valuation Reference	**06619 068 52**
Capital Value	**$575,000**
Land Value	**$245,000**
Improvement Value	**$330,000**

Rating Details

Current Annual Rates	**$2,983.62**
Paid Until	**31/12/21**
Arrears Owing	**$Nil**
Balance Owing	**$Nil**

A separate account is issued for water metered properties. Residential meters are read every three months. Commercial / Industrial meters vary depending on use.

Note:

Council's Water Supply Bylaw requires a final water meter reading to be undertaken when a property is sold. If you are purchasing the property, you may wish to check with the vendor that they have arranged this.

Water Meter Details

Water Meter On Property	**Yes**
Date Read	**02/11/21**
Number	**06M001685**
Last Reading	**02088**
Individual Meter	**Yes**
Shared Meter	**No**
Water Rates Owing	**$114.32**

Building Information

This information is sourced from Council records and may not reflect the situation on site if work has been undertaken without consent.

Building Permits: For Building Permits issued prior to 1993 a copy of the inspection records, if these are held by Council, are attached.

Building Consents: For Building Consents issued after 1 January 1993 a Code Compliance Certificate (CCC) will be issued where the building work for which the building consent relates has been completed in accordance with the NZ Building Code.

Swimming / Spa Pools: If the property contains a swimming pool or spa pool that is filled or partly filled with water then the pool must have a physical barrier restricting access to the pool that meets the requirements of the Building Act 2004. For more information, go to www.tauranga.govt.nz/council-a-z/swimming-pool-fencing.aspx.

Solid Fuel Heaters: It is important that any solid fuel heater has been legally installed, either as part of the original dwelling or by way of a separate permit/consent.

Permits and Consents

Building Consents

Date Issued	Description of Work	BC Number	CCC Issued
16/11/12	Erect Dwelling	46278	Yes

Compliance Schedule **N/A**

Requisitions

Any Outstanding Requisitions **No**

City Planning

The Operative Tauranga City Plan

The Tauranga City Plan provides the rules for how people can build or develop the land they own in our city. This can be land that is residential, commercial or industrial. The City Plan covers all subdivision, land use and development, how and where the city grows, how infrastructure is located and how natural and physical resources are managed. It is the blueprint by which any development in Tauranga is managed. It also includes rules on other things that are covered by the Resource Management Act - including hazards, signage, reserves, noise, heritage, etc.

There are specific rules within the City Plan that cover, amongst other matters, building height, earthworks, tree protection, bulk and scale of buildings, setbacks from coastal and harbour margins, and specific residential, commercial and industrial uses depending on location within the City.

Specific rules for each suburb and property can vary depending on the underlying zone of the area and the location of a specific property within that zone.

The majority of the City Plan became ‘operative in part’ on 9 August 2013. The remaining parts of the City Plan subsequently became operative on 5 July 2014.The City Plan is currently undergoing three Proposed Plan Changes: Plan Change 26 (Housing Choice), Plan Change 27 (Flooding from Intense Rainfall Events), and Plan Change 30 (Earthworks).

It is advised that prospective purchasers of property review and consider all relevant planning rules for the specific property this Land Information Memorandum applies to prior to purchase.

Copies of the relevant planning maps for the Operative Tauranga City Plan are included in this LIM.

To view the Operative Tauranga City Plan please visit the Tauranga City Council website www.tauranga.govt.nz.

If you have any specific queries on any rules or any existing or proposed use of a property, please contact the Tauranga City Council’s Duty Planner (07 577 7000) for further information.

City Planning (cont.)

Development Contributions

Council operates a development contributions policy under the Local Government Act 2002, and also has financial contributions provisions in its City Plan. The broad purpose of these policies is to fund infrastructure costs that relate to the city's growth from those parties that undertake subdivision, building or development. These contributions are required on building consents, resource consents, service connection authorisations and certificates of acceptance. Contributions may remain payable on any property in circumstances where subdivision, building and development projects have not been completed, and in rare occasions where the Council has agreed to defer payment. In addition, further subdivision, building or development of a property may trigger the requirement to pay further development and/or financial contributions.

Council's development contributions team can advise further on these matters in relation to the application of development and financial contributions to the property in question.

Transportation Strategy & Planning and Reserve Management Plans

"As part of Tauranga City Council's Transport strategy and planning activities and Reserves Management Plans, properties neighbouring Council-owned or administered land may be subject to transport network development such as walkways and cycleways or other development, activities or use of the land. The Tauranga Reserves Management Plan is available online at http://www.tauranga.govt.nz/council/council-documents/strategies-plans-and-reports/plans/reserve-management-plans"

Relevant Planning Information

Cross Lease situations differ to Freehold Titles in that any building additions to the property in question may need to have the Cross Lease plan updated. Any unregistered changes could be regarded as not legally part of the lease. For information regarding the updating of a cross lease plan please contact a Surveyor or your Solicitor.

Zone: Operative Tauranga City Plan	**Suburban Residential Plan Attached**
Identified Plan Areas	**None Known**
Designations	**None**
Protected Heritage/Notable or Groups of Trees, or Protected Buildings	**None Known**
Archaeological or Heritage Sites	**None Known**

Council Consents, Certificates, Notices, Orders or Bonds Affecting the Land:	**Yes**
Description	**Date Issued**
221 Consent Notice *(Resource Management Act 1991)*	**17/09/07**

Additional Planning Information

Three plan changes are in the formal plan change process under Schedule 1 of the Resource Management Act 1991, with the public notification period for submissions between 16 November 2020 and 1 February 2021 and further submissions in early 2021. The proposed amendments are available to be viewed within the City Plan. A copy of the Council report considering the plan changes, including the proposed amendments for public notification, is available at the following link.

https://infocouncil.tauranga.govt.nz/Open/2020/10/UR_20201013_AGN_2170_AT.PDF

The proposed amendments will be inserted into the City Plan from Monday 16 November 2020. This property will be affected by:

Plan Change 26 (Housing Choice) – Proposed Plan Change 26 seeks to enable greater housing choice and density to respond to the demands of increased population, changing demographics and an aging population in existing urban areas.

> This property is located within the Suburban Residential Zone where the Housing Choice Plan Change is proposing to enable a greater choice of housing, including duplexes and townhouses.

Online maps are also available showing the zoning, Te Papa Housing overlay and the natural hazards overlay: www.tauranga.govt.nz/floodmaps

For further information on the Proposed Plan Change 26, please visit: www.tauranga.govt.nz/planchanges

Plan Change 27 (Flooding from Intense Rainfall Events) – Proposed Plan Change 27 seeks to reduce the risk of flooding to life, property and infrastructure from intense rainfall events in Tauranga. The proposed policy and rule framework will be used to determine the type and location of land use on land subject to flooding in a 1-in-100 year rainfall event, which takes into consideration the effects of sea level rise and climate change as of the year 2130. Mapping has been completed for such a flooding event and will supersede related existing flood mapping that Tauranga City Council holds from 16 November 2020. Please see attached related correspondence and map which illustrates the effect on this property.

Click here for site specific map

Online maps area also available showing the location and extent of the flooding: www.tauranga.govt.nz/floodmaps

Proposed Plan Change 27 has legal effect from Monday 16 November 2020. This means that all applications, where required, have regard to the proposed objectives, policies and rules from the date of public notification.

For further information on Proposed Plan Change 27, please visit: www.tauranga.govt.nz/planchanges

Historical Flood Modelling (Pre 2020 1% AEP without climate change / sea level rise) can also be viewed here.
www.tauranga.govt.nz/exploring/maps/council-map-viewer-mapi

Plan Change 30 (Earthworks) – Proposed Plan Change 30 seeks to make minor amendments to existing earthworks rules in the City Plan to address issues arising in relation to the control of earthworks at all stages of development and managing sediment on sites. For further information on Proposed Plan Change 30, please visit: www.tauranga.govt.nz/planchanges

Land Features

This information relates only to details held on Council files and may not reflect the on site situation.

The Tauranga City Council does not act as agent for network utility operators.

The land form and geology within Tauranga City have some features which demand particular attention. These features, which may or may not be relevant to the property in question, are outlined in "General Description of Land Form within Tauranga District" as attached.

Microzoning for Earthquake Hazards

The Council has received reports and results that have assessed Tauranga City's vulnerability to liquefaction when considering a range of earthquake events. These reports and results, and a summary of them, are available by accessing https://www.tauranga.govt.nz/living/natural-hazards/understanding-our-hazards-studies-maps-and-data/earthquakes-and-liquefaction

The reports and results reflect the most up-to-date vulnerability to liquefaction from an earthquake event.

It is important to note that different properties are exposed to different levels of probability that land damage from liquefaction and lateral spread will in fact occur. The reports and results are undertaken at a City-wide scale and may be superseded by detailed, site specific assessments undertaken by qualified and experienced practitioners using improved or higher resolution data than presented in these reports.

The vulnerability and land damage maps are prepared based on an assessment of natural ground conditions and therefore do not take into account the influence of recent human activities that may influence liquefaction response (i.e. earthworks, ground improvement, foundation design), unless specifically stated within the technical reports. As such, the degree of land damage may be less than predicted for a given property where liquefaction risk was addressed during landform or building foundation design.

The presence of liquefaction and lateral spread information on a property may have implications for the use and development of that property including, but not limited to, the requirements for and assessments of building consent applications under the Building Act 2004 and Building Code (refer to the NZ Standard AS/NZ 1170 and design standard outlined in Chapter 10.10.6 Liquefaction of Tauranga City Council's Infrastructure Development Code), subdivision consent applications under the Resource Management Act, and infrastructure design.

The assessed hazard applicable to the area this property has been assessed within, is available by accessing the web-viewer available through the following link: https://www.tauranga.govt.nz/living/natural-hazards/understanding-our-hazards-studies-maps-and-data/earthquakes-and-liquefaction

Special Land Features Relevant to the Subject Property

Yes

Comments:

Refer to the attached Consent Notice dated 17 September 2007 together with the Geotechnical Report from S & L Consultants Ltd Reference 18188 dated July 2007.

Additional Information

Licences

Licences Affecting the Land or Buildings **No**

Signed for and on behalf of the Council:

Position held: Technical Advisor

Date: 3 December 2021

Tauranga City

Digital Title Plan - DP 389977

Survey Number	DP 389977
Surveyor Reference	18188 Northridge stage4
Surveyor	John David Barnes
Survey Firm	S & L Consultants Ltd
Surveyor Declaration	I John David Barnes, being a person entitled to practise as a licensed cadastral surveyor, certify that - (a) The surveys to which this dataset relates are accurate, and were undertaken by me or under my direction in accordance with the Cadastral Survey Act 2002 and the Surveyor-General's Rules for Cadastral Survey 2002/2; (b) This dataset is accurate, and has been created in accordance with that Act and those Rules. Declared on 26/09/2007.

Survey Details

Dataset Description	LOTS 1-86, 100-109, 111 AND112 BEING A SUBDIVISION OF LOT 2 DP 315374 AND LOTS 2 AND 3 DP 377021		
Status	Deposited		
Land District	South Auckland	**Survey Class**	Class I Cadastral Survey
Submitted Date	26/09/2007	**Survey Approval Date**	09/10/2007
		Deposit Date	27/09/2007

Territorial Authorities

Tauranga City

Comprised In

CT 309588

CT 60593

CT 309589

Created Parcels

Parcels	Parcel Intent	Area	CT Reference
Lot 1 Deposited Plan 389977	Fee Simple Title	0.0767 ha	360909
Lot 2 Deposited Plan 389977	Fee Simple Title	0.0785 ha	360910
Lot 3 Deposited Plan 389977	Fee Simple Title	0.0865 ha	360911
Lot 4 Deposited Plan 389977	Fee Simple Title	0.0730 ha	360912
Lot 5 Deposited Plan 389977	Fee Simple Title	0.0706 ha	360913
Lot 6 Deposited Plan 389977	Fee Simple Title	0.0520 ha	360914
Lot 7 Deposited Plan 389977	Fee Simple Title	0.0597 ha	360915
Lot 8 Deposited Plan 389977	Fee Simple Title	0.0688 ha	360916
Lot 9 Deposited Plan 389977	Fee Simple Title	0.0621 ha	360917
Lot 10 Deposited Plan 389977	Fee Simple Title	0.0766 ha	360918
Lot 11 Deposited Plan 389977	Fee Simple Title	0.0819 ha	360919
Lot 12 Deposited Plan 389977	Fee Simple Title	0.0778 ha	360920
Lot 13 Deposited Plan 389977	Fee Simple Title	0.0879 ha	360921
Lot 14 Deposited Plan 389977	Fee Simple Title	0.0707 ha	360922
Lot 15 Deposited Plan 389977	Fee Simple Title	0.0699 ha	360923
Lot 16 Deposited Plan 389977	Fee Simple Title	0.0601 ha	360924
Lot 17 Deposited Plan 389977	Fee Simple Title	0.0683 ha	360925

Digital Title Plan - DP 389977

Created Parcels

Parcels	Parcel Intent	Area	CT Reference
Lot 18 Deposited Plan 389977	Fee Simple Title	0.0632 ha	360926
Lot 19 Deposited Plan 389977	Fee Simple Title	0.0540 ha	360927
Lot 20 Deposited Plan 389977	Fee Simple Title	0.0551 ha	360928
Lot 21 Deposited Plan 389977	Fee Simple Title	0.0569 ha	360929
Lot 22 Deposited Plan 389977	Fee Simple Title	0.0530 ha	360930
Lot 23 Deposited Plan 389977	Fee Simple Title	0.0540 ha	360931
Lot 24 Deposited Plan 389977	Fee Simple Title	0.0526 ha	360932
Lot 25 Deposited Plan 389977	Fee Simple Title	0.0546 ha	360933
Lot 26 Deposited Plan 389977	Fee Simple Title	0.0551 ha	360934
Lot 27 Deposited Plan 389977	Fee Simple Title	0.0666 ha	360935
Lot 28 Deposited Plan 389977	Fee Simple Title	0.0545 ha	360936
Lot 29 Deposited Plan 389977	Fee Simple Title	0.0479 ha	360937
Lot 30 Deposited Plan 389977	Fee Simple Title	0.0500 ha	360938
Lot 31 Deposited Plan 389977	Fee Simple Title	0.0560 ha	360939
Lot 32 Deposited Plan 389977	Fee Simple Title	0.0537 ha	360940
Lot 33 Deposited Plan 389977	Fee Simple Title	0.0541 ha	360941
Lot 34 Deposited Plan 389977	Fee Simple Title	0.0520 ha	360942
Lot 35 Deposited Plan 389977	Fee Simple Title	0.0520 ha	360943
Lot 36 Deposited Plan 389977	Fee Simple Title	0.0701 ha	360944
Lot 37 Deposited Plan 389977	Fee Simple Title	0.0998 ha	360945
Lot 38 Deposited Plan 389977	Fee Simple Title	0.0898 ha	360946
Lot 39 Deposited Plan 389977	Fee Simple Title	0.0924 ha	360947
Lot 40 Deposited Plan 389977	Fee Simple Title	0.0872 ha	360948
Lot 41 Deposited Plan 389977	Fee Simple Title	0.0560 ha	360949
Lot 42 Deposited Plan 389977	Fee Simple Title	0.0567 ha	360950
Lot 43 Deposited Plan 389977	Fee Simple Title	0.0567 ha	360951
Lot 44 Deposited Plan 389977	Fee Simple Title	0.0641 ha	360952
Lot 45 Deposited Plan 389977	Fee Simple Title	0.0511 ha	360953
Lot 46 Deposited Plan 389977	Fee Simple Title	0.0500 ha	360954
Lot 47 Deposited Plan 389977	Fee Simple Title	0.0511 ha	360955
Lot 48 Deposited Plan 389977	Fee Simple Title	0.0540 ha	360956
Lot 49 Deposited Plan 389977	Fee Simple Title	0.0752 ha	360957
Lot 50 Deposited Plan 389977	Fee Simple Title	0.0861 ha	360958
Lot 51 Deposited Plan 389977	Fee Simple Title	0.0661 ha	360959
Lot 52 Deposited Plan 389977	Fee Simple Title	0.0737 ha	360960
Lot 53 Deposited Plan 389977	Fee Simple Title	0.0579 ha	360961
Lot 54 Deposited Plan 389977	Fee Simple Title	0.0740 ha	360962
Lot 55 Deposited Plan 389977	Fee Simple Title	0.0748 ha	360963
Lot 56 Deposited Plan 389977	Fee Simple Title	0.0878 ha	360964
Lot 57 Deposited Plan 389977	Fee Simple Title	0.0700 ha	360965
Lot 58 Deposited Plan 389977	Fee Simple Title	0.0740 ha	360966
Lot 59 Deposited Plan 389977	Fee Simple Title	0.0798 ha	360967
Lot 60 Deposited Plan 389977	Fee Simple Title	0.0752 ha	360968
Lot 61 Deposited Plan 389977	Fee Simple Title	0.0751 ha	360969

Digital Title Plan - DP 389977

Created Parcels

Parcels	Parcel Intent	Area	CT Reference
Lot 62 Deposited Plan 389977	Fee Simple Title	0.0830 ha	360970
Lot 63 Deposited Plan 389977	Fee Simple Title	0.0930 ha	360971
Lot 64 Deposited Plan 389977	Fee Simple Title	0.0758 ha	360972
Lot 65 Deposited Plan 389977	Fee Simple Title	0.0642 ha	360973
Lot 66 Deposited Plan 389977	Fee Simple Title	0.0630 ha	360974
Lot 67 Deposited Plan 389977	Fee Simple Title	0.0656 ha	360975
Lot 68 Deposited Plan 389977	Fee Simple Title	0.0689 ha	360976
Lot 69 Deposited Plan 389977	Fee Simple Title	0.0680 ha	360977
Lot 70 Deposited Plan 389977	Fee Simple Title	0.0670 ha	360978
Lot 71 Deposited Plan 389977	Fee Simple Title	0.0793 ha	360979
Lot 72 Deposited Plan 389977	Fee Simple Title	0.0767 ha	360980
Lot 73 Deposited Plan 389977	Fee Simple Title	0.0630 ha	360981
Lot 74 Deposited Plan 389977	Fee Simple Title	0.0553 ha	360982
Lot 75 Deposited Plan 389977	Fee Simple Title	0.0717 ha	360983
Lot 76 Deposited Plan 389977	Fee Simple Title	0.0699 ha	360984
Lot 77 Deposited Plan 389977	Fee Simple Title	0.0679 ha	360985
Lot 78 Deposited Plan 389977	Fee Simple Title	0.0775 ha	360986
Lot 79 Deposited Plan 389977	Fee Simple Title	0.0599 ha	360987
Lot 80 Deposited Plan 389977	Fee Simple Title	0.0631 ha	360988
Lot 81 Deposited Plan 389977	Fee Simple Title	0.0652 ha	360989
Lot 82 Deposited Plan 389977	Fee Simple Title	0.0673 ha	360990
Lot 83 Deposited Plan 389977	Fee Simple Title	0.0598 ha	360991
Lot 84 Deposited Plan 389977	Fee Simple Title	0.0598 ha	360992
Lot 85 Deposited Plan 389977	Fee Simple Title	0.0791 ha	360993
Lot 86 Deposited Plan 389977	Fee Simple Title	1.5800 ha	360994
Lot 100 Deposited Plan 389977	Fee Simple Title	0.1242 ha	Multiple
Lot 101 Deposited Plan 389977	Fee Simple Title	0.0189 ha	Multiple
Lot 102 Deposited Plan 389977	Fee Simple Title	0.0292 ha	Multiple
Lot 103 Deposited Plan 389977	Fee Simple Title	0.0126 ha	Multiple
Lot 104 Deposited Plan 389977	Fee Simple Title	0.0131 ha	Multiple
Lot 105 Deposited Plan 389977	Fee Simple Title	0.1367 ha	Multiple
Lot 106 Deposited Plan 389977	Fee Simple Title	0.0461 ha	Multiple
Lot 107 Deposited Plan 389977	Fee Simple Title	0.0153 ha	Multiple
Lot 108 Deposited Plan 389977	Fee Simple Title	0.0176 ha	Multiple
Lot 109 Deposited Plan 389977	Vesting on Deposit for Local Purpose Reserve	0.0320 ha	360995
Lot 111 Deposited Plan 389977	Fee Simple Title	10.6800 ha	360996
Lot 112 Deposited Plan 389977	Vesting on Deposit for Road	1.1450 ha	
Easement A Deposited Plan 389977	Easement		
Easement AA Deposited Plan 389977	Easement		
Easement AB Deposited Plan 389977	Easement		
Easement AC Deposited Plan 389977	Easement		
Easement AD Deposited Plan 389977	Easement		

Digital Title Plan - DP 389977

Created Parcels

Parcels	Parcel Intent	Area	CT Reference
Easement AE Deposited Plan 389977	Easement		
Easement AF Deposited Plan 389977	Easement		
Easement AG Deposited Plan 389977	Easement		
Easement AH Deposited Plan 389977	Easement		
Easement AI Deposited Plan 389977	Easement		
Easement AJ Deposited Plan 389977	Easement		
Easement AK Deposited Plan 389977	Easement		
Easement AL Deposited Plan 389977	Easement		
Easement AM Deposited Plan 389977	Easement		
Easement AN Deposited Plan 389977	Easement		
Easement AO Deposited Plan 389977	Easement		
Easement AP Deposited Plan 389977	Easement		
Easement AQ Deposited Plan 389977	Easement		
Easement AR Deposited Plan 389977	Easement		
Easement AS Deposited Plan 389977	Easement		
Easement AT Deposited Plan 389977	Easement		
Easement AU Deposited Plan 389977	Easement		
Easement AV Deposited Plan 389977	Easement		
Easement AW Deposited Plan 389977	Easement		
Easement AX Deposited Plan 389977	Easement		
Easement AZ Deposited Plan 389977	Easement		
Easement B Deposited Plan 389977	Easement		
Easement BA Deposited Plan 389977	Easement		
Easement BB Deposited Plan 389977	Easement		
Easement BR Deposited Plan 389977	Easement		
Easement BV Deposited Plan 389977	Easement		
Easement C Deposited Plan 389977	Easement		
Easement D Deposited Plan 389977	Easement		
Easement E Deposited Plan 389977	Easement		
Easement F Deposited Plan 389977	Easement		
Easement G Deposited Plan 389977	Easement		
Easement H Deposited Plan 389977	Easement		
Easement I Deposited Plan 389977	Easement		
Easement J Deposited Plan 389977	Easement		
Easement K Deposited Plan 389977	Easement		
Easement L Deposited Plan 389977	Easement		
Easement M Deposited Plan 389977	Easement		
Easement N Deposited Plan 389977	Easement		
Easement O Deposited Plan 389977	Easement		
Easement P Deposited Plan 389977	Easement		
Easement Q Deposited Plan 389977	Easement		
Easement R Deposited Plan 389977	Easement		
Easement S Deposited Plan 389977	Easement		
Easement T Deposited Plan 389977	Easement		

Digital Title Plan - DP 389977

Created Parcels

Parcels	Parcel Intent	Area	CT Reference
Easement U Deposited Plan 389977	Easement		
Easement V Deposited Plan 389977	Easement		
Easement W Deposited Plan 389977	Easement		
Easement Y Deposited Plan 389977	Easement		
Easement Z Deposited Plan 389977	Easement		
Marked AY Deposited Plan 389977	Land Covenant		
Marked BF Deposited Plan 389977	Land Covenant		
Marked BG Deposited Plan 389977	Land Covenant		
Marked BH Deposited Plan 389977	Land Covenant		
Marked BI Deposited Plan 389977	Land Covenant		
Marked BJ Deposited Plan 389977	Land Covenant		
Marked BK Deposited Plan 389977	Land Covenant		
Marked BL Deposited Plan 389977	Land Covenant		
Marked BM Deposited Plan 389977	Land Covenant		
Marked BN Deposited Plan 389977	Land Covenant		
Marked BO Deposited Plan 389977	Land Covenant		
Marked BP Deposited Plan 389977	Land Covenant		
Marked BU Deposited Plan 389977	Land Covenant		
Marked BW Deposited Plan 389977	Land Covenant		
Marked CA Deposited Plan 389977	Land Covenant		
Marked CB Deposited Plan 389977	Land Covenant		
Marked CC Deposited Plan 389977	Land Covenant		
Marked CD Deposited Plan 389977	Land Covenant		
Easement X Deposited Plan 389977	Easement		
Total Area		19.5698 ha	

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SURVEYORS - ENGINEERS - PLANNERS

S&L File: 18188

Amalgamation Conditions
(Pursuant to s220 Resource Management Act 1991)

That Lot 100 hereon (Legal access) be held as to nine undivided one ninth shares by the owners of Lots 1, 2, 3, 4, 5, 6, 7, 8 and 9 hereon and one certificate of title be issued in accordance therewith.

That Lot 101 hereon (Legal access) be held as to five undivided one fifth shares by the owners of Lots 4, 5, 6, 7 and 8 hereon and one certificate of title be issued in accordance therewith.

That Lot 102 hereon (Legal access) be held as to four undivided one fourth shares by the owners of Lots 11, 12, 13, and 14 hereon and one certificate of title be issued in accordance therewith.

That Lot 103 hereon (Legal access) be held as to two undivided one half shares by the owners of Lots 20 and 21 hereon and one certificate of title be issued in accordance therewith.

That Lot 104 hereon (Legal access) be held as to two undivided one half shares by the owners of Lots 24 and 25 hereon and one certificate of title be issued in accordance therewith.

That Lot 105 hereon (Legal access) be held as to thirteen undivided one thirteenth shares by the owners of Lots 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42 and 43 hereon and one certificate of title be issued in accordance therewith.

That Lot 106 hereon (Legal access) be held as to seven undivided one seventh shares by the owners of Lots 46, 47, 48, 49, 50, 51 and 52 hereon and one certificate of title be issued in accordance therewith.

That Lot 107 hereon (Legal access) be held as to three undivided one third shares by the owners of Lots 55, 56 and 57 hereon and one certificate of title be issued in accordance therewith.

That Lot 108 hereon (Legal access) be held as to two undivided one half shares by the owners of Lots 60 and 61 hereon and one certificate of title be issued in accordance therewith.

See Request: 573648

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S&L File:18188EC-R1

Plan Number

DP 389977

Memorandum of Easements (Pursuant to s243 Resource Management Act 1991)			
Purpose	**Shown**	**Servient Tenement**	**Dominant Tenement**
R.O.W	A	Lot 101 hereon	Lots 4-8 hereon
	B and M	Lot 100 hereon	Lots 1-9 hereon
	C	Lot 102 hereon	Lots 10-15 hereon
	D	Lot 103 hereon	Lots 19-22 hereon
	E	Lot 104 hereon	Lots 23-26 hereon
	F	Lot 105 hereon	Lots 30-44 hereon
	G	Lot 106 hereon	Lots 45 -53 hereon
	H	Lot 107 hereon	Lots 54-58 hereon
	I	Lot 108 hereon	Lots 59-61 hereon
	N	Lot 108 hereon	Lots 59-62 hereon

Memorandum of Easements (Pursuant to s243 Resource Management Act 1991)			
Purpose	**Shown**	**Servient Tenement**	**Dominant Tenement**
Right to drain water, right to convey water, electricity, Gas, Telecommunications and computer media	A	Lot 101 hereon	Lots 4-8 hereon
	B and M	Lot 100 hereon	Lots 1-9 hereon
	C	Lot 102 hereon	Lots 11-14 hereon
	D	Lot 103 hereon	Lots 20-21 hereon
	E	Lot 104 hereon	Lots 24-25 hereon
	F	Lot 105 hereon	Lots 31-43 hereon
	G	Lot 106 hereon	Lots 46 -52 hereon
	H	Lot 107 hereon	Lots 55-57 hereon
	I, N	Lot 108 hereon	Lots 60-61 hereon

Memorandum of easements in gross			
Purpose	**Shown**	**Servient Tenement**	**Grantee**
Right to drain Stormwater	J,P	Lot 37 hereon	Tauranga City Council
Right to drain Stormwater	K	Lot 50 hereon	
Right to Drain Water	Q	Lot 37 hereon	
Right to drain and Store Stormwater	L	Lot 86 hereon	
Right to drain sewage	O	Lot 38 hereon	
Right to drain sewage and water	P,BV	Lot 37 hereon	
	R	Lot 36 Hereon	
	S	Lot 35 hereon	
	T	Lot 34 hereon	
	V	Lot 32 hereon	

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S&L File:18188EC-R1

Right to drain water	U	Lot 33 hereon	Tauranga City Council
	W	Lot 31 Hereon	
	X	Lot 29 Hereon	
	Y	Lot 28 Hereon	
	Z	Lot 25 Hereon	
	AA	Lot 24 Hereon	
	AB	Lot 21 Hereon	
	AC	Lot 20 Hereon	
Right to drain sewage and water	AD	Lot 17 Hereon	
Right to drain water	AE	Lot 14 Hereon	
	AF	Lot 12 Hereon	
Right to drain sewage and water	AG	Lot 60 Hereon	
	AH	Lot 61 Hereon	
	AI	Lot 62 Hereon	
	AJ	Lot 63 Hereon	
	AK	Lot 64 Hereon	
	AL	Lot 65 Hereon	
	AM	Lot 66 Hereon	
	AN	Lot 67 Hereon	
	AO	Lot 68 Hereon	
	AP	Lot 69 Hereon	
Right to drain sewage	AQ	Lot 70 Hereon	
Right to drain water	AR,BR	Lot 71 Hereon	
Right to drain sewage and water	AS	Lot 73 Hereon	
	AT	Lot 74 Hereon	
	AU, AZ, BA	Lot 111 Hereon	
Right to Transmit Electricity	A	Lot 101 hereon	PowerCo
	B and M	Lot 100 hereon	
	C	Lot 102 hereon	
	F	Lot 105 hereon	
	G	Lot 106 hereon	
	H	Lot 107 hereon	
	I and N	Lot 108 hereon	
	BB, AO	Lot 68 hereon	
ROW (Pedestrian only) and Right to Convey Water	B and M	Lot 100 hereon	Tauranga City Council
Right to Convey Water	F	Lot 105 hereon	
	G	Lot 106 hereon	

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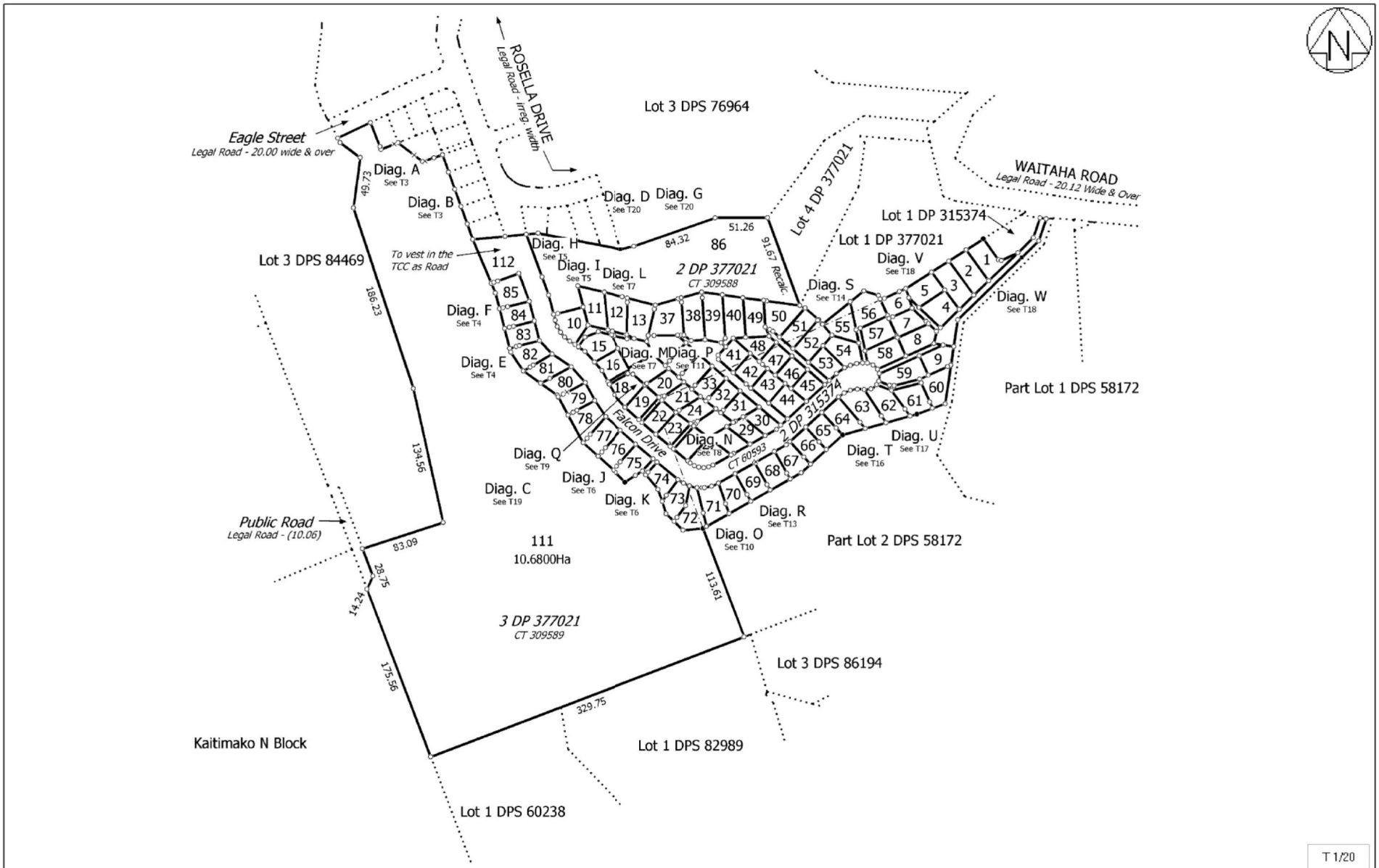
S&L File:18188EC-R1

Proposed Easements in Gross			
Purpose	**Shown**	**Servient Tenement**	**Dominant Tenement**
Right to Transmit electricity	AZ, AV	Lot 111 hereon	PowerCo
Right to Transmit Telecommunications and Computer Media	A	Lot 101 hereon	Telecom
	B and M	Lot 100 hereon	
	C	Lot 102 hereon	
	D	Lot 103 hereon	
	E	Lot 104 hereon	
	F	Lot 105 hereon	
	G	Lot 106 hereon	
	H	Lot 107 hereon	
	I and N	Lot 108 hereon	

Notes:
1) Areas shown AA-AE, AG - AT, BF – BP, BU - BW, J, L, O-W, Z, and CA - CD are subject to a consent notice which includes restrictions on building locations.
2) Area shown AY is subject to an existing consent notice.

