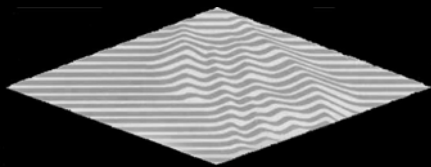


# VALUATION REPORT

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**SEAGAR &  
PARTNERS**

REGISTERED VALUERS . PROPERTY CONSULTANTS

**CHRISTCHURCH  
INTERNATIONAL AIRPORT  
DISCLOSURE LAND REPORT**

**30 JUNE 2013**

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## Executive Summary

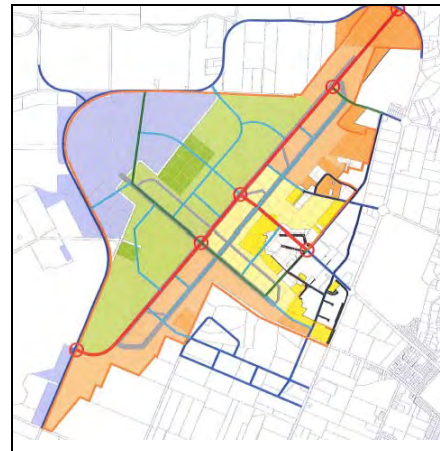
**Our Reference** CS: 09138444

**Property Address** Land Comprised within the Disclosure Land at Christchurch International Airport, Christchurch

**Effective Date of Valuation** 30 June 2013

**Report To** Christchurch International Airport Limited  
PO Box 14 001  
Christchurch

**Attention: Andrew Souness**



**Purpose of Valuation** Information disclosure having regard to the Commerce Commission Input Methodologies Determination applicable to Airport Services pursuant to Part IV of the Commerce Act 1986.

**Nature of the Land** The land in question comprises some 613 hectares in total and encompasses those areas of land necessary to accommodate activities for the provision of 'Airport Services'. Collectively, these areas of land are referred to as the 'Disclosure Land'. These areas include the airfield land, runways, taxiways and aprons together with adjoining land supporting airport related services.

**Market Value Alternative Use** **\$142,000,000 (One Hundred and Forty Two Million Dollars)**  
This valuation is plus GST (if any) and is to be read in conjunction with the report attached.

**Valuer**



**C N Seagar, FNZIV FPINZ**  
**Registered Valuer**  
**Director**



CS: 09138444  
30 September 2013

Christchurch International Airport Limited  
PO Box 14 001  
**Christchurch**

**Attention: Mr Andrew Souness**

Dear Sir

## **Valuation of Land Comprised within the Disclosure Land Schedule at Christchurch International Airport, Christchurch**

### **1.0 Instructions**

In accordance with your instructions we have undertaken a valuation of the land identified within the Disclosure Land Schedule at Christchurch International Airport for the purposes of information disclosure and having regard to the Commerce Commission Input Methodologies Determination applicable to Airport Services pursuant to Part IV of the Commerce Act 1986.

This report has been prepared for the specific purpose stated and any party that relies upon it for an alternative purpose without specific reference to Seagar & Partners, does so at its own risk. This report and the conclusions contained herein can only be relied upon by Christchurch International Airport Limited (CIAL), its advisers and stakeholders, and Seagar & Partners shall not have any responsibility to any other party.

The effective date of valuation is 30 June 2013.



## 2.0 Nature of the Land

The land in question comprises some 613 hectares in total which encompasses those activities applicable to airport services as defined by Part IV of the Commerce Act 1986. These areas include the airfield land including runways, taxiways and aprons together with adjoining land supporting airport related services together referred to as the Disclosure Land.

The compilation of the Disclosure Land schedule has been undertaken in consultation with CIAL as set out in this report. Should there be any amendments to this asset base, we would reserve the right to review our valuation calculations in this light.

## 3.0 Basis of Valuation

The assessed value represents the sum of the owner's estate or interest in the land (and said improvements) if unencumbered by any mortgage or other charge at the date of valuation.

This valuation is carried out in accordance with those Practice Standards, Guidance Notes and relevant Code of Ethics set out in Valuation and Property Standards 2009 (Property Institute of New Zealand and Australian Property Institute). In Valuation and Property Standards 2009, the definition of market value is taken from the general concepts and principles of IVSC's International Valuation Standards where,

*"Market Value is the estimated amount for which a property should exchange on the date of valuation between a willing buyer and a willing seller in an arms length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion".*

We would point out that our assessment of value is based on market evidence as at the date of valuation; however real estate values can vary from time to time in response to changing market circumstances and no warranty can therefore be given as to the maintenance of this value into the future.

## 4.0 Composition of Disclosure Land

In the table below we detail each of the land areas that have been identified as comprising the Disclosure Land for valuation purposes. We refer the reader to **Appendix I** for a breakdown of the individual parcels making up this Disclosure Land as advised by CIAL.

<b>Asset Category</b>	<b>Land Area (2013)</b>
Aircraft and Freight	28.8632 ha
Fire Service	0.8441 ha
Airfield	565.4376 ha
Allocated Land	17.6239 ha
<b>Total Disclosure Land</b>	<b>612.7688 ha</b>

## 5.0 Airport Land Valuation Methodology

The valuation of land utilised for airport services has been the subject of a valuation Input Methodologies Determination issued by the Commerce Commission dated 22 September 2010 together with supporting Reasons Paper.

The directions under this valuation methodology require a market value in alternative highest and best use for the airfield land, based upon the initial Regulated Asset Base (RAB) which is defined to mean the land and non-land assets included in the 2009 disclosed assets of CIAL.

'Initial RAB' means the land and non-land assets included in the 2009 disclosed assets (refer 3.1).

Initial (unallocated) RAB values for assets is the value of the land determined as on the last day of the disclosure year 2009 in accordance with Schedule A (refer 3.2).

Schedule A A2 requires the land to be valued in its highest and best alternative use which is equal to the likely market price paid for the land by a developer or investor[A2(1)]. This is referred to as the Market Value in Alternative Highest and Best Use (MVAU) and assumes that Airport operations on the land have ceased.

Highest and best alternative use is the most probable use of the land other than for supplying specified airport services (or use to the extent that it is influenced by specified airport services) which is physically possible, appropriately justified, legally permissible, financially feasible and results in the highest valuation of the land[A2(3)].

'MVAU' must exclude the value of land conversion costs to the extent that the costs are required specifically to convert the land into that suitable for the supply of specified airport services and must also exclude remediation expenditure [A2(7)]. In making these valuations the value must comply with relevant New Zealand and International Valuation Standards (A3 – A5).

The assessment of MVAU must, where reasonably practicable, be determined by the application of more than one valuation method and the Commission has recommended the use of the direct sale comparison approach (either on an area or zonal basis) and notional subdivision/residual value approaches (A8 – Applicable MVAU valuation methods). These approaches are to be used wherever this is reasonably practicable and in addition a Discounted Cash Flow analysis of the land in alternative use can be undertaken as a further approach to value.

The land is to be valued as an aggregated parcel which may be made up of multiple titles and the Valuer is to assume an orderly sale of the aggregated land in economically manageable parcels over such time as would likely be needed to achieve the highest and best alternative use of the land [A9 (2) Practical Valuation Requirements].

Where the land is designated or zoned for various aeronautical activities, in considering the likely alternative uses for the land the valuer should also consider the likelihood of the designation being uplifted or the land rezoned and the costs (if any) likely to be involved in this [A9 (4)]

In undertaking an MVAU valuation the Valuer must:

- Compile a schedule of land parcels to be included in the value
- Confirm ownership, tenure and land area
- Determine the likely zoning for highest and best alternative use
- Consider Resource Management requirements
- For notional subdivision/residual approaches, prepare a land development plan.
- Undertake market research and comparable sales information including block sales and developed land sales (A10) MVAU Valuation Steps.

In summary therefore, whilst Schedule A opens with an emphasis upon the development value of the land using hypothetical development approaches, the methodologies that the valuer must employ includes as a first approach the consideration of block land sales evidence with this evidence being related to the open market sale of land in economically manageable parcels.

The term 'economically manageable parcels' is not defined anywhere in the Commission's methodology but can be interpreted to mean as determined by land sales activity, i.e. having regard to the sale of blocks of land which more typically trade in the open market and which would need to be aggregated to form a parcel equivalent to the size of the airport land holding.

If there is robust sales evidence of block land in economically manageable parcels for the valuer to apply, then there would be less need to rely upon the hypothetical/residual development value approaches. Valuation precedents support the view that block land sales are ultimately the more reliable and robust test of market value. Airports however employ large tracts of land which when combined in area offer few direct market comparisons and hence the need to consider alternative approaches.

## 6.0 Highest and Best Alternative Land Use

### 6.1 Statutory Context

In order to form a view on the notional highest and best alternative use of the land should the airport operations cease, we have sought expert opinion of Planit Associates, Consultant Specialists in Urban, Rural, Regional and Environmental Planning and Research based in Christchurch who are familiar with the Airport land and its surroundings.

Planit were initially requested to report on a review of 'plausible alternative uses for Christchurch International Airport' and submitted a report dated June 3, 2011 based upon the information available at that time.

More recently the same Planning Consultancy now known as Planz Consultants Limited has supplied a supplementary report updating that advice dated 24 May 2013.

The summary of the essential points contained in these advices including the most recent May 2013 advice is as follows:

- The land is currently zoned Special Airport Zone (SPAZ) and is a well-established urban zone with a wide range of airport related activities including offices and industrial activities which lie adjacent to the airfield land on its eastern side. To the west and south the Airport is bounded by rural land uses with much of the land to the west held by the Canterbury Regional Council for catchment management purposes. To the north the Airport is bounded by various activities including quarries, farmland and a Business 7 zone that provides for dry industries. The surrounding land uses include two golf courses in the Russley Golf Course and the Harewood Golf Course to the east and west of the Airport respectively.
- The airport land is already connected to a reticulated sewer network, the expansion of which should be readily possible although future business uses would need to be 'dry' industries where water-intensive processing and those industries using larger quantities of hazardous substances would be likely to be excluded. A potable water supply would be able to be provided and stormwater is generally able to be disposed of directly to the ground at source subject to filtering of any contaminants. An existing roading network is available to the land including several perimeter roads.
- The airport land is located within the Metropolitan Urban Limit (MUL) in recognition of its existing urban zoning. At the date of writing Plan Change 1 was made operative on 14 October 2011 under direction from the Minister for

Earthquake Recovery pursuant to the Canterbury Earthquake Recovery Act (CER Act). By using the CER Act the usual Environment Court appeal process under the Resource Management Act was able to be avoided with the practical effect being that outstanding appeals on Plan Change 1 were negated. This outcome was appealed through the High Court and Court of Appeal with the net result being that the decision to make Plan Change 1 operative was set aside, and the previous appeals to Plan Change 1 were referred back to the Environment Court for consideration.

- The Minister then directed that the Canterbury Regional Council produce a Land Use Recovery Plan ('LURP') under the CER Act to direct recovery and the coordination of development and infrastructure in greater Christchurch. Environment Court Appeals on Plan Change 1 have been placed on hold while the LURP is developed and it is generally accepted that the LURP will supersede Plan Change 1, at which point Plan Change 1 will be withdrawn and the associated appeals dismissed.
- As at the date of the Planz report the LURP was in the process of being developed with a preliminary draft version having been released for public comment in March of this year. After input from the Regional and Local Councils an Operative LURP is anticipated in the final quarter of this year.
- Planz advise that of particular significance, Appendix 2 to the draft LURP includes amendments to the Canterbury Regional Policy Statement (RPS) by adding the missing Chapter 6, the approach to which is broadly similar to that articulated in Plan Change 1. Chapter 6 identified four new Business Priority Areas located immediately east of the airport between Russley Road and the current urban edge. These four areas have arisen out of the Change 1 Hearing Commissioners identifying a need for a further 100 hectares of business land in the north-west of the city over and above the greenfield land previously identified in Plan Change 1. In terms of urban form the four Priority Areas effectively join the airport precinct to the urban edge of Christchurch and remove the current strip of Rural Zoned land that separates the two. The proposed Chapter 6 is explicit that greenfield Priority Business Areas are to be used for industrial activities rather than for office or retail.
- Planz advise the new business areas reinforce their earlier advice that re-development of the eastern side of the airport for large industry and distribution activities is plausible and is consistent with the direction in which strategic planning is moving regarding urban growth in the wider vicinity of the airport. It is also explicit that rural residential activity should not occur within the existing urban area where the policy direction is for intensification to occur.

- Planz note that since the Canterbury earthquakes significant urban growth is anticipated within reasonable proximity to the airport with residential growth just outside the air noise contours, and business growth within these contours. There is little material change with regard to controls on hazardous substances and 'wet industry' remain restricted given the airport's location over the unconfined aquifer. Otherwise however the caution from a planning perspective of locating urban growth over the aquifer has now been balanced by recognition that the ground conditions in the western parts of the city are able to support cost-effective building.

Based on the foregoing and given that the current SPAZ provisions are predicated on airport activities, were the airport to cease operations it would be necessary for a plan change to occur to facilitate alternative activities. However, given the size of the land, it's location over ground that is not subject to liquefaction and the fact that it is already serviced, Planz believe it is very plausible that re-zoning to enable the site to be used for a mix of industrial, commercial and residential purposes would be progressed under the CER Act rather than the RMA. In that event they believe that a plan change to rezone the airport precinct could be made within a period of 12 months as compared to as much as three and a half years to promulgate the same plan change under the RMA.

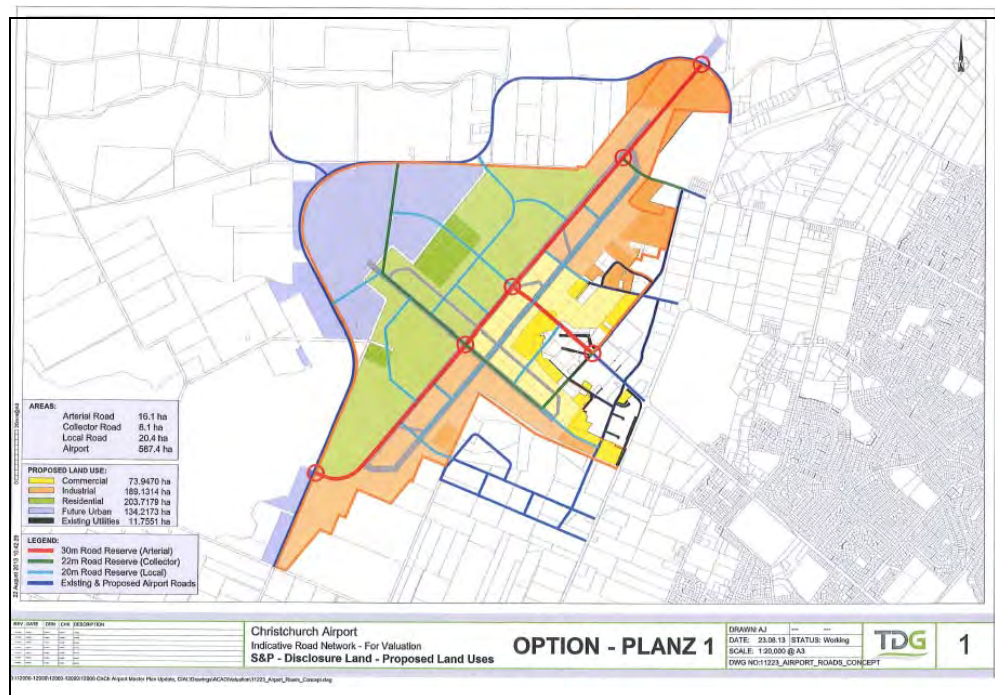
A copy of the Planz Consultants Limited report of 24 May 2013 is attached as **Appendix II**.

## **6.2 Alternative Land Use Proposals**

Following on from their report of 24 May 2013 Planz Consultants Limited considered the likely form of an alternative land use plan over the disclosure land taking into account its location, surroundings and the existing built up environment including roading and other infrastructure surrounding the existing airport. Planz and the Airport Company have also consulted with Traffic Design Group (TDG) to produce a proposed roading network through the land, both to assist with land use planning and also to estimate road construction costs based upon expected transportation requirements. In combination this has enabled the development of a land use allocation plan incorporating main arterial and local feeder roads based upon the size and configuration of the disclosure land.