Schedule of Easements/ Interests to Remain with Land (Pursuant to s239(2) of the Resource Management Act 1991)			
Purpose/Interest	**Shown/Document Number**	**Servient Tenement**	**Dominant Tenement**
ROW, Right to Transmit Electricity and Telecommunications, Right to Convey Water, Right to Drain Stormwater and Sewage.	M /doc 5463536.2	Lot 100 hereon	Lot 1 DP 315374
Existing Easements in Gross			
Purpose/Interest	Shown/Document Number	Servient Tenement	Grantee
Right to drain sewage	AW, AX / doc 6741258.7	Lot 111 hereon	Tauranga City Council



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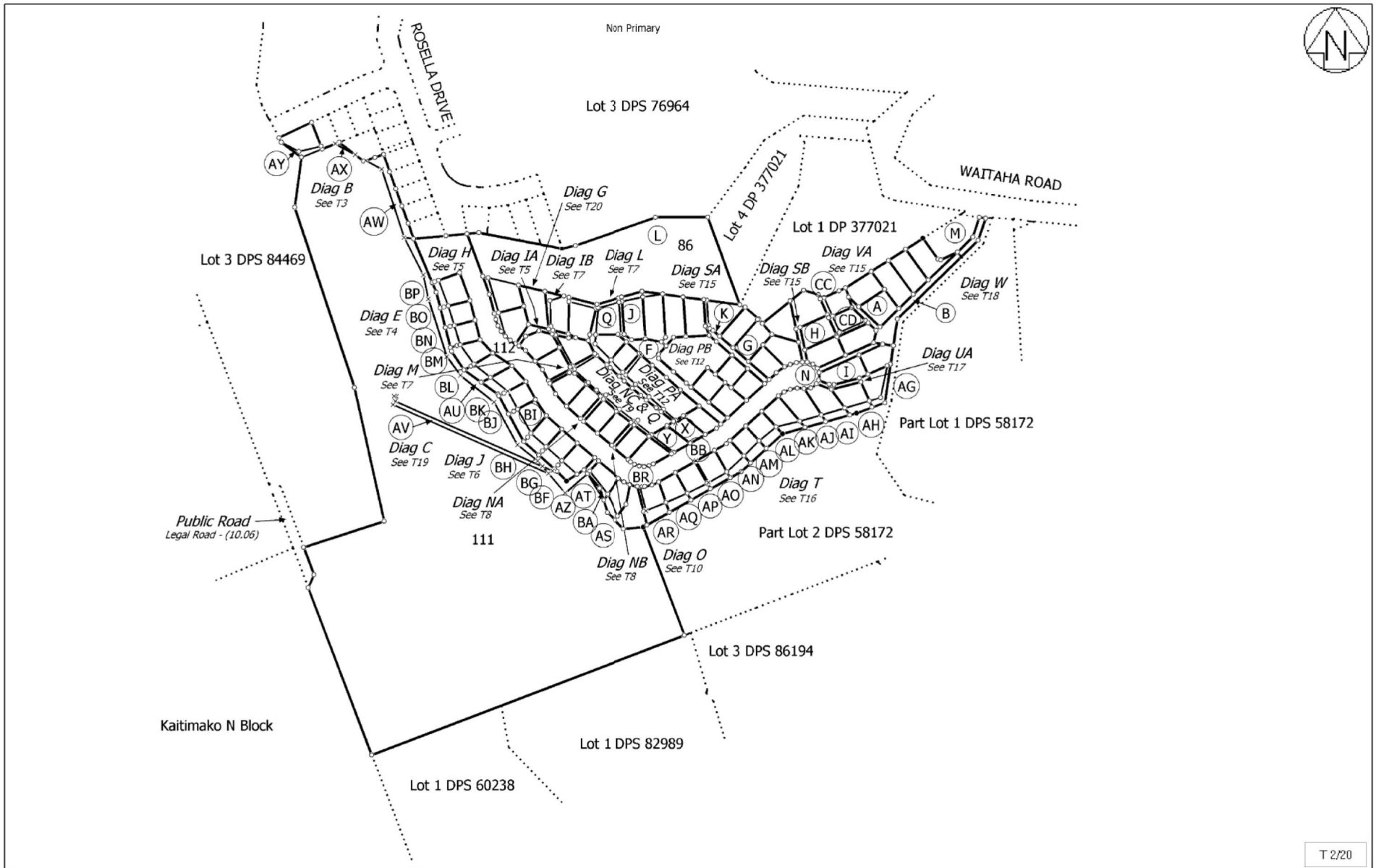
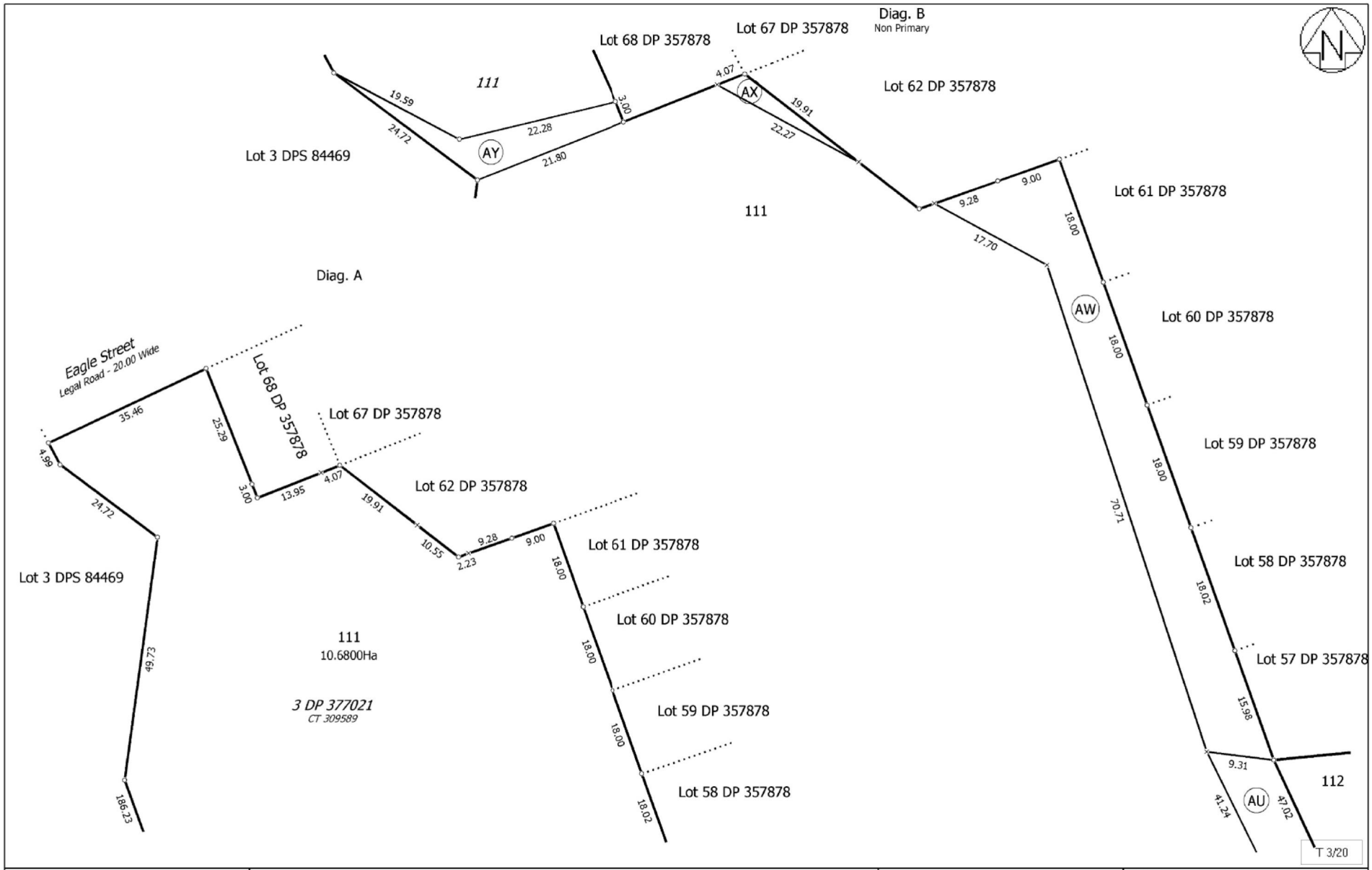
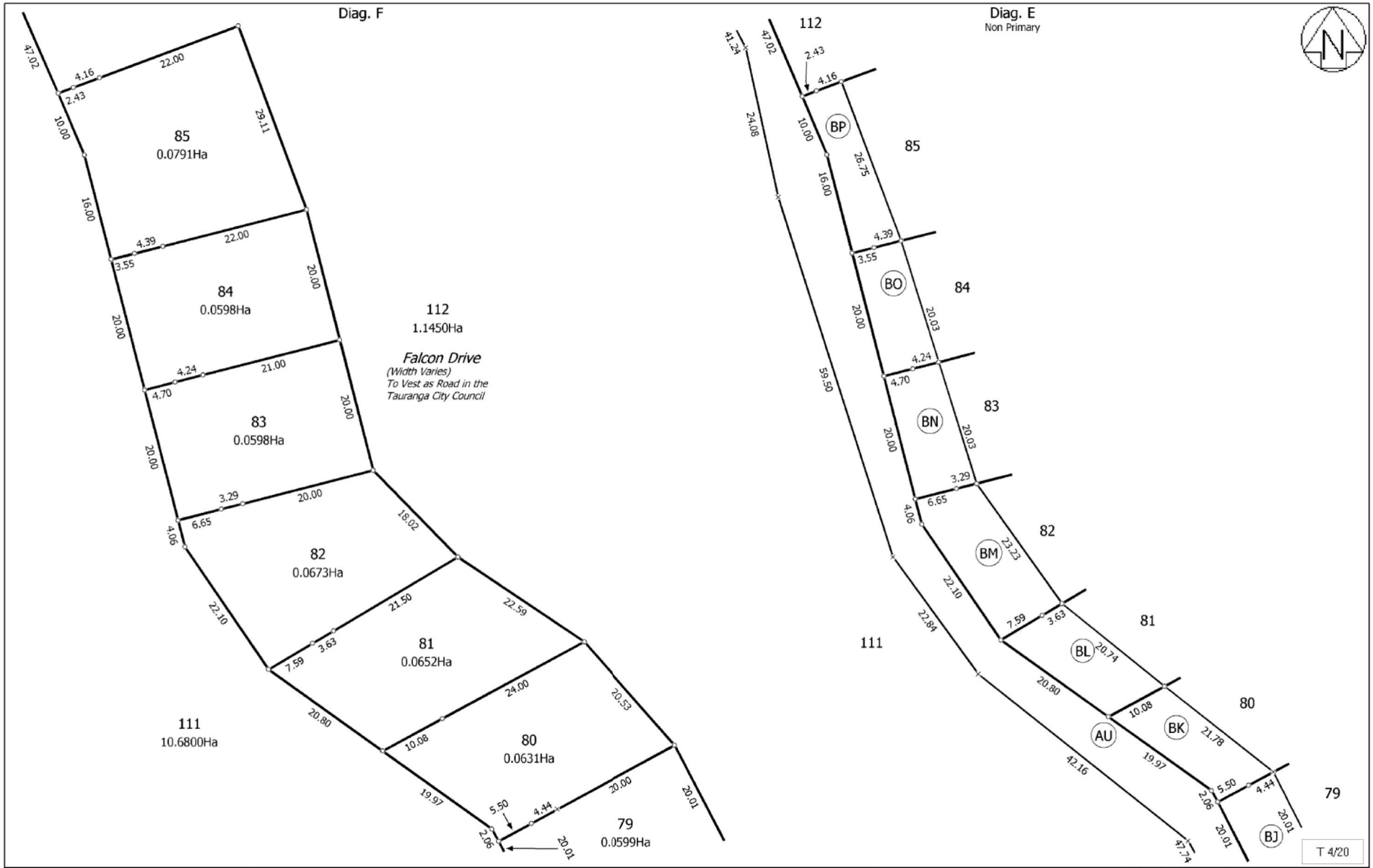
Land District: South Auckland Digitally Generated Plan Generated on: 12/10/2007 3:12pm Page 10 of 29	LOTS 1-86, 100-109, 111 AND112 BEING A SUBDIVISION OF LOT 2 DP 315374 AND LOTS 2 AND 3 DP 377021	Surveyor: John David Barnes Firm: S & L Consultants Ltd	Digital Title Plan DP 389977 Deposited on: 27/09/2007



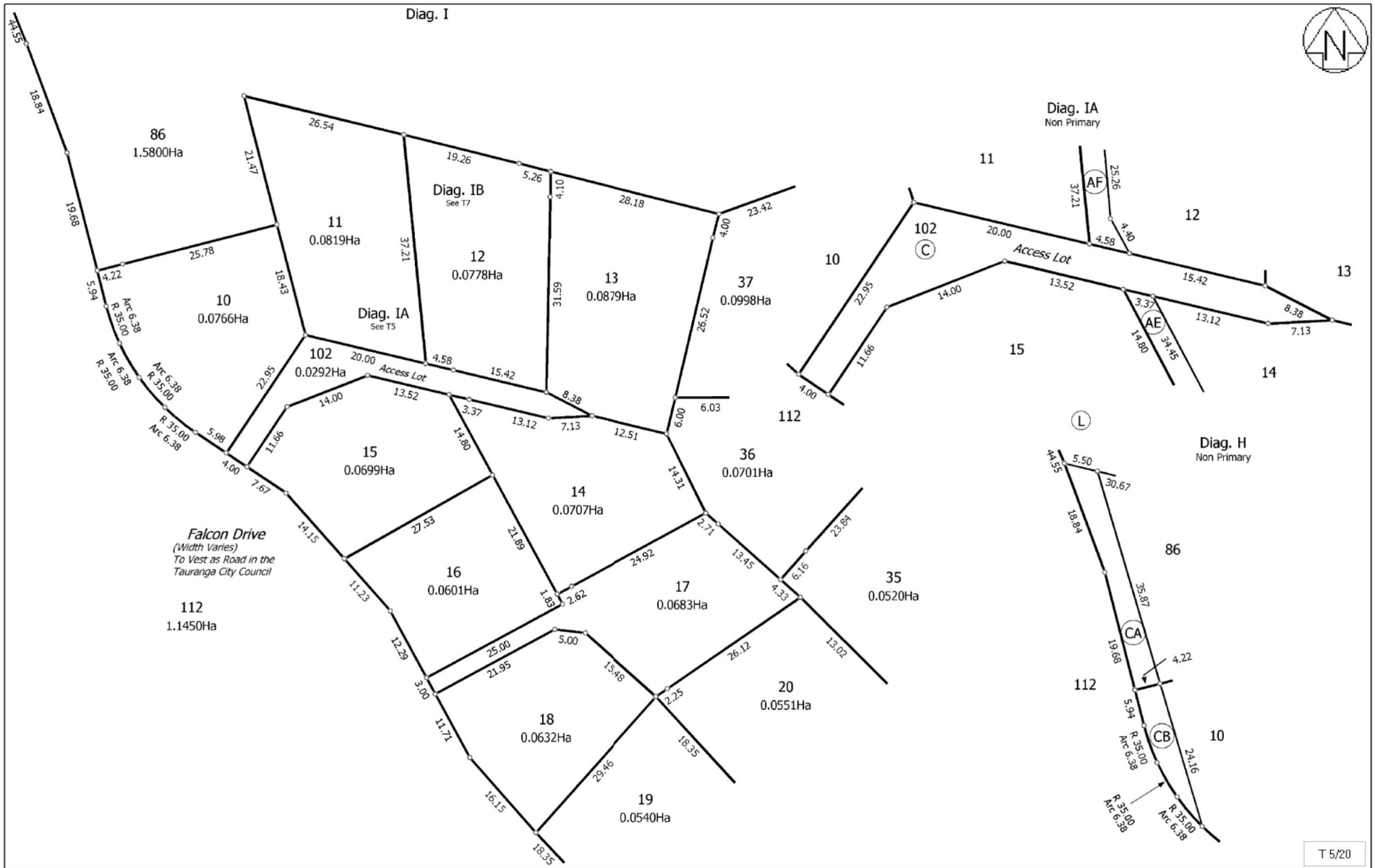
Land District: South Auckland Digitally Generated Plan Generated on: 12/10/2007 3:12pm Page 11 of 29	LOTS 1-86, 100-109, 111 AND112 BEING A SUBDIVISION OF LOT 2 DP 315374 AND LOTS 2 AND 3 DP 377021	Surveyor: John David Barnes Firm: S & L Consultants Ltd	Digital Title Plan DP 389977 Deposited on: 27/09/2007



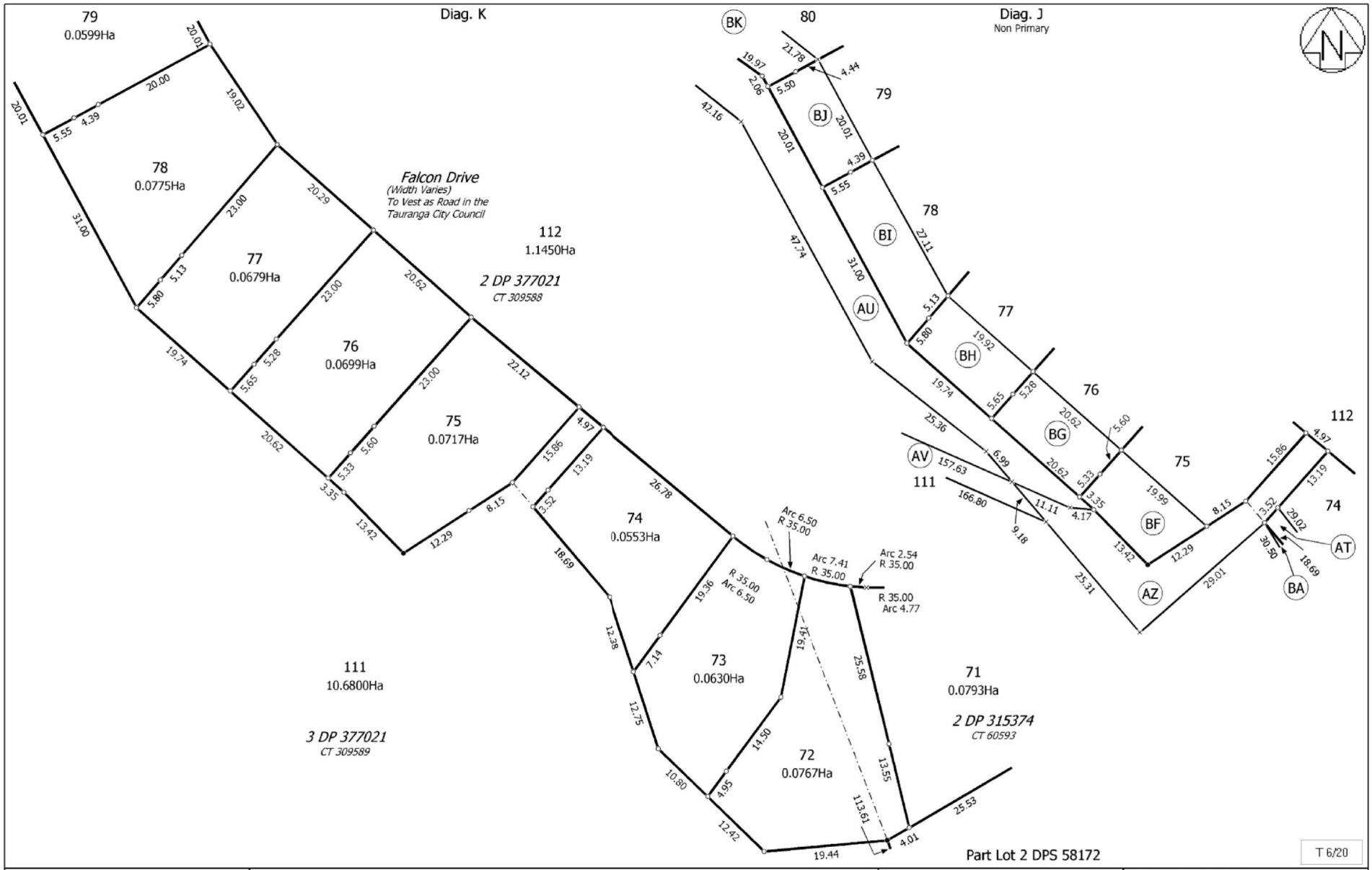
Land District: South Auckland Digitally Generated Plan Generated on: 12/10/2007 3:12pm Page 12 of 29	LOTS 1-86, 100-109, 111 AND112 BEING A SUBDIVISION OF LOT 2 DP 315374 AND LOTS 2 AND 3 DP 377021	Surveyor: John David Barnes Firm: S & L Consultants Ltd	Digital Title Plan DP 389977 Deposited on: 27/09/2007



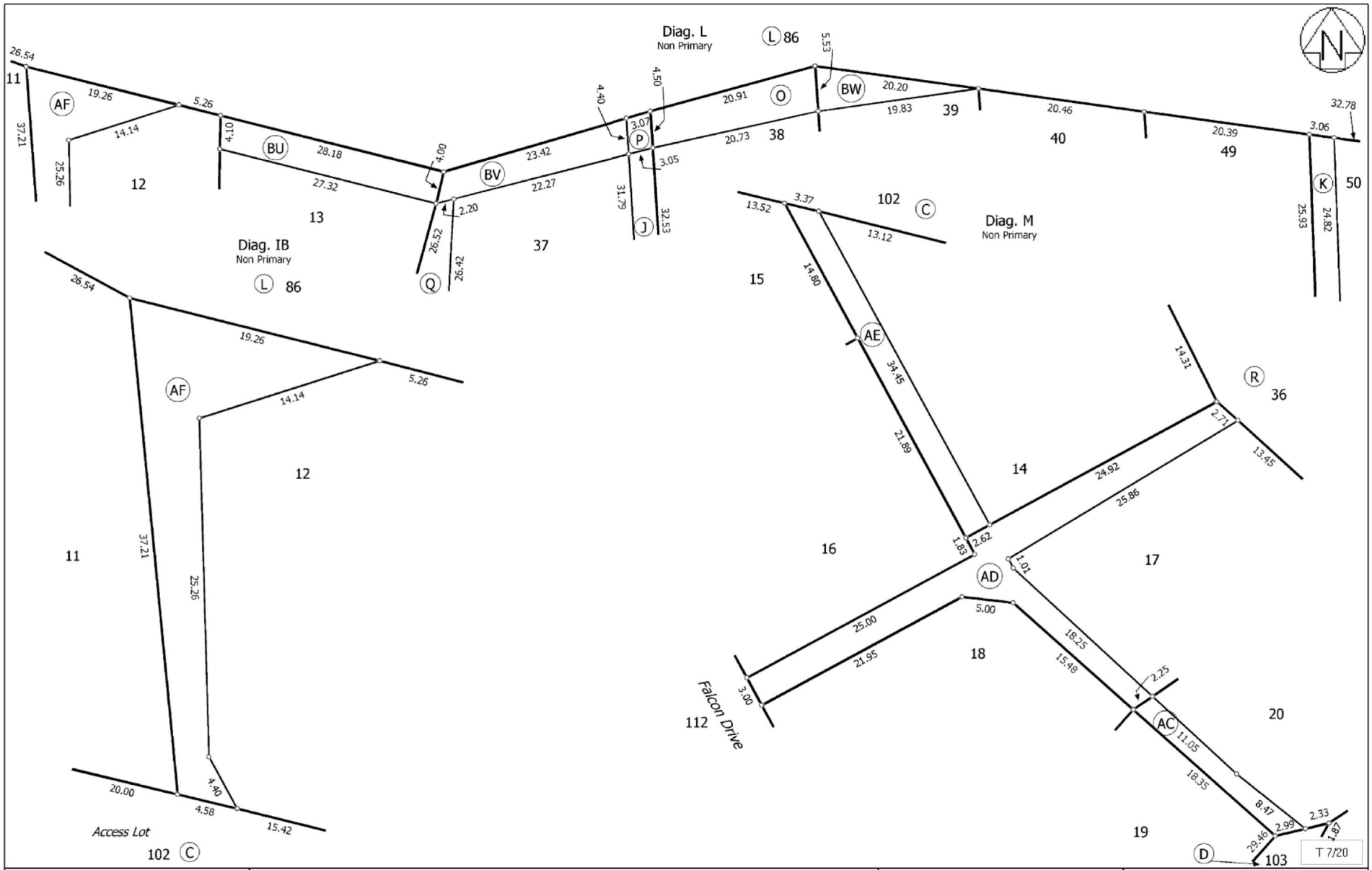
Land District: South Auckland Digitally Generated Plan Generated on: 12/10/2007 3:12pm Page 13 of 29	LOTS 1-86, 100-109, 111 AND112 BEING A SUBDIVISION OF LOT 2 DP 315374 AND LOTS 2 AND 3 DP 377021	Surveyor: John David Barnes Firm: S & L Consultants Ltd	Digital Title Plan DP 389977 Deposited on: 27/09/2007



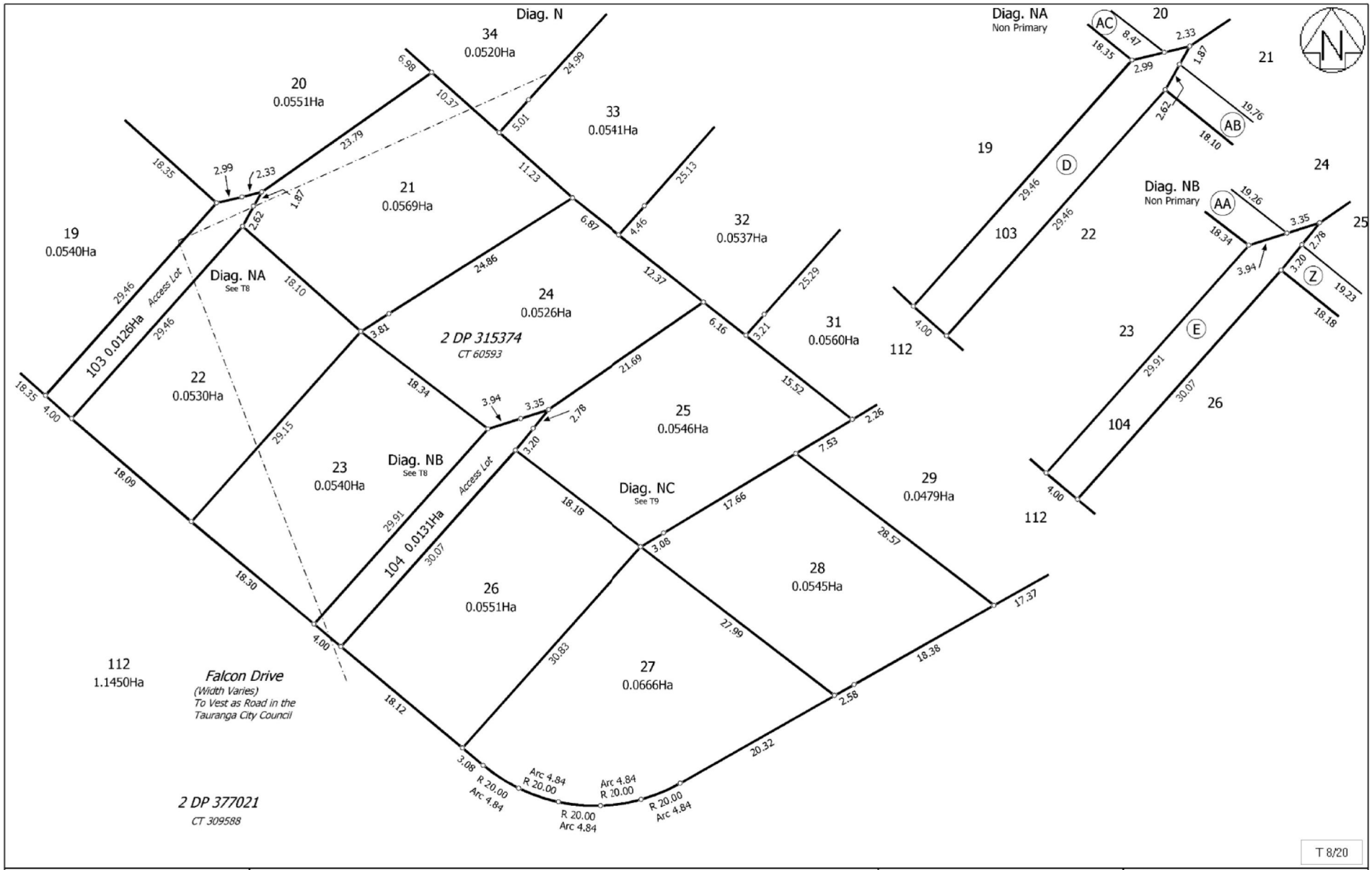
Land District: South Auckland Digitally Generated Plan Generated on: 12/10/2007 3:12pm Page 14 of 29	LOTS 1-86, 100-109, 111 AND112 BEING A SUBDIVISION OF LOT 2 DP 315374 AND LOTS 2 AND 3 DP 377021	Surveyor: John David Barnes Firm: S & L Consultants Ltd	Digital Title Plan DP 389977 Deposited on: 27/09/2007



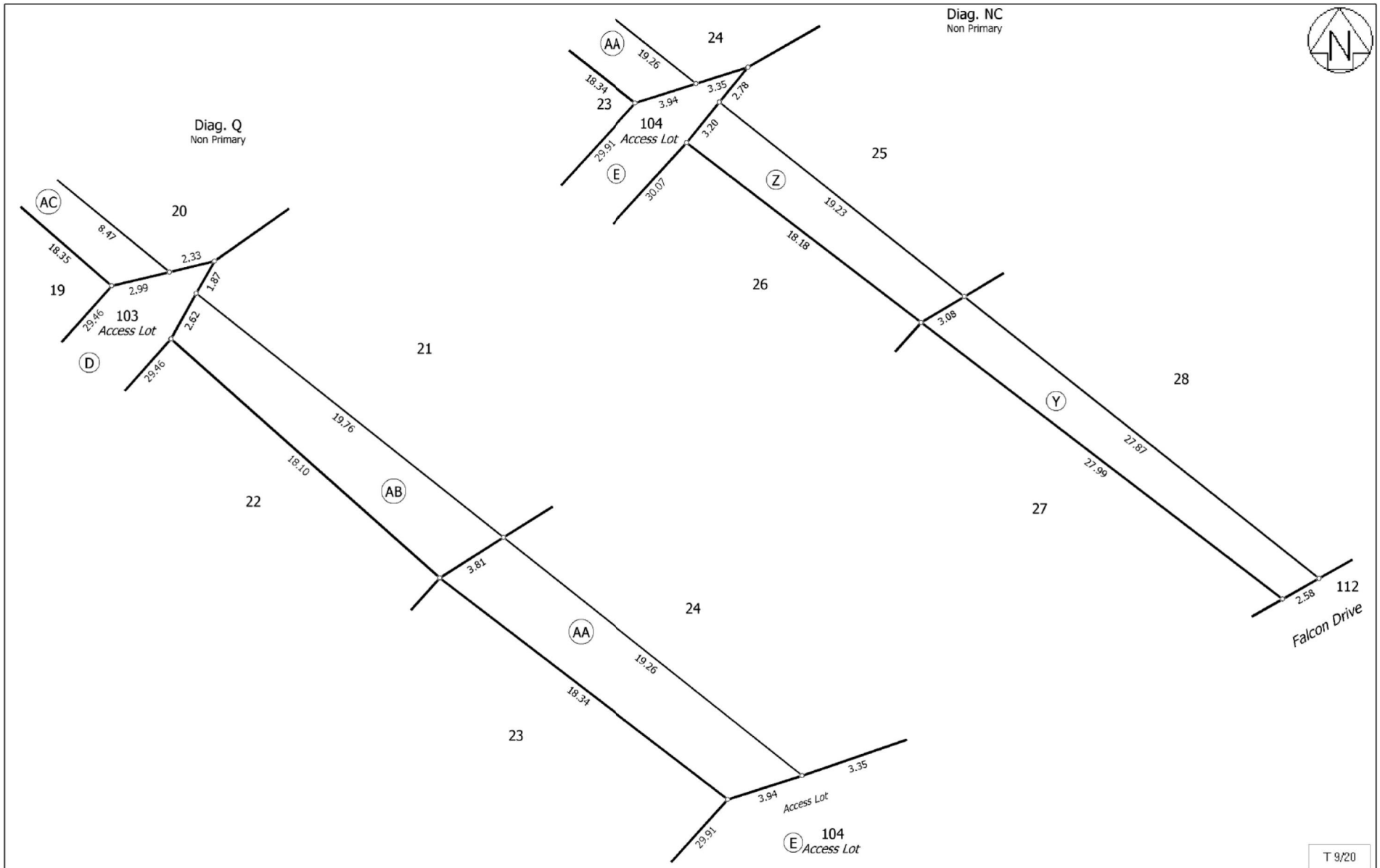
Land District: South Auckland Digitally Generated Plan Generated on: 12/10/2007 3:12pm Page 15 of 29	LOTS 1-86, 100-109, 111 AND112 BEING A SUBDIVISION OF LOT 2 DP 315374 AND LOTS 2 AND 3 DP 377021	Surveyor: John David Barnes Firm: S & L Consultants Ltd	Digital Title Plan DP 389977 Deposited on: 27/09/2007



Land District: South Auckland Digitally Generated Plan Generated on: 12/10/2007 3:12pm Page 16 of 29	LOTS 1-86, 100-109, 111 AND112 BEING A SUBDIVISION OF LOT 2 DP 315374 AND LOTS 2 AND 3 DP 377021	Surveyor: John David Barnes Firm: S & L Consultants Ltd	Digital Title Plan DP 389977 Deposited on: 27/09/2007



Land District: South Auckland Digitally Generated Plan Generated on: 12/10/2007 3:12pm Page 17 of 29	LOTS 1-86, 100-109, 111 AND112 BEING A SUBDIVISION OF LOT 2 DP 315374 AND LOTS 2 AND 3 DP 377021	Surveyor: John David Barnes Firm: S & L Consultants Ltd	Digital Title Plan DP 389977 Deposited on: 27/09/2007



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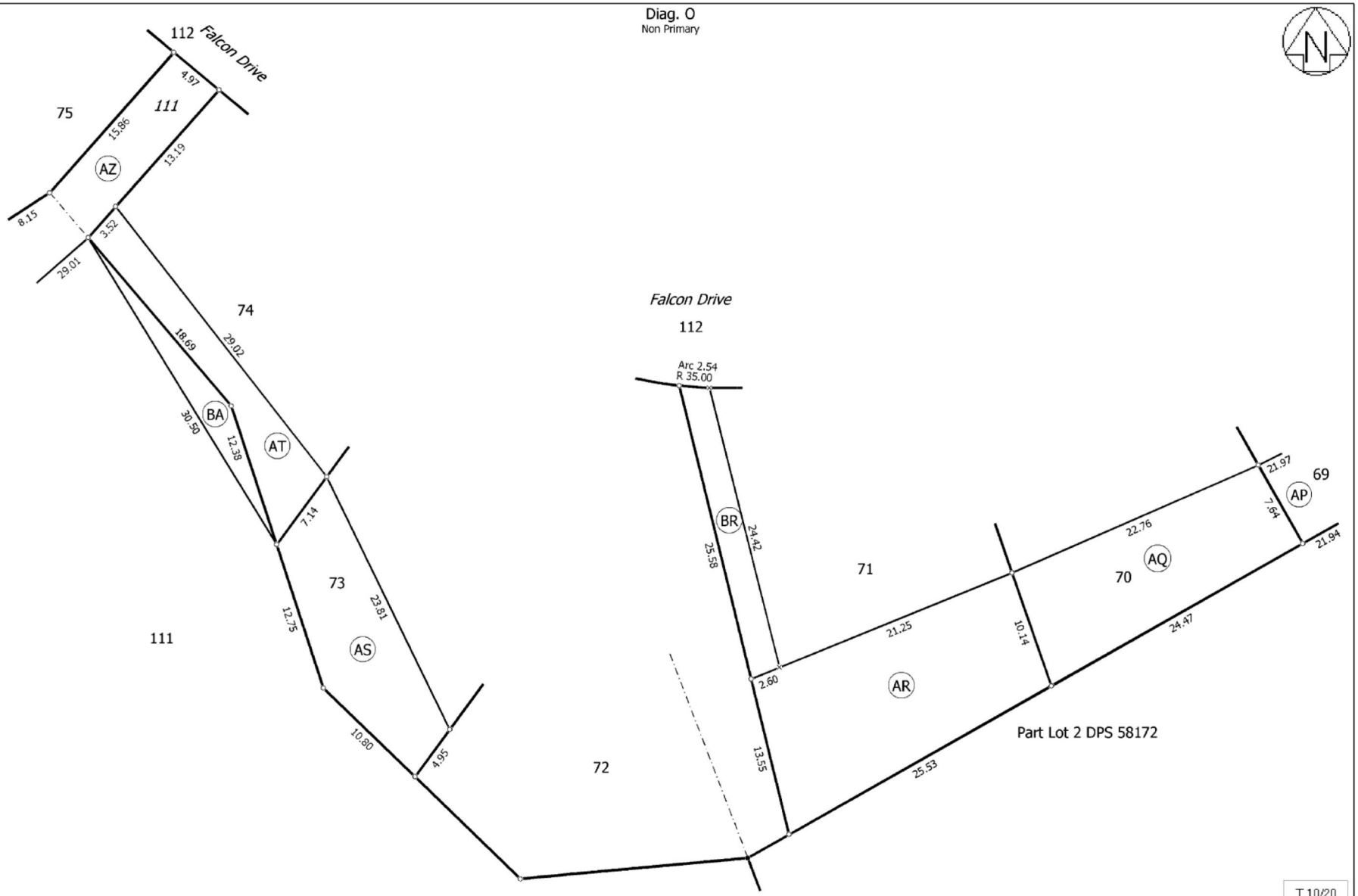
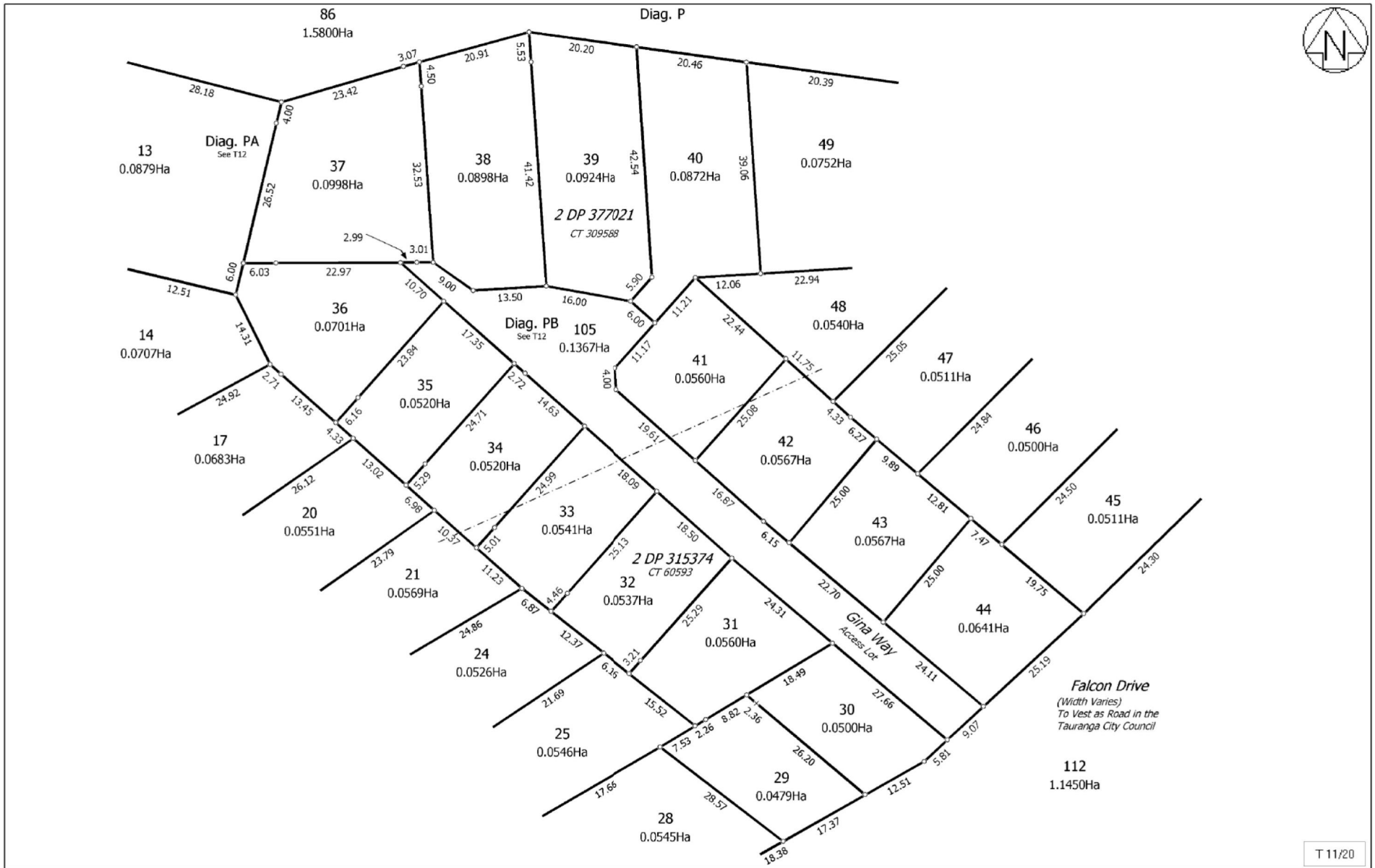
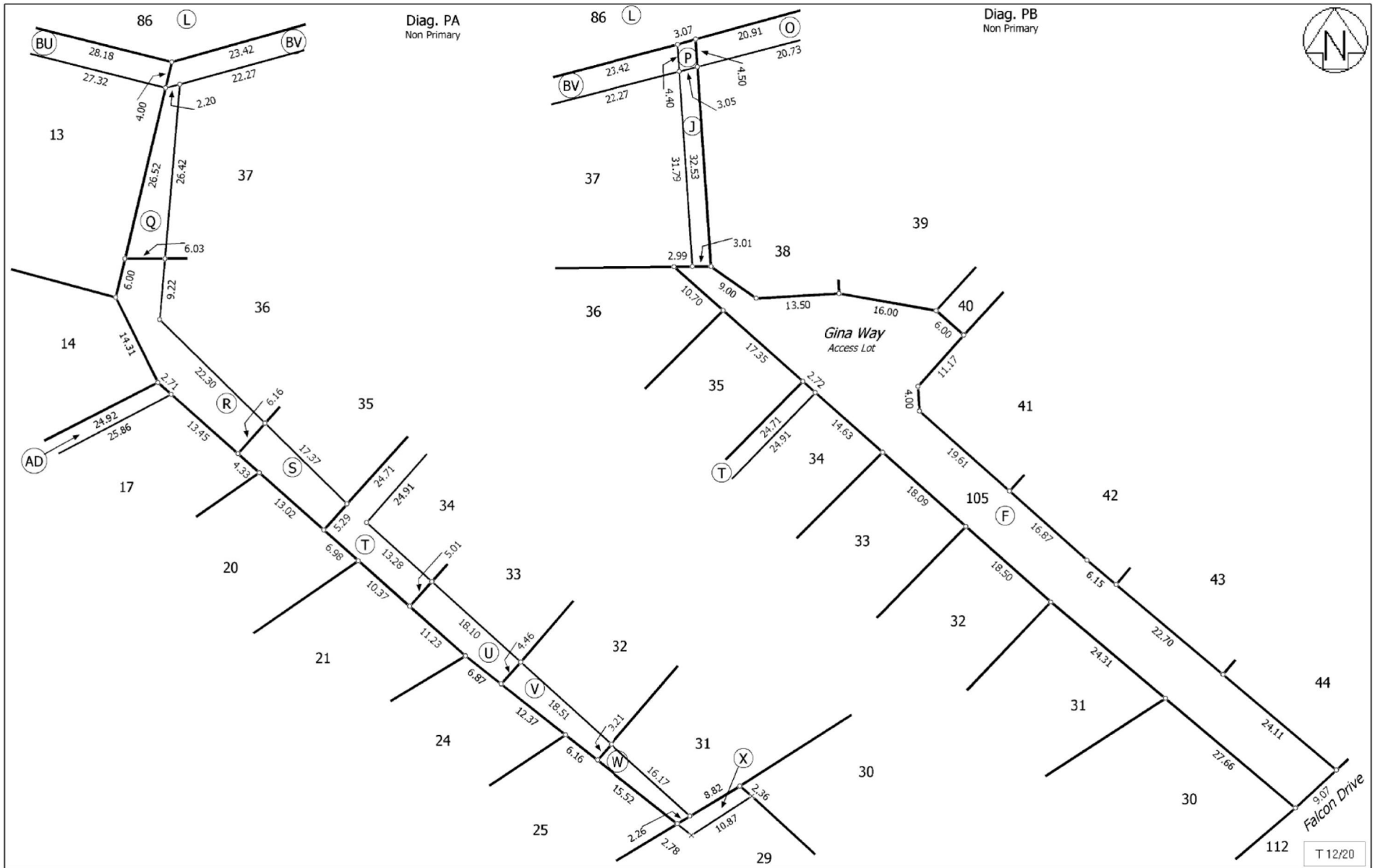
Non Primary



Land District: South Auckland Digitally Generated Plan Generated on: 12/10/2007 3:12pm Page 19 of 29	LOTS 1-86, 100-109, 111 AND112 BEING A SUBDIVISION OF LOT 2 DP 315374 AND LOTS 2 AND 3 DP 377021	Surveyor: John David Barnes Firm: S & L Consultants Ltd	Digital Title Plan DP 389977 Deposited on: 27/09/2007



Land District: South Auckland Digitally Generated Plan Generated on: 12/10/2007 3:12pm Page 20 of 29	LOTS 1-86, 100-109, 111 AND112 BEING A SUBDIVISION OF LOT 2 DP 315374 AND LOTS 2 AND 3 DP 377021	Surveyor: John David Barnes Firm: S & L Consultants Ltd	Digital Title Plan DP 389977 Deposited on: 27/09/2007



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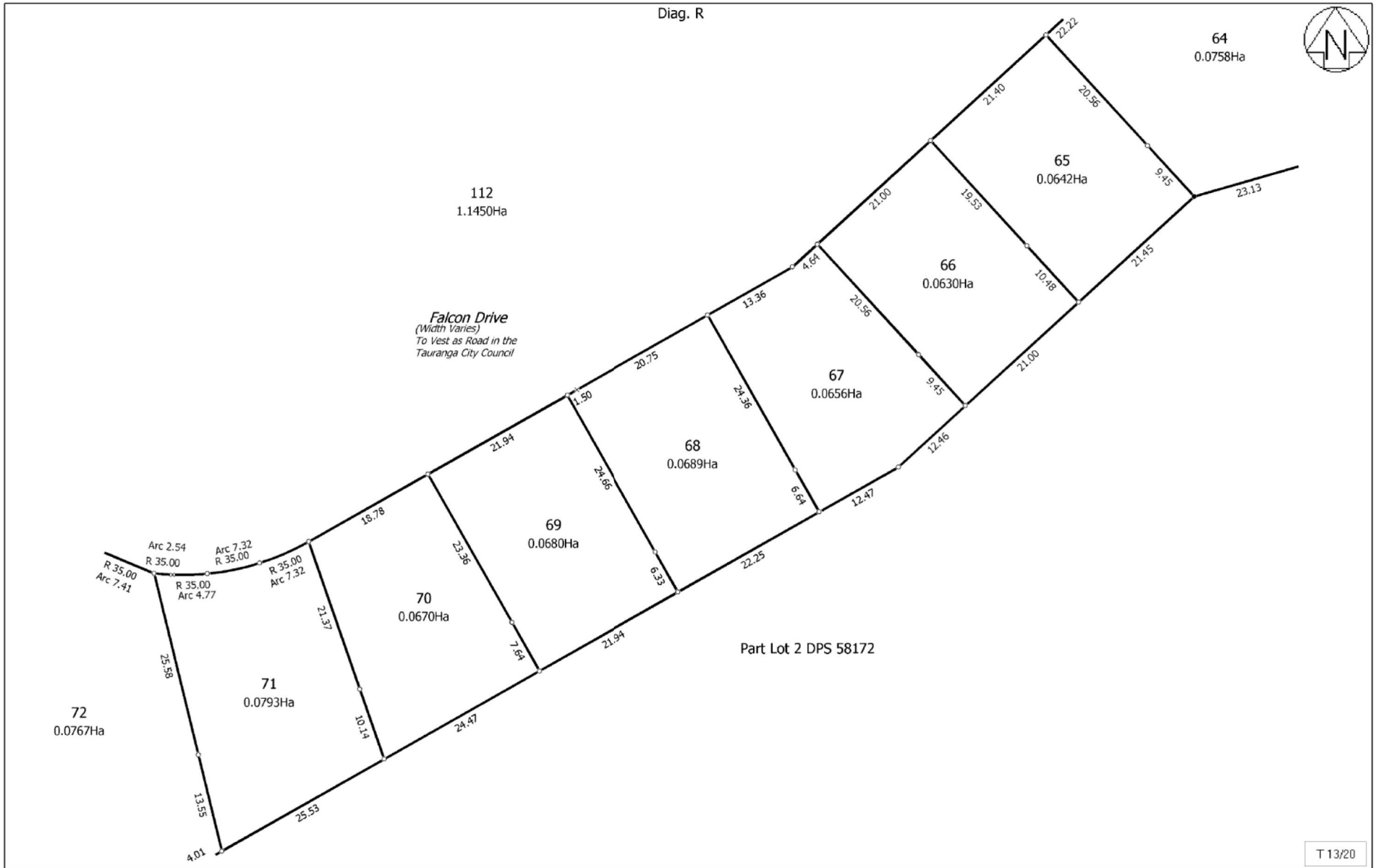

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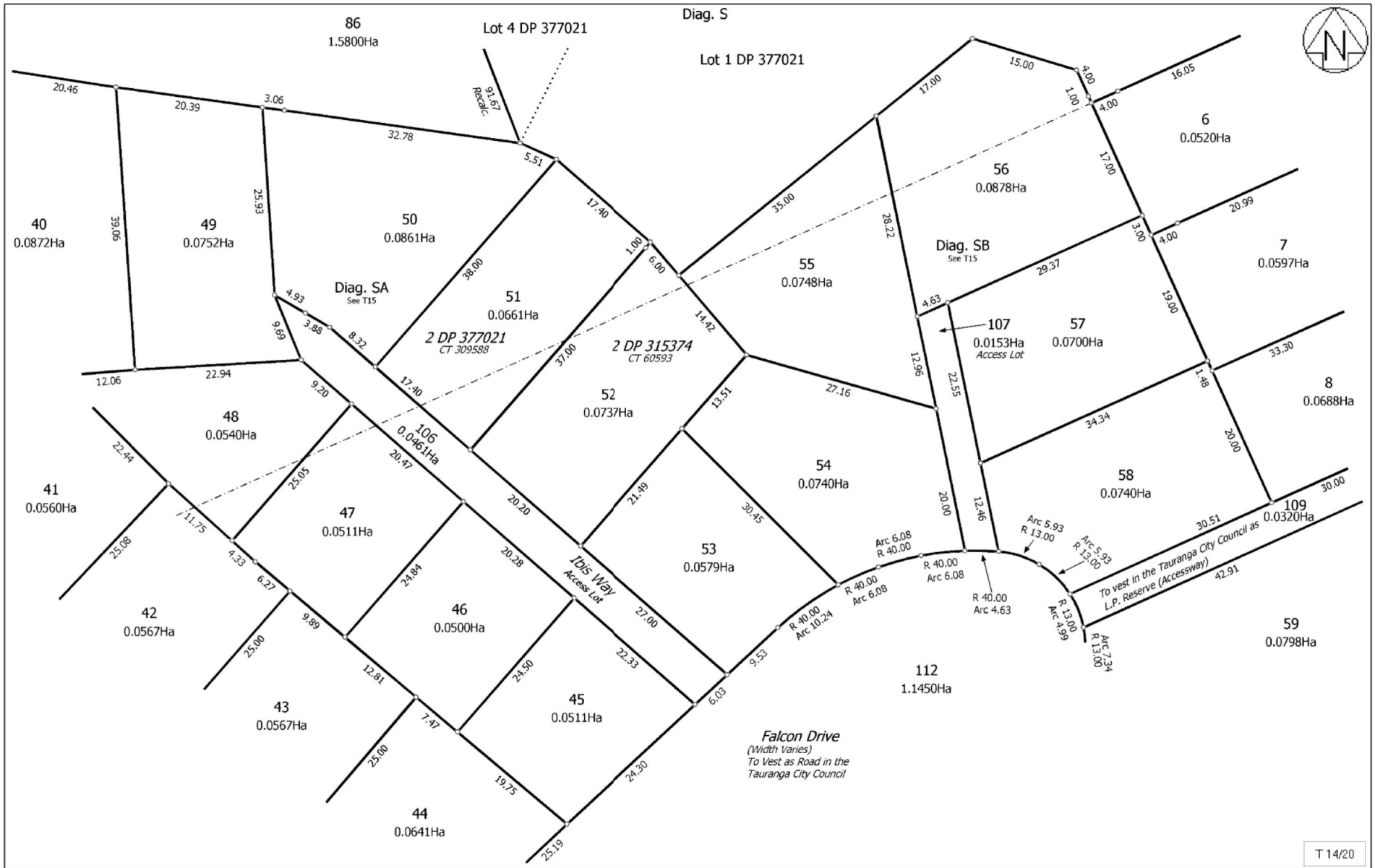
Land District: South Auckland Digitally Generated Plan Generated on: 12/10/2007 3:12pm Page 22 of 29	LOTS 1-86, 100-109, 111 AND112 BEING A SUBDIVISION OF LOT 2 DP 315374 AND LOTS 2 AND 3 DP 377021	Surveyor: John David Barnes Firm: S & L Consultants Ltd	Digital Title Plan DP 389977 Deposited on: 27/09/2007



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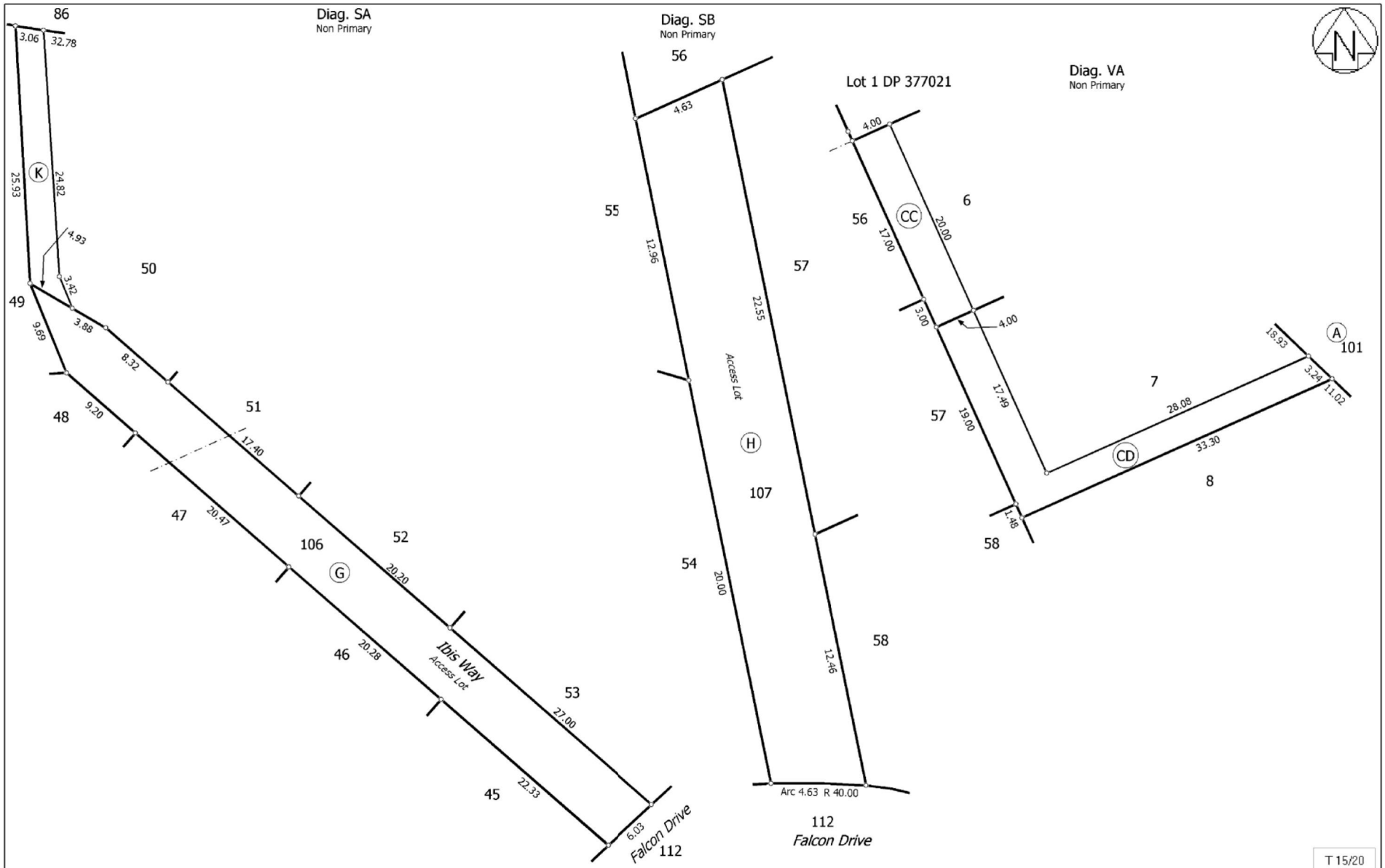
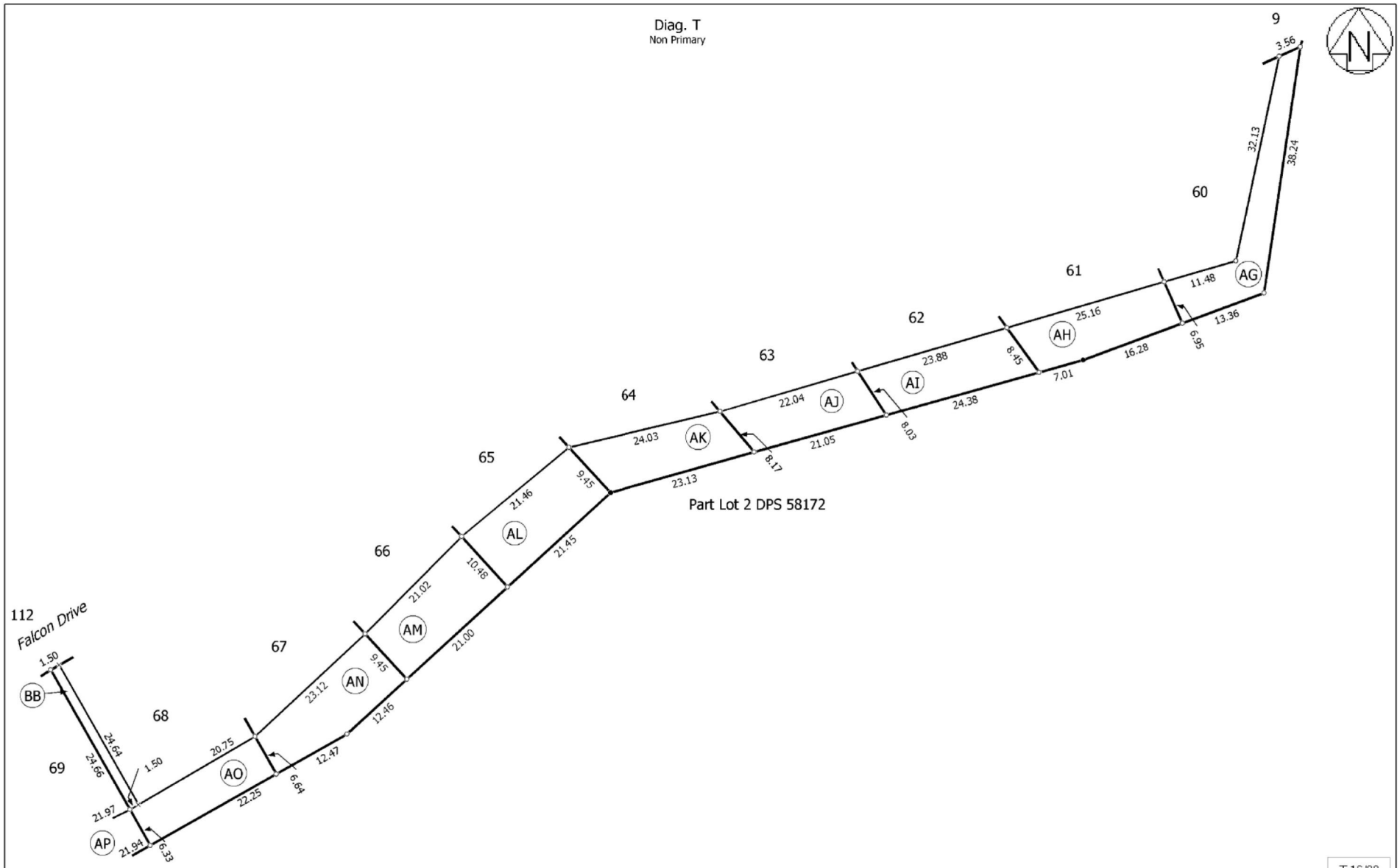
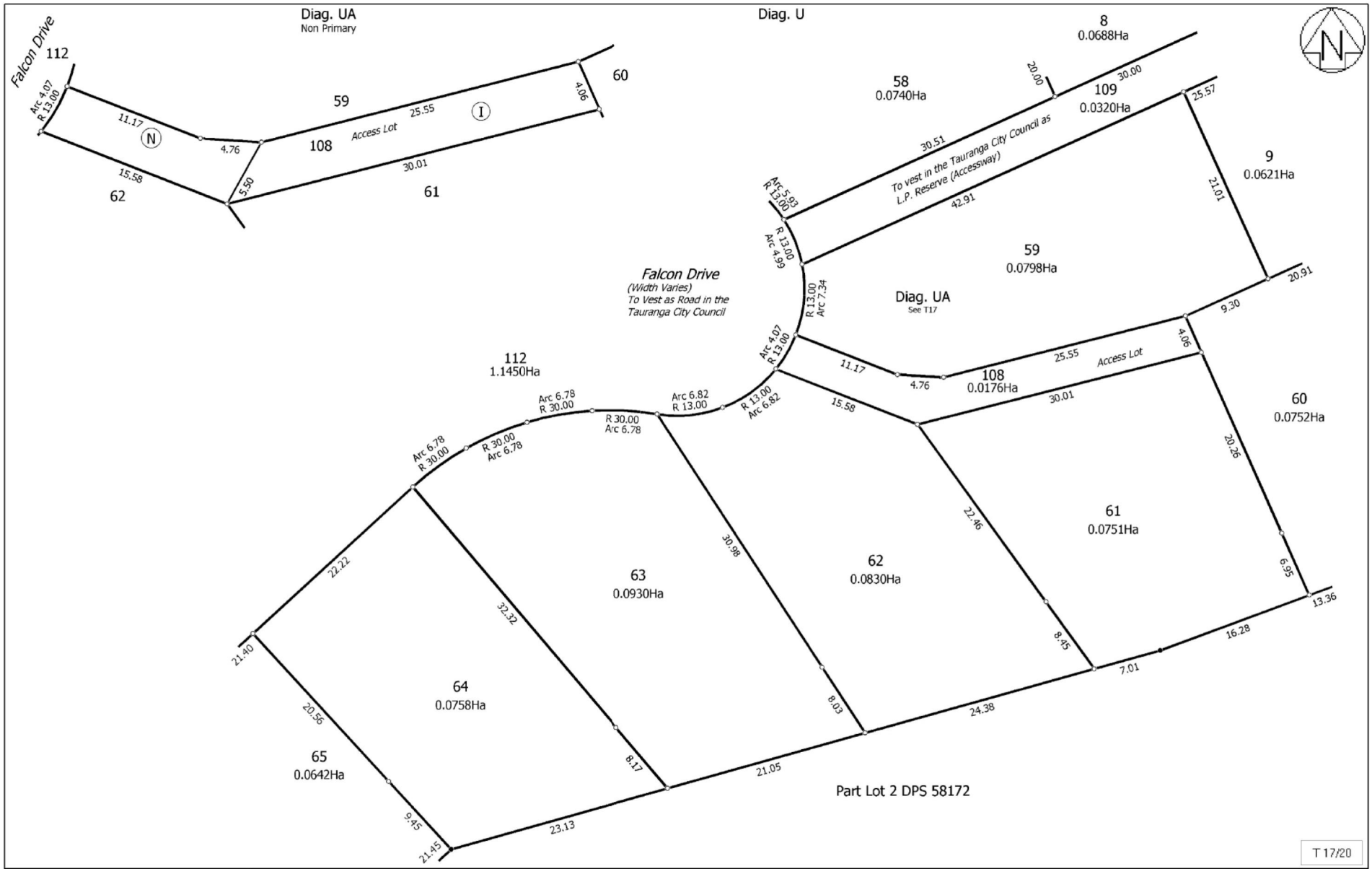


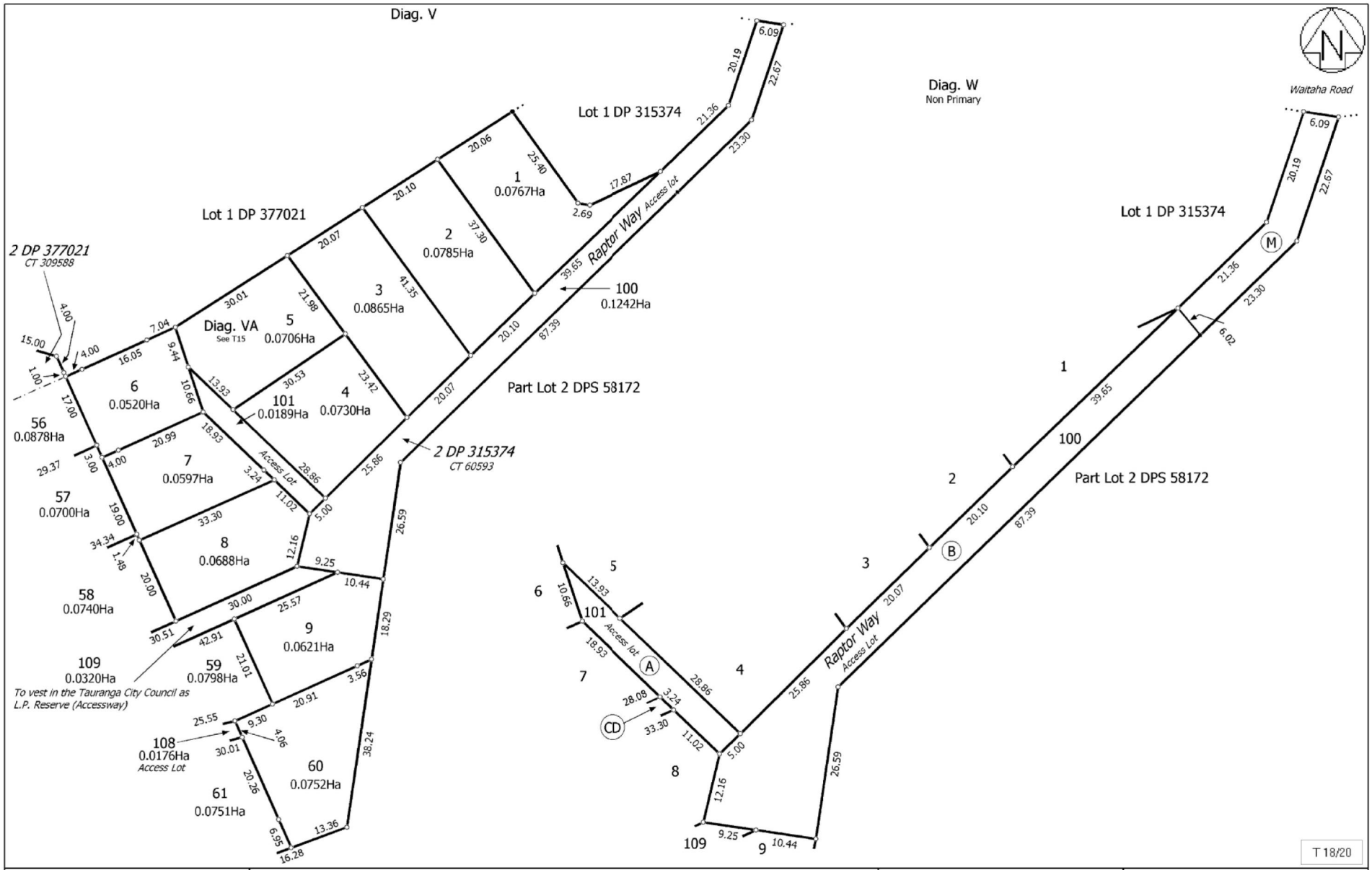
Land District: South Auckland Digitally Generated Plan Generated on: 12/10/2007 3:12pm Page 24 of 29	LOTS 1-86, 100-109, 111 AND112 BEING A SUBDIVISION OF LOT 2 DP 315374 AND LOTS 2 AND 3 DP 377021	Surveyor: John David Barnes Firm: S & L Consultants Ltd	Digital Title Plan DP 389977 Deposited on: 27/09/2007



Land District: South Auckland Digitally Generated Plan Generated on: 12/10/2007 3:12pm Page 25 of 29	LOTS 1-86, 100-109, 111 AND112 BEING A SUBDIVISION OF LOT 2 DP 315374 AND LOTS 2 AND 3 DP 377021	Surveyor: John David Barnes Firm: S & L Consultants Ltd	Digital Title Plan DP 389977 Deposited on: 27/09/2007



Land District: South Auckland Digitally Generated Plan Generated on: 12/10/2007 3:12pm Page 26 of 29	LOTS 1-86, 100-109, 111 AND112 BEING A SUBDIVISION OF LOT 2 DP 315374 AND LOTS 2 AND 3 DP 377021	Surveyor: John David Barnes Firm: S & L Consultants Ltd	Digital Title Plan DP 389977 Deposited on: 27/09/2007