The resulting alternative land use development plan is shown at **Appendix III** to this report. The plan incorporates four land use categories with the area of each category of land being calculated to exclude future roading requirements. The roading requirements are made up of three categories of internal roads, arterial, collector and local roads with provision for six roundabouts. The layout of this roading together with existing roads is illustrated on the land use plan in the appendix. A summary of the resulting areas is contained in the following table:

Disclosure Land	Land Use	% of Land	Legal Area (ha's)
Block 1	Retail/Office	12	66.8198
Block 2	Light Industrial/Distribution	31	173.46
Block 3	Residential	34	186.8379
Block 4.1	(Outside MUL)	22	123.0961
<b>Total</b>		<b>100</b>	<b>551.2137</b>
Block 5	Existing roading/utilities		11.7551
Block 6	Future roading requirements		42,8000
Block 7	Reserves/Infrastructure		7.0000
<b>Total</b>			<b>612.7688</b>



### 6.3 Timing to Achieve Statutory Land Use Changes

Planz have advised that under the hypothetical scenario of airport operations ceasing, the process to pursue alternative highest and best land uses as outlined would involve a change to the City Plan to remove the existing airport related Special Purpose zone, designation and associated rule package including noise contours. The same plan change would seek to facilitate the approximate mix of new zones for redevelopment of the airport land.



Planz original advice was that if such rezoning were to follow standard RMA processes they anticipated that a plan change for the entire airport site would take approximately two years to progress through Council processes with Environment Court appeals likely to take a further 1 – 1.5 years. They would therefore anticipate up the 3.5 years in total if there are appeals.

They have also added however that if the powers under the CER Act are available for land use then a much shorter time frame could be anticipated without recourse to the Environment Court. This time frame could be as little as nine months.

#### 6.4 Infrastructure Cost Estimates

Traffic Design Group have undertaken an assessment of the costs to undertake the infrastructure associated with the proposed land use plan. The estimated cost to construct all roads including services and professional fees is \$97,581,096 as per their assessment date of 26 August 2013.

A summary of the TDG costings is contained at **Appendix IV** to this report (see Schedule of Prices – Summary Sheet).

Contributions to this total cost are made up as follows:

Type	Distance	Cost
Arterial Roads	5.2 km	\$32,008,553
Collector Roads	3.7 km	\$17,920,908
Local Roads	10.2 km	\$42,342,818
New Roundabouts	(x6)	\$5,308,817
<b>Total (excl GST)</b>		<b>\$97,581,096</b>

The costings include an allowance for Preliminary & General, and Contingencies with earthworks being adjusted to reflect the existing levelled nature of much of the land.

TDG estimated that infrastructure costs would reduce to around \$90,000,000 if the roads west of the existing alignment of Pound Road are excluded.

## 7.0 Valuation Considerations

The foregoing options relating to alternative uses of the airport land assume that airport operations were to cease. These alternative use plans enable us to consider the basis upon which the value of this land can be assessed in accordance with the concept of *market value alternative use (MVAU)*.

The concept of MVAU as referred to in the input methodology for airport land is essentially the market buying price for the land insitu in the same or similar status as blocks which provide the comparable sales evidence and is able to include such improvements made to the land as would add value in its highest and best alternative use other than for the provision of airport services. For example, where the land has been levelled, and that levelling is to a higher state than would be required for the highest and best alternative use of the land, then to that extent the additional land conversion costs must be treated as a non-land asset for valuation purposes.

We consider that the principal land valuation approach should be comparable block sales of typical block sized lots in the location and this is the primary approach expected by the Input Methodology.

Whilst other approaches such as notional subdivision/residual value approaches are to be employed wherever reasonable and practical, such approaches over what is a very large tract of land would have to be predicated on a wide range of assumptions and variables as development would almost certainly be staged over a number of years. A block sales valuation based on land use zones in our view has greater relevance to the valuation of what would be termed 'economically manageable parcels' whereby the outcomes can be reconciled with actual market activity. Ultimately, it is the analysis and application of that market activity which offers the most reliable test of market value.

We have examined this assignment using three approaches all of which assume that the purchaser of the subject land would pursue a Plan Change to permit alternative highest and best use of the land whilst a phased exit from airport operations was achieved. The first of these approaches takes a block land sales approach based on alternative land use precincts adjusted for the risks of achieving the plan change and attendant costs.

The further approaches examine the same opportunity using hypothetical subdivision and discounted cash flow approaches. Both these approaches have been taken over a fifteen year development/investment period making reasoned assumptions regarding the phasing of land sales following zoning and applying either a profit and risk allowance or a discounting of projected cashflows.

As support for these approaches we have investigated a wide range of land sales activity relating to larger block sales of various classes of land in Christchurch and other urban centres around New Zealand at or around the valuation date. Based upon this evidence we have arrived at serviced block land values to be applied in each of the zoning precincts outlined in the Planz Consultants land use plan.

## 8.0 Sales Evidence

Since the destructive Canterbury earthquakes experienced in September 2010 and February 2011 we have reported on these asset portfolios twice (June 2011 & 2012). The unprecedented property destruction inflicted upon the Christchurch CBD has seen it cordoned off for a number of months while progressive demolitions have been carried out and since this time extensive planning for the upcoming reconstruction has provided a framework for the regeneration of the city centre in the months and years ahead. The form of this reconstruction is to be centred around a smaller, low intensity CBD than that which existed prior to the earthquakes with a green frame border and surrounded by twelve activity precincts compartmentalised into twelve distinct areas.

In the meantime, the business suburbs west of the City Centre have continued to a large degree to remain unaffected by these earthquakes and the subsequent ongoing earthquake activity experienced by parts of Christchurch. These suburbs have experienced minimal damage and very little, if any, disruption including Christchurch International Airport and its immediate surroundings.

In the two and half years since the February 2011 earthquake there has been limited transactional activity in the Christchurch property investment market as a result of uncertainty, but this has now subsided somewhat as the aftershocks have tapered, awareness of engineering requirements has increased and the low interest rate environment has continued. This notwithstanding, the demand for investment property has been strongest in the western suburbs where little, if any, damage occurred to land and buildings.

Anecdotal evidence suggests that there is now an imbalance between growing investment demand and limited supply of investment grade properties. Demand for investment property is predominantly from South Island based private investors, some of whom hold extensive capital following earthquake insurance pay-outs in central Christchurch. As a consequence of this demand and prevailing low interest rates, investment yields remain firm, particularly for modern well-leased investment property in the western industrial and commercial markets of Christchurch.

Local commercial real estate agents report that private investor demand is being experienced in a price range up to \$10.0M and in some cases higher where appropriate investment opportunities are available. As at the date of writing this report, a greater proportion of transactions have been observed in excess of \$5.0M than in the months following the earthquakes.

### 8.1 Industrial Land Sales Evidence

We have divided our industrial land sales evidence into two categories, the first being those sales within the inner suburbs of Christchurch and the second in the

outer south-west and north-west suburbs. Since the series of major earthquakes struck central Christchurch there has been a paucity of land sales evidence within the inner suburbs of Christchurch with most transactions occurring up to the end of 2010 when the first earthquake occurred. We have reiterated a table of these sales for reference purposes only, dated between 2008 and 2010. Market activity since that time has been focussed on the outer Christchurch suburbs where there has been a number of sales relating to smaller serviced blocks of land as well as larger partly serviced or un-serviced land zoned for industrial purposes. These sales have been summarised in the tables which follow.

#### Industrial Land Sales Evidence – Inner Suburbs

Address		Sale Price	Sale Date	Area	Land Rate
32 Montreal Street	Sydenham	\$5,836,500	Sep-10	23,346m <sup>2</sup>	<b>\$250/m<sup>2</sup></b>
Large 2.3346 hectare site comprising part of the former Lane Walker Rudkin property forming the block bounded by Montreal Street, Burke Street, Orbell Street and Brougham Street together with 2,529 square metres located on the western side of Montreal Street. The details of the sale are confidential however we understand the sale price was equivalent to about <b>\$235/m<sup>2</sup></b> . This property is covered by old industrial buildings although demolition costs will be offset by development credits.					
47 Montreal Street	Sydenham	\$425,000	Jan-10	1,093m <sup>2</sup>	<b>\$389/m<sup>2</sup></b>
This property sold in January 2010 for \$425,000. The property comprises part of the former Lane Walker Rudkin property and is situated on the corner of Montreal Street and Burke Street. We note the site was sealed for carparking and was purchased by an owner occupier.					
120 Montreal Street	Sydenham	\$3,250,000	May-09	7,926m <sup>2</sup>	<b>\$410/m<sup>2</sup></b>
The former CRC Salvage property located on the eastern side of Montreal Street, just south of the South Island Main Trunk Railway and zoned Business 3 comprising an area of 7,926 square metres with dual street frontage at the rear to Orbell Street.					
15-17 Raycroft Street	Waltham	\$400,000	Apr-09	1,259m <sup>2</sup>	<b>\$318/m<sup>2</sup></b>
This property sold in April 2009 for \$400,000. The property comprises two adjoining titles with a combined area of 1,259 square metres. Raycroft Street is a small no exit street on the periphery of Waltham.					
17 Bernard Street	Addington	\$2,800,000	Mar-09	8,348m <sup>2</sup>	<b>\$335/m<sup>2</sup></b>
Large site comprising 8,348 square metres zoned Business 3 with frontage also to Lincoln Road. This large site contained various dated buildings which provided limited added value.					
350 Colombo Street	Sydenham	\$4,000,000	Aug-08	9,084m <sup>2</sup>	<b>\$440/m<sup>2</sup></b>
The substantial Sydenham Square development site situated on the eastern side of Colombo Street with frontages also to Brougham, Buchan and Waverley Streets purchased by the Christchurch City Council.					

The above outlined sales evidence lie between **\$235/m<sup>2</sup> – \$440/m<sup>2</sup>**. At the lower end of this range is the recent sale at 32 Montreal Street, Sydenham in September 2010 which is also the largest industrial land sale in our table and equated to a rate of **\$235/m<sup>2</sup>** over the 2.33 hectares. Meanwhile at the upper end is the August 2008 sale at 350 Colombo Street, Sydenham which calculated to a rate of **\$440/m<sup>2</sup>** for a 9,084m<sup>2</sup> development site with multiple frontages and benefits from a degree of retail influence.

**Industrial Land Sales Evidence – Outer Suburbs**

Address		Sale Price	Sale Date	Area	Land Rate
10 Midas Place	Middleton	\$386,400	Jul-12	1,288m <sup>2</sup>	<b>\$300/m<sup>2</sup></b>
A small, square shaped lot located in Midas Place which is a cul-de-sac road leading off the northern side of Annex Road.					
2 Ballarat Way	Sockburn	\$820,000	Jul-12	2,567m <sup>2</sup>	<b>\$319/m<sup>2</sup></b>
A flat corner site situated at the intersection of Ballarat Way and Hayton Road.					
20 Pilkington Way	Sockburn	\$1,225,000	Jul-12	4,028m <sup>2</sup>	<b>\$304/m<sup>2</sup></b>
A large inside lot that is flat, vacant and regular in shape.					
14 Nga Mahi Rd	Sockburn	\$830,000	Mar-12	2,457m <sup>2</sup>	<b>\$338/m<sup>2</sup></b>
A regular shaped lot zoned Business 4 with frontage exposure to the main arterial road of Blenheim Road but access only from the rear at Nga Mahi Road.					
17 Sir Gil Simpson Dr	Russley	\$1,200,000	Jan-12	3,831m <sup>2</sup>	<b>\$313/m<sup>2</sup></b>
A regular shaped rear site with its rear boundary adjoining the Russley Golf Course. The site includes approximately 303m <sup>2</sup> in the form of a sealed accessway; the land rate on the net useable area therefore is <b>\$340/m<sup>2</sup></b> .					
483-485 Blenheim Rd	Middleton	\$1,355,000	Dec-11	4,285m <sup>2</sup>	<b>\$316/m<sup>2</sup></b>
An 'L' shaped lot contained within four separate titles. Two of the titles have main road access to/from Blenheim Road while all four titles have rear frontage to Cable Street. The property is zoned Business 4 and sold with damaged buildings on part of the site but the vendor was paid out by insurance.					
41 Waterloo Rd	Hornby	\$1,406,945	Aug-11	5,987m <sup>2</sup>	<b>\$235/m<sup>2</sup></b>
A pan-handle shaped site that is mostly rear but could possibly achieve easier access from a private road running alongside its eastern boundary. Zoned Business 5.					
11 Sir Gil Simpson Dr	Russley	\$1,150,000	May-11	3,879m <sup>2</sup>	<b>\$296/m<sup>2</sup></b>
A regular shaped rear site with its rear boundary adjoining the Russley Golf Course. The site includes approximately 675m <sup>2</sup> in the form of a sealed accessway; the land rate on the net useable area therefore is <b>\$340/m<sup>2</sup></b> .					
46 Acheron Drive	Middleton	\$957,270	Aug-10	3,754m <sup>2</sup>	<b>\$255/m<sup>2</sup></b>
Formerly comprising part of The Warehouse carpark and with limited frontage to Acheron Drive, this Business 4 zoned site is in a rear position backing on to the main railway line.					
515 Halswell Junction Rd	Hornby	\$2,481,000	Jun-10	12,407m <sup>2</sup>	<b>\$200/m<sup>2</sup></b>
A slightly irregular shaped lot having a long frontage to the main arterial of Halswell Junction Rd, situated just to the west of the Springs Road intersection. The property sold to the adjoining owner (Fonterra) with the price likely reflecting a premium for that reason.					
15 Wigram Cl & 27 Sonter Rd, Sockburn		\$1,400,000	Jun-10	8,638m <sup>2</sup>	<b>\$162/m<sup>2</sup></b>
Large predominantly rear 8,638 square metre site zoned Business 5 sold in June 2010.					
21 Foundry Dr & 38 Curries Rd, Woolston		\$10,500,000	Jun-10	73,453m <sup>2</sup>	<b>\$143/m<sup>2</sup></b>
Substantial 7.3453 hectare block in a rear position comprising a "Brownfield" site sold to the Lyttelton Port Company. The sale price is inclusive of aged buildings and we understand the site has minor contamination issues.					

The above industrial land sales evidence in Christchurch's outer suburbs demonstrate a range between **\$143/m<sup>2</sup>** – **\$338/m<sup>2</sup>** depending upon site size and location.

A largest of these sales is the June 2010 transaction at 21 Foundry Drive & 3 Curries Road, Woolston comprising a large, predominantly rear site of 7.34 hectares located to the south-west of Christchurch city. The sale price equates to a gross land rate of **\$143/m<sup>2</sup>** before any deduction for demolition or remediation.

Another earlier sale in 2010 is the land at 15 Wigram Close & 27 Sonter Road, Sockburn which comprises a large 8,638m<sup>2</sup> site zoned Business 5 and sold for **\$162/m<sup>2</sup>**. This compares to a slightly larger site of 12,354m<sup>2</sup> at 2 Parkhouse Road, Sockburn which sold in February 2009 at a land rate of **\$284/m<sup>2</sup>**. Both properties are located within very close proximity to each other however the difference in land value rate achieved can be explained by the fact that the larger site enjoys a prominent corner position adjacent to Wigram Airport.

### **Wigram Business Park**

In addition to these sales, we are aware that a number of transactions have been confirmed for larger serviced sites within the Wigram Business Park development being carried out by Ngai Tahu Property Limited in Hayton Road, Sockburn. This is a two stage subdivision within which the following 8 lots have been sold in the first stage:

<b>Land Area</b>	<b>Sale Price</b>	<b>Land Rate</b>
16,557m <sup>2</sup>	\$3,890,895	<b>\$235/m<sup>2</sup></b>
4,040m <sup>2</sup>	\$1,070,600	<b>\$265/m<sup>2</sup></b>
3,209m <sup>2</sup>	\$850,385	<b>\$265/m<sup>2</sup></b>
7,967m <sup>2</sup>	\$1,912,080	<b>\$240/m<sup>2</sup></b>
7,662m <sup>2</sup>	\$1,974,470	<b>\$258/m<sup>2</sup></b>
2,880m <sup>2</sup>	\$806,400	<b>\$280/m<sup>2</sup></b>
3,952m <sup>2</sup>	\$1,027,520	<b>\$260/m<sup>2</sup></b>
6,600m <sup>2</sup>	\$1,815,000	<b>\$275/m<sup>2</sup></b>

These sales confirm that the market for serviced industrial lots ranging in size between 3,000m<sup>2</sup> and 8,000m<sup>2</sup> within the Wigram Business Park has been established at rates ranging between \$240/m<sup>2</sup> - \$280/m<sup>2</sup> based on the most recent transactions and we understand that current asking prices have firmed slightly above these levels. The Wigram location is more central relative to the airport and would warrant a premium on this account.

Having regard to the range of evidence in the foregoing tables we have concluded that serviced industrial sites in the Harewood area would command prices ranging between **\$200/m<sup>2</sup> – \$250/m<sup>2</sup>** depending upon specific site size and location.

## 8.2 Block Land Sales Evidence

We have examined sales of block land in the Canterbury market where land having either rural / residential zoning has been acquired for its rezoning potential to allow business use. These sales are summarised in the following table.

### Residential / Rural Block Land with Rezoning Potential

Address		Sale Price	Sale Date	Area	Land Rate
19 Racecourse Road	Sockburn	\$14,500,000	Sep-12	13.8148ha	<b>\$1,139,000/ha</b>
This site is situated on the south-western side of Racecourse Road, just to the south of the intersection with Waterloo Road. The Business 5 zoned property includes significant meat processing improvements, the estimated demolition cost of which is \$1.24M. Analysis of the sale price after allowance for the cost of this demolition the vacant land rate equates to \$1.139M per hectare.					
32, 52 & 62 Stanleys Road	Harewood	\$1,650,000	Feb-12	4.2934ha	<b>\$384,000/ha</b>
A block of Rural 5 zoned land but situated inside the North West Review Area (NWRA) with potential to be rezoned for business activities. The land is close to the existing Business 5 zone in Wairakei Road and was purchased by an adjoining owner (Tait Limited).					
245 Wooldridge Road	Harewood	\$3,050,000	Aug-11	4.0775ha	<b>\$748,000/ha</b>
A block of Rural 5 zoned land but situated within the North West Review Area (NWRA) with potential to be rezoned for business activities. The land immediately adjoins the existing Business 5 zone in Wairakei Road and was purchased by an adjoining owner (Tait Limited).					
206 Shands Road	Hornby	\$22,540,000	Dec-10	13.0220ha	<b>\$1,731,000/ha</b>
A large rural zoned site that is irregular in shape but with a land use consent in place for an industrial development. Sold to an adjoining owner (Foodstuffs) to cater for their expansion. The sale is subject to services and roading being provided to the boundary of the site.					
475 Memorial Ave	Harewood	\$22,222,222	Dec-08	18.9686ha	<b>\$1,172,000/ha</b>
A substantial property located at the intersection of Memorial Ave and Russley Rd which was sold to Memorial Avenue Investments Ltd. The land is zoned Rural 5 and in Plan Change 1 was not initially included within the MUL although the new landowner made submissions to the PC1 Commissioners and has lodged a Private Plan Change to rezone the land for business activities. The Commissioners' Recommendations on PC1 identified this land as suitable for rezoning from rural to business and it is now included within the MUL. We understand the sale price was \$25.0M including GST. We suspect there are conditions in this sale and purchase contract which may include adjustments to the sale price following successful rezoning applications.					
207 Johns Road	Rangiora	\$4,400,000	Dec-07	3.8188ha	<b>\$1,152,000/ha</b>
A regular shaped block of level land zoned Living 1. Purchased by Suburban Estates Limited.					
140 Hussey Road	Harewood	\$3,000,000	Sep-07	2.4059ha	<b>\$1,247,000/ha</b>
A triangular shaped block zoned Rural 3 with frontage to Hussey Road and Glen Oaks Drive with a stream along the rear (southern) boundary. The purchase was conditional upon the property gaining a Living 1 zoning which was achieved shortly after the agreement.					

The benchmark sale for rural land with rezoning potential to business activities is 475 Memorial Drive, Harewood located directly east of Christchurch Airport on the opposite side of Russley Road which was acquired in December 2008 at a figure of \$25.0M inclusive of GST for an area of 18.96 hectares. Excluding GST the sale equated to **\$1,172,000/ha (\$117/m<sup>2</sup>)** for land which was zoned Rural 5 but acquired for its business use potential. We suspect there may have been rezoning conditions attaching to the sale price however the property was subsequently included within the Metropolitan Urban Limit (MUL) and has been identified by planning Commissioners as being suitable for business activities.



The foregoing sale has been supported by the more recent sale of business zoned block land at 19 Racecourse Road in Sockburn where 13.1481 hectares was acquired in September 2012 at an effective price including demolition of existing improvements equating to **\$1,139,000/ha (\$113/m<sup>2</sup>)**. Based upon the Wigram Business Park sales, smaller serviced lots on this land could be expected to command prices ranging between \$250/m<sup>2</sup> - \$300/m<sup>2</sup>.

Another key sale is the transaction in December 2010 comprising a large rural zoned site located in Hornby that is irregular in shape. The site had a land use consent in place for an industrial development and was sold to an adjoining owner for **\$1,731,000/ha (\$173/m<sup>2</sup>)**. The sale was subject to services and roading being provided to the boundary of the site.

An historic land sale within close proximity to the airport occurred in September 2007 at 140 Hussey Drive, Harewood. This is a triangular parcel of land that sold for **\$1,247,000/ha (\$125/m<sup>2</sup>)** but was conditional upon a rezoning from Rural 3 to Living 1 in order to allow a higher density of residential development on the site. The rezoning was achieved shortly after the date of agreement.

The sales in Harewood at Stanleys Road and Wooldridge Road are both of 4 hectare sites where rural zoned land with potential to be rezoned for business activities have sold at prices ranging between \$384,000/ha - \$748,000/ha depending upon proximity in relation to the existing business zone.

### 8.3 Residential Block Land Sales Evidence

We have examined sales of residential zoned block land throughout the wider Canterbury market where land has been acquired for subdivision development. These sales are summarised in the following table.

Address		Sale Price	Sale Date	Area	Land Rate
88B Philpotts Road	Mairehau	\$7,000,000	Nov-09	11.1856ha	<b>\$551,700/ha</b>
The land was purchased by Ryman Healthcare. We understand the payment was partially deferred and the effective rate per hectare is approximately <b>\$551,700/ha</b> . The land is zoned Living 1 with a minimum net site area of 450 square metres in terms of the development standards and 420 square metres in terms of the critical standards. The property is situated in Mairehau, in Christchurch, and has limited road frontage off Philpotts Road.					
Racecourse Road	Ashburton	\$4,600,000	Mar-09	14.3787ha	<b>\$320,000/ha</b>
The land is accessed by both Racecourse Road and Hanrahan Street on the northern edge of the Ashburton township. The land is zoned Residential.					
518 Hills Road	Mairehau	\$750,000	Feb-10	1.3165ha	<b>\$570,000/ha</b>
The property is situated in Mairehau and is zoned Living 1B. The site has access from Hills Road.					
116 Levi Road	Rolleston	\$5,600,000	Oct-12	19.0000ha	<b>\$278,316/ha</b>
The land was purchased by Gillman Wheelans Limited. We understand the payment was partially deferred with the effective rate being approximately <b>\$278,316/ha</b> . The land is zoned Living Z.					
185 Awatea Road	Halswell	\$1,551,793	Jul-12	2.8553ha	<b>\$543,000/ha</b>
The land is zoned Living G which allows mixed density development in line with an Outline Development Plan.					
141 Awatea Road	Halswell	\$1,197,554	Jul-12	2.2035ha	<b>\$543,000/ha</b>
The land is zoned Living G. The land is zoned Living G which allows mixed density development in line with an Outline Development Plan.					
135 Claridges Road	Harewood	\$3,100,000	Apr-12	6.7051ha	<b>\$462,000/ha</b>
The property zoned Rural 3 but currently subject to Plan Change 71 to rezone the land Living G (Upper Styx). The purchaser is faced with costs in achieving rezoning and a time delay.					
278 West Belt	Rangiora	\$5,255,000	Jun-12	8.8753ha	<b>\$592,000/ha</b>
The land was zoned residential.					
306 Wigram Road	Wigram	\$6,000,000	Mar-13	10.7992ha	<b>\$556,000/ha</b>
We understand there was a deferred terms payment arrangement which will discount this price to a lower level.					

As can be seen there is a high degree of uniformity in the sales with block land of between 1.0 and 10.0 hectares having sold in a relatively tight band of **\$500,000/ha - \$600,000/ha** depending upon zoning and timing of development.

The closest of the more recent sales at 135 Claridges Road in Harewood is dated April 2012 for 6.7 hectares at a rate of \$462,000/ha. This land carried a proposed rezoning to Living G (residential) with the purchaser faced with the cost in achieving the rezoning and a time delay until development could be undertaken. The sales elsewhere of already zoned residential land would have indicated an uplift of between \$550,000/ha - \$600,000/ha when rezoning occurred. By comparison, the value of residential block land with levelling works already in place has been assessed at between \$650,000 and \$750,000/ha depending upon block size and the level of infrastructure in place.

## 9.0 Conclusion on Land Sales Evidence

The foregoing sales evidence has been drawn from sales of larger development blocks zoned for a mixture of urban and semi-urban activities within the Christchurch metropolitan urban limits comparable to uses proposed within the land use plan.

All of these sales relate to land which has frontage or access to roading and services with contours either level or near level and ready for development. In this regard the sales are comparable to the subject land which is already levelled and is assumed to be zoned with roading and services available to the extent identified on the land use plan.

On a comparable basis, we have concluded that similar development blocks located on the airport land would warrant values in the following range:

Land Use Precinct	Site Size	Indicated Block Land Value Range
Commercial	1.0 - 2.0 ha	\$2,500,000/ha - \$3,000,000/ha
Industrial	1.0 - 10.0 ha	\$1,250,000/ha - \$1,750,000/ha
Residential	4.0 – 10.0 ha	\$600,000/ha - \$750,000/ha
Rural (Future Urban)	10.0 – 20.0 ha	\$125,000/ha - \$150,000/ha

All this land would be transacted on a plus GST if any basis and in accordance with the surrounding pattern of land ownership we would see the sale of economically manageable development parcels ranging between 1.0 hectare up to 20 hectares in size depending upon the type of land use.

## 10.0 MVAU Valuation Approaches

In the following section of the report we have followed the MVAU Input Methodology determined by the Commerce Commission by considering the value of the land based upon the following approaches.

- Block sales / zonal approach
- Hypothetical block subdivision / residual approach
- Discounted cashflow / hypothetical block subdivision approach

The foregoing analysis of sales evidence and the adopted value parameters have been applied in determining our valuation of the airport land in its highest and best alternative use. As these block land values would be an outcome of a plan change process following the decision to cease Airport operations and would be undertaken within the statutory framework existing at or around the date of valuation, there are a number of adjustments which would need to be made in determining the price that an informed purchaser would pay for the land.

### 10.1 Block Sales / Zonal Approach

In this approach we have taken into account the following in assessing our MVAU value:

- i) Out of the total land area of 613 hectares TDG have estimated the amount of development land that would be available and therefore saleable in its rezoned state after deducting land required for internal roading reserves and infrastructure would be in the order of 551 hectares. The remainder of the land, some 61.5 hectares is required for either existing internal roads or the proposed future network roads through the Land Use Plan including land required for reserves and infrastructure.
- ii) The recommended allocation of land uses under the Land Use Plan has been applied to the net useable, rather than the gross land area to calculate the areas of productive land and the estimated cost of providing the required roading and services to support the allocated land uses adopted.

- iii) The resulting zonal approach to the valuation of the various land use precincts has been based upon the sales of block land outlined in this report adjusted for the amount of land in each of the precincts and assuming a notional sale in one line for each.
- iv) As referred to in our earlier advice from Planz, it has been estimated that under current RMA processes, time required in order to achieve an operative alternative land use plan would be in the order of 3 – 3½ years in order for the various regulatory processes to be completed. However, they have also pointed out that given the size of the site, its location over ground that is not subject to liquefaction and the fact that it is already serviced, then it is very plausible that rezoning to enable the site to be used for a mix of industrial, commercial and residential purposes would be progressed under the CER Act. In the event that the powers available under this Act were to be used, then a plan change to rezone the Airport Precinct could be made operative within nine months according to the Planz advice.

For the purpose of this valuation we have adopted a two year planning period to achieve the necessary rezoning under the land use plan.

- v) Whilst there are some 35 currently available freehold titles accompanying the disclosure land which would be available for sale at the outset, much of the remaining land would be reliant upon achieving a rezoning before being offered to the market. The risks in the planning process are considered to be manageable, as are the estimated planning costs during the two year rezoning process. Whilst allowance for such risks will always be a matter of opinion however after consideration of the Planz advice we have adopted an allowance of 12.5% across all the proposed land uses. This allowance has been applied to the block value with land use zoning in place.
- vi) The final adjustment we have made relates the effect on price of a land transaction of this size as at the date. A purchaser for such a large parcel of land could expect to receive some form of price discounting or deferred settlement terms which would have the same effect. Based on our experience of similar circumstances where large tranches of land have been purchased we have made an allowance of 10% for the expected terms of a cash settlement at the date.

The application of this rationale and the various allowances adopted have been captured within the following calculations.

**Block Sales / Zonal Approach**

Zoning Precinct	% of Gross Area	Net Area	Rate (\$/ha)	Value
<b>Net Block Values subject to Plan Change</b>				
1 Retail / Office	12%	67.8198 ha	\$1,000,000 /ha	\$67,819,759
2 Light Industrial / Distribution	31%	173.4600 ha	\$600,000 /ha	\$104,076,009
3 Residential	34%	186.8379 ha	\$650,000 /ha	\$121,444,616
4 Future Urban (outside MUL)	22%	123.0961 ha	\$120,000 /ha	\$14,771,526
	100%	551.2137 ha	\$558,970 /ha	\$308,111,910
5 Existing Rooding / Utilities		11.7551 ha		
6 Future Rooding		42.8000 ha		
7 Reserves / Infrastructure		7.0000 ha		
		612.7688 ha	\$502,820 /ha	\$308,111,910
Deduct Allowance for Future Connecting Road Network including Services				(\$97,581,096)
				\$210,530,814
Defer for 2yrs to allow for Plan Change to become effective @ 8.0%pa				\$180,496,240
<b>Indicated Block Values with Land Use Plan Change in Place</b>			<b>\$294,600 /ha</b>	<b>\$180,496,240</b>
<b>Less Allowances for:</b>				
(i) Risk associated with achieving Plan Change		@ 12.5%		(\$22,562,030)
			<b>\$257,700 /ha</b>	<b>\$157,934,210</b>
(ii) The effect of 'Bulk Purchase' in the market as at June 2013		@ 10.0%		(\$15,793,421)
<b>Residual Block Value</b>			<b>\$232,000 /ha</b>	<b>\$142,140,789</b>
<b>Indicated Value of Disclosure Land</b>			<b>\$232,000 /ha</b>	<b>\$142,141,000</b>

## **10.2 Hypothetical Subdivision / Residual Valuation Approaches**

The Commerce Commission Input Methodology requires as one of the principal land valuation approaches notional subdivision / residual valuation approaches. These approaches can utilise discounted cashflow techniques which take into account the size of the land holding and assumptions surrounding a staged sell down of land to developers and/or end users.

The Planz land use plan provides a high level view of the development potential under alternative highest and best use. We have therefore approached a hypothetical subdivision value on the basis that a staged sell down plan would be promulgated post Plan Change and in advance of this a purchaser would gauge value based upon applying average per hectare rates to each of the proposed land use precincts. This is similar to the approach taken in the earlier zonal approach with the difference that the average land values are higher and take into account both the availability of internal roads and services based on the land use plan and the expected time to create and sell subdivided block land parcels.

We have adopted the position that a 3 year lead-in planning period would allow the bulk, if not all, of the existing title development land to be sold down with the balance land being offered as zoned future development blocks over the next 12 year period. In this manner we gauge the total development period required to achieve an operative Plan Change and sell down the resulting development land including the future urban land to be 15 years (2028).

We have examined these approaches as follows:

### **10.2.1 Hypothetical Block Subdivision / Residual Approach**

This approach proceeds on the basis that the purchaser would be an investor / land developer prepared to take a 15 year position to rezone, develop and sell down the majority of the land based on the proposed land use plan.

The capital costs incurred initially in addition to the land purchase would be holdings costs associated with the land purchase together with resource consent costs arising from the Plan Change. We have adopted an 7.5% holding cost of capital and an estimated planning cost of \$2.50M spread over 2 – 3 years.

Interest on capital outlay has been applied to 40% of the total outlay to reflect the expectation that capital outlaid over the initial 5-10 years of the project would be balanced in part by revenue from land sales.

In order to achieve block land sales from the various precincts TDG have estimated the cost of future roading network and services at some \$97.581M. These estimates include contingencies and professional fees and have been based upon TDG's summary calculations dated 26 August 2013.