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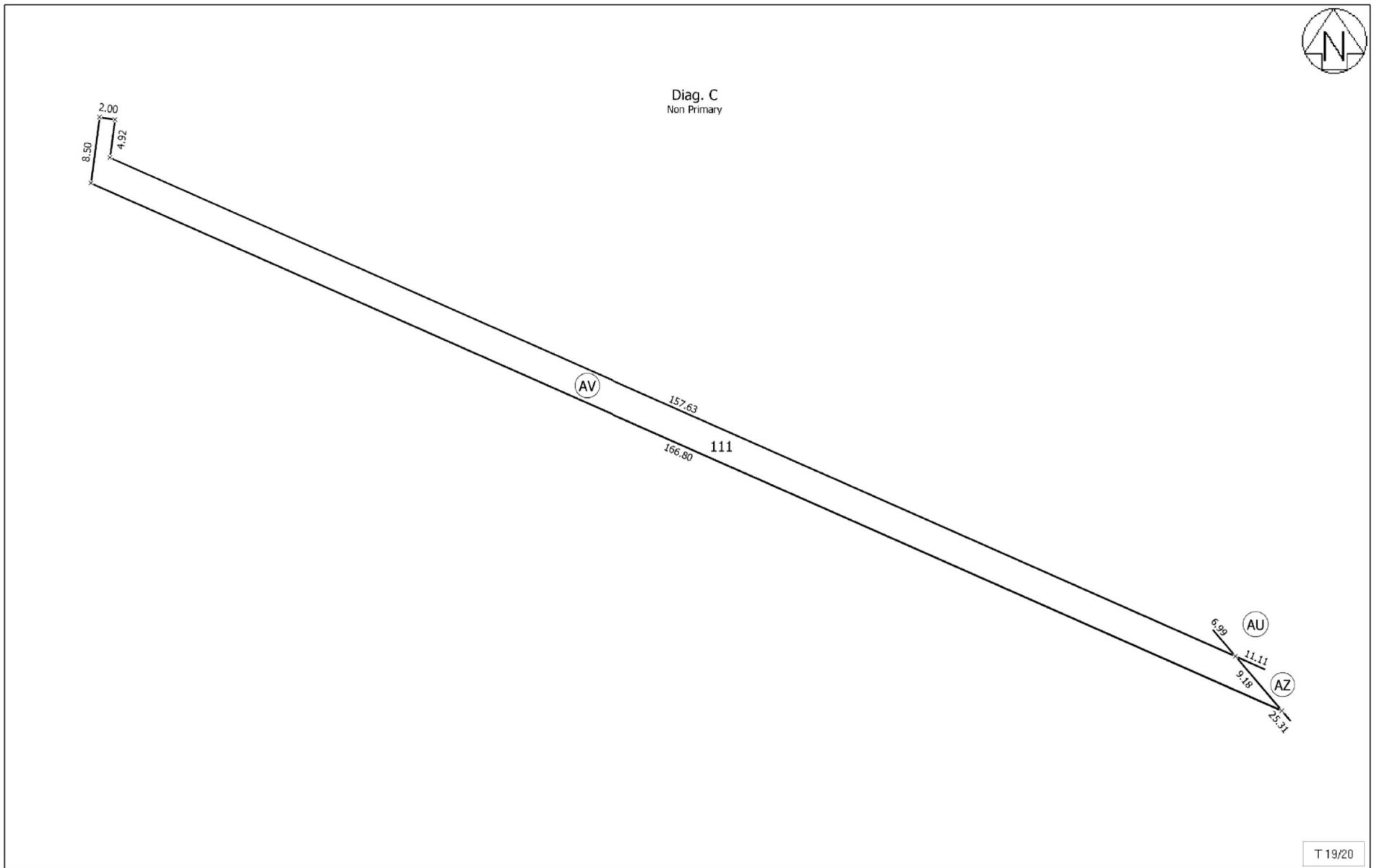

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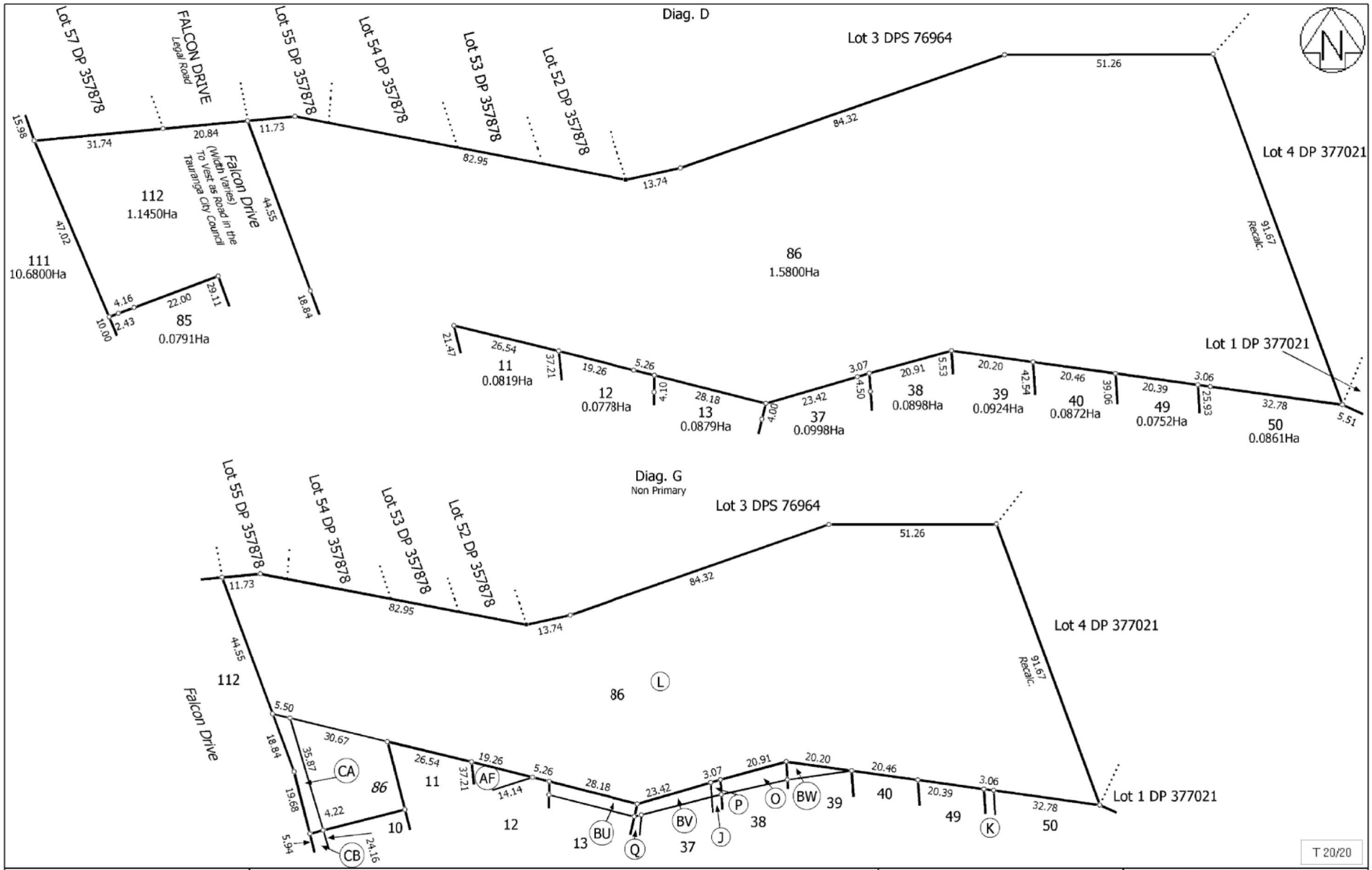

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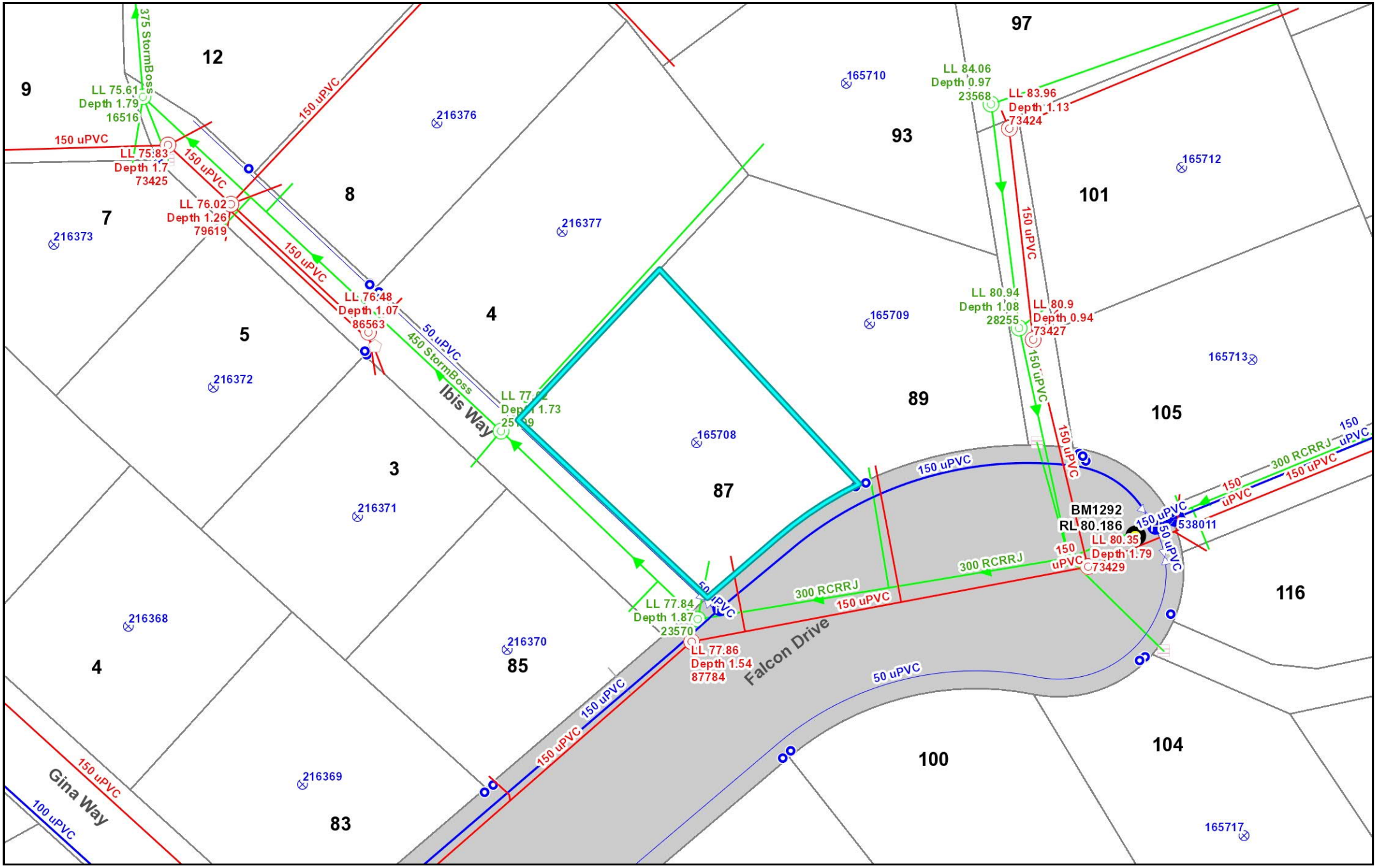


Services Plan

1:500 @A4

0 16.25 32.50 Meters

N

Information shown on this plan is indicative only. The Council accepts no liability for its accuracy and it is your responsibility to ensure that the data contained here in is appropriate and applicable to the end use intended.

Tauranga City

SmartZoom

Services and Land Features Key

Services

Wastewater

- Wastewater Manhole
- Wastewater Chamber
- Wastewater Pump Station
- Wastewater Valve
- Wastewater Node
- Wastewater Service Line
- Odour Duct
- Wastewater Main
- Rising Main
- Reclaimed

Stormwater

- Stormwater Manhole
- Stormwater Chamber
- Stormwater Pump Station
- Sump
- Stormwater Outlet
- Stormwater Inlet
- Stormwater Soakhole
- Stormwater Node
- Stormwater Service Line
- Stormwater Main
- Culvert
- Stormwater Drain
- Overland Flow Path

Water

- Water Scour Valve
- Water Valve
- Water Meter
- Water Service Line
- Water Reservoir
- Water Node
- Hydrant
- Rider Main
- Reticulation Main
- Trunk Water Main

Land Features

Relic Slip

1. Slope debris lobe showing evidence of recent or current activity
2. Possible slope debris lobe
3. Probable slope debris lobe
4. Interpreted head scarp with poorly defined morphology
5. Interpreted head scarp with clearly defined morphology

Inner Harbour Erosion

Potential Coastal Erosion and Instability Hazard Areas (CEIHA)		
Timeframe	Sea Level Rise Scenario (m)	Mapped probability of cliff/shoreline regressing landward*
Current	-	Likely
		Very Unlikely
2080	0.4	Likely
	0.6	Likely
		Very Unlikely
2130	0.8	Likely
	1.25	Likely
		Very Unlikely
	1.6	Very Unlikely

** Means, the likelihood (P66% - 'likely' and P5% 'very unlikely') of the mapped 'Potential Coastal Erosion and Instability Hazard Areas' (CEIHA) (Cliff/Shorelines) regressing landward due to slope instability and the assessed sea level rise.*

Rates Information

Location	87 FALCON DRIVE
Valuation Ref	06619 068 52
Legal Description	LOT 53 DP 389977
Area	0.0579
Land Value	245,000
Capital Value	575,000

Total rates assessed this year

Tauranga Council	Units	Rate	Annual Amount	Regional Council	Units	Rate	Annual Amount
Uniform Annual General	1	173.04347826	173.04	Regional General	245,000	0.00020739	50.81
Stormwater	575,000	0.00003967	22.81	Regional UAGC	1	142.67826087	142.68
General	575,000	0.00217162	1248.68	Passenger Transport	1	190.20000000	190.20
Resilience	575,000	0.00001022	5.88	Rate	1	24.90434783	24.90
Transportation	575,000	0.00003652	21.00	Civil Defence (CDEM)	1	3.46086957	3.46
Community	575,000	0.00010399	59.79	Safety & Rescue			412.05
Wastewater Connected	1	468.59130435	468.59	Services			
Waste Collection	1	182.60869565	182.61	Total			
Total			2,182.40				

Includes GST of	*$389.17*
Total Rates (01 JUL 2021 to 30 JUN 2022)	$2983.62

Water Rates

Metered A/C # 1 Route # M Class # 0 Rate: 0 /m3 Supply Area: METERED WATER

What are rates?

The amount you pay in rates doesn't directly relate to the amount of things Council does for you personally. Rates are not a 'charge for services', they are a tax on the value of your property. It is not a perfect system but it is one of the very few ways the Government allows Councils to collect revenue. Rates provide 55% of the Council's income.

Rates Information

The rating year starts on 1 July each year to 30 June the following year.

- Rates and charges are inclusive of GST.
- Annual Rates are set in July each year.
- Rates are payable in two instalments and are paid in advance.

Each year an assessment is sent out to property owners on 1 August together with the first instalment invoice. Payments are due on the last working day in August. The second instalment invoice is sent out to property owners on 1 February each year and is due on the last working day of February.

What are the charges for rates and how are they calculated?

Rates are a tax on the value of your property. The value of your property is set by an independent agency and is driven by national legislation. Revaluations are done every three years.

What do General Rates pay for?

Rates are used to pay for a wide range of services and capital projects such as new roads, storm water, libraries, reserves and so on. Councils ten year plan is a good place to find out more about how Council plans to spend rates income. Tauranga City collects rates on behalf of the regional council also.

Tauranga City Rates Schedule 2021/22		
Description	Inclusive of GST	Charge
Uniform Annual General	$199.00	per occupancy
Kerbside Waste Service	$210.00	per service bundle
Wastewater	$538.88	per residential property or per connection for commercial
Wastewater Availability	$269.44	per property
Stormwater - residential	$0.00004562	Capital value
Stormwater – commercial	$0.00007298	Capital value
District Residential	$0.00249736	Capital value
District Commercial	$0.00399578	Capital value
City Mainstreet	$0.00053479	Capital value
Greerton Mainstreet	$0.00180928	Capital value
Papamoa Mainstreet	$0.00033422	Capital value
Mount Mainstreet	$0.00084437	Capital value
Economic Development	$0.00053944	per commercial property
The Lakes	$99.90	per property in the subdivision
Papamoa Coast	$34.02	per property in the subdivision
Excelsa	$50.32	per property in the subdivision
Resilience – residential	$0.00001175	Capital value
Resilience - commercial	$0.00001880	Capital value
Community – residential	$0.00011959	Capital value
Community – commercial	$0.00019134	Capital value
Transportation – residential	$0.00004200	Capital value
Transportation – commercial	$0.00006719	Capital value
Garden waste service – 2-weekly	$95.00	per service
Garden waste service – 4-weekly	$60.00	per service

Uniform Annual General Rates (UAGC)
This is a fixed charge per rateable property and is irrespective of the value of a property. For residential properties it is a charge per occupancy.

Each occupancy is defined by physically having a separate living area, bedroom, bathroom facilities, entrance (including shared foyers) and cooking facilities. E.g. a property with a self contained flat on the ground floor would be rated for two UAGC's and two wastewater connections.

(Note: This rate is not based on ability to earn revenue or rent, frequency of use or the relationship of person/s using or able to use the separate area. This does not relieve the owner or occupier of any duty or responsibility under the Building Act 2004 or the Resource Management Act 1991 or the Tauranga City Plan) For commercial properties this is a charge on the number of separate businesses or leases.

General Rate
The General rate provides for the following costs, City and Infrastructure, Community People and partnerships, Arts and Culture, Venues and Events, Community Partnerships, Libraries, Economic Development, Emergency Management, Animal services, Building services, Environmental Planning, Environmental Health and Licensing, Regulation Monitoring, Marine Facilities, Spaces and Places, Support Services, Sustainability and Waste. This variable rate is charged on the capital value of a property. Capital value is land value plus improvements value.

Wastewater Rates
Residential properties connected to Council wastewater pay a uniform annual charge for one toilet per occupancy. Commercial properties connected to Council wastewater pay a uniform annual charge for each toilet or urinal.

Those properties with wastewater available (i.e. they are within 100m of wastewater lines) but not connected will pay an availability charge.

Kerbside Waste Service

The waste collection service provides for the collection and disposal of glass, food, recycling and waste for residential properties. This is a fixed charge per separately used or inhabited part of a rating unit.

Stormwater

The purpose of this rate is to fund some of the costs of stormwater infrastructure investments. This variable rate is charged on the capital value of a property. Capital value is land value plus improvements value.

Garden Waste Service

The waste collection service provides for the collection and disposal of garden waste material available for residential properties. This is a fixed charge per rating unit. This is an optional service that ratepayers choose to receive. There are two frequencies of collection, these being 2-weekly or 4-weekly.

Please note, that after 1 July until 30 June, ratepayers cannot opt out of the service if they have opted in. An opt-out request will take place in the rating year following this request.

Transportation

The purpose of this rate is to fund transportation infrastructure investments. This variable rate is charged on the capital value of a property. Capital value is land value plus improvements value.

Community

The purpose of this rate is to fund community amenity investments. This variable rate is charged on the capital value of a property. Capital value is land value plus improvements value.

Resilience

The purpose of this rates is to provide some of the costs of resilience infrastructure investments in the water, wastewater, stormwater, transportation, and emergency management activities.

The Lakes, Papamoa Coast and Excelsa Targeted Rate
The Lakes Development at Tauriko/Pyes Pa and Papamoa Coast and Excelsa developments at Papamoa have significantly increased level of service costs as a result of wider roads, more gardens, reserves and streetlights etc. All properties in these subdivisions are charged this targeted rate. This rate is charged on the capital value of a property. Capital value is land value plus improvements value.

Economic Development Rate
This rate is charged on the capital value of a property. It is charged to commercial properties only and funds economic development through Priority One and Tourism Bay of Plenty.

Mainstreet Rates
This rate is charged on the capital value of a property. It is charged to commercial properties only and funds the Tauranga, Papamoa, the Mount and Greerton Village Mainstreet organisations.

WATER SUPPLY BYLAW 2019

First adopted	*22 November 2004*	**Minute reference**	*M04/105.3*
Reviews	*25 September 2007* *16 April 2019*	**Minute references**	*M07/84.15*
Review date	*April 2029*		
Engagement required	*Special Consultative Procedure*		
Associated documents	*Tauranga Water Meter Policy 2019* *Tauranga Large Water Users Policy* *Local Government Act 2002* *Health Act 1956* *Health (Drinking Water) Amendment Act 2007* *Local Government (Rating) Act 2002* *Public Works Act 1981* *Tauranga City Plan* *Tauranga Infrastructure Development Code* *Fire and Emergency New Zealand Act 2017*		
Relevant legislation	*This bylaw is made under the Local Government Act 2002 and the Health Act 1956*		

TABLE OF CONTENTS

1. TITLE

1.1 This bylaw is the "Tauranga Water Supply Bylaw 2019"

2. COMMENCEMENT

2.1 This bylaw comes into force on 22 April 2019.

3. APPLICATION

3.1 This bylaw applies to Tauranga City.

3.2 Any person being supplied with water, or who has made application to be supplied with water, by Council.

4. PURPOSE

4.1 The purpose of this bylaw is to:

(a) protect the health and safety of people using the water supply network;

(b) protect the public water supply network from damage, misuse and interference;

(c) assist in the provision of reliable, safe and efficient water supply in Tauranga.

5. DEFINITIONS

5.1 For the purposes of this bylaw the following definitions shall apply:

Term	Definition
Approved	approved in writing by the Council, either by resolution of the Council or by any authorised officer of Council
Approved Licensed Contractor	contracting company approved by Council under this bylaw to carry out work on Council's Water Supply Network and Wastewater Network, using employees who are licensed by Council to undertake the work
Authorised Agent	a person or company who has been delegated responsibility to act for a customer
Authorised Officer	any officer of the Council or any other person authorised under the Local Government Act 2002 and authorised by the Council to administer and enforce its bylaws
Backflow	means the flow of water or other liquid through any service pipe or supply pipe in a reverse direction to the normal supply flow
Backflow Prevention Device	is a device that prevents backflow
Child Meter	a separate water meter located downstream from a parent meter that records water supplied to a Premises

Term	Definition
Council	Tauranga City Council or any person authorised or delegated to act on its behalf
Cross Connection	any potential direct or indirect connection between the potable water supply and a contaminant
Customer	a person, or the authorised agent, who has been given approval by Council to use water supplied by Council
Dedicated Fire Connection	a connection to the water supply connection that supplies water solely for the purpose of fire protection
Parent Meter	a meter that leads onto a number of supply pipes
Person	a person or body of persons whether corporate or unincorporated, and includes the Crown and any successor of a person
Points of Responsibility	The points on the Water Supply Network located on private property that identify the area and all assets within that area that Council will be responsible for. The Points of Responsibility for each Premises with a Child Meter or any separate Backflow Prevention Device that is located more than one metre away from its associated Meter Box, will be 300mm along the pipe either side of the Child Meter box or separate Backflow Prevention Device.
Point of Supply	The point on the Water Supply Network that marks the boundary of responsibility between the Council and Customer, irrespective of property boundaries. For premises connected to one Water Meter, the Point of Supply is either: (a) 300 mm along the pipe immediately after the Water Meter box (b) or if a separate Backflow Prevention Device is installed, the Point of Supply is 300mm along the pipe immediately after the separate Backflow Prevention device provided the Backflow Prevention Device is located within one meter of the meter box; (c) if the Backflow Prevention Device is located more than one metre from the meter box the Point of Supply is 300mm immediately after the meter box and the responsibility of Council resumes 300mm either side of the separate Backflow Prevention Device. Where two or more Premises share a Parent Meter there will be one Point of Supply at the Parent Meter box and two or more additional Points of Responsibility further along the Supply Pipe. The Point of Supply will be defined as above. The Points of Responsibility for each Premises with a Child Meter will be

Term	Definition
	300mm along the pipe either side of the Child Meter box. Council will be responsible for the Parent and Child Meters/boxes but not the Supply Pipe itself. See ***Attachment A*** of this bylaw.
Premises	means: (a) a property or allotment which is held under separate certificate of title or for which a separate certificate of title may be issued and in respect of which a building consent has or may be issued; or (b) a building that has been defined as an individual unit by cross lease, unit title or company lease and for which a certificate of title exists; or (c) an independent dwelling unit as defined in the Tauranga City Plan.
Restricted Works	any works that will or are likely to damage, or adversely affect the operation of the Water Supply Network as defined by Clause 14.4
Service Pipe	means the section of pipe between a water main and the Point of Supply that is owned and maintained by Council
Supply Pipe	means the section of pipe between the Point of Supply and the Customer's Premises that is installed, owned and maintained by the Customer
Water Meter	a Council-owned meter to measure the flow of water supplied including Parent and Child meters
Water Supply	means the supply of drinking water by network reticulation to the point of supply for dwelling houses, commercial and other premises
Water Supply Network	means all infrastructure components such as pipes, fittings, valves, hydrants, Backflow Prevention Devices, Water Meters, meter manifolds / boxes and other related equipment required of the water supply network between the point of abstraction from the natural environment to the premises

6. APPLICATION FOR SUPPLY AND ACCESS TO THE NETWORK

6.1 Every Person wishing to do any of the actions prescribed in clauses 6.1(a) to 6.1(g) must follow Council's application and pay the prescribed charges:

(a) Obtain a new permanent or temporary connection for the supply of water, including connection for the purposes of dust control and connection to a new subdivision.

(b) Obtain a new connection and supply for a Dedicated Fire Connection system

(c) Make changes to an existing connection, including

i new owner taking over an existing supply

ii. type of supply

iii. classification type e.g. residential to commercial

iii. location of the Point of Supply

iv. level of service of supply e.g. quantity of supply

(d) Access, operate or work on any part of the Water Supply Network.

(e) Disconnect from the Water Supply Network.

(f) Seek specific Council approval to install quick-closing valves, pumps or any other equipment that may cause pressure surges or fluctuations to be transmitted within the water supply system, or compromise the ability of Council to maintain its level of service.

(g) Supply water from a connected Premises to other Persons outside the ordinary use of the connected Premises.

6.2 Where the applicant is not the owner of the Premises seeking supply, the applicant must produce written evidence of their authority to act on behalf of the owner of the premises for which the supply is sought.

6.3 Council shall either approve the application and inform the applicant of the type of supply, and the conditions applicable to the applicant's supply, or refuse the application and notify the applicant of the decision, giving reasons for the refusal.

7. CUSTOMER RESPONSIBILITIES IN ACCEPTANCE OF SUPPLY

7.1 The Customer must comply with the requirements of this bylaw, including any conditions of approval of an application under clause 6.3.

7.2 The Customer shall not transfer to any other party the rights and responsibilities provided for under this Bylaw or any approval given under this Bylaw.

7.3 Unless specifically approved by Council no Person shall use water or water pressure directly from the Water Supply for:

(a) driving lifts, machinery, generators, condensers or any other similar device; or

(b) a single pass cooling system; or

(c) the dilution of trade waste prior to disposal; or

(d) dust suppression.

7.4 The Customer shall be liable to pay for any Water Supply services.

7.5 A Supply Pipe must serve only one Premises and the Customer must not extend the Supply Pipe, by hose or any other means, to any other Premises.

7.6 In the event of a Premises changing ownership or the Customer wishing to terminate the supply, the outgoing Customer shall give Council seven working days' notice to arrange a final water reading.

7.7 Council does not guarantee an uninterrupted or constant supply of water, or any maximum or minimum pressure.

8. WATER SUPPLY CONNECTION AND INFRASTRUCTURE

8.1 No person other than an Approved Licensed Contractor (under clause 16) shall undertake any works to the Water Supply Network including the connection or disconnection to or the installation of any Service Pipe.

8.2 All works to the Water Supply Network must be in accordance with Council's Infrastructure Development Code.

8.3 No Person shall cause damage to the Water Supply Network.

8.4 No person shall do anything to the Water Supply Network that puts at risk the health and safety of those using the Water Supply Network.

8.5 All connections to the Water Supply shall include a Water Meter and a Backflow Prevention Device in accordance with clause 11.1.

9. RESPONSIBILITIES FOR MAINTENANCE AND REPAIR

9.1 Council is responsible for the Service Pipe, Water Meter box and fittings up to the Point of Supply and in between any Points of Responsibility.

9.2 The Customer is responsible for the Supply Pipe and fittings beyond the Point of Supply excluding the part of the Water Supply Network between any Points of Responsibility.

9.3 Council is responsible for the Parent and Child Meter boxes and all Backflow Prevention Devices but not the Supply Pipe itself, apart from the portion of Supply Pipe that is within the Points of Responsibility.

9.4 Any issues of responsibility past the Point of Supply and excluding the area within the Points of Responsibility within the property boundary are a matter for the property owners.

9.5 The Customer is responsible for repairing any leaks occurring on their side of the Point of Supply but excluding the part of the Water Supply Network between any Points of Responsibility.

9.6 The Customer shall maintain the areas in and around the Point of Supply and the Points of Responsibility, keeping them free of soil, growth or other matter or obstruction, which prevents, or hinders access to the Water Meter box and any separate Backflow Prevention Devices.

9.7 No other devices are permitted to be installed in the Water Meter box or Backflow Prevention device without Council approval.

9.8 Where in the opinion of Council any pipe, fitting or ground levels on the Customer's side of the Point of Supply and Points of Responsibility has been damaged or is causing or likely to cause water to be wasted or is insufficient for the proper supply of water, Council may give the customer notice in writing requiring any work specified in the notice to be carried out.

9.9 Wherever practical Council will make every reasonable attempt to notify the potentially affected Persons of a scheduled maintenance shutdown of the supply network before the work commences. Where immediate action is required and this is not practical, Council may shut down the supply without notification.

10. ACCESS TO POINT OF SUPPLY AND POINTS OF RESPONSIBILITY

10.1 Where the Point of Supply and Points of Responsibility are on private property, the Customer shall allow Council's Authorised Officer unrestricted access to, and about these areas between 7am and 6pm on any day for:

(i) Water Meter reading, or

(ii) checking, testing and maintenance work with advance notice being given where practicable to do so.

10.2 For works outside these hours Council shall give written notice to the Customer 48 hours prior to Council's Authorised Officer entering the Premises except in emergency situations where Council shall be entitled to enter Premises that have a water supply at any hour without notice.

11. BACKFLOW PREVENTION

11.1 Every Customer must install a Backflow Prevention Device appropriate to the level of risk at the Premises as specified by Council.

11.2 The Customer shall provide to Council, on request, any information about any activities carried out on their Premises, which may contribute to the risk of Backflow or Cross Connection.

11.3 The Customer shall notify Council in writing if a change of use or a change of activity occurs that changes the risk of Backflow. Council may require a reassessment of the risk of Backflow at the Premises and if the Backflow Prevention Device requires upgrading this will be at the Customer's cost.

12. DEDICATED FIRE CONNECTIONS

12.1 No person shall install a new Dedicated Fire Connection unless authorised in writing by Council to do so. Any such connection must be installed by an Approved Licensed Contractor at the applicant's expense and shall be subject to any terms and conditions specified by Council.

12.2 Any Dedicated Fire Connection provided to supply water for fire protection shall not be used for any purpose other than firefighting and the testing of the fire protection system.

13 FIRE HYDRANTS

13.1 No Person shall have access to and draw water from fire hydrants unless he or she is:

- An authorised officer of Council or
- A member of the Fire Service for the purposes of testing, training or emergency incidents only or
- Is authorised by Council to do so.

14. WORKS NEAR THE WATER SUPPLY NETWORK

14.1 Any person proposing to carry out excavation work shall view the as-built information to determine whether or not the Water Supply Network is located in close proximity.

14.2 To protect the Water Supply Network from construction plant loading, the location of Council's Water Supply Pipes must be marked out on site before commencing any work with heavy construction plant (above a gross weight of 10 tonnes). Before heavy construction work will be permitted over or within two metres of Council's water pipes, an engineering assessment is to be undertaken and submitted for Council approval.

14.3 At least two working days' notice in writing shall be given to Council of an intention to carry out Restricted Works in close proximity of the Water Supply Network, including the proposed methodology to ensure infrastructure is not impacted. Council may specify in writing any restrictions on the work it considers necessary or require an engineering assessment be undertaken to provide a methodology to protect the Water Supply Network. Council may charge for this service.

14.4 Restricted Works are works of the following type which are carried out closer than the specified distance to the asset type set out in the following table:

Type of works	**Types of Water Supply Network asset**	**Specified distance from the Water Supply Network**
General excavation	Pipes 300mm in diameter and greater, including connected manholes and structures	10 metres
	Pipes less than 300mm in diameter, including connected manholes and structures	2 metres
Piling	Pipes 300mm in diameter and greater, including connected manholes and structures	10 metres
	Pipes less than 300mm in diameter, including connected manholes and structures	2 metres
Blasting	Pipes 300mm in diameter and greater, including connected manholes and structures	15 metres
	Pipes less than 300mm in diameter, including connected manholes and structures	15 metres

14.5 Any Person excavating and working around the Water Supply Network shall take due care to ensure that the network is not damaged and that bedding and backfill is reinstated in accordance with the specifications set out in the Infrastructure Development Code.

14.6 A Person causing damage to the Water Supply Network shall report that damage to Council immediately. Repairs shall be arranged by Council and repair costs may be charged to the person responsible for the damage.

15. RESTRICTIONS ON WATER USE

15.1 Council may impose restrictions on the use of Water Supply where it considers that its ability to maintain an adequate supply of drinking water is or may be at risk because of drought, emergency or increased water demand.

15.2 Any such restriction may apply to all of Tauranga or one or more parts of Tauranga.

15.3 Council will give such public notice as is reasonable in the circumstances of any restriction on water use under clause 15.1.

15.4 No Person may use water contrary to a restriction made under this clause.

15.5 Council may give notice in writing to any Person acting contrary to any restriction made under this clause. Council may restrict Water Supply to any Person that fails to comply with any restrictions made under clause 15.1.

16. APPROVED LICENSED CONTRACTORS

16.1 Only Council Approved Licensed Contractors shall undertake any works to the Water Supply Network.

16.2 The form of any application for and grant of Approved Licensed Contractor status required under this Bylaw will be determined by Council.

16.3 No application for an approval or licence from the Council, and no payment of or receipt for any fee paid in connection with such approval application or licence, shall confer any right, authority or immunity on the person making such application or payment.

16.4 Council may revoke or suspend an approval or licence granted under this Bylaw if it reasonably believes the licence holder:

(a) has acted or is acting in breach of the approval or licence; or

(b) is unfit in any way to hold such an approval or licence.

16.5 Council may require the Approved Contractor or Licence holder to attend a hearing to explain why the approval or licence should not be revoked or suspended. The Council may revoke or suspend the approval or licence at its discretion. If either:

(a) the Approved Contractor or Licence holder does not attend the hearing; or

(b) if after the hearing the Council is satisfied the Approved Contractor or Licence holder has been in breach of the licence or is unfit to hold the approval or licence.

17. OFFENCES AND PENALTIES

17.1 Every person who breaches this Bylaw commits an offence under section 239 of the Local Government Act 2002. Further, every Person commits a breach under this Bylaw who:

(a) Fails, refuses or neglects to comply with any notice duly given to that person under this Bylaw;

(b) Obstructs or hinders any Authorised Officer of the Council or other Council appointed person in performing any duty or in exercising any power under this Bylaw.

17.2 In accordance with section 193 of the Local Government Act 2002, any Person who fails to comply with any part of this Bylaw, may have their Water Supply restricted.

17.3 Subject to any provision to the contrary, any person guilty of an offence against this Bylaw shall be subject to the penalties set out in Section 242(4) of the Local Government Act 2002, and is liable on summary conviction to a fine not exceeding $20,000.

17.4 Council may:

(a) remove or alter any work or thing that is, or has been, constructed in breach of this Bylaw; and

(b) recover on demand the full costs of removal or alteration from the Person who committed the breach.

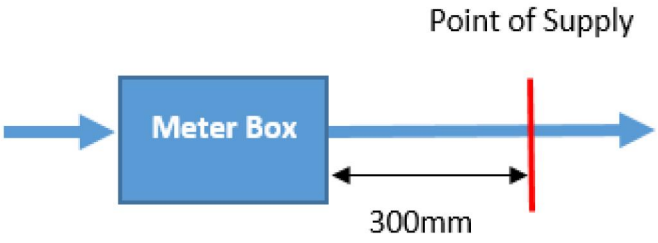
17.5 If a Customer or other Person defaults in undertaking any action required under this Bylaw, the Council may at its discretion, upon giving notice to that Customer or other Person, undertake that action and recover on demand from them the full cost of undertaking the action from that Person.