Expected costs of sales have been taken at 2.5% of gross sales to provide for agents' commissions and legal fees on sale.

The Profit & Risk allowance has been taken at 27.5% of outlay which is a slightly lower profit margin than for subdivisions under a conventional more intensive staged development and reflects the strategy of selling larger development blocks over a shorter time frame.

We would anticipate that the first stage would be to find uses for the existing airport related land around the terminal buildings and industrial/warehousing uses in and around the existing hangar and maintenance buildings. Stage 2 development would be likely to expand in a westerly direction to include industrial and commercial developments centred on the expanding roading infrastructure with Stage 3 industrial extending into what are currently the northern and southern extremities of the runway.

Residential development would be likely to take place in tandem with Stages 1 and 2 with the main arterial roads through the development acting as a buffer between residential and industrial activities. This is similar to other larger greenfield developments such as Wigram where business and residential areas are developed concurrently, but marketed as separate propositions as part of an overall coherent master plan.

The estimate of revenue from block land sales has adopted similar precinct values to those contained in the block sales / zonal approach applied to the net useable land after deducting internal roading, reserves and utilities. We note that of the projected future commercial land area of 88.37 hectares some 42.5 hectares lies between Orchard Road and the eastern side of the runway with immediate access to an internal roading network and services. Furthermore, the availability of separate titles to much of this land would provide an ability to sell down serviced lots during the planning period.

The annual take up of existing zoned Business land over the first three years if 10.0 hectares annually. Thereafter the annual take up increases as residential block land is rezoned following the Plan Change with the expectation being that an equivalent sell down of 20 hectares annually would be achieved during Years 6 – 12 of the development as the residential precinct benefits from the developing business infrastructure.



As these are larger block land sales we would expect the full development of the land to extend beyond the 15 year investment period.

We have proceeded on the basis that the land with future urban potential west of Pound Road would be held back pending rezoning expected in 2028. The sale of this land is budgeted to take place in Years 13 and 14 of the project when rezoning is imminent.

Our valuation calculations under this approach are as follows.

### **Value Based on Hypothetical Block Subdivision / Residual Approach**

	<b>% of Gross Area</b>	<b>Net Area</b>	<b>Rate (\$/ha)</b>	<b>Value</b>
<b>Net Block Values subject to Plan Change</b>				
1 Retail / Office	12%	67.8198 ha	\$2,600,000 /ha	\$176,331,374
2 Light Industrial / Distribution	31%	173.4600 ha	\$1,400,000 /ha	\$242,844,020
3 Residential	34%	186.8379 ha	\$750,000 /ha	\$140,128,403
4 Future Urban (outside MUL)	22%	123.0961 ha	\$150,000 /ha	\$18,464,408
	<b>100%</b>	<b>551.2137 ha</b>	<b>\$1,048,170 /ha</b>	<b>\$577,768,205</b>
5 Existing Roading / Utilities		11.7551 ha		
6 Future Roading		42.8000 ha		
7 Reserves / Infrastructure		7.0000 ha		
		<b>612.7688 ha</b>	<b>\$942,880 /ha</b>	
<b>Gross Realisation</b>				<b>\$577,768,205</b>
Less Selling Costs at 3%				(\$17,333,046)
<b>Net Realisation</b>			<b>\$914,590 /ha</b>	<b>\$560,435,159</b>
Profit and Risk @ 27.5% of Outlay				(\$120,878,172)
<b>Outlay</b>				<b>\$439,556,987</b>
Less Development Costs:				
Future Connecting Road Network including Services			(\$97,581,096)	
Survey and Legal on Title			(\$500,000)	
Planning and Consent Costs			(\$2,500,000)	
Holding Costs: 15yrs @ 7.5%pa on 40% of Outlay			(\$197,800,644)	
				(\$298,381,740)
<b>Indicated Value of Block Disclosure Land</b>			<b>\$230,390 /ha</b>	<b>\$141,175,247</b>

This approach results in an indicated block land value of circa \$141M which equates to some 25% of the expected revenue from zoned block land sales over a 15 year period. The ratio is lower than is often applied to the analysis of subdivisible block land relative to expected revenue from the subdivision. This is due to the fact that the realisation period is in this instance longer than normal as a result of the size of the block, and the effect that this has on holding costs. In this instance the holding costs amount to 35% of expected gross sales from the development but are spread over the 15 year development period.

In order to test these outcomes further we have undertaken a more detailed discounted cashflow approach incorporating explicit assumptions with regard to expected land take up.

### **10.2.2 Discounted Cashflow / Hypothetical Block Subdivision Approach**

Using the serviced block land inputs a further approach to assist in the development value of the disclosure land has been to apply discounted cashflow over a 15 year investment period during which the bulk of the land would be sold down. This approach follows the same development rationale whereby larger serviced development blocks ranging in size between 1.0 and 4.0 hectares would be sold down based upon the roading layout illustrated in the land use plan. This approach requires a number of explicit assumptions relating to the timing of projected land sales and development costs with the adopted discount rate incorporating the margin on profit and risk required from the investment.

The assumptions adopted in this approach are as follows:

- During the 2-3 year period estimated to achieve an operative plan change, a phased cessation of airport activities would take place.
- During the planning phase the owner of the land would proceed to sell-down titled freehold land located within the airport zone which is serviced by its existing roading network. This would include the land in the vicinity of the current airport terminal and along the western periphery of the existing runway, much of which is proposed to be rezoned commercial under the land use plan.
- This sales programme could commence in year 1 and take place over the initial 3-5 years of the development.
- Planning costs would be incurred over a 2-3 year period associated with promulgating the plan change and engaging in any submissions, appeals and subsequent variations to the land use plan.
- Following the plan change taking effect the landowner would then commence construction of the internal roading network servicing the commercial and light industrial land lying to the east of the main north south arterial road.
- Following completion of this roading the resulting light industrial and retail / office land could be sold down in parcels ranging in size from 1 - 4 hectares over an 8 – 10 year period with expected buyers being bulk retailers, warehousing and logistics companies.

- We would expect the sale of land in the residential zone situated opposite the Harewood Golf Course to take place progressively from year 3 onwards given the existing Pound Road frontage to much of this land. It could also be earlier if the airport operations were to cease. We have anticipated development parcels of 10 – 20 hectares being sold to housing companies in manageable parcels as roading works are completed.
- The rural zoned future urban land including the Harewood Golf Course land has been treated as being held for future urban potential and as an amenity for the residential area over the next 10-15 years. We anticipate that this land would be rezoned for urban use by 2028 given the expected expansion within the metropolitan urban area over the next 15 years.
- We have adopted land values which reflect the size of the blocks created by the land use plan and the proposed roading network. More intensive subdivision could be expected to achieve higher site values over time but with the prospect of higher development costs and a more extended take up of smaller serviced sites.
- Our valuation proceeds on the assumption that all the land is sold over a 15 year time frame including any undeveloped or future urban zoned land.
- An average growth rate of 3% per annum has been assumed for the purpose of escalating land values over the 15 year investment period.
- Development costings in accordance with the TDG estimates have been taken at \$97.581M with these costs being escalated at 2% per annum and the majority spread over years 4 – 8 of the development. In addition planning and consent costs of \$2.5M have been allocated over the first 2-3 years.
- We have discounted cashflows at an annual rate of 20.0% which takes into account the size and nature of the investment, the flexibility offered by the existing roading infrastructure and the availability of 35 current freehold titles accompanying the Disclosure Land.

The calculations incorporating these assumptions are contained within the Discounted Cashflow analysis at **Appendix V** to this report. A summary of this analysis is contained in the following table.

Discount Rate	Total NPV	On Gross Land Area	On Useable Land Area
17.50%	\$163,860,000	\$267,409/ha	\$297,271/ha
<b>20.00%</b>	<b>\$143,255,000</b>	<b>\$233,783/ha</b>	<b>\$259,890/ha</b>
22.50%	\$126,444,000	\$206,349/ha	\$229,392/ha
<b>Adopt</b>	<b>\$143,255,000</b>	<b>\$233,783/ha</b>	<b>\$259,890/ha</b>

### 10.3 Reconciliation of Valuation Approaches

The foregoing valuation approaches are as at the effective date of 30 June 2013 and proceed on the basis of what was known at that date. The approaches provide a relatively close correlation in value.

The zonal approach based upon proposed land use precincts indicates a value of \$142.1M after allowing for Plan Change deferment, zoning risk and the bulk nature of the transaction.

The hypothetical subdivision / discounted cashflow approaches based upon a sell down of future development precincts indicate values in a range between \$141M and \$143M.

These approaches are summarised in the following table.

Valuation Approach	Indicated Value
Block Sales / Zonal Approach	\$142,141,000
Hypothetical Block Subdivision Approach	\$141,175,247
DCF Block Subdivision Approach	\$143,255,000

Given the close correlation of these valuation approaches we have concluded our valuation of land at the figure of:

**\$142,000,000**

**(ONE HUNDRED AND FORTY TWO MILLION DOLLARS)**

Over the total disclosure land area of 612.7688 hectares this equates to an average rate of **\$231,647 per hectare**.

The foregoing value is plus GST if applicable.

## 11.0 Concluding Remarks

In accordance with the foregoing findings

We refer readers to our Statement of General Valuation Policies, a copy of which has been attached to this report.

We confirm that:

- As signing valuer, I have made a personal inspection of the property;
- The statements of fact presented in the report are correct to the best of our knowledge and the analyses and conclusions are limited only by the reported assumptions and conditions;
- We have no interest in the subject property;
- Our fee is not contingent upon any aspect of the report;
- As the signing Registered Valuer, I have satisfied the Professional Education Requirements and further, I have experience in this location and category of the property being valued;
- This valuation was carried out in accordance with the appropriate Code of Ethics, Code of Conduct and Performance Standards outlined in Valuation and Property Standards 2009; and
- No-one, except those specified in the report (if any) has provided professional assistance in preparing the report.

We trust this report has been of assistance to you and take this opportunity to thank you for your instructions. Should you require any additional information or if we can assist further please do not hesitate to contact the writer.

Yours faithfully

**SEAGAR & PARTNERS**



**C N Seagar, FNZIV FPINZ**

**Registered Valuer**

**Director**

**The inspection of the property for this report was made for the purposes of valuation only and the report should not in any way be regarded as a structural survey**

## Statement of General Valuation Policies

<b>Publication</b>	Neither the whole nor any part of this valuation report or any reference to it may be included in any published document, circular or statement without the written approval of Seagar & Partners Limited as to the form and context in which it may appear.
<b>Statutory Information</b>	Information has generally been obtained from a search of records and examination of documents or by enquiry of Government department or statutory authorities. Where it is stated in the valuation report that information has been supplied to us by another party, this information is believed to be reliable but we can accept no responsibility if this should prove to be not so. Unless otherwise noted, our assumption is that all structures and any fitout has all appropriate consents and certifications.
<b>Confidentiality</b>	Our responsibility in connection with this valuation report is limited to the client to whom it is addressed; we disclaim all responsibility and accept no liability to any other party.
<b>Purpose of Valuation</b>	This report has been prepared for the specific purpose stated and any party that relies upon it for an alternative purpose without specific reference to Seagar & Partners, does so at its own risk. This report and the conclusions contained herein can only be relied upon by the addressee and client, and Seagar & Partners shall not have any responsibility to any other party.
<b>Structural/Building Survey</b>	<ul style="list-style-type: none"> <li>• While in the course of inspection, due care is taken to note obvious building defects, no structural survey has been made. As a consequence, this report has been prepared on the assumption that, except where noted in this report, the building has been competently designed and built, is structurally sound and watertight. No undertaking is given about the absence of mould, fungi, mildew, rot, decay, gradual deterioration, micro-organisms, bacteria, protozoa or like forms, termite or pest infestation, deleterious substances such as asbestos or calcium chloride, or other hidden defects which could result in:</li> <li>• The building ceasing to be watertight</li> <li>• Gradual decay of the building including its structure.</li> <li>• We can give no guarantee as to outstanding requisitions in respect of the subject building.</li> </ul>
<b>Site Survey</b>	We have made no survey of the property and assume no responsibility in connection with such matters. Unless otherwise stated it is assumed that all improvements lie within the title boundaries, the land is stable, and free of undue flood risk.
<b>Plant &amp; Machinery</b>	The valuation is conditional upon any lifts, hot and cold water systems, drainage systems, electrical systems, air-conditioning or ventilating systems and other installations being in proper working order and functioning for the purpose for which they were designed.
<b>Site or Environmental Contamination</b>	Our valuation and report is conditional upon the land being free of any contamination or industrial waste problems unless otherwise noted.
<b>Compliance with Legislation</b>	<p><b>The Building Act 2004 and associated Codes and Regulations, the Health &amp; Safety in Employment Act 1992, the Evacuation of Buildings Regulations 2006, and the Disabled Persons' Community Welfare Act 1975.</b></p> <p>Unless otherwise stated in our report our valuation is on the basis that the property complies with the above legislation or that the legislation has no significant impact on the value of the property. We can give no undertakings and disclaim responsibility for the failure of any building or structure to comply with or to conform with the requirements of the above legislation, or to meet the level of performance, quality, fitness or durability of their intended purpose.</p>

# APPENDICES

APPENDIX I	Disclosure Land Breakdown
APPENDIX II	Planz Consultants Report
APPENDIX III	Future Development Land Use Plan
APPENDIX IV	TDG Infrastructure Costings
APPENDIX V	Discounted Cashflow

# APPENDIX I DISCLOSURE LAND BREAKDOWN



Asset Ref	Land ID	Title	Description	Land Area 2013
<b>Aircraft and Freight</b>				
112	14	93657	NZ Post - Air Cargo Building 3	1.1571 ha
116	13	93656	Parceline Express	0.5597 ha
117	3	93646	Air NZ Hangar 1	8.2752 ha
117	3	93646	Air NZ Hangar 1	0.6184 ha
281	39	544123	Air NZ Hangar 4 - Paint Hangar	1.0638 ha
119	12	93655	Air NZ Hangar 3	1.6088 ha
120	10	93653	Air NZ Hangar 5	0.6866 ha
135	17	93660	ASA Antarctic Programme (Raytheon)	2.8941 ha
152	42	93685	Private Hangar 1	0.0120 ha
153	42	93685	Private Hangar 2	0.0120 ha
154	42	93685	Private Hangar 3	0.0121 ha
155	42	93685	Private Hangar 4	0.0121 ha
155	42	93685	Private Hangar 5	0.0134 ha
156	42	93685	Private Hangar 6	0.0153 ha
157	42	93685	Private Hangar 10	0.0146 ha
158	42	93685	Private Hangar 11	0.0149 ha
159	42	93685	Private Hangar 12	0.0148 ha
160	42	93685	Private Hangar 13	0.0145 ha
161	42	93685	Private Hangar 14	0.0154 ha
162	42	93685	Private Hangar 15	0.0260 ha
174	6	93649	BP Oil NZ - Fuel depot 1	0.3919 ha
175	6	93649	Mobil Oil - Fuel depot 2	0.7224 ha
176	6	93649	Greenstone Energy Ltd - Fuel depot 3	0.8275 ha
181	16	93659	CanterburyAero Club & Hangar - Airfield Western	0.7245 ha
182	16	93659	Canterbury Aviation Ltd / Drake Aviation	0.0231 ha
165	30	93673	Garden City Helicopters	0.6402 ha
191	21	544125	Hangar 5 - Eskimo Group	0.4949 ha
215	16	93659	Private Hangar PHW1	0.0372 ha
217	16	93659	Private Hangar PHW2	0.0303 ha
218	16	93659	Private Hangar PHW3	0.0318 ha
219	42	93685	Garden City Helicopters Hangar	0.1198 ha
221	16	93659	Private Hangar PHW4	0.0326 ha
222	16	93659	Allison Avionics	0.0367 ha
225	16	93659	Private Hangar PHW5	0.0327 ha
232	16	93659	Metservice Auto Weather Station	0.2560 ha
233	16	93659	Heliprop	0.0871 ha
234	16	93659	Private Hangar PHW6	0.0374 ha
249	16	93659	Walkington Aviation Ltd	0.0867 ha
258	35	93678	NZ Customs container examination	0.3393 ha
273	16	93659	BP New Zealand Ltd	0.1017 ha
905	16	93659	Vacant	6.1388 ha
905	16	93659	Vacant	0.2799 ha
262	16	93659	Hanlin Johnstone	0.1000 ha
262	16	93659	SkySales Aviation	0.2500 ha
			<b>Total Aircraft and Freight:</b>	<b>28.8632</b>
<b>Fireservice</b>				
178	1	544120	CIAL - Air Fire Service - Building	0.8441 ha
			<b>Total Fire Service:</b>	<b>0.8441 ha</b>