18. DISPENSING POWERS

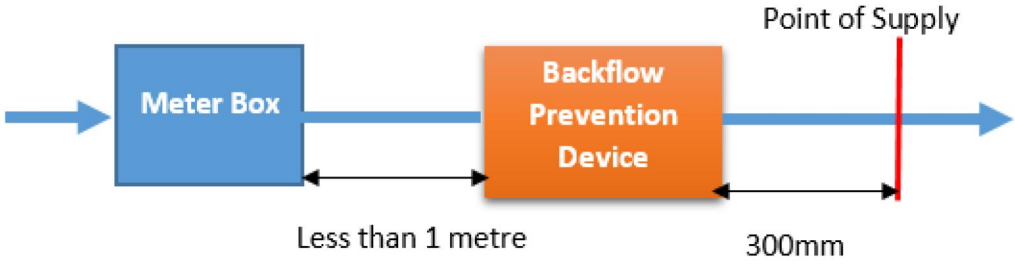
18.1 Council may waive full compliance with any provisions of this Bylaw in a case where Council is of the opinion that full compliance would needlessly cause harm, loss or inconvenience to any person or business without any corresponding benefit to the community. Council may, in its discretion, impose conditions of any such waiver.

Attachment A

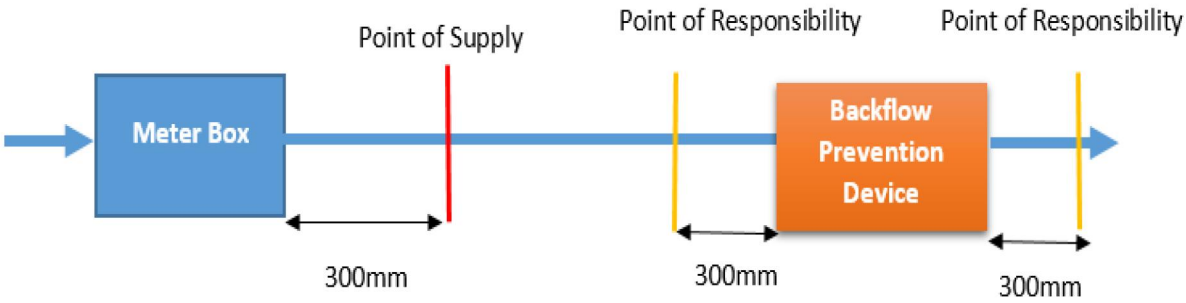
One meter box



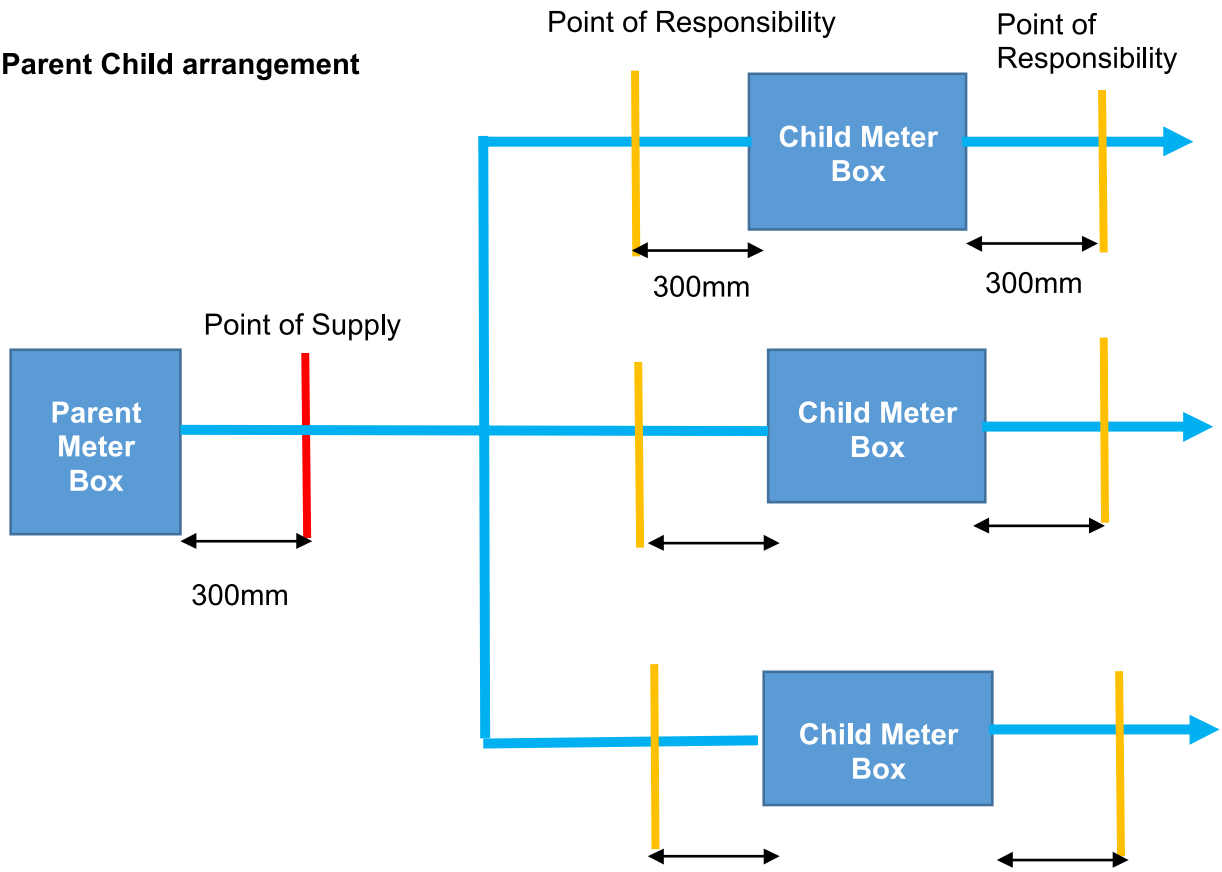
One meter box and a separate backflow prevention device within one metre of the meter box



When the separate backflow prevention device is further than one metre from the meter box



Parent Child arrangement



COPY

Tauranga City

Willow Street, Tauranga
Private Bag, Tauranga
Telephone: 07 577 7000. Facsimile 07 577 7034

BUILDING CONSENT

NO: 46278

Issued By: Tauranga City Council pursuant to Section 51 of the Building Act 2004

THE OWNER	CONTACT PERSON
SKUDDER, ANSLEY TUTARA HOSKIN, TANIA RONGOMAI 195 MANOEKA ROAD RD3 TE PUKE	

THE BUILDING	BUILDING WORK
Street Address: 87 FALCON DRIVE Legal Description: LOT 53 DP389977	The following building work is authorised by this building consent: ERECT DWELLING

This building consent is issued under Section 51 of the Building Act 2004. This building consent does not relieve the owner of the building (or proposed building) of any duty or responsibility under any other Act relating to or affecting the building (or proposed building). This building consent also does not permit the construction, alteration, demolition, or removal of the building (or proposed building) if that construction, alteration, demolition, or removal would be in breach of any other Act.

This building consent is issued subject to following conditions :

Compliance Schedule: No

Attachments:

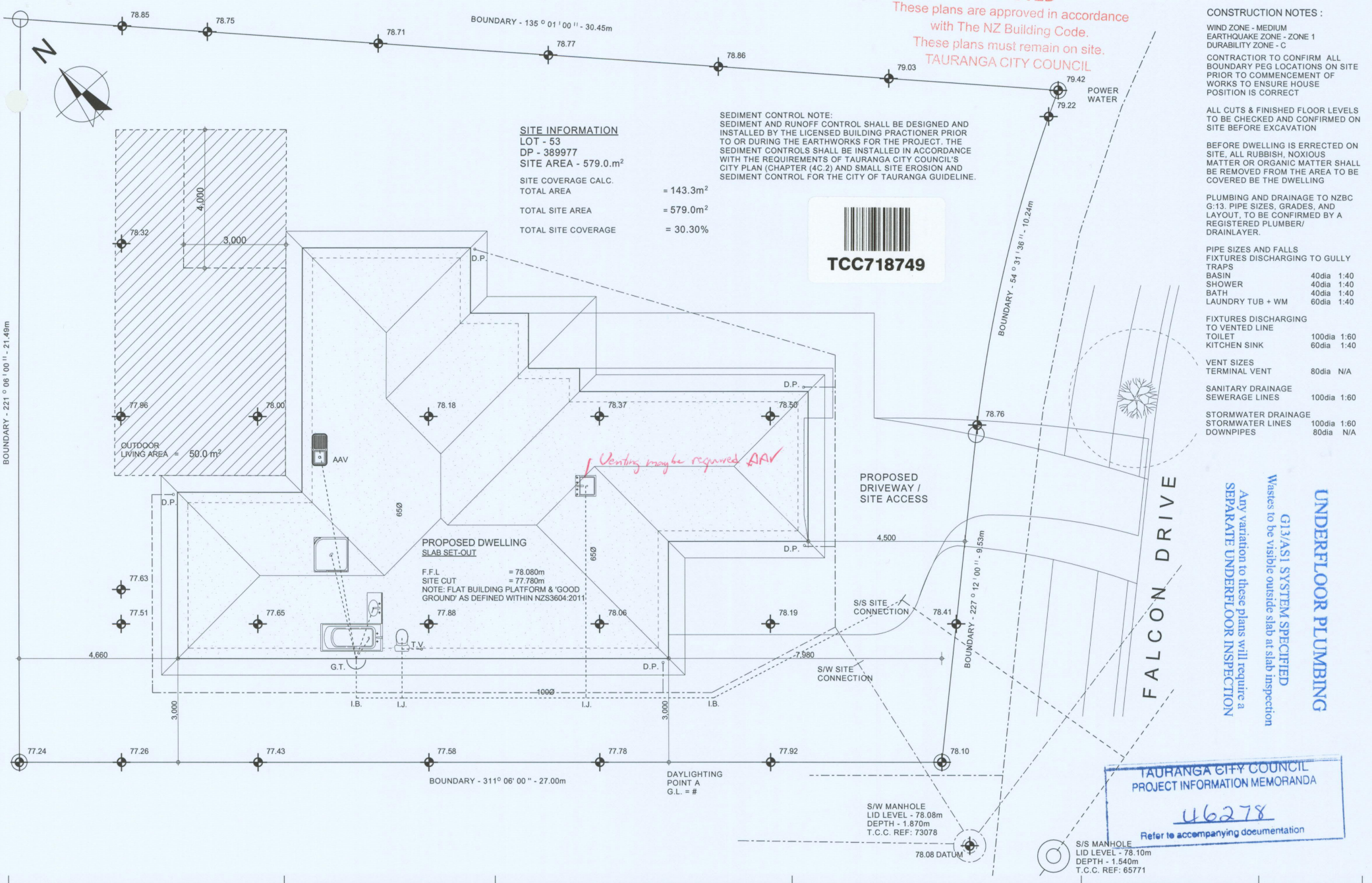
On behalf of the Tauranga City Council:

Signature: _____

Position: BUILDING CONSENT TECHNICIAN : BUILDING SERVICES

Date: 16 NOV 2012

APPROVED
These plans are approved in accordance with The NZ Building Code.
These plans must remain on site.
TAURANGA CITY COUNCIL



SITE INFORMATION

LOT - 53
DP - 389977
SITE AREA - 579.0.m²

SITE COVERAGE CALC.

TOTAL AREA	= 143.3m²
TOTAL SITE AREA	= 579.0m²
TOTAL SITE COVERAGE	= 30.30%

SEDIMENT CONTROL NOTE:
SEDIMENT AND RUNOFF CONTROL SHALL BE DESIGNED AND INSTALLED BY THE LICENSED BUILDING PRACTIONER PRIOR TO OR DURING THE EARTHWORKS FOR THE PROJECT. THE SEDIMENT CONTROLS SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF TAURANGA CITY COUNCIL'S CITY PLAN (CHAPTER (4C.2) AND SMALL SITE EROSION AND SEDIMENT CONTROL FOR THE CITY OF TAURANGA GUIDELINE.

TCC718749

CONSTRUCTION NOTES :

WIND ZONE - MEDIUM
EARTHQUAKE ZONE - ZONE 1
DURABILITY ZONE - C

CONTRACTIOR TO CONFIRM ALL BOUNDARY PEG LOCATIONS ON SITE PRIOR TO COMMENCEMENT OF WORKS TO ENSURE HOUSE POSITION IS CORRECT

ALL CUTS & FINISHED FLOOR LEVELS TO BE CHECKED AND CONFIRMED ON SITE BEFORE EXCAVATION

BEFORE DWELLING IS ERRECTED ON SITE, ALL RUBBISH, NOXIOUS MATTER OR ORGANIC MATTER SHALL BE REMOVED FROM THE AREA TO BE COVERED BE THE DWELLING

PLUMBING AND DRAINAGE TO NZBC G:13. PIPE SIZES, GRADES, AND LAYOUT, TO BE CONFIRMED BY A REGISTERED PLUMBER/ DRAINLAYER.

PIPE SIZES AND FALLS
FIXTURES DISCHARGING TO GULLY TRAPS

BASIN	40dia	1:40
SHOWER	40dia	1:40
BATH	40dia	1:40
LAUNDRY TUB + WM	60dia	1:40

FIXTURES DISCHARGING TO VENTED LINE

TOILET	100dia	1:60
KITCHEN SINK	60dia	1:40

VENT SIZES

TERMINAL VENT	80dia	N/A

SANITARY DRAINAGE

SEWERAGE LINES	100dia	1:60

STORMWATER DRAINAGE

STORMWATER LINES	100dia	1:60
DOWNPIPES	80dia	N/A

UNDERFLOOR PLUMBING
G13/AS1 SYSTEM SPECIFIED
Wastes to be visible outside slab at slab inspection
Any variation to these plans will require a SEPARATE UNDERFLOOR INSPECTION

TAURANGA CITY COUNCIL
PROJECT INFORMATION MEMORANDA
U6278
Refer to accompanying documentation

Signature HOMES Est.1982
YOUR HOME. YOUR WAY.

Vogue Homes Ltd : t/a Signature Homes
Corner 16th Ave & Fraser Street
P O Box 2617, Tauranga 3140
Phone : +64 7 578 1000 Fax : +64 7 578 1100
www.signaturehomes.co.nz

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PROPOSED RESIDENCE
at : 87 FALCON DRIVE, WELCOME BAY, TAURANGA
Lot : 53 / D.P. Number : 389977
for : Mr & Mrs SKUDDER & HOSKIN

SITE & DRAINAGE

Scale : 1:100 @ A3 | Designer : Matt | Drawn : Matt | DATE : 8/10/2012

REV	DATE	AMENDMENT
A	## SEP 12	Issued for PERMIT Lodgment

PROJECT NO : 12-075
DWG NO : 002
REV : A
1:100 @ A3

1
4 2
3

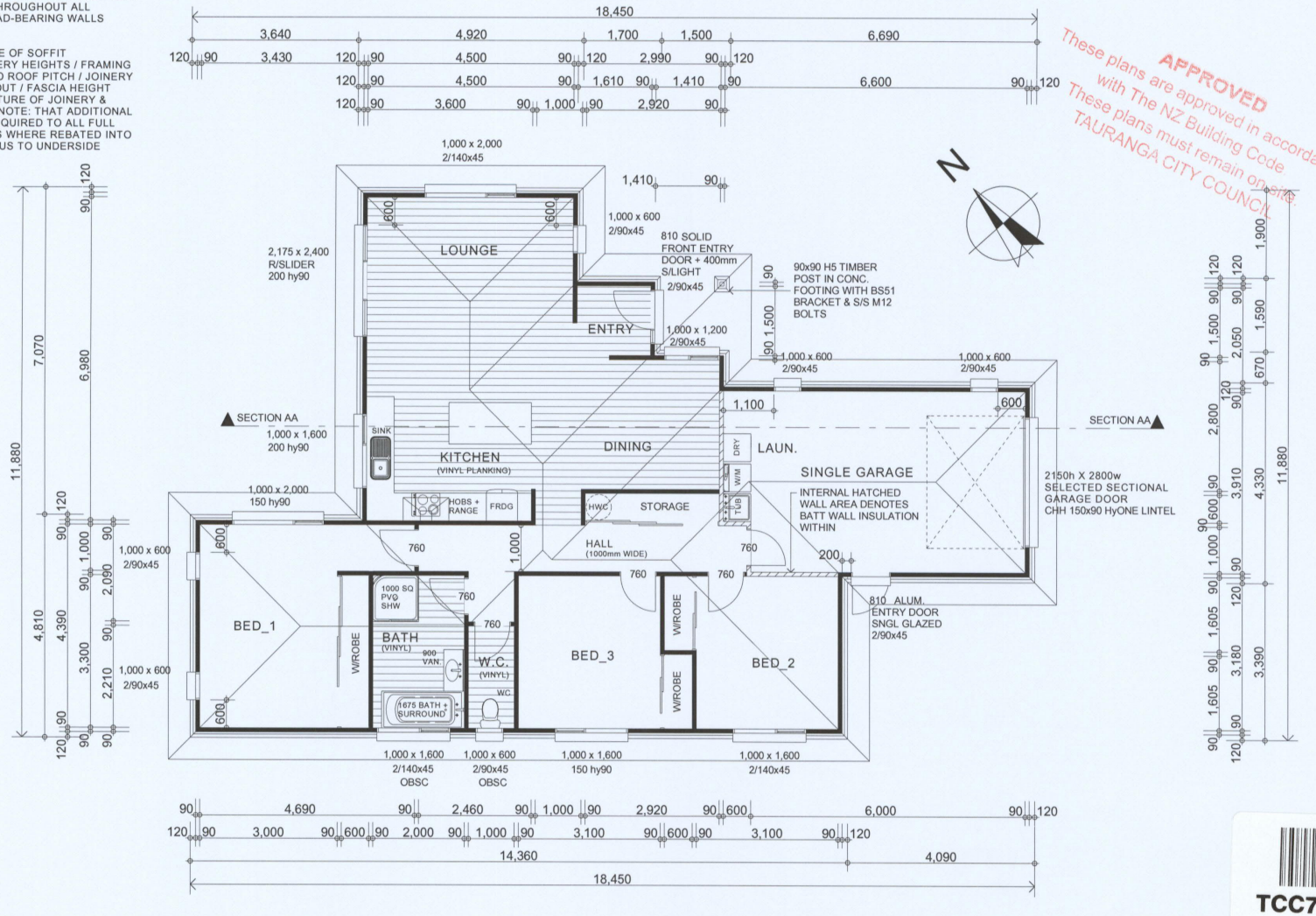
EVATION GUIDE

TOTAL DWELLING AREA (foundation) = 143.3m²

FRAMING NOTE:
2420mm STUD HEIGHT + 90x35mm ADDITIONAL PLATE UNLESS OTHERWISE STATED

ALL FRAMING TO BE MINIMUM SG8 H1.2 90x45 STUDS AT MAXIMUM 600mm CRS THROUGHOUT ALL INTERNAL / EXTERNAL / LOAD-BEARING WALLS

JOINERY NOTE:
ALL JOINERY TO UNDERSIDE OF SOFFIT
CHECK AND CONFIRM JOINERY HEIGHTS / FRAMING SET-OUT WITH REGARDS TO ROOF PITCH / JOINERY SILL SET-OUT SOFFIT SET-OUT / FASCIA HEIGHT BEFORE DESIGN MANUFACTURE OF JOINERY & ALL WALL FRAMING - ALSO NOTE: THAT ADDITIONAL JOINERY HEIGHT MAYBE REQUIRED TO ALL FULL HEIGHT DOORS & WINDOWS WHERE REBATED INTO SLAB EDGE AND CONTINUOUS TO UNDERSIDE SOFFIT. REFER 1:5 DETAILS



TAURANGA CITY COUNCIL
PROJECT INFORMATION MEMORANDA
16278
Refer to accompanying documentation

APPROVED
These plans are approved in accordance with The NZ Building Code
These plans must remain on site
TAURANGA CITY COUNCIL

CONSTRUCTION NOTES :

WIND ZONE - MEDIUM
EARTHQUAKE ZONE - ZONE 1
DURABILITY ZONE - C

ALL CONSTRUCTION TO COMPLY WITH NZS 3604:2011 AND THE NZ BUILDING CODE

KITCHEN LAYOUT IS INDICATIVE ONLY. PLEASE CONFIRM LAYOUT AND FITTINGS OF KITCHEN AND BATHROOMS ETC BEFORE FOUNDATION COMMENCES

SMOKE ALARMS FIT TO COMPLY WITH AS1/F7

R2.2 WALL INSULATION
R3.2 CEILING INSULATION
R2.2 INTERNAL WALL INSULATION TO GARAGE
ALL WALL INSULATION HELD WITH DYNABAND STRAPS OR SIM. @ 450mm CRS

ALL GLAZING TO NZS4223. ALL JOINERY TO BE DOUBLE GLAZED EXCEPT THOSE UNITS TO THE GARAGE EXTERIOR

ALL PRODUCTS / MATERIALS TO BE INSTALLED STRICTLY AS PER MANUFACTURES SPECIFICATIONS AND INSTRUCTIONS

ALL DIMENSIONS TO BE CHECKED & CONFIRMED ON SITE PRIOR TO WORK COMMENCING.

ALL LINTELS TO BE CONFIRMED BYPRE CUTTER UPON FINALISING TRUSS LAYOUT.

ALL INTERNAL WALL FRAMING TIMBER TO BE MINIMUM H1.2 TREATED

ALL LOAD BEARING FRAMING & AROUND BATH & LAUNDRY TO BE H1.2 TREATED WITH H1.2 BOTTOM PLATE.

ALL STRUCTURAL TIMBER TO BE SG8 UNLESS OTHERWISE SPECIFIED.

ALL WET AREA FLOOR COVERINGS TO BE TILES.

ALL WET AREA SHEET LININGS TO BE FINISHED WITH SEMI-GLOSS OR GLOSS COATING.

ALL TILES TO TILED SHOWERS TO BE FALLED TO WASTE & CONTAIN WATERPROOFING MEMBRANE UNDER TO EXTEND A MINIMUM 1500mm RADIUS FROM THE SHOWER ROSE AND EXTEND 300mm ABOVE THE SHOWER ROSE AT A HEIGHT NO LESS THAT 1800mm - REFER E3 3.3.5 & FIGURE.5

#####

ALL EXTERIOR DOORS TO BE RECESSED DOORS WITHIN FOUNDATION EDGE REFER 1:5 DETAILS

TRIMMING STUDS & LINTEL NOTES: ALL TRIMMING STUDS FOR LINTELS UP TO 400mm BELOW THE TOP PLATE A MINIMUM TRIMMING STUD THICKNESS OF 90mm

ALL TRIMMING STUDS FOR LINTELS MORE THAN 400mm BELOW THE TOP PLATE (2755 STUD HEIGHT WALL AREAS & ABOVE) A MINIMUM TRIMMING STUD THICKNESS OF 135mm NOTE: ONE LENGTH DOUBLING STUD DOES NOT CONTRIBUTE TO TRIMMING STUD THICKNESS

BUILDING WRAP/PAPER NOTE:
ALL BUILDING WRAP/PAPER TO BE THERMAKRAFT UNDERLAYS INSTALLED TO MANU. SPECIFICATIONS
WALL - THERMAKRAFT 210TM UNDERLAY
ROOF - THERMAKRAFT 215TM UNDERLAY

TCC718750

Signature HOMES Est. 1983
YOUR HOME. YOUR WAY.

Vogue Homes Ltd : t/a Signature Homes
Corner 16th Ave & Fraser Street
P O Box 2617, Tauranga 3140
Phone : +64 7 578 1000 Fax : +64 7 578 1100
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PROPOSED RESIDENCE
at : 87 FALCON DRIVE, WELCOME BAY, TAURANGA
Lot : 53 / D.P. Number : 389977
for : Mr & Mrs SKUDDER & HOSKIN

GROUND FLOOR PLAN

Scale : 1:100 @ A3 | Designer : Matt | Drawn : Matt | DATE : 8/10/2012

REV	DATE	AMENDMENT
A	## SEP 12	Issued for PERMIT Lodgment

PROJECT NO : 12-075
DWG NO : 003
REV. NO : A

As Built
Drainage Plan

Tauranga City

Drainage Plan for:

Street Number 87 Street Name Falcon Drive

Lot 53 DP 389977

Suburb Welcome Bay

Owner Hoskin

Type of Building Dwelling

Drainlayer

Date of Inspection 12-2-2013 Inspector I Watson

Drainage Permit No 46278

Note : Plan to be drawn in black ballpoint on graph opposite

Plan to include:

1. The correct position of the drains in relation to the building and boundaries.
2. The position of the street frontage.
3. Depth of drains at connection point.
4. Both foulwater and stormwater drains to be drawn.
5. Clearly define all inspection openings, with accurate measurements from two points.
6. Clearly define all buildings and boundaries.
7. Refer to example drain plan back page.

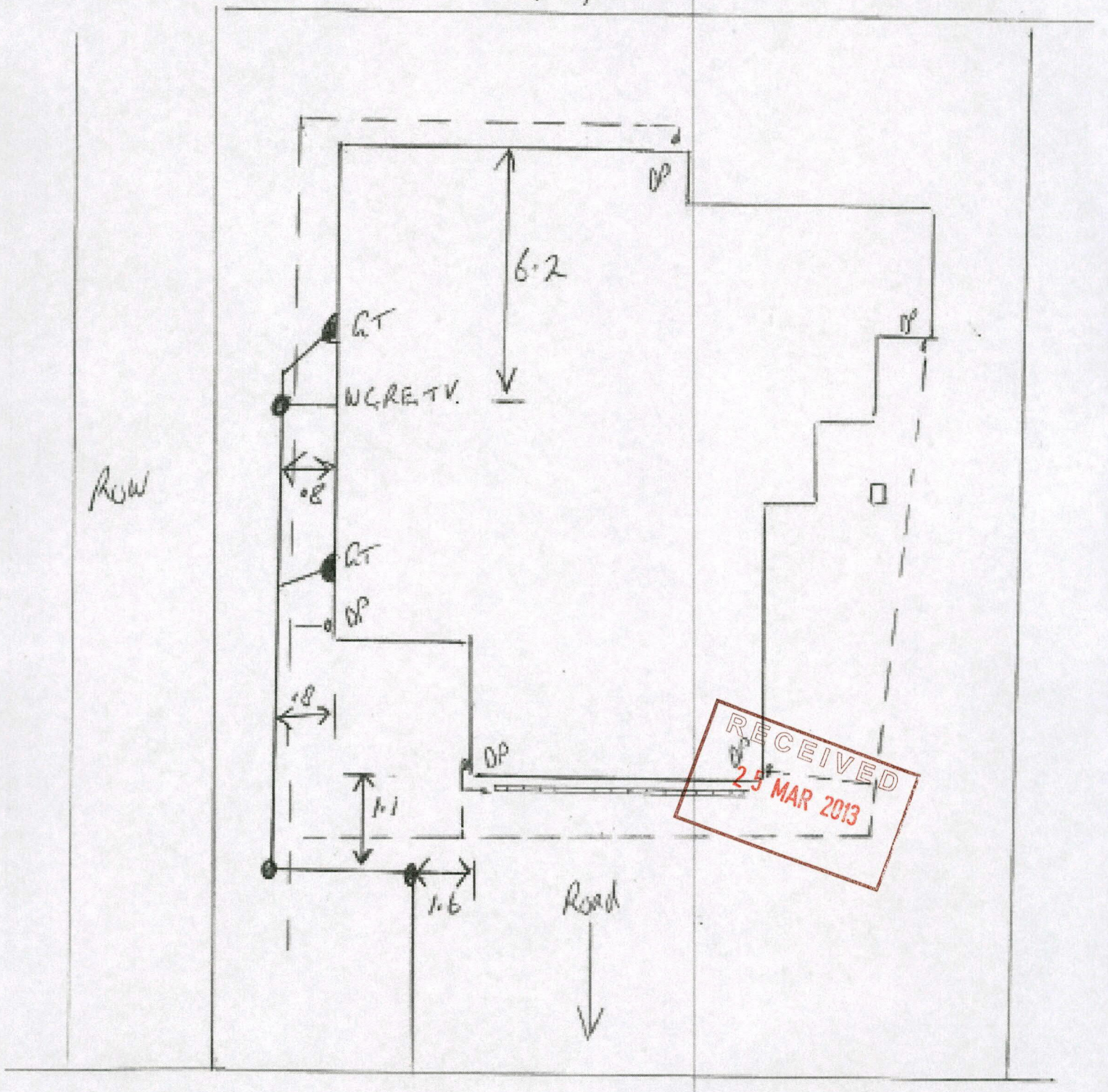
AS BUILT DRAINAGE PLAN

87 Fakon Drive

C/N 46278

MOUNT DRAINAGE LTD

12/2/2013



Tauranga City

Willow Street, Tauranga
Private Bag 12022, Tauranga 3143
Telephone: 07 577 7000. Facsimile 07 577 7034

COPY

CODE COMPLIANCE CERTIFICATE NO: 46278

Section 95, Building Act 2004

THE OWNER	CONTACT PERSON
HOSKIN, TANIA RONGOMAI 195 MANOEKA ROAD RD3 TE PUKE	VOGUE HOMES LIMITED PO BOX 2617 SEVENTH AVENUE TAURANGA 3140 Ph day 0064 07 5781000 Fax: Email/website: craig@signature.co.nz

The building

Street address of building: 87 FALCON DRIVE

Legal description of land where building is located: LOT 53 DP389977

Building name:

Current, lawfully established, use: DETACHED DWELLING

Year first constructed:

First point of contact for communications with the council/building consent authority: Tauranga City Council, Building Services, Private Bag 12002, Tauranga 3143, phone 07 5777000, fax 07 5777034, info@tauranga.govt.nz

Building work ERECT DWELLING

Building consent number: 46278

Issued by: Tauranga City Council

Code compliance

The building consent authority named below is satisfied, on reasonable grounds, that -

a) the building work complies with the building consent

Compliance Schedule: No

Signature

Acting Manager: Building Services
On behalf of: Tauranga City Council

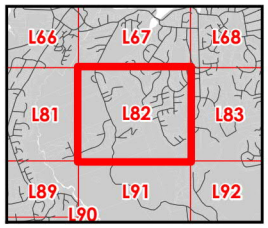
Date: 08 Apr 2013

N

City Plan

Planning Map

L82



0 50 100 200 300

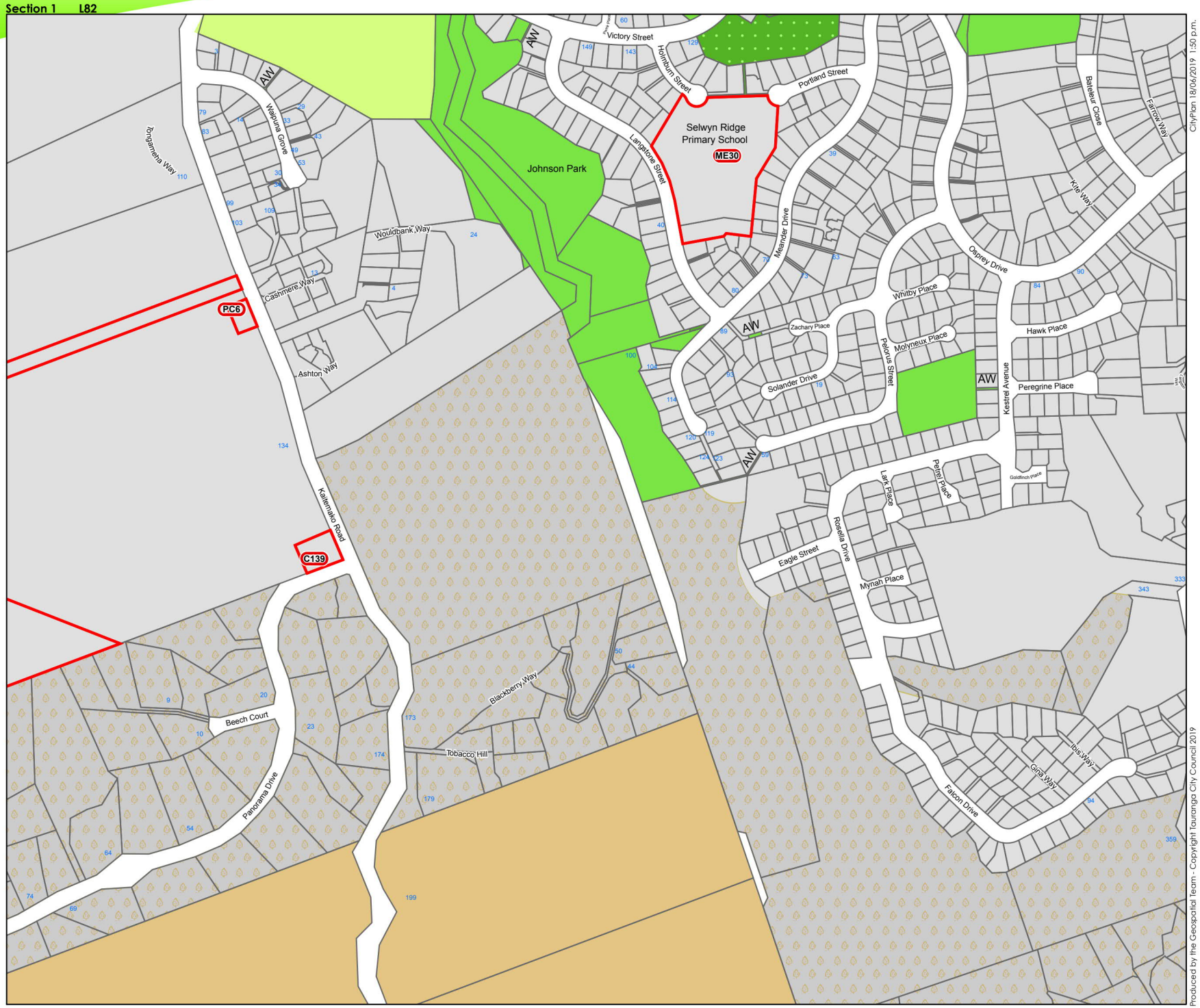
Metres

Scale = 1:5,000

Cadastral Information sourced from
Land Information New Zealand
CROWN COPYRIGHT RESERVED

Tauranga City

Section 1 L82



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CityPlan 18/06/2019 1:50 p.m.

CityPlan 9/08/2019 12:07 p.m.

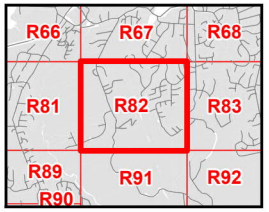
Produced by the Geospatial Team - Copyright Tauranga City Council 2019

N

City Plan

Planning Map

R82



0 50 100 200 300

Metres

Scale = 1:5,000

Cadastral Information sourced from
Land Information New Zealand
CROWN COPYRIGHT RESERVED

Tauranga City

Tauranga City Plan
Planning Maps Key (1 of 2)

Jurisdiction

1) The rules of this City Plan only apply landward of Mean High Water Springs.
2) The Bay of Plenty Regional Council is the consent authority for activities seaward of Mean High Water Springs and for activities on the surface of waterbodies.
3) The line of the coast shown on this map represents the position of Mean High Water Springs basedon aerial mapping (2007). It does not necessarily represent the current position of Mean High Water Springs.
4) The Bay of Plenty Regional Council should be consulted before undertaking any activity in the vicinity of Mean High Water to establish the actual line of Mean High Water Springs.