Asset Ref	Land ID	Title	Description	Land Area 2013
<b>Airfield</b>				
183	86	29B/501	Harewood	0.0942 ha
183	87	8A/1257	Harewood	51.3973 ha
183	87	8A/1257	Harewood	0.0439 ha
183	89	250613	Golf Course	46.4311 ha
183	89	11A/813	Golf Course	0.8094 ha
194	1	544120	Airways Corporation of New Zealand - Airfield Sites	32.3776 ha
205	1	544120	Ex Radar Site Building	0.0001 ha
212	1	544120	Meteorological Service of New Zealand Ltd - Airfield Sites	0.0001 ha
973	1	544120	Airfield Land	282.5928 ha
973	44	93687	Operational Airfield - Airfield Land (Aprons)	5.1962 ha
973	21	544125	Operational Airfield - Airfield Land	0.0044 ha
973	2	93645	Operational Airfield - Airfield Land	4.4413 ha
973	10	194503	Operational Airfield - Airfield Land	0.1281 ha
973	13	93656	Operational Airfield - Airfield Land	0.1145 ha
973	16	93659	Operational Airfield - Airfield Land	6.7424 ha
973	16	93659	Operational Airfield - Airfield Land	0.0334 ha
973	30	93673	Operational Airfield - Airfield Land	2.2072 ha
973	32	93675	Operational Airfield - Airfield Land	6.3718 ha
973	38	93681	Operational Airfield - Airfield Land	0.9624 ha
973	39	544123	Operational Airfield - Airfield Land	0.1224 ha
973	39	544123	Operational Airfield - Airfield Land	0.0004 ha
973	42	93685	Operational Airfield - Airfield Land	1.5552 ha
973	45	544122	Airways Tower	0.0179 ha
973	46	93689	Operational Airfield - Airfield Land	22.3245 ha
973	47	596575	Operational Airfield - Airfield Land	3.8995 ha
973	84	31K/157	Operational Airfield - Airfield Land	1.6608 ha
973	100	481/128	Operational Airfield - Airfield Land	1.3169 ha
980	1	93644	Land Held for Development	53.8949 ha
980	42	93685	Land Held for Development	0.9958 ha
980	69	37C/11	Land Held for Development	0.0001 ha
980	85	33B/110	Land Held for Development	4.3163 ha
980	90	36B/102	Land Held for Development	5.8791 ha
980	92	36C/114	Land Held for Development	6.8106 ha
980	93	40A/494	Land Held for Development	9.6077 ha
980	99	481/129	Land Held for Development	1.3160 ha
980	102	7C/61	Land Held for Development	4.8149 ha
980	104	7C/60	Land Held for Development	4.2644 ha
980	105	35B/852	Land Held for Development	1.5946 ha
980	98	13K/1146	N/A	0.8093 ha
231	13	93656	Aviation Security	0.2879 ha
			<b>Total Airfield:</b>	<b>565.4376</b>

Asset Ref	Land ID	Title	Description	Land Area 2013
<b>Allocated Land</b>				
104	44	544121	International Terminal	1.4514 ha
106	44	544121	Regional Lounge	0.3764 ha
105	44	544121	International Building	1.4875 ha
905	44	544121	Northern end next to Coach Park	0.2310 ha
905	44	544121	Northern end in front of Terminal	0.2470 ha
905	44	544121	Southern end in front of Terminal	0.1444 ha
905	44	544121	Southern end adjacent to Regional Lounge	0.1211 ha
203	19	93662	C.I.A.L. Maintenance Workshop / Yard	1.2664 ha
900	1	544120	Farm	0.0001 ha
936	1	544120	Maintenance Yard - Other Buildings	0.0001 ha
970	5	93648	Wairakei Road	1.0033 ha
970	5	93648	Ivan Crescent	1.0474 ha
970	6	93649	Kiosk	0.0010 ha
970	6	93649	Ivan Crescent	0.0005 ha
970	6	93649	Ivan Crescent	0.0003 ha
970	7	93650	Orchard Road	1.8952 ha
970	13	93656	Airside Access AVSEC	0.1576 ha
970	14	93657	Road Side	0.0865 ha
970	16	93659	Airways Power Centre No.2	0.0726 ha
970	16	93659	Airways Power Centre No.2	0.0204 ha
970	18	93661	Peter Leeming Road	0.0001 ha
970	18	93661	Peter Leeming Road	0.0002 ha
970	19	93662	Orchard Road	0.0000 ha
970	22	93665	Kiosk	0.0015 ha
970	22	93665	Access Way	0.0245 ha
970	24	93667	Peter Leeming Road	1.3855 ha
970	30	93673	Kiosk - Ivan Jamieson Road	0.0012 ha
970	30	93673	Road Side - Robin Mann Place	0.1276 ha
970	30	93673	Road Side - Ron Guthrey Road	0.0009 ha
970	30	93673	Road Side - Russley Road	1.7055 ha
970	31	93674	Roadway - Ivan Jamieson Place	0.2530 ha
970	31	93674	Roadway - Bolt Place	0.2292 ha
970	31	93674	Roadway - Robin Mann Place	0.2806 ha
970	31	93674	Roadway - Richard Pearce Road	0.1469 ha
970	31	93674	Roadway - Perimeter Road	0.3263 ha
970	31	93674	Roadway - Ron Guthrey Road	0.9610 ha
970	32	93675	Rights of Way	0.0490 ha
970	32	93675	Rights of Way	0.0001 ha
970	34	93677	Rights of Way	0.0470 ha
970	37	544124	Perimeter Road	0.6464 ha
970	37	544124	Orchard Road	0.3689 ha
970	37	544124	Ecolab	0.0087 ha
970	45	544122	Roadway - Durey Road (North)	0.3796 ha
970	45	544122	Roadway - Durey Road (South)	0.6457 ha
970	45	544122	Landscaping - Cnr Durey & Orchard	0.2179 ha
970	45	544122	Landscaping - Btwn Rental Cars & Terminal	0.2062 ha
990	1	544120	Private Works	0.0001 ha
			<b>Total Allocated Land:</b>	<b>17.6239</b>
			<b>Total areas related to Disclosure Land</b>	<b>612.7688</b>

# APPENDIX II      PLANZ CONSULTANTS REPORT

24 May 2013

Chris Seagar  
Seagar & Partners  
Level 8,  
52 Swanson Street  
AUCKLAND 1010

Dear Chris

**Re: Review of plausible alternative uses for Christchurch International Airport**

**Background**

In 2011, Planit Associates were asked to provide a view on the plausible land uses that could eventuate were airport operations to cease at Christchurch International Airport. This advice was subsequently incorporated into a report prepared by yourself entitled "Christchurch International Airport Regulatory Asset Base as at 30 June 2009" and dated November 2011.

Planz Consultants Limited<sup>1</sup> have been requested to update our previous advice in order to inform a new valuation of the Airport assets as at 30<sup>th</sup> June 2013. In updating our advice I will focus in particular on changes to the statutory planning framework, following the 2010-11 Canterbury earthquake sequence. The geographic area under consideration is as per our previous advice. Rather than repeating the advice and land use assumptions set out in our 2011 correspondence, I will only comment where matters have changed.

**Statutory Context**

Since the time of my previous advice dated 18<sup>th</sup> October 2011, the second generation Canterbury Regional Policy Statement ('RPS') has been notified, hearings held, and the RPS made operative. The operative RPS has a 'missing' Chapter 6 that will address urban growth within the Change 1 Greater Christchurch portion of the Region. It was intended that Change 1 would form Chapter 6.

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<sup>1</sup> Planit RW Batty & Associates was rebranded as 'Planz Consultants Ltd' in 2012



At the time of our last advice, Change 1 had just been made operative on 14<sup>th</sup> October 2011 under direction from the Minister for Earthquake Recovery under the Canterbury Earthquake Recovery Act ('CER Act'). By using the CER Act, the usual Environment Court appeal process under the Resource Management Act was able to be avoided, with the practical affect that outstanding appeals on Change 1 were negated.

Several of these Environment Court appellants subsequently appealed the CER Act decision of the Minister to the High Court, with the High Court decision in turn appealed to the Court of Appeal. The net result of these proceedings can be summarized as:

- The Minister exceeded his authority under the CER Act and therefore the decision to make Change 1 operative was set aside;
- Change 1 and associated appeals were referred back to the Environment Court for consideration;
- The Minister then directed the Canterbury Regional Council to produce a Land Use Recovery Plan ('LURP') under the CER Act to direct recovery and the coordination of development and infrastructure in Greater Christchurch;
- The Environment Court appeals on Change 1 have been placed on hold while the LURP is developed, with it generally accepted that the LURP will supercede Change 1, at which point Change 1 will be withdrawn and associated appeals dismissed.

The LURP is currently being developed, with a 'preliminary draft' version released for public comment in March 2013. At the time of writing, these comments are being considered by the Regional Council (with input from the City and District Councils), with a final draft to be presented to the Minister in the first week in July. The Minister then has the option of making this revised draft available for further public comment, before finalizing the LURP. An operative LURP is anticipated in the final quarter of this year. It is important to note that the draft LURP (as amended by public feedback) will be forwarded to the Minister one week after the 30<sup>th</sup> June 2013 date for valuation. As such the current preliminary draft version is what I will rely on, acknowledging that it is still subject to amendment.

The preliminary draft LURP consists of a Plan that identifies broad priority issues and the necessary responses for addressing these priorities. The LURP also contains a number of appendices that direct amendments to the RPS and the various district plans. Of particular significance, Appendix 2 to the LURP includes amendments to the RPS by adding the missing Chapter 6. When the LURP is made operative, the



amendments to the RPS and the various District Plans will also be made operative, with no rights of appeal under the RMA.

The approach set out in proposed Chapter 6 to the RPS is broadly similar to that articulated in Change 1. The RPS will continue to identify an urban limit (now termed the 'existing urban area'), along with greenfield growth areas, referred to as 'priority areas'. I have attached as 'Appendix 1' a copy of Map A which shows the existing urban limits and the proposed greenfield priority areas. No urban growth beyond the existing urban area and greenfield priority areas is contemplated until 2028. Growth is to be accommodated through both greenfield expansion into the priority areas, and more intensive use and redevelopment of land within the existing urban area. For CIAL, the airport continues to be identified as being within the existing urban area. There is therefore ongoing strategic policy support for intensive urban use of the airport site, in the event that airport operations were to cease.

Chapter 6 identifies four new Business Priority Areas (shown on Attachment 1 as B4, B5, B6, and B7) located immediately east of the Airport between Russley Road and the current urban edge. These four areas have arisen out of the Change 1 hearing commissioners identifying the need for a further 100 hectares of business land in the north west of the City over and above the greenfield land previously identified in Change 1. In terms of urban form, the four priority areas effectively join the airport precinct to the urban edge of Christchurch and remove the current strip of rural zoned land that currently separates the two. Proposed Chapter 6 is explicit that greenfield priority business areas are to be used for industrial activities rather than office or retail.

The new business areas reinforce my earlier advice that redevelopment of the eastern side of the airport for light industry and distribution activities is plausible and is consistent with the direction in which strategic planning is moving regarding urban growth in the wider vicinity of the airport.

The redevelopment of existing business areas for higher value and more intensive forms of development is supported at a policy level, especially where such development is able to be serviced, and where the scale and nature of it is such that it does not detract from the City Centre or 'Key Activity Centres' that are based primarily around the larger suburban malls.

Proposed Chapter 6 is also explicit that rural residential activity (average of 1-2 households per hectare) should not occur within the existing urban area (Policy 6.3.8). This limitation of rural residential forms of development is combined with policy direction for intensification to occur within the existing urban area.

In the wider northwestern portion of Greater Christchurch, residential greenfield growth has been confirmed around the Belfast and Upper Styx areas, with the latter also subject to a rezoning change to the Christchurch City Plan promoted as an appendix to the LURP. Within Selwyn District, residential growth around West Melton



and Rolleston is also significant. In short, since the earthquakes there is significant urban growth anticipated within reasonable proximity to the airport, with residential growth just outside the air noise contours and business growth within these contours.

### **Special Purpose (Airport) Zone plan change**

As a separate process to the LURP, I am aware that CIAL and the Christchurch City Council are in discussions regarding progressing a plan change to amend the SPAZ provisions. It is my understanding that the purpose of this plan change is to provide greater clarity regarding the range of activities that can be undertaken within the Zone. Given that the formulation of this plan change is at an early stage, and that a draft plan change has yet to be released for public comment, I have relied upon the existing SPAZ provisions.

### **Land & Water Regional Plan**

The land and water chapters of the Canterbury Natural Resources Regional Plan ('NRRP') are in the process of being reviewed as a new Land and Water Regional Plan. This Plan is currently at the hearings stage in the plan development process. As a generalization, the Land and Water Regional Plan looks to simplify the complex provisions of the NRRP, and to provide a more succinct and directive policy framework. In terms of CIAL there is little material change, with controls on hazardous substances and 'wet industry' remaining restrictive given the airport's location over the unconfined aquifer. Whilst this Plan is yet to be finalized, it is considered to be extremely unlikely that it will be amended to liberalize the storage and use of large quantities of hazardous substances above the unconfined aquifer.

### **Plausible alternative uses**

I do not consider that the changes in the strategic planning framework outlined above have significantly affected my earlier advice in terms of plausible alternative uses. If anything, the continuing strategic emphasis on intensification within the existing urban area, promotion of business growth where it can make efficient use of existing network infrastructure, and the proposed development of light industrial areas immediately east of the airport precinct, support and lend weight to my earlier advice. Seagar & Partners will be able to provide detailed advice regarding property sales post-earthquake, however from a planning perspective I am aware of considerable growth in resource consents and rezoning occurring in western Christchurch (and further west within Selwyn District). The caution from a planning perspective of locating urban growth over the aquifer has now been balanced by recognition that the western parts of the City are above TC1 ground conditions that are able to support cost-effective building.

The only substantive change to my earlier advice is that I no longer consider the rural residential element to be likely, given the specific direction within the LURP that this form of housing should not occur within the existing urban area. The area previously



apportioned to rural residential in my previous advice could be equally reallocated to residential and light industrial, with the final mix dependant on the market at the time of release. I do consider that the interface between light industry and residential activities would need to be carefully designed, however such sensitive interface treatment is reasonably common and typically involves separation via an internal road, generous landscaped building setbacks, and where possible locating stormwater swales and linear open space linkages along the interface to increase separation and to provide adequate levels of amenity.

### **Timeframes and rezoning process**

Under the hypothetical scenario of airport operations ceasing immediately and permanently as at 30<sup>th</sup> June 2013, then I would anticipate that a change to the City Plan would be necessary to remove the existing airport-related special purpose zone, designation, and associated rule package including noise contours. Such a Plan Change would also facilitate an appropriate mix of new zones for the redevelopment of the airport land. As per my previous advice, were such rezoning to follow the standard RMA process then I would anticipate that a plan change for the entire airport site would take approximately 2 years to get through Council process, with Environment Court appeals (reasonably likely for a change of this scale) likely to take another 1-1.5 years so up to 3.5 years in total if there are appeals.

Given the size of the site, its location over ground that is not subject to liquefaction, and the fact that it is already serviced, then I believe it is very plausible that rezoning to enable the site to be used for a mix of industrial, commercial, and residential purposes would be progressed under the CER Act rather than the RMA. The Minister for Earthquake Recovery has wide ranging powers to direct changes to the City Plan. The LURP process is an example of plan changes to rezone land (Upper Styx in Christchurch and western Rangiora in Waimakariri District) being progressed outside of the usual RMA process. The RPS and associated Regional Land and Water Plan have likewise been progressed via non-RMA legislation that has facilitated their progression through the planning process, whilst still providing limited opportunity for public feedback. In the event that the powers available under the CER Act were used, then a plan change to rezone the airport precinct could be made operative within approximately 9 months, comprised of 5 months to develop the plan change, design Outline Development Plans, formulate zone provisions and the like, and 4 months to move through an abbreviated public process with no recourse to the Environment Court.

Please do not hesitate to contact me on 964-4630 if you would like to discuss any of the above matters in more detail.

Yours faithfully

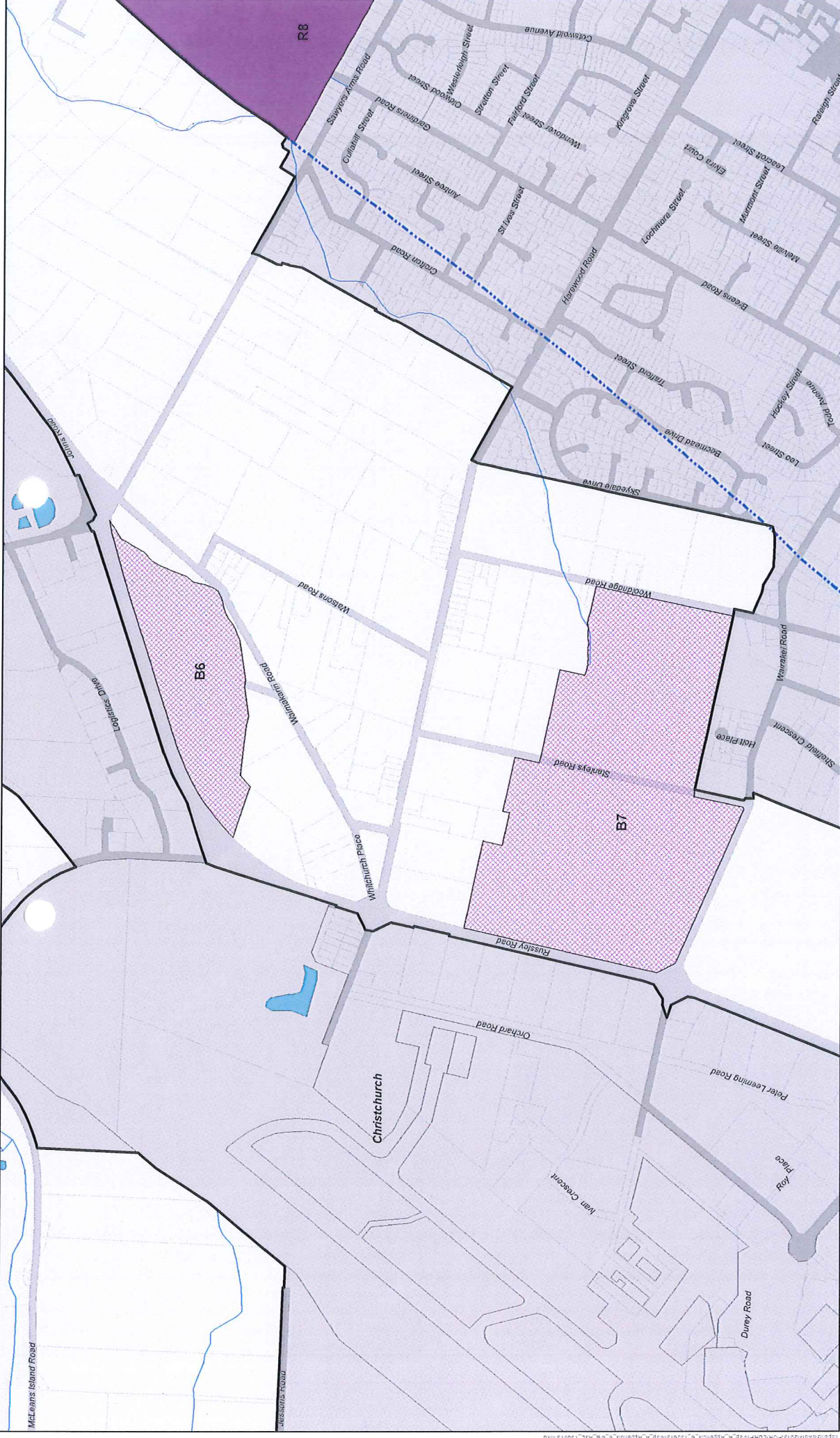
**Jonathan Clease**

Senior Planner & Urban Designer

Planz Consultants Limited

**Attachment 1. LURP Map A to RPS Chapter 6 showing greenfield priority areas and the existing urban limits**





**MAP**  
15

**Key Activity Centres**

- Boundary of infrastructure supported priority, existing urban and greenfield areas.
- Territorial Authority Boundary
- 500ba Airport Noise Contour
- CERA-Red Zoned Land
- Christchurch Central Recovery Plan Area
- Existing Urban Area - Pre 2011

**Priority Areas - Business**

- Zoned
- Not Yet Zoned
- B## Business Identifier Number

**Priority Areas - Residential**

- Zoned
- Not Yet Zoned
- R## Residential Identifier Number

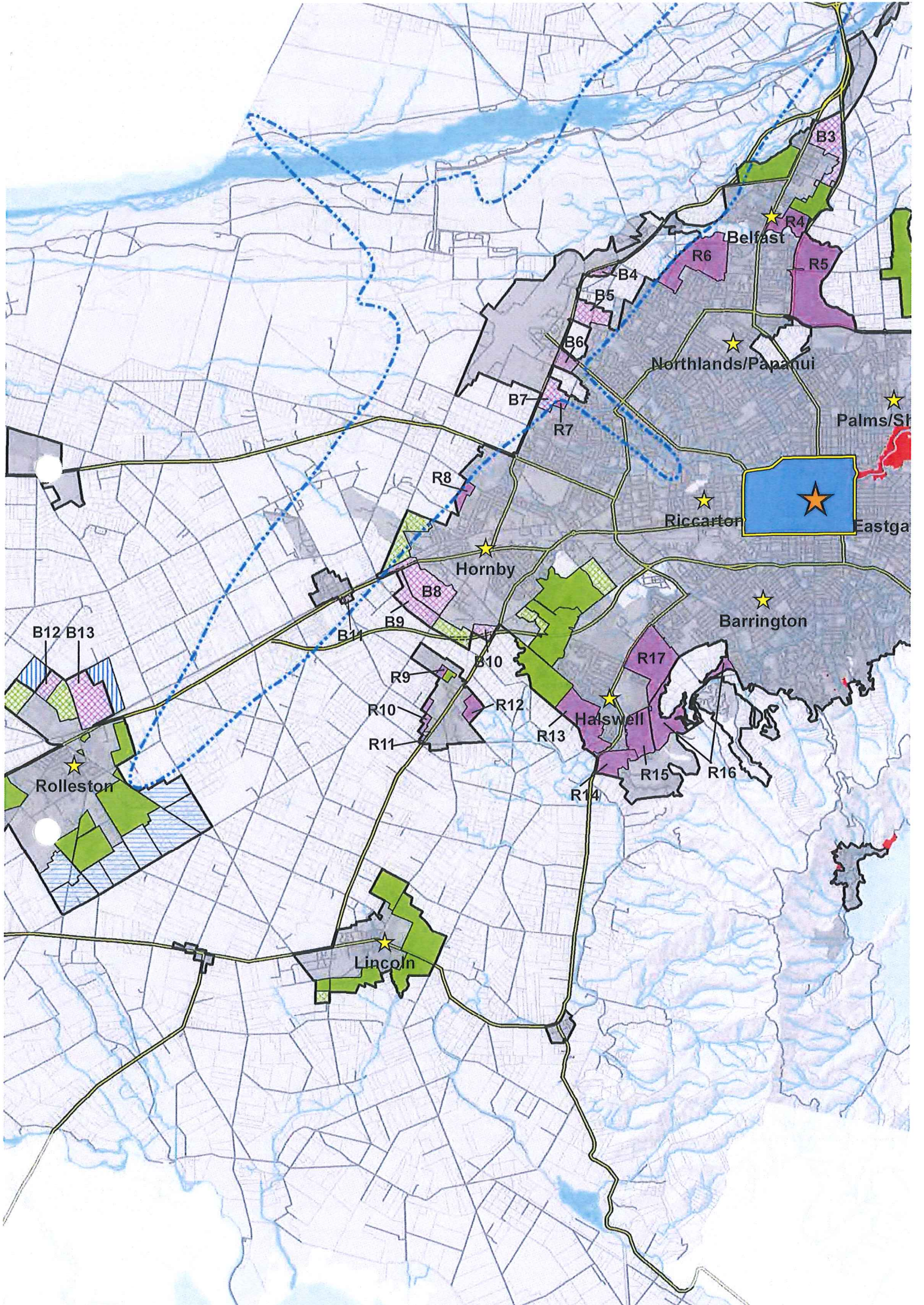
**Greenfield Areas - post Land Use Recovery Plan**

- Residential
- Business







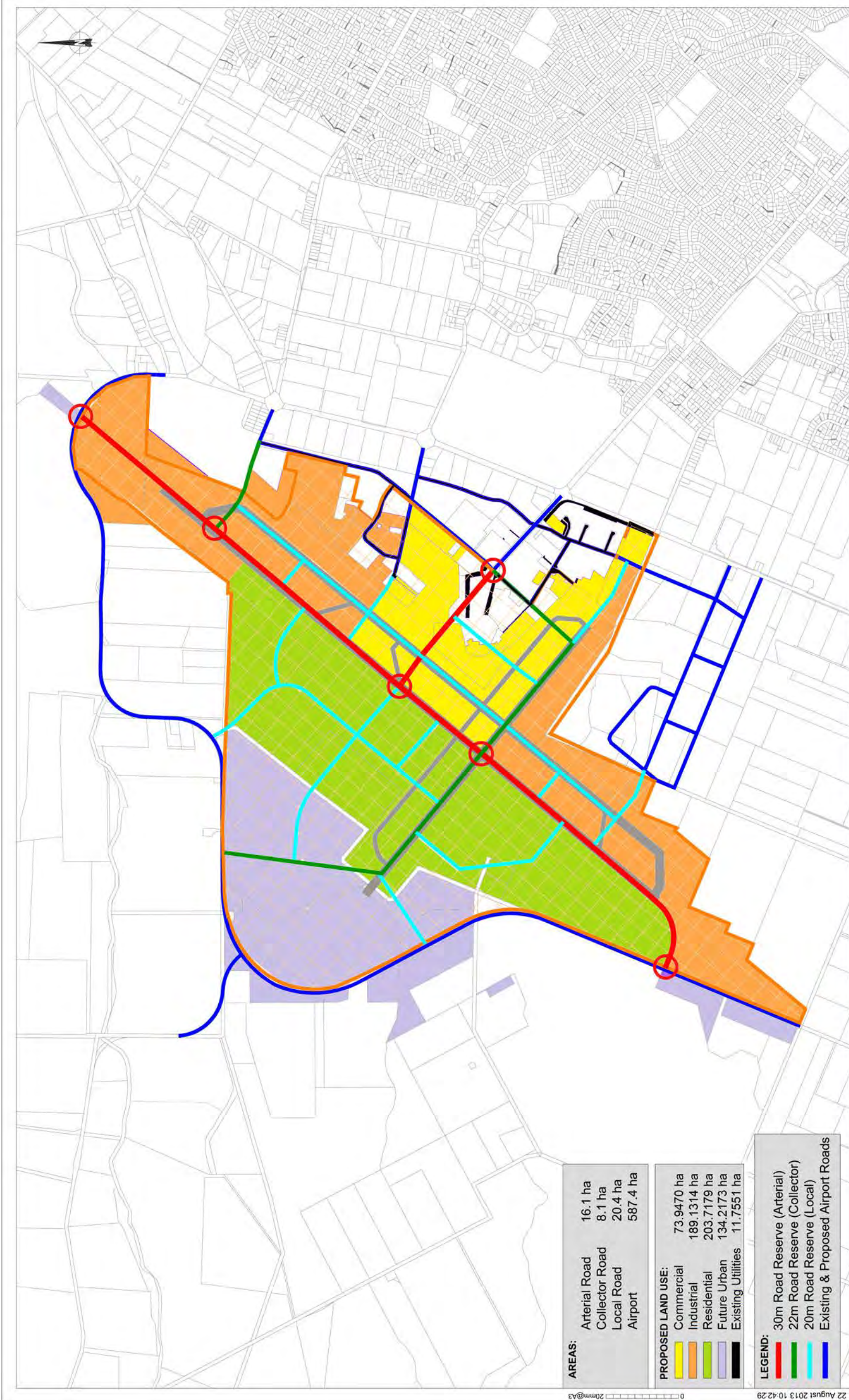




# FUTURE LAND USE PLAN

# APPENDIX III





**AREAS:**

Arterial Road	16.1 ha
Collector Road	8.1 ha
Local Road	20.4 ha
Airport	587.4 ha

**PROPOSED LAND USE:**

Commercial	73.9470 ha
Industrial	189.1314 ha
Residential	203.7179 ha
Future Urban	134.2173 ha
Existing Utilities	11.7551 ha

**LEGEND:**

<span style="color: red;">—</span>	30m Road Reserve (Arterial)
<span style="color: green;">—</span>	22m Road Reserve (Collector)
<span style="color: cyan;">—</span>	20m Road Reserve (Local)
<span style="color: blue;">—</span>	Existing & Proposed Airport Roads

REV	DATE	DRN	CHK	DESCRIPTION

Christchurch Airport  
 Indicative Road Network - For Valuation  
**S&P - Disclosure Land - Proposed Land Uses**

# OPTION - PLANZ 1

DRAWN: AJ  
 DATE: 23.08.13  
 SCALE: 1:20,000 @ A3  
 STATUS: Working  
 DWG NO: 11223\_AIRPORT\_ROADS\_CONCEPT



G:\12000-12999\12000-12099\12006 ChCh Airport Master Plan Update, C:\AllDrawings\ACAD\Valuation\11223\_Airport\_Roads\_Concept.dwg



## Filenote



Job: 12006  
To: George Eivers  
From: Chris Rossiter  
Date: 28 August 2013  
Subject: Land valuation

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Three road types are proposed for the valuation exercise: major arterial, collector and local. The cross-sections would be broadly as follows to be consistent with the City Plan infrastructure guidelines and cycle facility guidelines.

Cross-section	Arterial	Collector	Local
Service Strip	1.0	0.5	0.5
Footpath	1.5	1.5	1.5
Berm	1.7	1.7	2.5
Parking		2.0	2.0
Cycle lane	1.8	1.8	
Traffic lane 1	3.5	3.5	3.5
Traffic lane 2	3.5		
Median	4.0		
Traffic lane 2	3.5		
Traffic lane 1	3.5	3.5	3.5
Cycle lane	1.8	1.8	
Parking		2.0	2.0
Berm	1.7	1.7	2.5
Footpath	1.5	1.5	1.5
Services	1.0	0.5	0.5
Total	30.0	22.0	20.0

*Table 1: Outline road cross-sections*

The total road reserve required to service any development has been estimated using the road alignments shown in the attached drawing. The road reserve areas allow for the roads on the 105ha of land between the existing alignment of Pound Road and the proposed new alignment of Pound Road.

Road type	East of Pound Rd	West of Pound Rd	Total
Arterial	5.2	0.0	5.2
Collector	2.8	0.9	3.7
Local	9.4	0.8	10.2
Total	17.4	1.7	19.1

*Table 2: Estimated road lengths (km)*

Road type	East of Pound Rd	West of Pound Rd	Total
Arterial	15.6	0.0	15.6
Collector	6.2	2.0	8.2
Local	18.8	0.2	19.0
Total	40.6	2.2	42.8


*Table 3: Estimated road reserve areas (ha)*

For the purposes of the valuation, roundabouts are envisaged at the major intersections along the major arterial route. These would have a minimum island diameter of 24m and circulating carriageway widths of 11m.

The estimated construction cost for all roads is about \$98M. This reduces to about \$90M if the roads west of the existing alignment of Pound Road are excluded.