Planning Zones

- City Centre Zone
- City Centre Waterfront Subzones
- Commercial
- City Living – Mixed Use (CLMU)
- City Living – Mixed Use (CLMR) 19 metre max. height
- City Living – Residential (CLR) 9 metre max. height
- City Living – Residential (CLR)
- Suburban Residential
- Residential Large Lot
- High Density Residential

Planning Zones (continue)

- Port Industry
- Tauriko Industry
- Tauriko Commercial
- Industry
- Rural Residential
- Rural
- Education Centre
- Passive Open Space
- Active Open Space
- Active Open Space (Major)
- Conservation
- Greenbelt

Planning Zones (continue)

- Te Tumu Future Urban
- Rural Marae Community
- Urban Marae Community
- Ngati Kahu Papakainga
- Special Use Baypark
- Wairakei Town Centre (Core)
- Wairakei Town Centre (Fringe)
- Neighbourhood Centre (Wairakei)
- Papamoa East Employment
- Wairakei Residential
- Rail
  1. The rail designation has the underlying zoning of the adjoining zone measured from the centreline of the designation
  2. Where the rail designation crosses a public road, the underlying zoning is Road. The rail designation does not cross all public roads.
- Road
  All Public Roads and Service Lanes are Road Zone

Plan Areas

- Current Erosion Risk Zone (CERZ)
- 50 year (2060) Erosion Risk Zone (50 year ERZ)
- 100 year (2010) Erosion Risk Zone (100 year ERZ)
- Scheduled Site
- Commercial Plan Area
- High Rise Plan Area
- Medium Rise Plan Area
- Flood Hazard Plan Area
- Special Ecological Area (Category 1)
- Special Ecological Area (Category 2)
- Outstanding Natural Features and Landscapes Plan Area
- Important Amenity Landscapes Plan Area
- Kiwi Rail Reverse Sensitivity Plan Area
- NZTA Reverse Sensitivity Plan Area

Produced by the Geospatial Team - Copyright Tauranga City Council Date: 21/09/2015

Tauranga City Plan
Planning Maps Key (2 of 2)

1) The rules of this City Plan only apply landward of Mean High Water Springs.
2) The Bay of Plenty Regional Council is the consent authority for activities seaward of Mean High Water Springs and for activities on the surface of waterbodies.
3) The line of the coast shown on this map represents the position of Mean High Water Springs based on aerial mapping (2007). It does not necessarily represent the current position of Mean High Water Springs.
4) The Bay of Plenty Regional Council should be consulted before undertaking any activity in the vicinity of Mean High Water to establish the actual line of Mean High Water Springs.

Utilities

Note: While only transmission and key electric lines are identified on the Planning Maps, works in close proximity to all electric lines can be dangerous. Compliance with the New Zealand Electrical Code of Practice 34:2001 is mandatory for buildings, earthworks and mobile plants within close proximity to all electric lines. Compliance with the Electricity (Hazards from Trees) Regulations 2003 is also mandatory for tree trimming and planting. To discuss works, including tree planting, near electrical lines especially within 20m of those lines, contact the line operator.

Other Symbols

- Legal Parcel Boundary as at Date Printed on Map
- Mean High Water Springs
- Sub Zone Boundary
- Pedestrian Environment Street Frontage
- Pedestrian Link Requirement
- Coastal Protection Area
- Special Noise Rule Applies (Courtney Road, Bethlehem Town Centre)
- Territorial Authority Boundary
- High Voltage Transmission Plan Area-Support Structure
- High Voltage Transmission Plan Area-Electric Line
- High Voltage Transmission Plan Area
- Powerco Structure
- Powerco Overhead Electric Line
- Powerco Underground Cable
- Trustpower Structure
- Trustpower Electric Line
- Gas Transmission Pipeline

Heritage

- Built Heritage Site Number (1)
  (Refer Heritage Register, Chapter 7) NOTE: tree canopy and number within it indicates tree(s) on this legal parcel, but not necessarily at the marked location within the parcel.
- Notable Tree (55)
  (Refer Notable Tree Register, Chapter 6) NOTE: tree canopy and number within it indicates tree(s) on this legal parcel, but not necessarily at the marked location within the parcel.
- Heritage Tree (18)
  (Refer Heritage Tree Register, Chapter 7) NOTE: tree canopy and number within it indicates tree(s) on this legal parcel, but not necessarily at the marked location within the parcel.
- Signficant Groups of Trees (G1)
  (Refer Signficant Groups of Trees Register, Chapter 6) NOTE: Tree canopies should be sighted on site to determine actual extent
- Significant Maori Areas (M1)
  (Refer Chapter 7, Appendix 7B: Register of Significant Maori Areas)
- Significant Archaeological Areas (A5)
  (Refer Chapter 7, Appendix 7D: Register of Significant Archaeological Areas)
- Te Tumu Archaeological Management Areas
  (Refer Chapter 7, Appendix 7E: Te Tumu Archaeological Management Areas)

Designations

- Designated Site Boundary (other than Road Designation)
- Designated Road or Road Widening
- Designated Site Number (1) (Refer Appendix 10C:Designations)
- Limited Access Road (LAR)
- Proposed Designated Site Boundary (other than Road Designation)
- Proposed Designated Road or Proposed Road Widening
- Proposed Designated Site Number (1) (Refer Appendix 10C:Designations)

Requiring Authority Abbreviations

C	Tauranga City Council
MJ	Ministry for Courts
DR	Department of Corrections
MD	Ministry of Defence
ME	Ministry of Education
MH	Ministry of Health
MS	Meteorological Service of New Zealand
NP	New Zealand Police
NZTA	New Zealand Transport Agency
PC	PowerCo Limited
RC	New Zealand Railways Corporation
TNZ	Telecom New Zealand Ltd and Telecom Mobile Communications Ltd
TW	Transpower New Zealand Limited
WB	Western Bay of Plenty District Council
CH	Chorus Limited

Other Abbreviations

AW	Accessway - Zoned Passive Open Space
SL	Service Lane
C.M.A	Coastal Marine Area covered by Regional Coastal Environment Plan

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TAURANGA CITY COUNCIL

CONSENT NOTICE PURSUANT TO SECTION 221 RESOURCE MANAGEMENT ACT 1991

CONO 7557023.2 Consen
Cpy-01/01,Pgs-001,27/09/07,08:24
DocID: 511771808

TCC Reference: RC12692
Surveyor's Reference: 18188

IN THE MATTER OF Plan DP 389977

AND

IN THE MATTER OF Subdivision Consent pursuant to Sections 104, 108, 220 & 221 of the Resource Management Act 1991

I, **REBECCA PERRETT,** Acting Manager of Environmental Planning of the Tauranga City Council, hereby certify that, by way of resolution passed under delegated authority on 14 July 2006, the following condition was imposed on the subdivision consent for Lot 2 DP 315374, Lot 4 DPS 76964 and Lot 104 DP 35787.

That a consent notice be registered on the Certificate of Title for Lots 1-86 (inclusive) advising owners and subsequent owners thereof, of the following requirements to be complied with on a continuing basis:

- ***Any site development works, including any structures requiring a building consent in accordance with the Building Act 2004, shall be developed and constructed in accordance with the Report on Subdivision Earthworks and Recommendations for Building, prepared by S & L Consultants Ltd, dated July 2007, reference 18188.***

- ***The owners of Lots 8 & 9 and 58 & 59, contained within Certificates of Title 360916 & 360917 and 360966 & 360967 respectively, are required to meet the full cost of any fencing along the common boundary between those lots and adjoining land contained in Lot 109 DP 389977, that is vested in Tauranga City Council as Local Purpose Reserve (Accessway).***

  The intent of this Consent Notice as it relates to fencing - being that the Tauranga City Council, and its successors in title, shall not be liable nor called on to erect or repair or contribute to the cost of work as defined in the Fencing Act 1978 on any dividing or boundary fence between the intended reserves and any part of Lots 8 & 9 and 58 & 59. The benefit of this Consent Notice shall not endure for the benefit of any subsequent purchaser for the value of the intended reserves.

DATED at Tauranga this 17th day of September 2007.

.....
Rebecca Perrett
Acting Manager: Environmental Planning

2 Cono 60

TCC Ref: 1603490

10 November 2020

Ainsley Norris Haslett
14 EDEN VIEW ROAD
SANDRINGHAM
AUCKLAND 1025

Dear Sir/Madam

Proposed Plan Changes to the operative Tauranga City Plan

Tauranga City Council is currently progressing the following plan changes to the operative Tauranga City Plan (City Plan):

- **Proposed Plan Change 26 (Housing choice)**
  This plan change proposes changes to the City Plan to make it easier for people to build a variety of more compact types of homes, like duplexes, terraced houses, townhouses and apartments, to better suit their needs.
- **Proposed Plan Change 27 (Flooding from intense rainfall events)**
  This plan change introduces a new rule framework to manage the effects of flooding in intense rainfall events on people, properties and infrastructure.
- **Proposed Plan Change 30 (Earthworks)**
  This plan change proposes to clarify wording of existing provisions to ensure that earthworks are undertaken in a safe manner, avoiding negative effects on the environment.

As the owner of the property at 87 FALCON DRIVE, you have been identified as likely to have an interest in the changes proposed for the following reasons.

Your property is located within the Suburban Residential Zone where the housing choice plan change proposes to enable a greater choice of housing, including duplexes and townhouses.

Through proposed Plan Change 27, mapping has been updated and will supersede existing flood hazard mapping that Tauranga City Council holds. Your property has been identified through the flooding from intense rainfall plan change as being in a potentially floodable area (such as overland flowpaths, floodplains or flood prone areas) and may be subject to additional rules for any future works on the site. This plan change will have legal effect from Monday, 16 November 2020. Proposed Plan Change 27 will have legal effect from Monday 16 November 2020. This means that all applications, where required, should have regard to the proposed objectives, policies and rules from the date of public notification.

In addition, we're proposing city-wide changes through Plan Change 30 (Earthworks) to improve existing rules for the control of earthworks at all stages of development (subdivision and post-subdivision), and sediment and erosion control.

Where to find more information

To help you understand the proposed plan changes and how they affect your property, the following information is available at www.tauranga.govt.nz/planchanges, at council's customer service centre and your local library:

- public notice as published in the Weekend Sun on Friday 30 October 2020 and Bay of Plenty Times Saturday 31 October 2020;
- annotated text showing the proposed changes to the City Plan and section 32 evaluation reports explaining the reasons for the proposed changes;
- online map viewer showing the location and extent of the plan change areas, including the City Plan zoning and flooding on your property;
- submission form to make a submission.

If you rent or lease your property, please ensure you notify your tenant or lessee about the contents of this letter.

These proposed plan changes have been initiated under the provisions of Schedule 1 of the Resource Management Act 1991.

Community open days

If you wish to discuss the proposed plan changes, please join us at one of the community open days listed below.

If you have specific questions about how your property is affected by proposed Plan Change 27 (Flooding from intense rainfall), we recommend booking a private appointment with our team at one of the community sessions listed below. Book online at www.tauranga.govt.nz/planchanges or call (07) 577 7000.

Date	Time	Location
Monday, 23 November	3pm to 6pm	Greerton Library, 139 Greerton Road
Tuesday, 24 November	3pm to 6pm	Arataki Community Centre, Zambuk Way
Wednesday, 25 November	3pm to 6pm	Otumoetai Golf Course, 25 Bureta Road
Thursday, 26 November	3pm to 6pm	Council offices, 91 Willow Street
Friday, 27 November	3pm to 6pm	Bethlehem Hall, 239A State Highway 2
Saturday, 28 November	9am to 12.00pm	Tauriko Hall, 776 State Highway 29
Monday, 30 November	3pm to 6pm	Papamoa Community Centre, 15 Gravatt Road
Tuesday, 1 December	3pm to 6pm	Mount Rugby Club, 49 Miro Street
Thursday, 3 December	3pm to 6pm	St Stephens Church, 15 Brookfield Terrace
Friday, 4 December	3pm to 6pm	Welcome Bay Community Centre, 242 Welcome Bay Road

Making a submission

Submissions on proposed plan change 26, 27 or 30 must be lodged in writing and either submitted online at www.tauranga.govt.nz/planchanges, emailed to city.plan@tauranga.govt.nz or posted to:

Manager: City and Infrastructure Planning
Tauranga City Council
Freepost Authority Number 370
Private Bag 12022
Tauranga 3143

Submissions are open until 5pm, Friday, 18 December 2020

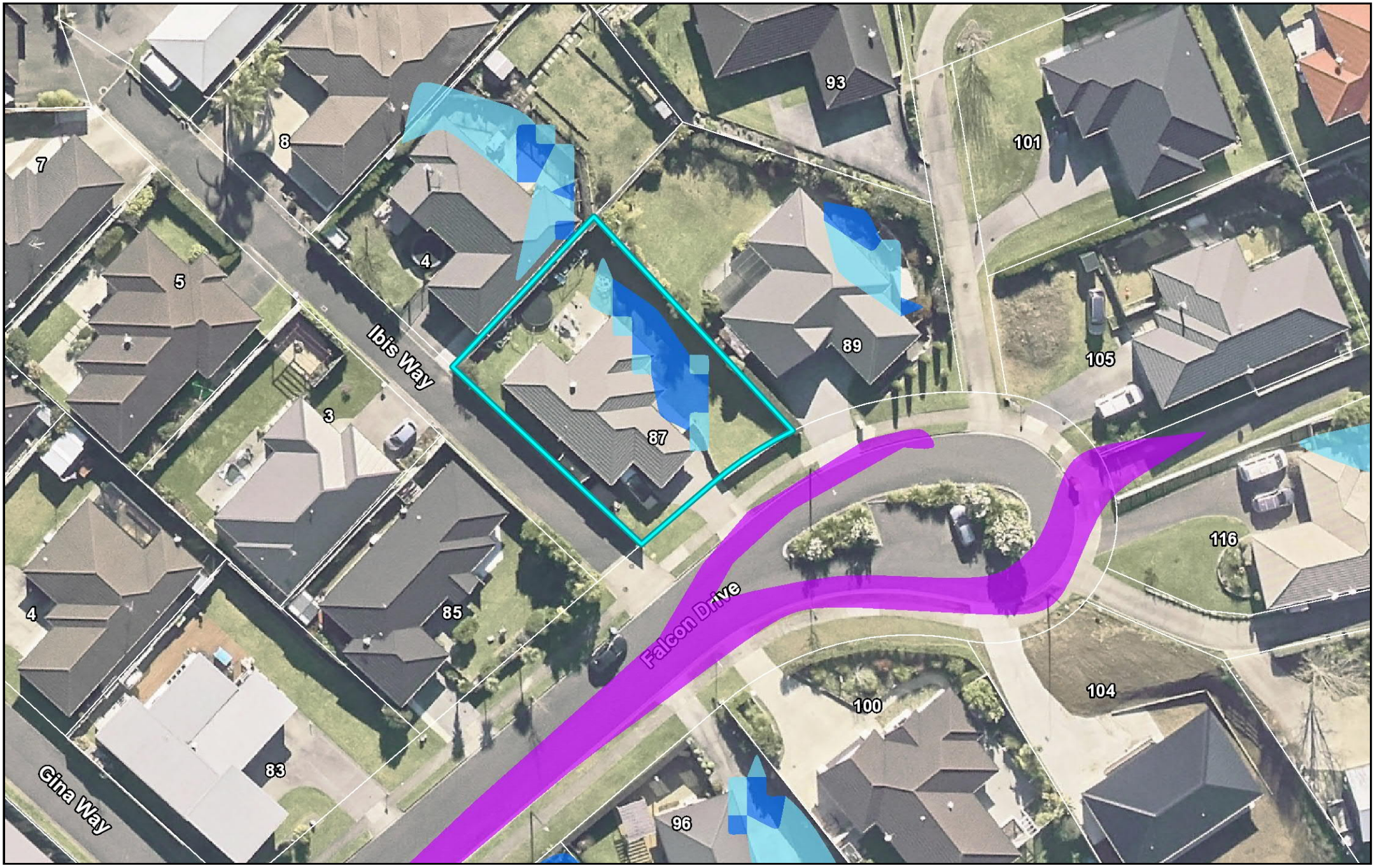
The submission should be in the format of Form 5 of the Resource Management (Forms, Fees and Procedure) Regulations 2003 and must be dated and signed by you and include the following information:

(a) Your name, address, telephone and email address.
(b) The plan change number and details of the provisions to which the submission is being made.
(c) Whether you support or oppose the plan change provisions, in whole or in part.
(d) Reasons for your support or opposition.
(e) The decision you wish Tauranga City Council to make.
(f) Whether you wish to be heard in support of your submission.
(g) Whether or not you could gain advantage in trade competition through your submission.

For further information regarding the details of the amendments introduced by the proposed plan changes contact us on (07) 577 7000 or email city.plan@tauranga.govt.nz.

Yours sincerely

Janine Speedy
Team Leader: City Planning



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Printed 02-December-2021

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Flood Risk Assessment - Plan Change 27

1:500 @A4

0 16.25 32.50 Meters

N

Information shown on this plan is indicative only. The Council accepts no liability for its accuracy and it is your responsibility to ensure that the data contained here in is appropriate and applicable to the end use intended.

Tauranga City

Natural Hazards Key

Flood Risk


Floodplain


Flood Prone Area (Depth > 300mm)


Flood Prone Area (Depth 100 - 300mm)


Overland Flow Path (Major)


Overland Flow Path (Minor)

General Description of Land Form within Tauranga District

The land form and geology within Tauranga District have some features which demand particular attention.

(a) Minimum Building Platform Levels

Significant areas of Tauranga District are at risk of flooding through sea level rise, tidal surges within the harbour, storm-wave runup on the ocean coastline and the flooding of streams, sewer drains, ponding areas and overland flow paths in extreme climatic conditions. Council has some "broadbrush" information on many possibly flood prone areas. More detailed investigations by appropriately qualified people may be required to be submitted in support of Resource and Building consents. Building Platforms should be constructed with adequate freeboard above flood levels. Council has adopted a minimum floor level policy. This level is available from Council on request from Council's Development Engineer. However due to the dynamic nature of the environment and the ongoing investigative work these levels may be reviewed at any time. For the purposes of this clause, a "building platform" is defined as the area of ground within a line 1.0m outside the perimeter of the building proper.

(b) Low-lying Land

There are many areas of low-lying land (often adjacent to the harbour) which comprise soft or very soft foundation conditions. These conditions are characterised by normally consolidated fine grained alluvial sediments (silts and clays) which have been deposited in marine or estuarine environments. In many areas they have been subject to random and non-engineered fillings. The materials are prone to settlement caused by consolidation under even minor loadings. These areas require particular care and appropriate geotechnical investigation and advice prior to development concepts being prepared. Whilst most of the Mount Maunganui/Papamoa area has an underlying sand formation, pockets of peat and "black sand" occur which exhibit poor foundation support qualities. These should be removed from building platforms and roading subgrades.

(c) Sloping Ground

The foundation conditions of the low-lying areas in the District have been described in (b) above. The near surface geology of the higher ground within the District comprises a series of weathered fine grained rhyothic ashes known locally as the Older Ashes. The Older Ashes consist of the Pahoia Tuffs overlain by the Hamilton Ash (the top of which is known locally as the "chocolate" layer).

Overlying the Older Ashes is a series of coarse friable silts, sands and pumice lapilli which tends to mantle the topography formed within the Older Ashes and are known locally as the Younger Ashes.

On some sloping ground, particularly the present and relic slips adjacent to the harbour, the ashes often have marginal stability and there are numerous examples of past and recent instability. Deep seated failures are generally confined to the steep banks which are or have in their history been subjected to active toe erosion. Development must be set back from the top of such steep banks, with the set back distance being determined by appropriate geotechnical investigations carried out by a Person who has pre-qualified with Council as a Specialist Geotechnical Advisor.

The majority of other failures on modest to steeply sloping ground are shallow failures (involving the top 1m to 3m of soil), but are nonetheless of serious consequence to any building development. Such failures are usually initiated by extreme climatic conditions. Any sloping ground greater than 15 degree gradient should be subject to appropriate geotechnical investigations to determine whether the ground is adequately stable for development.

TL4240

SHRIMPTON & LIPINSKI

NORTHRIDGE STAGE 4

RESIDENTIAL SUBDIVISION
FALCON DRIVE, WELCOME BAY

REPORT ON SUBDIVISION EARTHWORKS AND RECOMMENDATIONS FOR BUILDING

Our Ref: 18188
July 2007

-amended Aug '07

S&L CONSULTANTS LTD - SURVEYORS - ENGINEERS - PLANNERS
111 Cameron Road PO Box 231 Tauranga New Zealand Phone 07 577 6069 Fax 07 577 6065 Email slconsultant@sltga.co.nz

CONTENTS

1.0 Introduction

The earthworks, roading and services for Stage 4 of the Northridge Subdivision at Welcome Bay are complete. 86 residential lots have been created as shown on deposited plan DP 38977. A digitally generated plan from DP 389977 is included in Appendix I to this report.

Approval for the Stage 4 subdivision development at Northridge was given by the Tauranga City Council on 14 July 2006. The applicant was Fairway Holdings Ltd and the Council reference was RC12692.

During this stage of the subdivision Falcon Drive was formed from the Stage 3B area and a series of rights of way have been constructed to service rear lots. One such right of way extends south westwards from Waitaha Road to service lots 1 to 9.

This report describes the earthworks undertaken in the formation of the subdivision including the relevant standards adopted and achieved, the scope of the work and results and conclusions reached from extensive observation and testing during the earthworks.

During this report reference is made to drawings 18188-AB2 and AB3 which are included in Appendix I. These drawings show relevant road and lot locations, areas of cut and fill and other data relevant to this report.

2.0 Scope of Work

The original topography in the Stage 4 area generally sloped from Waitaha Road at an elevation of 92m (Moturiki) westwards to a major gully adjacent to the south western boundary of the subdivision. The ground level at the upper edges of the gully sides were in the range of 44 to 52m (Moturiki).

At the northern end of the Stage 4 site a deep gully running east to west was also present. This gully divided the Stage 3B and Stage 4 development areas.

The southern boundary of the development area adjoined a shallower gully for the majority of its length. This gully transitioned into flatter slopes at the south west corner.

Over the subdivision area from east to west original ground slopes varied from 1 in 15 (4 degrees) to 1 in 5 (12 degrees).

A significant local hill crest was present on the property to the north of new lots 1 to 5. The side slopes of this hill at 1 in 4 are present across those lots from north to south.

The earthworks undertaken on the Stage 4 area comprised:

- The general reduction of ground levels in the central section of the subdivision in cut. This work included:
    - The reduction of a ridge feature within lots 13, 14 and 36 to 40 by up to 6m.
    - The reduction of a lower ridge within lots 29 to 33 and 42 to 44 by up to 3m.

  - The easing of sloping ground within Lots 6 to 8 and 56 to 58.
  - The lowering of ground levels to form the subgrade of Falcon Drive by up to 3m opposite lots 10 and 86.

- The placement of filling derived from the areas of cut:

  - Along the western and south western margins of the subdivision within lots 9 and 60 to 85 to form near level building platforms on these lots as they extend from the berms of Falcon Drive.
  - Within the gully to the north between the Stage 3B and Stage 4 development areas to form embankments for stormwater runoff attenuation ponds and to extend flatter areas from Lots 40, 49 and 50 for future development on the adjacent property.
  - Within the gully at the north western corner of the subdivision as the embankment to extend Falcon Drive from the Stage 3B area.
  - As minor depths between areas of cut, in lots 21, 23, 34, 49 and 60.

- After completion of the bulk earthworks, the relevelling of lots in cut and fill to form near flat building sites on lots 11, and 13 to 30 inclusive above and below retaining walls and also on lots 6, 7, 10 and 86.

- The construction of temporary stormwater silt runoff prevention measures until grassed surfaces have become stabilised. These comprised a silt collection pond with a controlled outfall adjacent to lot 85 and a cut off drain behind the crest of the fill batter on Lots 75 to 85. Silt collection pits were also formed within this cut off drain on lots 76, 78, 79, 83 and 84.

- The replacement of topsoil from stockpiles after initial stockpiling and the grassing of topsoiled surfaces.

The depths of cut and fill shown on drawings 18188-AB2 and AB3 were derived from surveyed contours of the finished surface taken on the completion of earthworks for the subdivision compared with a comprehensive topographical survey undertaken prior to commencement of the subdivision constriction.

The earthworks for the subdivision were undertaken by RPL Services Ltd during the 2006-2007 earthworks season in compliance with consent 64074 issued by Environment Bay of Plenty.

3.0 Previous Investigations

Prior to seeking approval for the subdivision a geotechnical assessment of the development area was included in the resource consent application for subdivision dated 8 May 2006.

This assessment was based on the identification of the subsoils present on the subdivision area and those most likely to be found in areas of cut and undisturbed ground, by the excavation of 7 machine drilled investigation boreholes to depths of up to 11m. The locations of the boreholes are shown on 18188-AB2 and AB3. Summary logs of the soils found in these boreholes are attached in Appendix 4.

In situ shear vane measurements and standard penetrometer tests (SPT) were made at regular intervals in the boreholes to confirm soil strengths. Two hand augered boreholes were also located in the northern gully to confirm subsoil conditions in the vicinity of the proposed road crossing of the gully and stormwater treatment pond embankments. The handaugered borelogs are also included in Appendix 4.

The boreholes showed that the site is overlain by the normal sequence of younger and older ashes typically located in the Tauranga area. Dense Waiteariki ignimbrite occurred from depths of 4.8-7.5m in all nine boreholes. The description of the ashes is described in more detail, including their derivation, by Briggs et al in Occasional Report No. 22 by University of Waikato titled "Geology of the Tauranga Area" (1996) and also in the Council's Code of Practice for Development. Shear strengths in the ashes indicate that the soils above the ignimbrite are stiff to very stiff. In boreholes 1 and 9 located in the northern gully floor organic soils overlay the ignimbrite.

These investigations showed that in the development of the subdivision the subsoils were suitable for use as filling. Also, with the differing depths of cut across the stratigraphy which generally follow the original sloping ground profile, the subsoil types and strengths may vary across individual lots.

4.0 Earthworks Standards

The performance specification required of the Contractor for the earthworks was based on the guidelines contained in NZS4431:1989 "Code of Practice for Earthfill for Residential Development". Compliance with the compaction requirements listed below satisfies the standards listed in Section 7 of NZS4431.

Air voids percentage (as defined in NZS 4402: Part 1:1980)

Structural Fill – average value less than 10% (any 10 tests)

- maximum single value 12%

Undrained shear strength (measured by insitu vane)

Structural Fill – average value not less 150 kPa (any 10 tests)

- minimum single value 100 kPa

The earthworks were observed by engineering technicians from this office and compaction and strength control testing was undertaken by Opus International Consultants under their IANZ accredited procedures both on site and in their Greerton laboratory.

Fifty four compaction tests were undertaken at varying levels within the filling as it was placed and on completion. The tests are shown in position on drawings 18188-AB2 and AB3 in Appendix I and the results are tabulated in Appendix 3.

The air voids ratios at test positions 39 and 40 were examined as they exceeded 12%. Test 39 was undertaken in sand fill where higher air voids are usual while the moisture content of the sample taken at test 40 was low with correspondingly high undrained shear strength. The test results at these locations were considered to be acceptable. All other tests met the acceptance criteria listed above.

5.0 Post Construction Testing

Post construction handaugered boreholes were put down on lots where cut occurred to modify the original ground surface at locations shown on the appended drawings 18188-AB2 and AB3. These boreholes were intended to show soil types and continuity and to confirm ground bearing conditions for shallow building foundations in these areas of cut.

As the boreholes were being drilled undrained shear strengths were recorded with a hand held shear vane pushed in advance of the auger.

Summary logs of these boreholes and the shear strengths recorded are contained in Appendix 4.

The varying depths of cut exposed a variety of different soil types immediately below the topsoil overlay. This is because the more recently deposited insitu volcanic ashes being stiff brown orange clayey silts as described on the preconstruction borehole logs in Appendix 4 were either partially or totally removed. Furthermore, as levelled building sites have been formed on the original sloping ground a number of differing soil types may be present at the finished ground level.

The post construction boreholes have indicated the likely presence of the following subsoil types on each lot formed in cut.

	Soil Type	Post Construction Borehole (Lot no.)	Undrained Shear Strength (kPa)
1	Brown clayey silt (younger ash)	1, 3, 8, 11, 15, 22, 24, 25, 26, 27, 29, 33, 40, 42, 44, 47, 50, 52, 55, 59, 62, 69, 84, 86	82 - 200
2	Pumiceous light brown – cream sandy silt and silty sand (younger ash)	6, 13, 14, 17, 18, 31, 36, 57	85 - 174
3	Brown clayey silt (older ash)	37,39	127 - 158
4	Light brown – grey silt (ignimbrite)	38	200+

The post construction boreholes also identified minor depths of filling where some recontouring work had been undertaken in the formation of the near level building sites after the bulk earthworks were completed. The presence of this filling was noted in boreholes 1, 31, 33 and 44 but may also be present on other sites away from the post construction test positions.

6.0 Summary and Recommendations

6.1 Subdivision Construction Filling

Supervised structural filling as shown on drawings 18188-AB2 and AB3 is present on **Lots 9, 21 to 24, 33 to 35, 45, 46, 48 to 50, 53, 54 and 59 to 85 inclusive.** The filling was placed in accordance with the methods and standards quoted in NZS 4431 under the observation of S&L Consultants Ltd.

Compaction testing on site confirmed that a high and uniform degree of compaction has been achieved suitable for the support of buildings.

A statement in support of the suitability of the filled areas for the erection of buildings in terms of NZS 3604 is appended in Appendix 2 of this report.

Within areas of structural filling on which buildings may be erected, however, the possibility of variation of soil type and strength may exist away from observation or compaction test locations. The normal inspection of foundation conditions during construction of buildings by competent tradesmen as described in NZS 3604 and by building inspectors should therefore be undertaken. If for any reason areas of low soil strength are found professional geotechnical advice should be sought.

6.2 Construction on Areas of Cut and Undisturbed Ground

Areas of cut or natural undisturbed ground exist on **lots 1 to 8, 10 to 33, 35 to 63, 66 to 71, 75 to 78 and 83 to 86 inclusive.** The likely subsoils that would be present have been discussed in Section 5.0 of this report. The post construction boreholes indicate the soil types that may be encountered in excavation depths of up to 1.0m.

Soil types (1), (3) and (4) as tabulated on page 4 are expected to be of sufficient strength as indicated from the post construction boreholes so that building foundations may be detailed in accordance with NZS 3604 and an ultimate bearing capacity in the limit state of up to **300kPa** may be taken for the detailing of foundations. This recommendation would apply to **lots 1, 3, 8, 11, 15, 22, 24 to 27, 29, 33, 37 to 40, 42, 44, 47, 50, 52, 55, 59, 62, 84 and 86.**

Where soil type (2) is likely to be present and could be of comparatively lower strength, foundations for buildings should be designed for an ultimate bearing capacity in the limit state of up to **150kPa.** This recommendation would apply to **lots 6, 13, 14, 17, 18, 31, 36 and 57.** Foundation details for buildings on these lots should be checked by a structural engineer to ensure that the specified ground contact pressures are not exceeded. It should be noted that a 300mm wide foundation supporting a single storey building with heavy roof and external wall cladding and with a concrete floor rarely requires an ultimate bearing capacity of more than 150kPa.

If lower strength soils are found on parts of the building sites in areas of subdivision cut or during additional earthworks undertaken by owners foundations detailed in accordance with NZS 3604 may need to be deepened or widened accordingly under engineering advice.

6.3 Site Stability and Building Restrictions

Steep slopes are present around the external perimeter of the Stage 4 area of the subdivision and are adjacent to or within lots 13, 37 to 39, 60 to 85 inclusive and 86. Internally, timber retaining walls have been erected along the side of Falcon Drive in front of lots 10 and 86 and between levels of

building platforms within or adjacent to lots 13 to 26 and 29 to 37 and within lots 6 and 7.

Building restriction lines are appropriate to limit future building away from the slopes and retaining walls as described below.

6.3.1 Lots 13, 37 to 39 and 86

Natural slopes exist to the north of lots 13, 37 to 39 and 86 and lead down to the gully floor in which stormwater attenuation ponds have been formed. These slopes are up to 12m high and stand at 26 to 30 degrees. Numerical stability analyses based on the surveyed slope profiles and the subsoil data in preconstruction boreholes 2 and 3 (borelogs in Appendix 4) have determined that buildings should be set back from the crests of these slopes by at least 10m to satisfy the stability performance criteria in clause B1 of the New Zealand Building Code. These set back distances are determined by building restriction lines shown on DP 389977 and on the plan of Building Restriction Lines and on drawings 18188-AB2 and AB3 in Appendix 1.

6.3.2 Retaining Walls of Lots 60 to 69 inclusive

Timber retaining walls have been designed by Lloyd and Co consulting engineers and have been erected along the rear boundaries of Lots 60 to 68 and lot 69 (part).

Prior to the construction of these walls the stability of the slopes leading beyond the boundaries of Lots 60 to 69 into the gully to the south was assessed. Vertical slope heights were 5 to 7m and slope angles were at 21 to 30 degrees. Adequate stability was determined by analysis to permit the construction of the retaining walls along the rear boundaries of the lots.

The retaining walls have been constructed to support filling. The filled ground slopes down to the walls from levelled areas adjacent to Falcon Drive. These slopes vary from being near flat on Lots 68 and 69 to 18 degrees (1 in 3) on Lot 65.

Building restriction lines are imposed on lots 60 to 69 to locate buildings on the near level ground on the lots. The building restriction lines correspond to the upper edges of the sloping ground down to the retaining walls. These restriction lines are shown on DP 389977 and on the plan of Building Restriction Lines in Appendix 1. Stormwater and wastewater mains are present within the building restriction areas.

During the future development of Lots 60 to 69 additional filling may be placed on the sloping ground down to the timber retaining walls to increase levelled areas around houses. This filling should not be placed within 4m of the retaining walls on the boundaries and should be supported by an additional suitable retaining wall at this set back distance. In undertaking this additional work the owners should be aware of the City Council "close proximity" rules that are in their Code

of Practice for Development for the construction of retaining walls close to or over their stormwater and wastewater mains.

6.3.3 Lots 70, 71 and 73 to 85 inclusive

Slopes formed by structural filling exist at the rear (western) ends of these lots. The slopes below lots 75 to 85 terminate at a lower accessway formed in cut on the original slope face within the adjacent property. Wastewater and stormwater reticulation lines have been placed along the accessway. The filled slopes are 4 to 7m high and have been trimmed and grassed at 30 to 35 degrees.

Numerical stability analyses have determined building set backs from the crests of the slopes for building sites to satisfy the stability performance criteria in Clause B1 of the New Zealand Building Code. These set back distances are shown on DP 389977 and on the plan of Building Restriction Lines and on drawings 18188-AB2 and AB3 in Appendix 1.

During the subdivision construction a temporary lateral drain was constructed along the crest of the west facing slopes in Lots 73 to 85 inclusive with the outfall for this drain being to the pond that was constructed to the north of Lot 85. Silt traps were also present on Lots 76, 78, 79, 83 and 84 on the drain alignment. The drain was subsequently infilled during winter conditions with filling of a lower density than placed elsewhere as part of the structural filling on the subdivision.

On Lots 75, 77, 80 and 81 the reinstated drain was to the west of the building restriction line and buildings on those lots can be constructed on "good ground" up to the building restriction line. No further ground improvement along the drain alignment is necessary.

On Lots 76, 78, 79 and 82 to 85 the reinstated drain is in some instances located within the building area defined by the building restriction line. The location of this drain has been established by survey and this data is held in file 18188 by S&L Consultants Ltd. The developer has undertaken to improve the filling placed in the drain during more favourable earthworks conditions in Spring 2007. Until this improvement is completed and acknowledged as such by advice from a chartered professional engineer buildings should not be located on the areas of the reinstated drain. Property owners should check with the Council that the improvement work has been completed before commissioning house designs.

While the filling placed to form the batters at the western boundaries of these lots has been undertaken to the subdivision contract standards it is not recommended that additional filling is placed over the slope faces even if supported by retaining walls. The cut batters below the western boundaries and above the lower accessway are not of

sufficient strength to support surcharges from any additional filling or the presence of a retaining wall.