# APPENDIX IV TDG INFRASTRUCTURE COSTS


Summary

SCHEDULE OF PRICES - SUMMARY SHEET		
Project Number :	12006.3	
Project Description:	Christchurch Airport Network Valuation - Summary of all prices	
Drawing Reference Number :	11223	
Date Prepared :	26th August 2013	
Prepared By:	JO	
Checked By:	RG	
ITEM	DESCRIPTION	TOTAL
1	ARTERIAL ROADS (5.2km)	\$ 32,008,552.80
2	COLLECTOR ROADS (3.7km)	\$ 17,920,908.60
3	LOCAL ROADS (10.2km)	\$ 42,342,818.00
4	NEW ROUNDABOUTS ( x6)	\$ 5,308,816.80
<b>COMBINED TOTAL \$ (EXCL GST)</b>		<b>\$ 97,581,096.20</b>
	Arterial roads price per M	\$ 6,155.49
	Collector roads price per M	\$ 4,843.49
	Local roads price per M	\$ 4,151.26
DESCRIPTION OF COSTING APPROACH		
All major intersections have been assumed as new roundabouts using dimensions as provided		
All quantities have been calculated from areas on plan provided and dimensions on cross section provided		
A contingency for each section has been allowed for.		
Professional Fees for each section have been allowed for.		
All items based on greenfields site		
Fencing works have not been allowed for		
Topographical survey costs have not been allowed for.		
Pavement sampling and testing costs have not been allowed for.		
Consents have not been allowed for		
Street Furniture has not been allowed for		
Traffic signals have not been allowed for		



Summary

SCHEDULE OF PRICES - SUMMARY SHEET		
Project Number :	12006.3	
Project Description:	Christchurch Airport Network Valuation - Local Road	
Drawing Reference Number :	11223	
Date Prepared :	26th August 2013	
Prepared By:	JO	
Checked By:	RG	
ITEM	DESCRIPTION	TOTAL
1	PRELIMINARY AND GENERAL	\$ 81,000.00
2	EARTHWORKS	\$ 1,412,700.00
3	STORMWATER CONSTRUCTION	\$ 3,687,420.00
4	PAVEMENT WORKS	\$ 4,347,750.00
5	KERBING CONSTRUCTION	\$ 1,632,000.00
6	FIRST COAT SEALING	\$ 5,161,200.00
7	FOOTPATH AND BERM CONSTRUCTION	\$ 2,386,800.00
8	ROAD MARKING, SIGNS AND STREETLIGHTS	\$ 702,000.00
9	UTILITIES	\$ 10,834,000.00
10	PROJECT SPECIFIC ITEMS	\$ -
<b>SUB TOTAL \$ (EXCL GST)</b>		<b>\$ 30,244,870.00</b>
11	CONTINGENCY	\$ 7,561,217.50
12	PROFESSIONAL FEES	\$ 4,536,730.50
<b>TOTAL \$ (EXCL GST)</b>		<b>\$ 42,342,818.00</b>
DESCRIPTION OF COSTING APPROACH		
General item includes: Establishment/Disestablishment, Traffic Management Plan, On Site Traffic Control, Survey Control and Setting Out, and As-builts		
Earthworks item based on flat land and no clearing required		
Stormwater Construction item based on 300mm SW main running length of road with sumps / manholes every 90m		
*Pavement Works* based on 250mm subbase and 150mm basecourse and 20% allowance for stabilisation & 30% allowance for undercutting		
*Kerbing Construction* based on non mountable kerb		
*First Coat Sealing* based on 40mm thick asphalt concrete surfacing		
*Footpath Construction* based on cross section provided		
Berm Construction* based on cross section provided		
Fencing works have not been allowed for		
Road Marking based on cross section provided		
Signs works based on typical signage requirements		
Street lighting works based on typical lighting requirements		
Utilities: Telecom - 2 ducts + cable have been allowed for. Laterals have not been allowed for		
Utilities: Power - 2 ducts + cable have been allowed for. Laterals have not been allowed for		
Utilities: 2x spare ducts have been allowed for		
Utilities: 100mm gas main only has been allowed for.		
Utilities: 150mm watermain and 25mm laterals have been allowed for		
Utilities: 150mm sewer main and 100mm laterals have been allowed for		
A contingency has been allowed for.		
Water valves & meters have not been allowed for		
Topographical survey costs have not been allowed for.		
Pavement sampling and testing costs have not been allowed for.		
Professional Fees have been allowed for.		
All measurements and areas based on cross section and plan provided		
Consents have not been allowed for		
Street Furniture has not been allowed for		
Fibre optic has not been allowed for		
Power transformers have not been allowed for		
Utility pits / manholes(Power / Telecom etc) have not been allowed for		
Traffic signals have not been allowed for		


DETAILED SCHEDULE OF PRICES					
Project Number :		12006.3			
Project Description:		Christchurch Airport Network Valuation -Local Road			
Drawing Reference Number :		11223			
Date Prepared :		26th August 2013			
Prepared By:		JO			
Checked By:		RG			
ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL
<b>1 PRELIMINARY AND GENERAL</b>					
1.1	Establishment and Disestablishment	L.S	1	\$ 15,000.00	\$ 15,000.00
1.2	Traffic Management Plan	L.S	1	\$ 1,000.00	\$ 1,000.00
1.3	Site Safety Plan	L.S	1		\$ -
1.4	Environmental Plan	L.S	1		\$ -
1.5	On Site Traffic Control	L.S	1	\$ 50,000.00	\$ 50,000.00
1.6	Survey Control and Setting Out	L.S	1	\$ 5,000.00	\$ 5,000.00
1.7	Quality Control Testing by Contractor	L.S	1		\$ -
1.8	Supply as built information	L.S	1	\$ 10,000.00	\$ 10,000.00
<b>2 EARTHWORKS</b>					
2.1	Topsolling stripping 150mm thick	cu.m	30600	\$ 10.00	\$ 306,000.00
2.2	Cut to waste carriageway	cu.m	38148	\$ 25.00	\$ 953,700.00
2.3	Cut to waste footpaths	cu.m	6120	\$ 25.00	\$ 153,000.00
<b>3 STORMWATER CONSTRUCTION</b>					
3.1	Supply and construct 600mm dia. sump	each	226	\$ 1,200.00	\$ 271,200.00
3.2	Supply and construct 1050mm dia. stormwater manhole	each	113	\$ 3,000.00	\$ 339,000.00
3.3	Supply and construct 90mm dia. uPVC domestic stormwater connections	m	2550	\$ 90.00	\$ 229,500.00
3.4	Supply and construct 225mm dia. stormwater pipe	m	1654	\$ 180.00	\$ 297,720.00
3.5	Supply and construct 300mm dia. stormwater pipe	m	10200	\$ 200.00	\$ 2,040,000.00
3.6	Supply and construct subsoil drainage	m	20400	\$ 25.00	\$ 510,000.00
<b>4 PAVEMENT WORKS</b>					
4.1	Localised undercutting	cu.m	10098	\$ 30.00	\$ 302,940.00
4.2	Supply and place make up metal	cu.m	10098	\$ 45.00	\$ 454,410.00
4.3	Sub-base construction with cement stabilisation 250mm thick	sq.m	22440	\$ 25.00	\$ 561,000.00
4.4	Sub-base construction with AP65 250mm thick	sq.m	89760	\$ 15.00	\$ 1,346,400.00
4.5	Supply and construct basecourse 150mm thick	sq.m	112200	\$ 15.00	\$ 1,683,000.00
<b>5 KERBING CONSTRUCTION</b>					
5.1	Construct non mountable concrete kerb & channel	m	20400	\$ 80.00	\$ 1,632,000.00
<b>6 FIRST COAT SEALING</b>					
6.1	Preparation of surface	sq.m	112200	\$ 3.00	\$ 336,600.00
6.2	Supply and place grade 5 sealing chip	sq.m	112200	\$ 3.00	\$ 336,600.00
6.3	Asphaltic Concrete paving 50mm thick	sq.m	112200	\$ 40.00	\$ 4,488,000.00
<b>7 FOOTPATH AND BERM CONSTRUCTION</b>					
7.1	Construct concrete footpath / vehicle crossing 100mm thick	sq.m	27540	\$ 60.00	\$ 1,652,400.00
7.2	Construct reinforced concrete vehicle crossing 150mm thick	sq.m	3060	\$ 80.00	\$ 244,800.00
7.3	Construct grass berm areas	sq.m	61200	\$ 8.00	\$ 489,600.00
<b>8 ROAD MARKING, SIGNS AND STREETLIGHTS</b>					
8.1	Install Roadmarking & RRPm's	L.S	1	\$ 50,000.00	\$ 50,000.00
8.2	Supply & Install new signs	each	100	\$ 400.00	\$ 40,000.00
8.3	Supply and Install new streetlights	each	204	\$ 3,000.00	\$ 612,000.00
<b>9 UTILITIES</b>					
9.1	Offset/Protect Survey Marks	each	20	\$ 2,000.00	\$ 40,000.00
9.2	New 150mm SH16 uPVC sewer main	m	10200	\$ 100.00	\$ 1,020,000.00
9.3	New 1050mm dia sewer manhole	each	113	\$ 3,000.00	\$ 339,000.00
9.4	New 100mm uPVC sewer laterals	m	5100	\$ 75.00	\$ 382,500.00
9.5	New 25mm PE water laterals	m	5100	\$ 15.00	\$ 76,500.00
9.6	New 150mm dia PVC water main	m	10200	\$ 250.00	\$ 2,550,000.00
9.7	New power cable & ducting	m	20400	100.00	\$ 2,040,000.00
9.8	New telecom cable & ducting	m	20400	65.00	\$ 1,326,000.00
9.9	New spare ducting	m	20400	50.00	\$ 1,020,000.00
9.10	New gas main	m	10200	200.00	\$ 2,040,000.00
<b>10 PROJECT SPECIFIC ITEMS</b>					
10.1	To be added as required				\$ -
10.2	To be added as required				\$ -
10.3	To be added as required				\$ -
10.4	To be added as required				\$ -
10.5	To be added as required				\$ -
<b>SUB TOTAL \$ (EXCL GST)</b>					<b>\$ 30,244,870.00</b>
<b>11 CONTINGENCY</b>					
11.1	Contingency	L.S	25%	\$ 30,244,870.00	\$ 7,561,217.50
<b>12 PROFESSIONAL FEES</b>					
12.1	Fees	L.S	15%	\$ 30,244,870.00	\$ 4,536,730.50

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TOTAL \$ (EXCL GST) \$ 42,342,818.00




Summary

SCHEDULE OF PRICES - SUMMARY SHEET		
Project Number :	12006.3	
Project Description:	Christchurch Airport Network Valuation - Summary of all prices	
Drawing Reference Number :	11223	
Date Prepared :	26th August 2013	
Prepared By:	JO	
Checked By:	RG	
ITEM	DESCRIPTION	TOTAL
1	ARTERIAL ROADS (5.2km)	\$ 32,008,552.80
2	COLLECTOR ROADS (3.7km)	\$ 17,920,908.60
3	LOCAL ROADS (10.2km)	\$ 42,342,818.00
4	NEW ROUNDABOUTS ( x6)	\$ 5,308,816.80
<b>COMBINED TOTAL \$ (EXCL GST)</b>		<b>\$ 97,581,096.20</b>
	Arterial roads price per M	\$ 6,155.49
	Collector roads price per M	\$ 4,843.49
	Local roads price per M	\$ 4,151.26
DESCRIPTION OF COSTING APPROACH		
All major intersections have been assumed as new roundabouts using dimensions as provided		
All quantities have been calculated from areas on plan provided and dimensions on cross section provided		
A contingency for each section has been allowed for.		
Professional Fees for each section have been allowed for.		
All items based on greenfields site		
Fencing works have not been allowed for		
Topographical survey costs have not been allowed for.		
Pavement sampling and testing costs have not been allowed for.		
Consents have not been allowed for		
Street Furniture has not been allowed for		
Traffic signals have not been allowed for		



Summary

SCHEDULE OF PRICES - SUMMARY SHEET		
Project Number :	12006.3	
Project Description:	Christchurch Airport Road Network Valuation - Arterial Roads	
Drawing Reference Number :	11223	
Date Prepared :	26 August 2013	
Prepared By:	JO	
Checked By:	RG	
ITEM	DESCRIPTION	TOTAL
1	PRELIMINARY AND GENERAL	\$ 86,000.00
2	EARTHWORKS	\$ 1,185,650.00
3	STORMWATER CONSTRUCTION	\$ 1,934,955.00
4	PAVEMENT WORKS	\$ 4,341,170.00
5	KERBING CONSTRUCTION	\$ 2,529,840.00
6	FIRST COAT SEALING	\$ 4,929,408.00
7	FOOTPATH AND BERM CONSTRUCTION	\$ 1,048,744.00
8	ROAD MARKING, SIGNS AND STREETLIGHTS	\$ 429,000.00
9	UTILITIES	\$ 6,378,485.00
10	PROJECT SPECIFIC ITEMS	\$ -
SUB TOTAL \$ (EXCL GST)		\$ 22,863,252.00
11	CONTINGENCY	\$ 5,715,813.00
12	PROFESSIONAL FEES	\$ 3,429,487.80
TOTAL \$ (EXCL GST)		\$ 32,008,552.80
DESCRIPTION OF COSTING APPROACH		
General item includes: Establishment/Disestablishment, Traffic Management Plan, On Site Traffic Control, Survey Control and Setting Out, and As-builts		
Earthworks item based on flat land and no clearing required		
Stormwater Construction item based on 300mm SW main running length of road with sumps / manholes every 90m		
*Pavement Works* based on 150mm basecourse and 250mm thick subbase		
Kerbing Construction based on non mountable kerb and channel, and mountable nib for median		
First Coat Sealing based on 40mm asphalt concrete surfacing		
Footpath Construction based on cross section provided		
Berm Construction based on cross section supplied, formation of grass topsoiling and regrassing		
Fencing works have not been allowed for		
Road Marking based on cross section provided		
Signs works based on typical signage requirements		
Street lighting works based on typical streetlight requirements		
Utilities: Telecom - 3 ducts + cable have been allowed for. Laterals have not been allowed for		
Utilities: Power - 3 ducts + cable have been allowed for. Laterals have not been allowed for		
Utilities: 2x spare ducts have been allowed for		
Utilities: 100mm gas main only has been allowed for		
Utilities: 150mm watermain and 25mm laterals have been allowed for		
Utilities: 150mm sewer main and 100mm laterals have been allowed for		
A contingency has been allowed for.		
Water valves & meters have not been allowed for		
Topographical survey costs have not been allowed for.		
Pavement sampling and testing costs have not been allowed for.		
Professional Fees have been allowed for.		
All measurements and areas based on cross section and plan provided		
Fibre optic has not been allowed for		
Power transformers have not been allowed for		
Consents have not been allowed for		
Street Furniture has not been allowed for		
Traffic signals have not been allowed for		
Utility pits / manholes(Power / Telecom etc) have not been allowed for		