6.3.4 Retaining Walls on Lot Boundaries

Timber retaining walls have been designed by Lloyd and Co – consulting engineers to face cut batters between building levels on Lots 13, 16, 18, 19, 22, 23, 26 and lots 13, 14, 17, 20, 21, 24, 25, 29 and lots 30 to 37 inclusive. Retaining walls are also present between the upper levels of lots 6 and 7 and the lower levels of lots 8, 56 and 57, and along the roadside boundaries of lots 10 and 86.

Building restriction lines are shown on DP 389977 and on the plan of Building Restriction Lines and drawings 18188-AB2 and AB3 in Appendix 1. These lines are present on **Lots 6, 7, 10, 14, 17, 20, 21, 24, 25, 31 to 37 inclusive and 86** and are intended to locate buildings away from the backfill behind the walls and to avoid the surcharging of the walls from the presence of any building foundations in close proximity. Some of the building set back line positions also coincide with the easement boundaries for stormwater and wastewater reticulation services present behind the walls.

6.3.5 Development on Sloping Ground

Natural slopes exist on lots 1, 2 and 3 at 14 to 18 degrees (1 in 3 to 1 in 4). It is likely that further earthworks could be undertaken on these and other lots to create levelled building sites. It is recommended that retaining walls be erected to support depths of cut or filling that exceed 1.8 m. Building consents are required for such walls.

Any filling placed either under buildings or elsewhere should be placed in accordance with the principles described in NZS 4431 and the Council Code of Practice for Development with any filling placed under floor slabs being undertaken under engineering supervision.
In undertaking excavations into the sloping ground to create levelled building areas due regard should also be given to the maintenance of support to properties above especially if structures on those properties are in close proximity to the common boundary. Any retaining wall design should take into account surcharge loadings that may be present from such structures and also those possible from upslope development.

While retaining walls less than 1.5m high are exempt from requiring a building consent as stated in the first schedule of the Building Act 2004 the wall construction must comply with the New Zealand Building Code in all other respects.

In the development of individual sites attention should be given to the control of surface water runoff both during and after house construction. Silt runoff during construction should be controlled by bunds or silt fences in accordance with the guidelines published by Environment Bay of Plenty. Downpipes should be fitted and reticulated to the stormwater service connection as soon as the roof is

fixed. Final ground levels on lots after development should ensure that any overland flow paths should be directed to the streets.

6.4 Topsoil Thickness

The areas of the subdivision in cut or fill as shown on drawing 18188-AB2 and AB3 were stripped of topsoil at some time during the earthworks. The stripped topsoil was replaced from stockpiles. It should be expected that the topsoil will vary in thickness across part or all lot areas. No guarantee is implied or given that topsoil on any part of any lot where the topsoil was replaced is 200 mm deep or less and it is recommended that future owners or builders check topsoil depths when preparing site development plans and costings.

6.5 Stormwater Reticulation

Stormwater runoff reticulation from roofs and hardstanding areas should be connected to the subdivision disposal system. Soakholes for stormwater disposal are not permitted by the City Council.

Each lot should be developed so that any surface runoff not captured by the collection system is directed to the road reserves or rights of way where possible and is not permitted to discharge onto adjacent properties over retaining walls or over the steep slopes that are present around the subdivision. Concentrated runoff after heavy rainfall during May 2005 contributed significantly to large scale instability on steep slopes in the Tauranga City area.

7.0 Professional Opinion

A statement in the format of Council's Code of Practice for Development (Form G2) that all lots are suitable for building is contained in Appendix 2. This statement is accompanied by form G2A which summarizes the information and recommendations within this report.

8.0 Applicability

Recommendations contained in this document are based on data from boreholes, observations of soil exposures and test results. Inferences about the nature and continuity of subsoils away from these locations are made but cannot be guaranteed.

In all circumstances, if variations in the subsoils occur which differ from those described or are assumed to exist the site should be inspected by an engineer suitably qualified to make an informed judgement and provide advice on appropriate improvement measures.

This report has been prepared specifically for the development at Stage 4 of the Northridge Subdivision at Welcome Bay and no responsibility is accepted by S&L Consultants Ltd for the use of any part of this report for other development sites without their written approval.

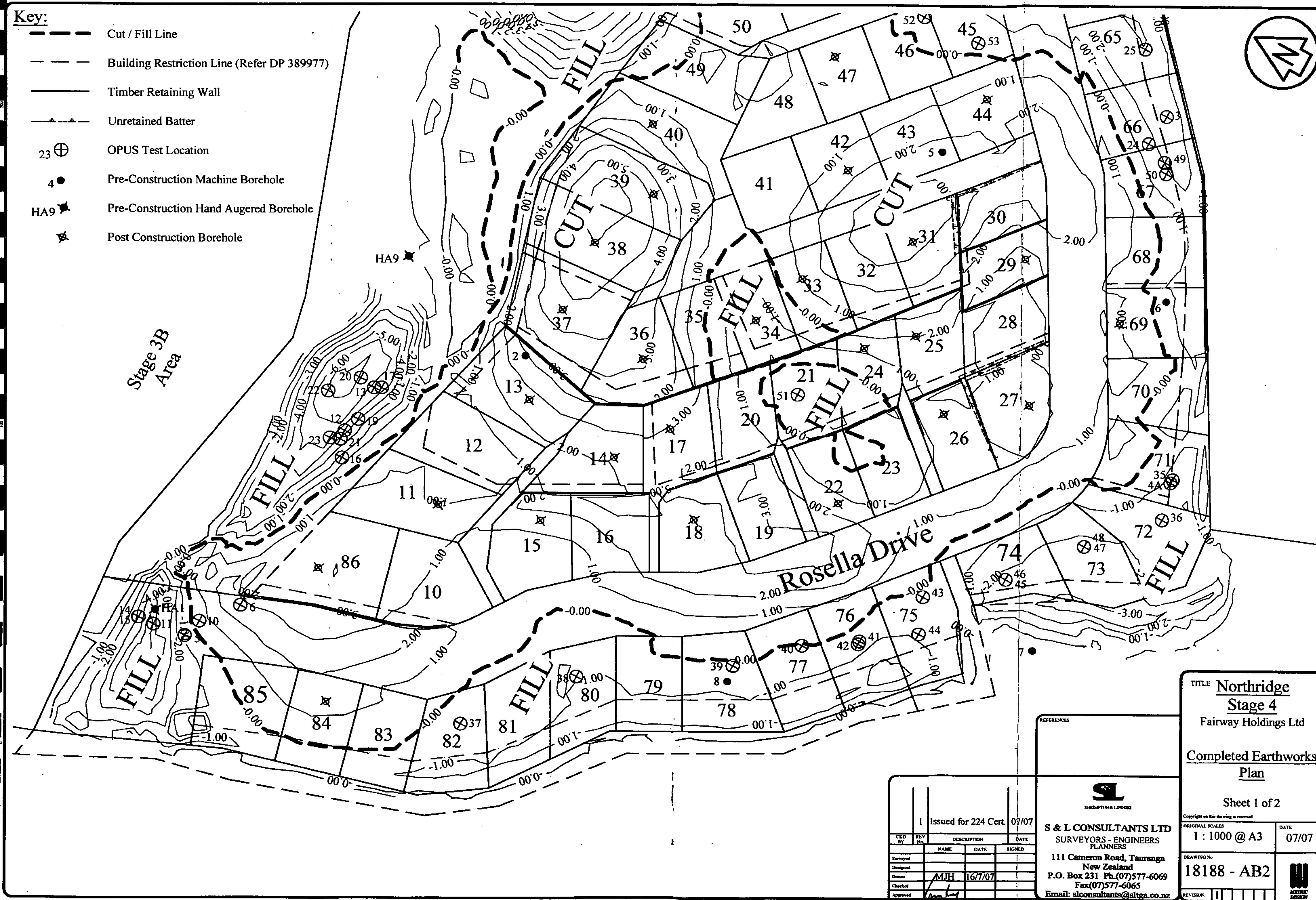
S&L Consultants Ltd
Consulting Engineers, Surveyors, Planners

M W Hughes CPEng
Geotechnical Engineer

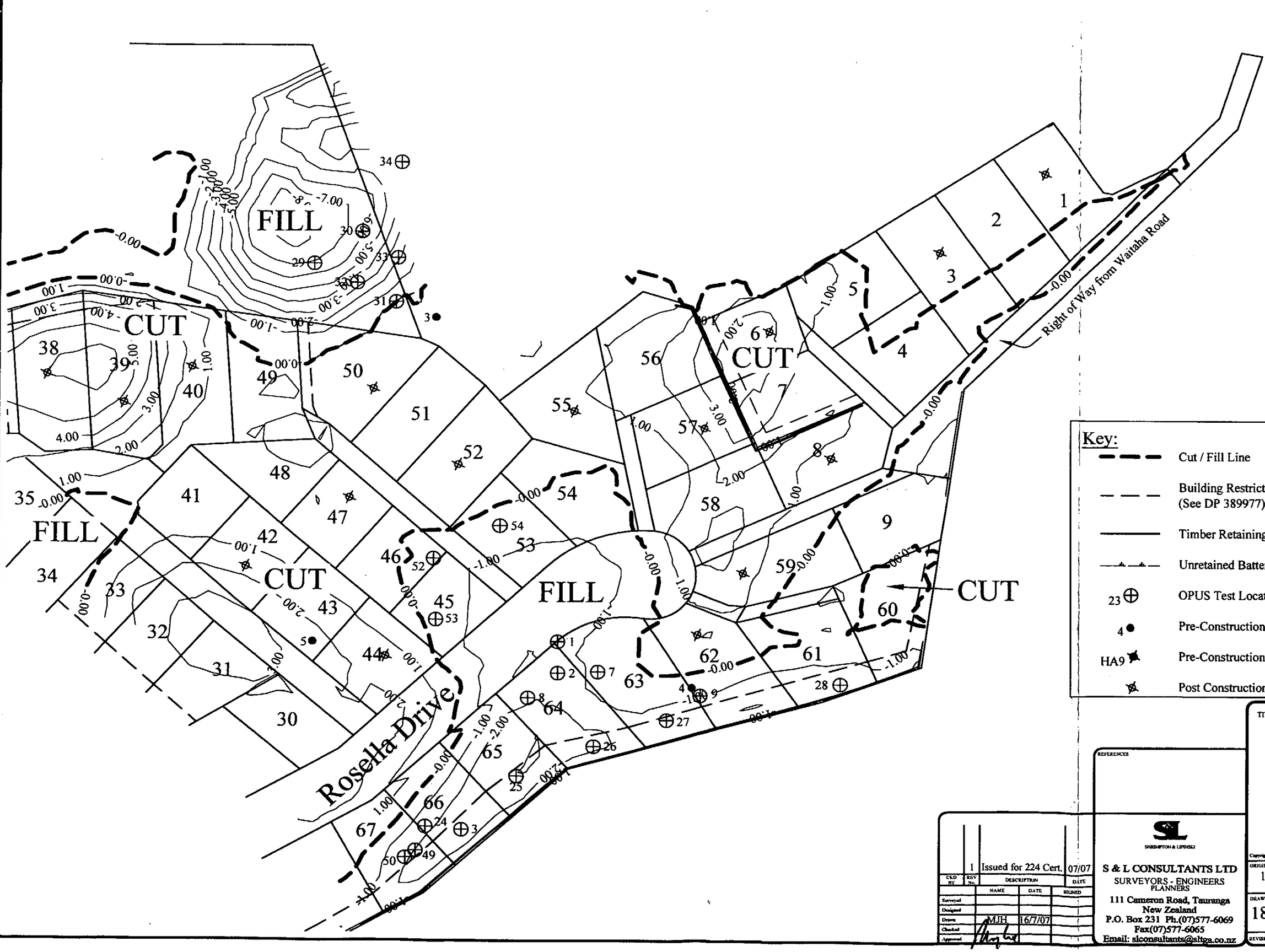
9 July 2007

APPENDIX 1

Drawings – Earthworks Completion Plans 18188-AB2, AB3
Reference Plan from DP 389977
Plan of Building Restriction Lines



Key:
Cut / Fill Line
Building Restriction Line (Refer DP 389977)
Timber Retaining Wall
Unretained Batter
23 OPUS Test Location
4 Pre-Construction Machine Borehole
HA9 Pre-Construction Hand Augered Borehole
Post Construction Borehole
Stage 3B Area
Rosella Drive
CUT
FILL
References
1 Issued for 224 Cert. 07/07
CKD BY
REV No
DESCRIPTION
DATE
NAME
DATE
SIGNED
Surveyed
Designed
Drawn MJH 16/7/07
Checked
Approved
S & L CONSULTANTS LTD
SURVEYORS - ENGINEERS
PLANNERS
111 Cameron Road, Tauranga
New Zealand
P.O. Box 231 Ph.(07)577-6069
Fax(07)577-6065
Email: slconsultants@sltga.co.nz
TITLE Northridge Stage 4
Fairway Holdings Ltd
Completed Earthworks Plan
Sheet 1 of 2
Copyright on this drawing is reserved
ORIGINAL SCALES 1 : 1000 @ A3
DATE 07/07
DRAWING No 18188 - AB2
REVISION: 1
METRIC DESIGN



CKD BY	REV No.	DESCRIPTION	DATE
	1	Issued for 224 Cert.	07/07

	NAME	DATE	SIGNED
Surveyed			
Designed			
Drawn	MJH	16/7/07	
Checked			
Approved			

REFERENCES

SHRIMPTON & LIPINSKI

S & L CONSULTANTS LTD
SURVEYORS - ENGINEERS
PLANNERS
111 Cameron Road, Tauranga
New Zealand
P.O. Box 231 Ph.(07)577-6069
Fax(07)577-6065
Email: slconsultants@sltga.co.nz

TITLE
Northridge Stage 4
Fairway Holdings Ltd

Completed Earthworks Plan
Sheet 1 of 2

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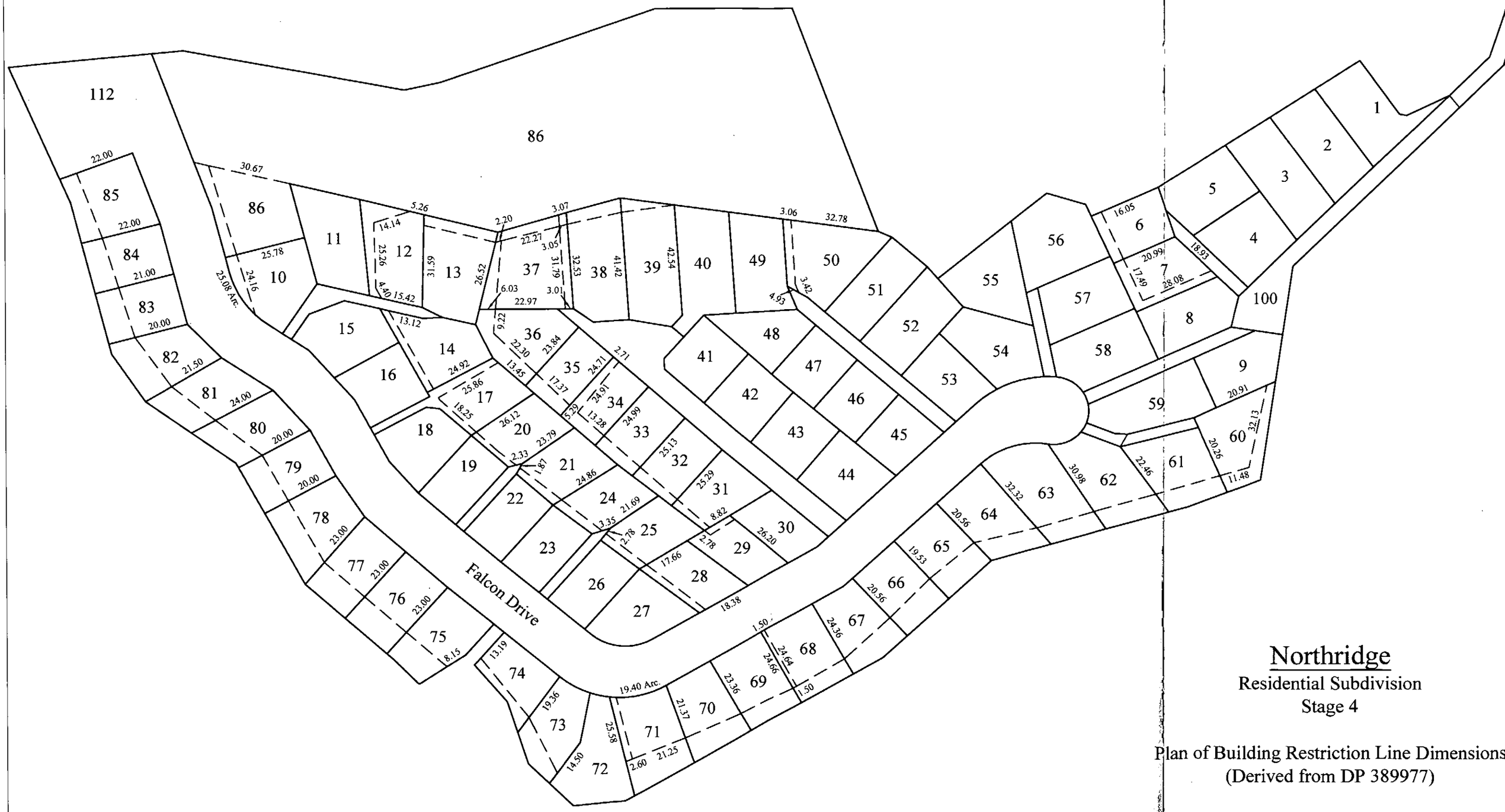
ORIGINAL SCALES: 1 : 1000 @ A3
DATE: 07/07
DRAWING No: 18188 - AB3
REVISION: 1

METRIC DESIGN

Note:

1)See DP 389977 for where building line restrictions coincide with service easements.

2)Building line restrictions shown as on lots 6, 7, 10, 12 to 14, 17, 20, 21, 24, 25, 28, 29, 31 to 39, 50, 60 to 71, 73 to 85 & 86.



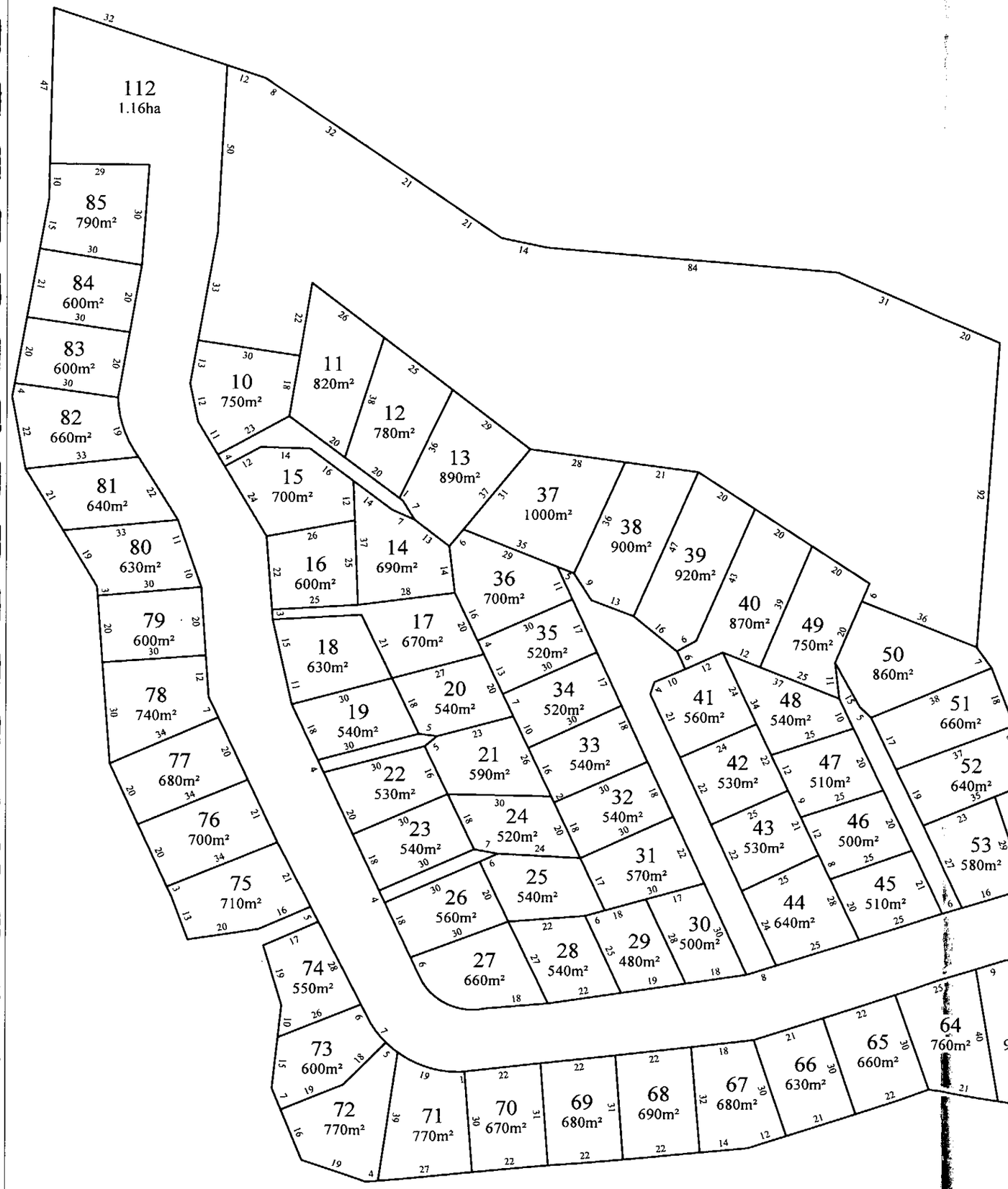
Northridge

Residential Subdivision
Stage 4

Plan of Building Restriction Line Dimensions
(Derived from DP 389977)

Ref. 18188

Note:
Dimensions are approximate only - See DP 389977 for exact measurements



Northridge

Residential Subdivision
Stage 4

Plan of Lot Dimensions
(Derived from DP 389977)

Ref. 18188

APPENDIX 2

Statement of Professional Opinion
as to the Suitability of Land for Building Development

Lot Summary Report

SECTION 3

To: The Manager: City Development

STATEMENT OF PROFESSIONAL OPINION AS TO THE GEOTECHNICAL SUITABILITY OF LAND FOR BUILDING

DEVELOPMENT: Northridge Stage 4

OWNER: Fairway Holdings Ltd

LOCATION: Falcon Drive, Welcome Bay

I Michael William Hughes (Full Name) of S&L Consultants Ltd

PO Box 231, Tauranga (Name and Address of Firm)

Hereby confirm that;

1) I am a professional person appropriately qualified with experience in geotechnical engineering to ascertain the suitability of the land for building development and was retained as the Soils Engineer to the above development.

2) An appropriate level of site investigation and construction supervision has been carried out under my direction and is described in my development evaluation dated 9 July 2007

3) In my professional opinion, not to be construed as a guarantee, I consider that;

(a) The area shown in my report dated 9 July 2007 of each new allotment is suitable for the erection thereon of the building types appropriate to the zoning of the land, provided that;

Recommendations contained in my report are complied with and any building restrictions are observed.

(b) The earth fills shown on the attached Plan Nos. 18188-AB2, AB3 have been placed in accordance with the Code of Practice for Development of the Tauranga City Council.

(c) The completed works give due regard to all land slope and foundation stability considerations.

(d) The filled ground is suitable for the erection thereon of residential buildings not requiring specific design in terms of NZS 3604:1999 and related documents providing that:

Recommendations contained in my report, Section 6 are complied with and building restrictions are observed.

(e) The original ground not affected by filling is suitable for the erection thereon of residential buildings not requiring specific design in terms of NZS 3604:1999 and related documents subject to the recommendations contained in my report including those relating to building restrictions, topsoil depths, reduced bearing capacities on some lots and soil variations away from test or observation positions.

4. This professional opinion is furnished to the Council and the owner for their purpose 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 for any dwelling.

Signed ..... Date 9 July 2007

Tauranga City

SUITABILITY OF LAND FOR BUILDING DEVELOPMENT

TAURANGA CITY COUNCIL

Jan 07

G 2 Δ

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NORTHRIDGE SUBDIVISION STAGE 4
FALCON DRIVE - WELCOME BAY

The comments and notations included on this summary sheet are outlined in the support documents. These shall be read in conjunction with this summary.

T.C.C R.C 12692

File Ref: 18188

Lot#	Area(m^2)	Subsurface Data						Foundations		Building line restriction?	Recommendations/restrictions
		Shear Strength kPa	Subdivision Filling		Natural topography unworked	Natural topography earthworked		Conventional shallow Foundations to NZS 3604:1999	Specific Design		
			Y/N	Depth (m)	Y/N	Y/N	Depth(m)	Y/N/NA	Y/N/NA	Y/N	
1	767	82	N		N	Y	0-0.5	Y	N	N	
2	785	NR	N		N	Y	0-0.5	Y	N	N	
3	865	82	N		N	Y	0-0.5	Y	N	N	
4	730	NR	N		N	Y	0-0.5	Y	N	N	
5	706	NR	N		N	Y	0-1.5	Y	N	N	
6	520	190	N		N	Y	1.0-2.5	Y*	N	Y	Clearances behind retaining wall
7	597	NR	N		N	Y	0.5-2.0	Y	N	Y	Clearances behind retaining wall
8	688	200+	N		N	Y	0-2.0	Y	N	N	
9	621	150	Y	0-1.0	Y	N		Y	N	N	
10	766	NR	N		N	Y	1.0	Y	N	Y	Clearances behind retaining wall
11	819	152	N		N	Y	0-1.0	Y	N	N	
12	778	NR	N		N	Y	1.0	Y	N	N	Easement Present
13	879	174	N		N	Y	1.0-3.0	Y*	N	Y	refer DP 389977
14	707	85	N		N	Y	1.0-3.0	Y*	N	Y	Clearances behind retaining wall and Easement
15	699	174	N		N	Y	0.5-3.0	Y	N	N	
16	601	NR	N		N	Y	1.0-3.0	Y	N	N	
17	683	182	N		N	Y	2.0-3.0	Y*	N	Y	Clearances behind retaining wall and Easement
18	632	127	N		N	Y	2.0-3.0	Y*	N	N	
19	540	NR	N		N	Y	2.0-3.0	Y	N	N	
20	551	NR	N		N	Y	0-2.0	Y	N	Y	Clearances behind retaining wall and Easement
21	569	150	Y	0-0.5	N	Y	0-1.0	Y	N	Y *	Clearances behind retaining wall and Easement
22	530	174	Y	0-0.5	N	Y	0-3.0	Y	N	N	
23	540	NR	Y	0-0.5	N	Y	0-1.0	Y	N	N	
24	526	193	Y	0-0.5	N	Y	0-3.0	Y	N	Y	Clearances behind retaining wall and Easement
25	547	133	N		N	Y	1.0-3.0	Y	N	Y	Clearances behind retaining wall and Easement

Comments

Refer to S & L Consultants Ltd report reference 18188 dated 9 July 2007

Lots shown on DP 389977 * - Reduced bearing capacity See Section 6.2

NR - Undrained shear strengths not recorded

NORTHRIDGE SUBDIVISION STAGE 4
FALCON DRIVE, WELCOME BAY

The comments and notations included on this summary sheet are outlined in the support documents. These shall be read in conjunction with this summary.

T.C.C R.C 12692

File Ref: 18188

Lot#	Area(m²)	Subsurface Data						Foundations		Building line restriction?	Recommendations/restrictions
		Shear Strength kPa	Subdivision Filling		Natural topography unworked	Natural topography earthworked		Conventional shallow Foundations to NZS 3604:1999	Specific Design		
			Y/N	Depth (m)	Y/N	Y/N	Depth(m)	Y/N/NA	Y/N/NA	Y/N	
26	551	101	N		N	Y	0-2.0	Y	N	N	
27	666	200+	N		N	Y	1.0-2.0	Y	N	N	
28	545	NR	N		N	Y	0-1.0	Y	N	N	Easement present
29	480	200+	N		N	Y	0-2.0	Y	N	N	Easement present
30	500	NR	N		N	Y	2.0-3.0	Y	N	N	
31	561	200+	N		N	Y	1.0-3.0	Y*	N	Y	Clearance behind retaining wall and easement
32	537	NR	N		N	Y	1.0-3.0	Y	N	Y	Clearance behind retaining wall and easement
33	541	200+	Y	0-1.0	N	Y	0-2.0	Y	N	Y	Clearance behind retaining wall and easement
34	520	150	Y	0-2.0	Y	N		Y	N	Y	Clearance behind retaining wall and easement
35	520	150	Y	0-1.5	N	Y	0-2.5	Y	N	Y	Clearance behind retaining wall and easement
36	701	57**	N		N	Y	1.0-4.0	Y*	N	Y	Clearance behind retaining wall and DP 389977
37	998	158	N		N	Y	2.0-5.5	Y	N	Y	refer DP 389977
38	898	200+	N		N	Y	4.0-6.5	Y	N	Y	refer DP 389977
39	924	127	N		N	Y	1.0-6.5	Y	N	Y	refer DP 389977
40	871	200+	N		N	Y	0.5-3.5	Y	N	N	
41	560	NR	N		N	Y	0-1.0	Y	N	N	
42	567	196	N		N	Y	0.5-3.0	Y	N	N	
43	567	NR	N		N	Y	0.5-3.0	Y	N	N	
44	641	200+	N		N	Y	0-2.5	Y	N	N	
45	511	150	Y	0-1.5	N	Y	0-0.5	Y	N	N	
46	500	150	Y	0-0.5	N	Y	0-0.5	Y	N	N	
47	511	200+	N		N	Y	0.5	Y	N	N	
48	540	NR	Y	0-0.5	N	Y	0-0.5	Y	N	N	
49	752	NR	Y	0-0.5	N	Y	0-0.5	Y	N	N	
50	861	171	Y	0-1.0	N	Y	0-0.4	Y	N	N	Easement present

Comments

Refer to S & L Consultants Ltd report reference 18188 dated 9 July 2007 Lots shown on DP 389977

NR - Undrained Shear Strengths not recorded. * - Reduced bearing capacity See Section 6.2

** Recorded in compact pumiceous sand

NORTHRIDGE SUBDIVISION STAGE 4
FALCON DRIVE, WELCOME BAY

The comments and notations included on this summary sheet are outlined in the support documents. These shall be read in conjunction with this summary.

T.C.C R.C 12692

File Ref: 18188

Lot#	Area(m^2)	Subsurface Data						Foundations		Building line restriction?	Recommendations/restrictions
		Shear Strength kPa	Subdivision Filling		Natural topography unworked	Natural topography earthworked		Conventional shallow Foundations to NZS 3604:1999	Specific Design		
			Y/N	Depth (m)	Y/N	Y/N	Depth(m)	Y/N/NA	Y/N/NA	Y/N	
51	661	NR	N		N	Y	0-0.5	Y	N	N	
52	737	171	N		N	Y	0-0.5	Y	N	N	
53	580	150	Y	0-1.0	N	Y	0-0.5	Y	N	N	
54	740	150	Y	0-1.0	N	Y	0-0.5	Y	N	N	
55	748	161	N		N	Y	0-1.0	Y	N	N	
56	878	NR	N		N	Y	0-3.0	Y	N	N	
57	700	130	N		N	Y	0.5-3.5	Y*	N	N	
58	740	NR	N		N	Y	0.5-2.5	Y	N	N	
59	798	200+	Y	0-0.5	N	Y	0-2.0	Y	N	N	
60	752	150	Y	0-1.5	N	Y	0-0.5	Y	N	Y	Clearance behind retaining wall and easements
61	751	150	Y	0-1.5	N	Y	0-1.0	Y	N	Y	Clearance behind retaining wall and easements
62	830	155	Y	0-2.0	N	Y	0-1.0	Y	N	Y	Clearance behind retaining wall and easements
63	930	150	Y	0-2.0	N	Y	0-0.5	Y	N	Y	Clearance behind retaining wall and easements
64	757	150	Y	1.0-3.0	Y			Y	N	Y	Clearance behind retaining wall and easements
65	643	150	Y	0-3.0	Y			Y	N	Y	Clearance behind retaining wall and easements
66	630	150	Y	0-2.0	N	Y	0-1.0	Y	N	Y	Clearance behind retaining wall and easements
67	656	150	Y	0-2.0	N	Y	0-1.5	Y	N	Y	Clearance behind retaining wall and easements
68	689	150	Y	0-1.5	N	Y	0-2.0	Y	N	Y	Clearance behind retaining wall and easements
69	679	150	Y	0-1.0	N	Y	0-1.5	Y	N	Y	Clearance behind retaining wall and easements
70	670	150	Y	0-1.0	N	Y	0-1.0	Y	N	Y	refer DP 389977 and easements
71	793	150	Y	0-1.0	N	Y	0-1.0	Y	N	Y	refer DP 389977 and easements
72	768	150	Y	0-2.0	Y			Y	N	N	
73	631	150	Y	1.0-3.0	Y			Y	N	Y	refer DP 389977 and easements
74	554	150	Y	1.0-3.0	Y			Y	N	Y	refer DP 389977 and easements
75	717	150	Y	0-2.0	N	Y	0-1.0	Y	N	Y	refer DP 389977

Comments

Refer to S & L Consultants Ltd report reference 18188 dated 9 July 2007

Lots shown on DP 389977 * - Reduced bearing capacity See Section 6.2

NR - Undrained Shear Strengths not recorded.

NORTHRIDGE SUBDIVISION STAGE 4
FALCON DRIVE, WELCOME BAY

The comments and notations included on this summary sheet are outlined in the support documents. These shall be read in conjunction with this summary.

T.C.C R.C 12692

File Ref: 18188

Lot#	Area(m^2)	Subsurface Data						Foundations		Building line restriction?	Recommendations/restrictions
		Shear Strength kPa	Subdivision Filling		Natural topography unworked	Natural topography earthworked		Conventional shallow Foundations to NZS 3604:1999	Specific Design		
			Y/N	Depth (m)	Y/N	Y/N	Depth(m)	Y/N/NA	Y/N/NA	Y/N	
76	699	150	Y	0-2.0	N	Y	0-1.0	Y	N	Y	refer DP 389977
77	679	150	Y	0-1.0	N	Y	0-1.0	Y	N	Y	refer DP 389977
78	775	150	Y	0-1.0	N	Y	0-0.5	Y	N	Y	refer DP 389977
79	599	150	Y	0-1.0	Y			Y	N	Y	refer DP 389977
80	631	150	Y	0-1.0	Y			Y	N	Y	refer DP 389977
81	652	150	Y	0-1.0	Y			Y	N	Y	refer DP 389977
82	673	150	Y	0-1.0	Y			Y	N	Y	refer DP 389977
83	598	150	Y	0-0.5	N	Y	0-1.0	Y	N	Y	refer DP 389977
84	598	139	Y	0-0.5	N	Y	0-2.0	Y	N	Y	refer DP 389977
85	791	150	Y	0-1.0	N	Y	0-2.0	Y	N	Y	refer DP 389977
86	15813	98	N		N	Y	1.0-2.0	Y	N	Y	Clearance behind retaining wall

Comments
Refer to S & L Consultants Ltd report reference 18188 dated 9 July 2007
Lots shown on DP 389977

APPENDIX 3

Compaction Test Results

NORTHRIDGE SUBDIVISION STAGE 4

Summary of Compaction Test Results (Undertaken by Opus)

Test No.	Date	Location	% Air Voids	Undrained Shear Strength kPa
1	05.12.06	Lot 63	5.0	168+
2	05.12.06	Lot 64	6.3	179+
3	05.12.06	Lot 66	3.7	176+
4	05.12.06	Lot 71	4.6	176+
5	14.12.06	Road	2.9	137
6	14.12.06	Road	4.4	165+
7	14.12.06	Lot 63	1.9	161+
8	14.12.06	Lot 64	4.1	160
9	14.12.06	Lot 62	3.2	151
10	18.12.06	Road	4.8	156
11	18.12.06	Road	6.9	164
12	18.12.06	Pond Embankment	6.9	154
13	18.12.06	Pond Embankment	2.1	178+
14	08.01.07	Road	2.3	188+
15	08.01.07	Road	5.0	165+
16	08.01.07	Pond Embankment	3.4	188+
17	08.01.07	Pond Embankment	0.8	185+
18	23.01.07	Pond Embankment	6.7	133
19	30.01.07	Road	5.1	165+
20	30.01.07	Pond Embankment	9.4	182+
21	30.01.07	Pond Embankment	5.0	165
22	10.02.07	Pond Embankment	1.0	182+
23	10.02.07	Pond Embankment	0.1	182+
24	10.02.07	Lot 66	1.1	182+
25	10.02.07	Lot 65	0.5	182+
26	10.02.07	Lot 64	0	182+
27	10.02.07	Lot 63	0	182+
28	10.02.07	Lot 61	3.8	182+
29	10.02.07	Adj. Lot 50	4.5	182+
30	10.02.07	Adj. Lot 50	1.3	182+
31	01.03.07	Adj. Lot 50	6.7	182+
32	01.03.07	Adj. Lot 50	7.7	176
33	01.03.07	Adj. Lot 50	7.6	165
34	01.03.07	Adj. Lot 50	6.9	173
35	31.05.07	Lot 73	12	165
36	31.05.07	Lot 72	11.6	167
37	13.06.07	Lot 82	5.4	197+
38	13.06.07	Lot 80	9.8	UTP
39	13.06.07	Lot 78	17.3	174

40	19.06.07	Lot 77	13.8	UTP
41	19.06.07	Lot 76	2.8	202+
42	19.06.07	Lot 76	10.4	194+
43	19.06.07	Lot 75	8.9	UTP
44	19.06.07	Lot 75	8.8	170
45	13.06.07	Lot 74	3.6	202+
46	13.06.07	Lot 74	3.4	202+
47	13.06.07	Lot 73	6.1	197+
48	13.06.07	Lot 73	0	151
49	19.06.07	Lot 69	3.1	UTP
50	19.06.07	Lot 67	2.9	172+
51	19.06.07	Lot 21	3.8	UTP
52	19.06.07	Lot 34	4.2	180+
53	19.06.07	Lot 45	6.7	161
54	19.06.07	Lot 53	9.1	UTP

APPENDIX 4

Post construction borehole logs

Pre construction borehole logs

S&L CONSULTANTS LTD - SURVEYORS - ENGINEERS - PLANNERS

S&L SHRIMPTON & LIPINSKI

ENGINEERING LOG TERMINOLOGY

DRILLING OR EXCAVATION

FLUID LOSS

NO LOSS

PARTIAL LOSS

COMPLETE LOSS

WATER

WATER LEVEL ON DATE SHOWN

WATER INFLOW

WATER OUTFLOW

CORE RECOVERY

Core recovered expressed as percentage of the length of the core run.

METHOD/CASING

Shows drilling method and depth of casing.

PENETRATION

SAMPLES AND TESTS

SAMPLE TYPE

- OPEN BARREL
- DOUBLE OR TRIPLE TUBE
- STANDARD PENETRATION TEST
- LARGE DIAMETER THIN WALLED TUBE
- SMALL DIAMETER THIN WALLED TUBE
- BULK SAMPLE

Length of sample indicated by length of symbol.

TESTS

N = 22 SPT, UNCORRECTED BLOW COUNT FOR 300MM

●75kPa UNDRAINED SHEAR STRENGTH AS MEASURED BY FIELD VANE

☒ PRESSUREMETER TEST

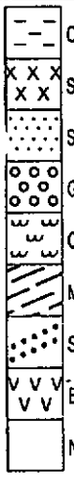
✳ LABORATORY TEST(S) CARRIED OUT — UNSPECIFIED OR SPECIFIED AS BELOW

LV - LABORATORY VANE	AL - ATTERBERG LIMITS
UU - UNDRAINED TRIAXIAL	PSD - PARTICLE SIZE
C'Ø' - EFFECTIVE STRESS	CONS - CONSOLIDATION
DS - DIRECT SHEAR	COMP - COMPACTION
UC - UNCONFINED COMPRESSION	IS - POINT LOAD

GRAPHIC LOG

The Graphic Log shows soil and rock substances, significant defects, and core loss. Soil and rock substances represented by clear contrasting symbols consistent for each project.

TYPICAL SYMBOLS



SOIL DESCRIPTION

CLASSIFICATION SYMBOL

Based on USBR Unified Soil Classification System Visual Method for field identification. Classification symbols based on Laboratory Method may differ.

MOISTURE CONTENT

D - DRY, LOOKS AND FEEL DRY

M - MOIST, NO FREE WATER ON HAND WHEN REMOULDING

W - WET, FREE WATER ON HAND WHEN REMOULDING

Moisture content may be compared to the plastic limit (PL) eg M > PL = moist, moisture content greater than the plastic limit

UNDRAINED SHEAR STRENGTH

	Cu (kPa)
VS - VERY SOFT	< 10
S - SOFT	10 to 25
F - FIRM	25 to 50
St - STIFF	50 to 100
VSt - VERY STIFF	100 to 200
H - HARD	> 200
Fb - FRIABLE	

RELATIVE DENSITY

	SPT-UNCORRECTED N VALUE
VL - VERY LOOSE	0 to 4
L - LOOSE	4 to 10
MD - MEDIUM DENSE	10 to 30
D - DENSE	30 to 50
VD - VERY DENSE	> 50

ROCK DESCRIPTION

WEATHERING

Fr - FRESH

SW - SLIGHTLY WEATHERED

HW - HIGHLY WEATHERED

EW - EXTREMELY WEATHERED

ROCK STRENGTH

	UCS (MPa)
EXTREMELY LOW	< 2
VERY LOW	2 to 6
LOW	6 to 20
MODERATE	20 to 60
HIGH	60 to 200
VERY HIGH	> 200

SIGNIFICANT DEFECTS

SIGNIFICANT DEFECTS SHOWN GRAPHICALLY

JOINT

SHEARED ZONE

CRUSHED SEAM

INFILL SEAM

EXTREMELY WEATHERED SEAM

LOTS 1 & 3

Sheet: 1 Of: 1

Site: Northridge Stage 4

Job No. 18188 | Date Excavated: 18/06/07 | RL m Moturiki Datum | Logged By: N.I.

Description of Soil		Soil Symbol	Depth (m)	SPT	Groundwater	Undrained Shear Strength (kPa)	Undrained Shear Strength (kPa) 50 100 150
LOT 1							
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)							
SILT; moist; stiff; friable; brown; light grey and dark brown mottles (FILL)	FILL						
SILT; moist; stiff; friable; brown;	Natural		0.5		Not Found	82	
moist; stiff; clayey; moderately plastic			1.0			158	
						139	
End of borehole 1.0m			1.5				
LOT 3							
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)							
SILT; moist; stiff; friable; brown;			0.5		Not Found	82	
moist; stiff; clayey; moderately plastic			1.0			120	
						117	
End of borehole 1.0m			1.5				

EXCAVATION METHOD: 50mm Diameter Hand Auger

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LOTS 6 & 8

Site: Northridge Stage 4

Sheet: 1 Of: 1

Job No. 18188 | Date Excavated: 18/06/07 | RL m Moturiki Datum | Logged By: N.I

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater	Undrained Shear Strength (kPa)
LOT 6					
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)					
SAND; moist; medium grained; mod. dense; light brown					
SILT; moist; stiff; low plasticity; light brown; pumiceous					190
SAND; moist; fine to medium grained; moderately dense; light brownish grey (Rotoehu Ash)		0.5			190
SILT; slightly sandy; moist; stiff; low plasticity; light grey					
SILT; clayey; moist; very stiff; high plasticity; brown (chocolate)		1.0		Not Found	200+
End of borehole 1.0m		1.5			
LOT 8					
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)					
SILT; slightly sandy; moist; stiff; friable; brown moist; clayey; very stiff; moderately plastic		0.5			200+
					200+
End of borehole 1.0m		1.0		Not Found	200+
		1.5			

Undrained Shear Strength (kPa): 50 100 150

EXCAVATION METHOD: 50mm Diameter Hand Auger

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LOTS 11 & 14

Site: Northridge Stage 4

Sheet: 1 Of: 1

Job No. 18188 | Date Excavated: 18/06/07 | RL m Moturiki Datum | Logged By: N.I

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater	Undrained Shear Strength (kPa)
LOT 11					
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)					
SILT; clayey; moist; stiff; high plasticity; brown		0.5		Not Found	152
orangey brown		1.0			120
End of borehole 1.0m		1.5			89
LOT 14					
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)					
SILT; clayey; moist; stiff; moderately plastic; light brown		0.5		Not Found	85
slightly sandy; moist; stiff; low plasticity		1.0			57
end of slightly sandy		1.5			63
End of borehole 1.0m					

Undrained Shear Strength (kPa)

50 100 150

EXCAVATION METHOD: 50mm Diameter Hand Auger

S&L
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Site: Northridge Stage 4			LOTS 15 & 17 Sheet: 1 Of: 1
Job No. 18188	Date Excavated: 21/06/07	RL m Moturiki Datum	Logged By: N.I

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater	Undrained Shear Strength (kPa)	Undrained Shear Strength (kPa) 50 100 150
LOT 15						
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)						
SILT; clayey; moist; very stiff; moderately plastic; brown		0.5		Not Found	174	
orangey brown stiff		1.0			146 79	
End of borehole 1.0m		1.5				
LOT 17						
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)						
SAND; silty; moist; medium to coarse grained; light brown		0.5		Not Found	182	
SILT; clayey; moist; stiff; low plasticity; light brown sandy end of sandy					101	
SAND; moist; fine to medium grained; moderately dense; light brownish grey		1.0				
End of borehole 1.0m		1.5				

EXCAVATION METHOD: 50mm Diameter Hand Auger

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LOTS 18&22

Site: Northridge Stage 4

Sheet: 1 Of: 1

Job No. 18188 | Date Excavated: 21/06/07 | RL m Moturiki Datum | Logged By: N.I

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater	Undrained Shear Strength (kPa)	Undrained Shear Strength (kPa) 50 100 150
LOT 18						
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)						
SILT; slightly sandy; clayey; moist; stiff; moderately plastic; light brown		0.5		Not Found	127	
		1.0			73	
End of borehole 1.0m		1.5			114	
LOT 22						
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)						
SILT; clayey; moist; very stiff; moderately plastic; brown		0.5		Not Found	174	
		1.0			127	
End of borehole 1.0m		1.5			142	

EXCAVATION METHOD: 50mm Diameter Hand Auger

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LOTS 13&24

Sheet: 1 Of: 1

Site: Northridge Stage 4

Job No. 18188 | Date Excavated: 21/06/07 | RL m Moturiki Datum | Logged By: N.I

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater	Undrained Shear Strength (kPa)	Undrained Shear Strength (kPa) 50 100 150
LOT 13						
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)						
SILT; moist; stiff; low plasticity; light brown sandy		0.5		Not Found	174	
SAND; silty; moist; fine to medium grained moderately dense; light brownish grey						
SILT; slightly sandy; moist; stiff; low plasticity; light brown						
SILT; clayey; moist; stiff; highly plastic; brown (chocolate)		1.0			184	
End of borehole 1.0m		1.5				
LOT 24						
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)						
SILT; clayey; moist; very stiff; moderately plastic; brown		0.5		Not Found	193	
stiff		1.0			165	
End of borehole 1.0m		1.5			92	

EXCAVATION METHOD: 50mm Diameter Hand Auger

S&L
SHRIMPTON & LIPINSKI

LOTS 25&26

Sheet: 1 Of: 1

Site: Northridge Stage 4

Job No. 18188 | Date Excavated: 21/06/07 | RL m Moturiki Datum | Logged By: N.I

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater	Undrained Shear Strength (kPa)	Undrained Shear Strength (kPa) 50 100 150
LOT 25						
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)						
SILT; clayey; slightly sandy; moist; stiff; low plasticity; orangey brown		0.5		Not Found	133	
end of slightly sandy; moderately plastic; light brown		1.0			66	
End of borehole 1.0m		1.5			54	
LOT 26						
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)						
SILT; clayey; moist; stiff; moderately plastic; orangey brown		0.5		Not Found	101	
slightly sandy		1.0			70	
End of borehole 1.0m		1.5			57	

EXCAVATION METHOD: 50mm Diameter Hand Auger

S&L
SHRIMPTON & LIPINSKI

LOTS 27&29

Sheet: 1 Of: 1

Site: Northridge Stage 4

Job No. 18188 | Date Excavated: 21/06/07 | RL m Moturiki Datum | Logged By: N.I

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater	Undrained Shear Strength (kPa)	Undrained Shear Strength (kPa) 50 100 150
LOT 27						
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)						
SILT; clayey; moist; very stiff; moderately plastic; brown		0.5		Not Found	200+	>
		1.0			200+	>
End of borehole 1.0m		1.5			136	
LOT 29						
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)						
SILT; clayey; moist; very stiff; moderately plastic; brown		0.5		Not Found	200+	>
		1.0			165	
End of borehole 1.0m		1.5			101	

EXCAVATION METHOD: 50mm Diameter Hand Auger

S&L
SIEKIMPTON & LIPINSKI

LOTS 31&33

Sheet: 1 Of: 1

Site: Northridge Stage 4

Job No. 18188 | Date Excavated: 19/06/07 | RL m Moturiki Datum | Logged By: N.I

Description of Soil		Soil Symbol	Depth (m)	SPT	Groundwater	Undrained Shear Strength (kPa)	Undrained Shear Strength (kPa) 50 100 150
LOT 31							
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)	FILL				Not Found		
SILT; sandy; moist; stiff; friable; light greyish brown FILL			0.5			200+	>
SAND; silty; moist; fine to medium grained; moderately dense; light brownish grey	Natural						
SILT; moist; stiff; low plasticity; sensitive; light pale brown						101	
SAND; moist; fine to medium grained; pumiceous moderately dense; light brownish grey			1.0				
End of borehole 1.0m			1.5				
LOT 33							
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)					Not Found		
SILT; clayey; slightly sandy; moist; very stiff; moderately plastic; brown; light brown mottles FILL	FILL					200+	>
SILT; clayey; slightly sandy; moist; stiff; moderately plastic; light brown sandy	Natural		0.5			133	
			1.0			66	
End of borehole 1.0m			1.5				

EXCAVATION METHOD: 50mm Diameter Hand Auger

S&L SOERGEL & LIPINSKI

LOTS 36&37

Sheet: 1 Of: 1

Site: Northridge Stage 4

Job No. 18188 | Date Excavated: 19/06/07 | RL m Moturiki Datum | Logged By: N.I

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater	Undrained Shear Strength (kPa)	Undrained Shear Strength (kPa) 50 100 150
LOT 36						
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)						
SILT; moist; stiff; low plasticity; light pale brown						
SAND; silty; moist; fine to medium grained; moderately dense; light brownish grey		0.5				
SILT; clayey; moist; stiff; moderately plastic; brown					57	
moist; very stiff; high plasticity (chocolate)		1.0		Not Found	117	
End of borehole 1.0m		1.5				
LOT 37						
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)						
SILT; clayey; moist; very stiff; high plasticity; brown (chocolate)		0.5			158	
stiff		1.0		Not Found	73	
End of borehole 1.0m		1.5			54	

EXCAVATION METHOD: 50mm Diameter Hand Auger

S&L SHRIMPTON & LIPINSKI

LOTS	38&39
Sheet: 1	Of: 1

Site: Northridge Stage 4

Job No. 18188	Date Excavated: 19/06/07	RL m Moturiki Datum	Logged By: N.I

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater	Undrained Shear Strength (kPa)	Undrained Shear Strength (kPa) 50 100 150
LOT 38						
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)				Not Found		
SILT; moist; very stiff; friable; light brownish grey purple mottles; very weathered ignumbrite					200+	>
		0.5				
					200+	>
		1.0			200+	>
End of borehole 1.0m						
		1.5				
LOT 39						
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)				Not Found		
SILT; clayey; moist; very stiff; moderately plastic; brown					127	•
		0.5				
					199	•
		1.0			200+	>
End of borehole 1.0m						
		1.5				

EXCAVATION METHOD: 50mm Diameter Hand Auger

	LOTS 40&42
Site: Northridge Stage 4	Sheet: 1 Of: 1

Job No. 18188	Date Excavated: 19/06/07	RL m Moturiki Datum	Logged By: N.I

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater	Undrained Shear Strength (kPa)
LOT 40					
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)				Not Found	
SILT; clayey; moist; very stiff; moderately plastic; brown					200+
slightly sandy		0.5			
orangey brown; firm					127
		1.0			44
End of borehole 1.0m					
		1.5			
LOT 42					
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)				Not Found	
SILT; moist; very stiff; friable; brown clayey; moist; very stiff; moderately plastic; orangey brown					196
sandy		0.5			117
		1.0			111
End of borehole 1.0m					
		1.5			

Undrained Shear Strength (kPa): 50 100 150

EXCAVATION METHOD: 50mm Diameter Hand Auger

S&L
SHRIMPTON & LIPINSKI

LOTS 44&47

Sheet: 1 Of: 1

Site: Northridge Stage 4

Job No. 18188	Date Excavated: 19/06/07	RL m Moturiki Datum	Logged By: N.I

Description of Soil		Soil Symbol	Depth (m)	SPT	Groundwater	Undrained Shear Strength (kPa)	Undrained Shear Strength (kPa) 50 100 150
LOT 44							
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)							
SILT; clayey; moist; very stiff; moderately plastic; brown light grey and dark brown mottles; FILL	FILL					200+	>
SILT; clayey; moist; very stiff; moderately plastic; orangey brown	Natural		0.5		Not Found	152	
			1.0			76	
End of borehole 1.0m			1.5				
LOT 47							
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)							
SILT; moist;very stiff; friable; brown clayey; moist; very stiff; moderately plastic			0.5		Not Found	200+	>
						142	
			1.0			200+	>
End of borehole 1.0m			1.5				

EXCAVATION METHOD: 50mm Diameter Hand Auger

S&L
SUMPTON & LIPINSKI

LOTS 50&52

Sheet: 1 Of: 1

Site: Northridge Stage 4

Job No. 18188 | Date Excavated: 19/06/07 | RL m Moturiki Datum | Logged By: N.I

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater	Undrained Shear Strength (kPa)	Undrained Shear Strength (kPa) 50 100 150
LOT 50						
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)						
SILT; moist; very stiff; friable; brown		0.5		Not Found	171	
clayey; moist; very stiff; moderately plastic		1.0			142 155	
End of borehole 1.0m		1.5				
LOT 52						
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)						
SILT; clayey; moist; very stiff; moderately plastic; brown		0.5		Not Found	171	
orangey brown		1.0			104 89	
End of borehole 1.0m		1.5				

EXCAVATION METHOD: 50mm Diameter Hand Auger

			LOTS 55&57
Site: Northridge Stage 4			Sheet: 1 Of: 1
Job No. 18188	Date Excavated: 18/06/07	RL m Moturiki Datum	Logged By: N.I

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater	Undrained Shear Strength (kPa)	Undrained Shear Strength (kPa) 50 100 150
LOT 55						
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)						
SILT; clayey; moist; very stiff; moderately plastic; brown		0.5		Not Found	161	
orangey brown		1.0			133 117	
End of borehole 1.0m		1.5				
LOT 57						
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)						
SILT; sandy; moist; very stiff; friable; light brown					130	
end of sandy						
SAND; moist; fine to medium grained; moderately dense; light brown		0.5				
SILT; moist; stiff; low plasticity; sensitive; pumiceous light brown					92	
SAND; moist; fine to medium grained; moderately dense; light brownish grey		1.0				
End of borehole 1.0m		1.5				

EXCAVATION METHOD: 50mm Diameter Hand Auger

S&L SHRIMPTON & LEPINSKI			LOTS 59&62
Site: Northridge Stage 4			Sheet: 1 Of: 1
Job No. 18188	Date Excavated: 18/06/07	RL m Moturiki Datum	Logged By: N.I

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater	Undrained Shear Strength (kPa)
LOT 59					
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)					
SILT; clayey; moist; very stiff; moderately plastic; brown		0.5		Not Found	200+
		1.0			193
End of borehole 1.0m		1.5			168
LOT 62					
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)					
SILT; clayey; moist; very stiff; moderately plastic; brown		0.5		Not Found	155
		1.0			130
End of borehole 1.0m		1.5			108

Undrained Shear Strength (kPa)

50 100 150

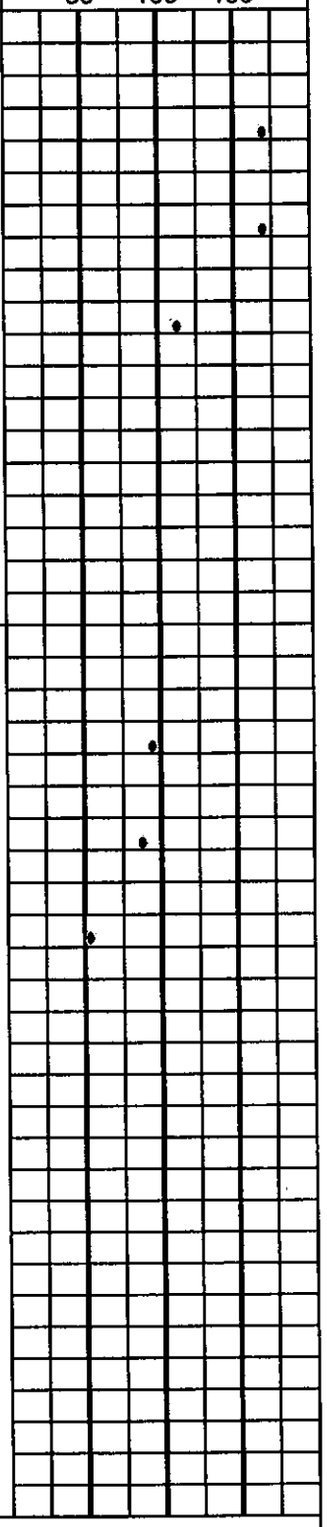
EXCAVATION METHOD: 50mm Diameter Hand Auger

			LOTS 69&86
Site: Northridge Stage 4			Sheet: 1 Of: 1
Job No. 18188	Date Excavated: 21/06/07	RL m Moturiki Datum	Logged By: N.I

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater	Undrained Shear Strength (kPa)
LOT 69					
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)					
SILT; clayey; moist; very stiff; moderately plastic; brown		0.5		Not Found	174
		1.0			171
End of borehole 1.0m		1.5			114
LOT 86					
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)					
SILT; clayey; moist; stiff; moderately plastic; brown		0.5		Not Found	98
slightly sandy end of slightly sandy; light brown		1.0			89
sandy; light pale brown		1.5			54
End of borehole 1.0m					

Undrained Shear Strength (kPa)

50 100 150



EXCAVATION METHOD: 50mm Diameter Hand Auger

LOTS 84

Sheet: 1 Of: 1

Site: Northridge Stage 4

Job No. 18188	Date Excavated: 21/06/07	RL m Moturiki Datum	Logged By: N.I

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater	Undrained Shear Strength (kPa)
LOT 84					
ORGANIC SILT; moist; firm; friable; dark brown (TOPSOIL)					
SILT; clayey; moist; very stiff; moderately plastic; brown		0.5		Not Found	139
orangey brown		1.0			95
End of borehole 1.0m		1.5			73
LOT					
		0.5			
		1.0			
		1.5			

Undrained Shear Strength (kPa)

50 100 150

EXCAVATION METHOD: 50mm Diameter Hand Auger

Borehole 1

Sheet: 1 Of: 1

Site: Proposed Subdivision for Fairway Holdings at Waitaha Road, Tauranga

Job No. 18188	Date Excavated:TH. 4 May 06	RL 42.0 m (Approx) Moturiki	Logged By: MH

Description of Soil		Soil Symbol	Depth (m)	Groundwater Level	Undrained Shear Strength (kPa) 50 100 150
Peaty Topsoil: Soft gwl	Alluvial Sediments		0.5	▽	
SILT: Highly (20% to 30%) organic, black, soft Organic content is amorhous with strong peaty smell			1.0		
SILT: Grey, hard, crumbly (Weathered Ignimbrite)			1.6		
EOB @1.8 m: Too Dense To Auger			1.8		
			2.0		

EXCAVATION METHOD: 50 mm Diameter Hand Auger

Borehole 2

Sheet: 1 Of: 2

Site: Proposed Subdivision for Fairway Holdings at Waitaha Road, Tauranga

Job No. 18188 | Date Excavated: Tu. 4/4/06 | RL 71.0m (Approx) Moturiki | Logged By: MH

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater Level	Corrected Shear Strengths Geotechnics Shear vane Dial 359
Topsoil					
SILT: Clayey, slightly friable, brown yellow, stiff slightly moist	Younger Ashes	1.0			109/27
Coarse, friable, bright orange, stiff moist, sensitive (Hauparu Tephra)		1.6			
sandy, cream, stiff, moist sensitive		2.0			98/33
		3.0			76/23
		3.6			
SILT: Clayey, cohesive, orange, very stiff, moist	Older Ashes	4.0			
		4.55	2		
SPT: Clayey, cohesive, dark orange SILT, very stiff		5.00	2 3	N=5	
as per SPT					
manganese patches		6.00			
SPT: Pale yellow SILT, crumbly, hard, glassy texture dry (Weathered Ignimbrite)	Ignimbrite		6 10	N=20	
as per SPT		6.45	10		
		7.0			
		7.50	6		
SPT: Coarse, pale yellow SILT, crumbly, hard glassy texture, dry		8.00	12 12/120	N >20	
as per SPT					
		9.0			

Undrained Shear Strength (kPa)

50 100 150

Notes
1) 12/120 = 12 SPT blows for 120mm

EXCAVATION METHOD: Machine Rotary and Hollow Split SPT

Borehole 2

Sheet: 1 Of: 2

Site: Proposed Subdivision for Fairway Holdings at Waitaha Road, Tauranga

Job No. 18188	Date Excavated:	RL	Logged By: MH

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater Level and SPT N Value	Undrained Shear Strength (kPa) 50 100 150
SPT: Orange mottle grey SILT, hard, crumbly, dry	V		4		
	V		5		
	V	9.45	6	N=11	
SAND: Silty, grey, hard	V				
	V	10			
	V				
	V				
	V	10.55	7		
SPT: Grey mottled pink and lemon yellow SILT hard, crumbly, dry	V		12		
	V	11.00	24	N= 36	
EOB @11.0 m: Target Depth					

EXCAVATION METHOD: Machine Rotary and Hollow Split SPT

Borehole 3

Sheet: 1 Of: 1

Site: Proposed Subdivision for Fairway Holdings at Waitaha Road, Tauranga

Job No. 18188 | Date Excavated: Tu. 4/4/06 | RL RL 78.0 m (Approx) Moturiki | Logged By: MH

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater Level and SPT N Value	Corrected Shear Strengths Geotechnics Shear vane Dial 359
Topsoil					
SILT: Clayey, slightly friable, brown yellow, stiff, moist	Younger Ashes	1.0			59/26
coarse, becoming sandy pale yellow		2.0			81/40
sandy, pale yellow,		3.0			67/27
PUMICE SAND: Sugary, grey, loose, wet (Rotoehu Ashes)					
CHOCOLATE LAYER: Cohesive CLAY, very stiff, moist		4.0			> 200
SILT: Clayey, cohesive, brown orange, very stiff, moist	Older Ashes	4.55	2	Borehole Dry	
SPT: Clayey, cohesive SILT,dark brown orange very stiff, moist		5.00	2 4 N=6		
as per SPT		6.00			
SPT: Clayey, dark brown orange SILT, hard, crumbly (Weathered Ignimbrite)		6.45	4 6 10 N=16		
EOB@ 6.45m: Target Depth					

Undrained Shear Strength (kPa)

50 100 150

EXCAVATION METHOD: Machine Rotary and Hollow Split SPT

Borehole 4

Sheet: 1 Of: 1

Site: Proposed Subdivision for Fairway Holdings at Waitaha Road, Tauranga

Job No. 18188 | Date Excavated: Tu. 4/4/06 | RL 76.0 m (Approx) Moturiki | Logged By: MH

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater Level and SPT N Values	Corrected Shear Strengths. Geotechnics Shear Vane Dial 359	Undrained Shear Strength (kPa) 50 100 150
Topsoil						
SILT: Clayey, slightly friable, brown orange, very stiff damp	Younger Ashes	1.0			192/67	
Gritty, friable, bright orange, stiff moist, sensitive (Hauparu Tephra)		2.0			108/23	
Some sand, pale brown		2.6				
Pumiceous, cream SILT, stiff moist, sensitive		3.0			116/30	
PUMICE SAND: Pale Grey, moist, loose (Rotoehu Sands)		4.0		Borehole Dry	79/30	
SILT: Clayey, cohesive, dark brown orange, very stiff (Older Ashes)						
SILT: Grey mottled pink, hard, crumbly, dry (Weathered Ignimbrite)	Ignimbrite	5.0			> 200	
		6.0				
SPT: Grey mottled pink and lemon yellow SILT crumbly, hard, dry		6.55	5 7 20/100	N > 20		
EOB@ 7.0m: Target Depth		7.00				

Notes
1) 20/100 = 20 SPT blows for 100mm

EXCAVATION METHOD: Machine Rotary and Hollow Split SPT

Borehole 5

Sheet: 1 Of: 1

Site: Proposed Subdivision for Fairway Holdings at Waitaha Road, Tauranga

Job No. 18188 | Date Excavated: Tu. 4/4/06 | RL 77.5 m (Approx) Moturiki | Logged By: MH

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater Level and SPT N Values	Corrected Shear Strengths. Geotechnics Shear Vane Dial 359
Topsoil					
SILT: Clayey, slightly friable, brown orange, very stiff damp	Younger Ashes	1.0			185/33
		2.0			91/20
sandy, friable, cream, sensitive		2.8			
		3.0			118/27
		4.0			226/47
PUMICE SAND: Grey, moist, loose (Rotoehu Ashes)		4.2			
SILT: Clayey, cohesive, dark brown orange, very stiff		5.0		Borehole Dry	158/64
SPT: Clayey, cohesive, orange SILT, very stiff, moist sticky	Older Ashes	6.00	5 8		
		6.45	10	N= 18	
as per SPT		7.0			
SPT: Pink mottled grey SILT, crumbly, hard, dry (Weathered Ignimbrite)	Ignimbrite	7.55	2 3		
		8.00	3	N= 6	
as per SPT		9.00			
SPT: Pink SILT with some grey mottles, hard, dry		9.35	8 12		
EOB @ 9.35 m: Target Depth			20/50	N > 20	

Undrained Shear Strength (kPa)

50 100 150

EXCAVATION METHOD: Machine Rotary and Hollow Split SPT

Borehole 6

Sheet: 1 Of: 1

Site: Proposed Subdivision for Fairway Holdings at Waitaha Road, Tauranga

Job No. 18188 | Date Excavated: Tu. 4/4/06 | RL 68.0 m (Approx) Moturiki | Logged By: MH

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater Level and SPT N Values	Corrected Shear Strengths. Geotechnics Shear Vane Dial 359
Topsoil					
SILT: Clayey, slightly friable, brown yellow, very stiff damp	Younger Ashes	1.0			138/40
Gritty, friable, bright orange, stiff moist, sensitive (Hauparu Tephra)		2.0			103/25
		2.6			
Sandy, cream, stiff, moist, sensitive		3.0			152/33
		3.9			211/84
PUMICE SAND: Sugary, grey, losse, damp (Rotoehu Ashes)					
SILT: Very clayey, cohesive, dark brown orange very stiff to hard, moist	Older Ashes	5.0			> 236
SILT: Friable, greyish brown, slight coarse texture hard, dry, crumbly	Weathered Ignimbrite	6.0			
		6.50	12/150		
SPT: Coarse, grey SILT mottled pale yellow orange crumbly, hard, dry		6.70	24/50	N > 20	
EOB @ 6.7m: Too Dense, SPT Bouncing					

Borehole Dry

Undrained Shear Strength (kPa)

50 100 150

Notes

1) 24/50 = 24 SPT blows for 50mm

EXCAVATION METHOD: Machine Rotary and Hollow Split SPT

Borehole 7

Sheet: 1 Of: 1

Site: Proposed Subdivision for Fairway Holdings at Waitaha Road, Tauranga

Job No. 18188 | Date Excavated: Tu. 4/4/06 | RL 52.0 m (Approx) Moturiki | Logged By: MH

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater Level and SPT N Values	Corrected Shear Strengths. Geotechnics Shear Vane Dial 359	Undrained Shear Strength (kPa) 50 100 150
Topsoil						
SILT: Clayey, slightly friable, brown orange, very stiff	Alluvials	1.0			192/67	
mixed grey						
gwl				▽		
very clayey, cohesive, dark brown orange, hard	Older Ashes	2.0			108/23	
		2.80				
SPT: Sandy, pale grey SILT mottled pale green crumbly, hard, dry: Grading rapidly to fresh competent Igimbrite rock		3.0	14/ 150 20/10	N> 20	UTP	
EOB @ 2.95m: SPT Refusal						

EXCAVATION METHOD: Machine Rotary and Hollow Split SPT

Borehole 8

Sheet: 1 Of: 1

Site: Proposed Subdivision for Fairway Holdings at Waitaha Road, Tauranga

Job No. 18188 | Date Excavated: Tu. 4/4/06 | RL 56 m (Approx) Moturiki | Logged By: MH

Description of Soil	Soil Symbol	Depth (m)	SPT	Groundwater Level and SPT N Values	Corrected Shear Strengths. Geotechnics Shear Vane Dial 359	Undrained Shear Strength (kPa) 50 100 150
Topsoil						
SILT: Clayey, slightly friable, brown yellow, very stiff damp	Younger Ashes	1.0			131/33	
Coarse, friable, bright orange, stiff moist, sensitive (Hauparu Tephra)		2.0			69/33	
becomes gritty		2.6				
Sandy, cream, stiff, moist sensitive		3.0			94/30	
PUMICE SAND: Grey, loose, damp (Rotoehu Ashes)						
SILT: Clayey, cohesive, dark brown orange, very stiff moist	Older Ashes	4.0				
SPT: Clayey, dark brown orange SILT, hard, damp		4.55				
as per SPT: Driller notes solid drilling		5.00				
		6.00				
SPT: Grey mottled orange SILT, crumbly, hard, dry	Ignimbrite	6.45	4 5 21	Borehole Dry N = 26		
As per SPT: Grading rapidly to fresh competent rock		7.0				
EOB @ 7.0 m: Too Dense to Drill						

EXCAVATION METHOD: Machine Rotary and Hollow Split SPT

Borehole 9

Sheet: 1 Of: 1

Site: Proposed Subdivision for Fairway Holdings at Waitaha Road, Tauranga

Job No. 18188 | Date Excavated: TH. 4 May 06 | RL 52 m (Approx) Moturiki | Logged By: MH

Description of Soil		Soil Symbol	Depth (m)	Groundwater Level	Undrained Shear Strength (kPa) 50 100 150
Peaty Topsoil: Soft	gwl	Alluvials	0.5	▽	
			1.0		
SILT: Non organic, grey, hard, crumbly (Weathered Ignimbrite)			1.4		
EOB @ 1.4 m: Too Dense To Auger					

EXCAVATION METHOD: 50 mm Diameter Handauger