DETAILED SCHEDULE OF PRICES						
Project Number :		12006.3				
Project Description:		Christchurch Airport Road Network Valuation - Arterial Roads				
Drawing Reference Number :		11223				
Date Prepared :		26 August 2013				
Prepared By:		JO				
Checked By:		RG				
ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL	
<b>1 PRELIMINARY AND GENERAL</b>						
1.1	Establishment and Disestablishment	L.S	1	\$ 20,000.00	\$ 20,000.00	
1.2	Traffic Management Plan	L.S	1	\$ 1,000.00	\$ 1,000.00	
1.3	Site Safety Plan	L.S			\$ -	
1.4	Environmental Plan	L.S			\$ -	
1.5	On Site Traffic Control	L.S	1	\$ 50,000.00	\$ 50,000.00	
1.6	Survey Control and Setting Out	L.S	1	\$ 10,000.00	\$ 10,000.00	
1.7	Quality Control Testing by Contractor	L.S			\$ -	
1.7	Supply as built information	L.S	1	\$ 5,000.00	\$ 5,000.00	
<b>2 EARTHWORKS</b>						
2.2	Topsolling stripping 150mm	cu.m	15560	\$ 10.00	\$ 155,600.00	
2.4	Cut to waste carriageway	cu.m	38090	\$ 25.00	\$ 952,250.00	
2.4	Cut to waste footpaths	cu.m	3112	\$ 25.00	\$ 77,800.00	
<b>3 STORMWATER CONSTRUCTION</b>						
3.1	Supply and construct 600mm dia. sump	each	115	\$ 1,200.00	\$ 138,000.00	
3.2	Supply and construct 1050mm dia. stormwater manhole	each	58	\$ 3,000.00	\$ 174,000.00	
3.3	Supply and construct 90mm dia. uPVC domestic stormwater conencions	m	1945	\$ 90.00	\$ 175,050.00	
3.4	Supply and construct 225mm dia. stormwater pipe	m	841	\$ 180.00	\$ 151,380.00	
3.5	Supply and construct 300mm dia. stormwater pipe	m	5186	\$ 200.00	\$ 1,037,200.00	
3.6	Supply and construct subsoil drainage	m	10373	\$ 25.00	\$ 259,325.00	
<b>4 PAVEMENT WORKS</b>						
4.1	Localised undercutting	cu.m	10082	\$ 30.00	\$ 302,460.00	
4.2	Supply and place make up metal	cu.m	10082	\$ 45.00	\$ 453,690.00	
4.3	Sub-base construction with cement stabilisation 250mm thick	sq.m	22406	\$ 25.00	\$ 560,150.00	
4.4	Sub-base construction with AP65 250mm thick	sq.m	89626	\$ 15.00	\$ 1,344,390.00	
4.5	Supply and construct basecourse 150mm thick	sq.m	112032	\$ 15.00	\$ 1,680,480.00	
<b>5 KERBING CONSTRUCTION</b>						
5.1	Construct mountable concrete nib	m	10000	\$ 70.00	\$ 700,000.00	
5.1	Construct non mountable concrete kerb & channel	m	10373	\$ 80.00	\$ 829,840.00	
5.2	Median concrete infill	sq.m	20000	\$ 50.00	\$ 1,000,000.00	
<b>6 FIRST COAT SEALING</b>						
6.1	Preparation of surface	sq.m	112032	\$ 1.00	\$ 112,032.00	
6.4	Supply and place grade 5 membrane seal	sq.m	112032	\$ 3.00	\$ 336,096.00	
6.7	Asphaltic Concrete paving 40mm thick	sq.m	112032	\$ 40.00	\$ 4,481,280.00	
<b>7 FOOTPATH AND BERM CONSTRUCTION</b>						
7.1	Construct concrete footpath / vehicle crossing 100mm thick	sq.m	14004	\$ 50.00	\$ 700,200.00	
7.2	Construct reinforced concrete vehicle crossing 150mm thick	sq.m	1556	\$ 80.00	\$ 124,480.00	
7.3	Construct grass berm areas	sq.m	28008	\$ 8.00	\$ 224,064.00	
<b>8 ROAD MARKING, SIGNS AND STREETLIGHTS</b>						
8.1	Install Roadmarking & RRPW's	L.S	1	\$ 100,000.00	\$ 100,000.00	
8.2	Supply & Install new signs	each	50	\$ 400.00	\$ 20,000.00	
8.3	Supply and Install new streetlights	each	103	\$ 3,000.00	\$ 309,000.00	
<b>9 UTILITIES</b>						
9.1	Offset/Protect Survey Marks	each	16	\$ 2,000.00	\$ 32,000.00	
9.2	New 150mm SN16 uPVC sewer main	m	5187	\$ 100.00	\$ 518,700.00	
9.3	New 1050mm dia sewer manhole	each	58	\$ 3,000.00	\$ 174,000.00	
9.4	New 100mm uPVC sewer laterals	m	2593	\$ 75.00	\$ 194,475.00	
9.5	New 25mm PE water laterals	m	2593	\$ 15.00	\$ 38,895.00	
9.6	New 150mm dia PVC water main	m	5187	\$ 250.00	\$ 1,296,750.00	
9.7	New power cable & ducting	m	15561	100.00	\$ 1,556,100.00	
9.8	New telecom cable & ducting	m	15561	65.00	\$ 1,011,465.00	
9.9	New spare ducting	m	10374	50.00	\$ 518,700.00	
9.10	New 100mm gas main	m	5187	200.00	\$ 1,037,400.00	
<b>10 PROJECT SPECIFIC ITEMS</b>						
10.1	To be added as required				\$ -	
10.2	To be added as required				\$ -	
10.3	To be added as required				\$ -	
10.4	To be added as required				\$ -	
10.5	To be added as required				\$ -	
<b>SUB TOTAL \$ (EXCL GST)</b>					<b>\$ 22,863,252.00</b>	
<b>11 CONTINGENCY</b>						
11.1	Contingency	L.S	25%	\$ 22,863,252.00	\$ 5,715,813.00	
<b>12 PROFESSIONAL FEES</b>						
12.1	Fees	L.S	15%	\$ 22,863,252.00	\$ 3,429,487.80	

Schedule


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TOTAL \$ (EXCL GST) \$	<u>32,008,552.80</u>
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Summary

SCHEDULE OF PRICES - SUMMARY SHEET		
Project Number :	12006.3	
Project Description:	Christchurch Airport Network Valuation - Collector Road	
Drawing Reference Number :	11223	
Date Prepared :	26th August 2013	
Prepared By:	JO	
Checked By:	RG	
ITEM	DESCRIPTION	TOTAL
1	PRELIMINARY AND GENERAL	\$ 60,000.00
2	EARTHWORKS	\$ 644,875.00
3	STORMWATER CONSTRUCTION	\$ 1,340,625.00
4	PAVEMENT WORKS	\$ 2,082,970.00
5	KERBING CONSTRUCTION	\$ 589,120.00
6	FIRST COAT SEALING	\$ 2,472,684.00
7	FOOTPATH AND BERM CONSTRUCTION	\$ 814,380.00
8	ROAD MARKING, SIGNS AND STREETLIGHTS	\$ 259,000.00
9	UTILITIES	\$ 4,536,995.00
10	PROJECT SPECIFIC ITEMS	\$ -
SUB TOTAL \$ (EXCL GST)		\$ 12,800,649.00
11	CONTINGENCY	\$ 3,200,162.25
12	PROFESSIONAL FEES	\$ 1,920,097.35
TOTAL \$ (EXCL GST)		\$ 17,920,908.60
DESCRIPTION OF COSTING APPROACH		
General item includes: Establishment/Disestablishment, Traffic Management Plan, On Site Traffic Control, Survey Control and Setting Out, and As-builts		
Earthworks item based on flat land and no clearing required		
Stormwater Construction item based on 300mm SW main running length of road with sumps / manholes every 90m		
*Pavement Works* based on 250mm subbase & 150mm basecourse and 20% allowance for stabilisation & 30% allowance for undercutting		
*Kerbing Construction* based on non mountable kerb		
*First Coat Sealing* based on 40mm thick asphalt concrete surfacing		
*Footpath Construction* based on cross section provided		
Berm Construction* based on cross section provided		
Fencing works have not been allowed for		
Road Marking based on cross section provided		
Signs works based on typical signage requirements		
Street lighting works based on typical lighting requirements		
Utilities: Telecom - 3 ducts + cable have been allowed for. Laterals have not been allowed for		
Utilities: Power - 3 ducts + cable have been allowed for. Laterals have not been allowed for		
Utilities: 100mm gas main only has been allowed for		
Utilities: 2x spare ducts have been allowed for		
Utilities: 150mm watermain and 25mm laterals have been allowed for		
Utilities: 150mm sewer main and 100mm laterals have been allowed for		
A contingency has been allowed for.		
Water valves & melers have not been allowed for		
Topographical survey costs have not been allowed for.		
Pavement sampling and testing costs have not been allowed for.		
Professional Fees have been allowed for.		
All measurements and areas based on cross section and plan provided		
Consents have not been allowed for		
Street Furniture has not been allowed for		
Fibre optic has not been allowed for		
Power transformers have not been allowed for		
Utility pits / manholes(Power / Telecom etc) have not been allowed for		
Traffic signals have not been allowed for		


DETAILED SCHEDULE OF PRICES					
Project Number :		12006.3			
Project Description:		Christchurch Airport Network Valuation - Collector Road			
Drawing Reference Number :		11223			
Date Prepared :		26th August 2013			
Prepared By:		JO			
Checked By:		RG			
ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL
<b>1 PRELIMINARY AND GENERAL</b>					
1.1	Establishment and Disestablishment	L.S	1	\$ 20,000.00	\$ 20,000.00
1.2	Traffic Management Plan	L.S	1	\$ 1,000.00	\$ 1,000.00
1.3	Site Safety Plan	L.S	1		\$ -
1.4	Environmental Plan	L.S	1		\$ -
1.5	On Site Traffic Control	L.S	1	\$ 30,000.00	\$ 30,000.00
1.6	Survey Control and Setting Out	L.S	1	\$ 5,000.00	\$ 5,000.00
1.7	Quality Control Testing by Contractor	L.S	1		\$ -
1.8	Supply as built information	L.S	1	\$ 4,000.00	\$ 4,000.00
<b>2 EARTHWORKS</b>					
2.1	Topsiiling stripping 150mm thick	cu.m	12150	\$ 10.00	\$ 121,500.00
2.2	Cut to waste carraigeway	cu.m	18726	\$ 25.00	\$ 468,150.00
2.3	Cut to waste footpaths	cu.m	2209	\$ 25.00	\$ 55,225.00
<b>3 STORMWATER CONSTRUCTION</b>					
3.1	Supply and construct 600mm dia. sump	each	82	\$ 1,200.00	\$ 98,400.00
3.2	Supply and construct 1050mm dia. stormwater manhole	each	41	\$ 3,000.00	\$ 123,000.00
3.3	Supply and construct 90mm dia. uPVC domestic stormwater conenctions	m	1012.5	\$ 90.00	\$ 91,125.00
3.4	Supply and construct 225mm dia. stormwater pipe	m	600	\$ 180.00	\$ 108,000.00
3.5	Supply and construct 300mm dia. stormwater pipe	m	3680	\$ 200.00	\$ 736,000.00
3.6	Supply and construct subsoil drainage	m	7364	\$ 25.00	\$ 184,100.00
<b>4 PAVEMENT WORKS</b>					
4.1	Localised undercutting	cu.m	4838	\$ 30.00	\$ 145,140.00
4.2	Supply and place make up metal	cu.m	4838	\$ 45.00	\$ 217,710.00
4.3	Sub-base construction with cement stabilisation 250mm thick	sq.m	10750	\$ 25.00	\$ 268,750.00
4.4	Sub-base construction with AP65 250mm thick	sq.m	43004	\$ 15.00	\$ 645,060.00
4.5	Supply and construct basecourse 150mm thick	sq.m	53754	\$ 15.00	\$ 806,310.00
<b>5 KERBING CONSTRUCTION</b>					
5.1	Construct non mountable concrete kerb & channel	m	7364	\$ 80.00	\$ 589,120.00
<b>6 FIRST COAT SEALING</b>					
6.1	Preparation of surface	sq.m	53754	\$ 3.00	\$ 161,262.00
6.2	Supply and place grade 5 sealing chip	sq.m	53754	\$ 3.00	\$ 161,262.00
6.3	Asphaltic Concrete paving 50mm thick	sq.m	53754	\$ 40.00	\$ 2,150,160.00
<b>7 FOOTPATH AND BERM CONSTRUCTION</b>					
7.1	Construct concrete footpath / vehicle crossing 100mm thick	sq.m	9941	\$ 60.00	\$ 596,460.00
7.2	Construct reinforced concrete vehicle crossing 150mm thick	sq.m	1104	\$ 80.00	\$ 88,320.00
7.3	Construct grass berm areas	sq.m	16200	\$ 8.00	\$ 129,600.00
<b>8 ROAD MARKING, SIGNS AND STREETLIGHTS</b>					
8.1	Install Roadmarking & RRPMS	L.S	1	\$ 25,000.00	\$ 25,000.00
8.2	Supply & Install new signs	each	30	\$ 400.00	\$ 12,000.00
8.3	Supply and Install new streetlights	each	74	\$ 3,000.00	\$ 222,000.00
<b>9 UTILITIES</b>					
9.1	Offset/Protect Survey Marks	each	10	\$ 2,000.00	\$ 20,000.00
9.2	New 150mm SN16 uPVC sewer main	m	3681	\$ 100.00	\$ 368,100.00
9.3	New 150mm pvc water main	m	3681	\$ 250.00	\$ 920,250.00
9.4	New 1050mm dia sewer manhole	each	40	\$ 3,000.00	\$ 120,000.00
9.5	New 100mm SN16 uPVC sewer laterals	m	2025	\$ 75.00	\$ 151,875.00
9.6	New 25mm PE water laterals	m	2025	\$ 15.00	\$ 30,375.00
9.7	New telecom cable & ducting	m	11043	\$ 65.00	\$ 717,795.00
9.8	New power cable & ducting	m	11043	\$ 100.00	\$ 1,104,300.00
9.9	New spare ducting	m	7362	\$ 50.00	\$ 368,100.00
9.10	New 100mm gas main	m	3681	\$ 200.00	\$ 736,200.00
<b>10 PROJECT SPECIFIC ITEMS</b>					
10.1	To be added as required				\$ -
10.2	To be added as required				\$ -
10.3	To be added as required				\$ -
10.4	To be added as required				\$ -
10.5	To be added as required				\$ -


Schedule

					SUB TOTAL \$ (EXCL GST) \$	12,800,649.00
11	CONTINGENCY					
11.1	Contingency	L.S	25%	\$ 12,800,649.00	\$	3,200,162.25
12	PROFESSIONAL FEES					
12.1	Fees	L.S	15%	\$ 12,800,649.00	\$	1,920,097.35
					TOTAL \$ (EXCL GST) \$	<u>17,920,908.60</u>



Summary

SCHEDULE OF PRICES - SUMMARY SHEET		
Project Number :	12006.3	
Project Description:	Christchurch Airport Road Network Valuation - Roundabouts	
Drawing Reference Number :	11223	
Date Prepared :	26 August 2013	
Prepared By:	JO	
Checked By:	RG	
ITEM	DESCRIPTION	TOTAL
1	PRELIMINARY AND GENERAL	\$ 86,000.00
2	EARTHWORKS	\$ 35,950.00
3	STORMWATER CONSTRUCTION	\$ 53,025.00
4	PAVEMENT WORKS	\$ 99,975.00
5	KERBING CONSTRUCTION	\$ 50,300.00
6	FIRST COAT SEALING	\$ 122,268.00
7	FOOTPATH AND BERM CONSTRUCTION	\$ 36,504.00
8	ROAD MARKING, SIGNS AND STREETLIGHTS	\$ 54,000.00
9	UTILITIES	\$ 93,980.00
10	PROJECT SPECIFIC ITEMS	\$ -
SUB TOTAL \$ (EXCL GST)		\$ 632,002.00
11	CONTINGENCY	\$ 158,000.50
12	PROFESSIONAL FEES	\$ 94,800.30
TOTAL \$ (EXCL GST)		\$ 884,802.80
TOTAL \$ (EXCL GST) FOR 6 NewROUNDABOUTS		\$ 5,308,816.80
DESCRIPTION OF COSTING APPROACH		
General item includes: Establishment/Disestablishment, Traffic Management Plan, On Site Traffic Control, Survey Control and Setting Out, and As-builts		
Earthworks item based on flat land and no clearing required		
Stormwater Construction item based on typical SW reticulation for roundabouts		
*Pavement Works" based on 250mm subbase and 150mm basecourse plus possible undercut of 30% total area and metal replacement		
*Kerbing Construction" based on non mountable kerbs to approach to roundabout and mountable splitter islands		
*First Coat Sealing" based on 40mm thick asphalt concrete surfacing		
*Footpath Construction" based on 1.5m wide 100mm thick concrete footpath both sides of road / roundabout		
Berm Construction" based on formation of grass berms, topsoiling and regrassing		
Fencing works have not been allowed for		
Road Marking based on typical roadmarking for roundabouts		
Signs works based on typical signage for roundabouts		
Street lighting works based on typical requirement for roundabouts		
Utilities: The installation costs for potential utilities and underground services within the extent of works, have been allowed for.		
A contingency has been allowed for.		
Topographical survey costs have not been allowed for.		
Pavement sampling and testing costs have not been allowed for.		
Professional Fees have been allowed for.		
Consents have not been allowed for		
Street furniture has not been allowed for		

DETAILED SCHEDULE OF PRICES						
Project Number :		12006.3				
Project Description:		Christchurch Airport Indicative Road Network - Roundabouts				
Drawing Reference Number :		11223				
Date Prepared :		26th August 2013				
Prepared By:		JO				
Checked By:		RG				
ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL	
<b>1 PRELIMINARY AND GENERAL</b>						
1.1	Establishment and Disestablishment	L.S	1	\$ 40,000.00	\$	40,000.00
1.2	Traffic Management Plan	L.S	1	\$ 10,000.00	\$	10,000.00
1.3	On Site Traffic Control	L.S	1	\$ 30,000.00	\$	30,000.00
1.4	Survey Control and Setting Out	L.S	1	\$ 3,000.00	\$	3,000.00
1.5	Supply as built information	L.S	1	\$ 3,000.00	\$	3,000.00
<b>2 EARTHWORKS</b>						
2.1	Topsolling stripping	cu.m	400	\$ 10.00	\$	4,000.00
2.2	Cut to waste carriage way	cu.m	1170	\$ 25.00	\$	29,250.00
2.3	Cut to waste footpaths	cu.m	108	\$ 25.00	\$	2,700.00
<b>3 STORMWATER CONSTRUCTION</b>						
3.1	Supply and construct 600mm dia. sump	each	8	\$ 1,200.00	\$	9,600.00
3.2	Supply and construct 1050mm dia. stormwater manhole	each	2	\$ 3,000.00	\$	6,000.00
3.3	Supply and construct 225mm dia. stormwater pipe	m	70	\$ 180.00	\$	12,600.00
3.4	Supply and construct 300mm dia. stormwater pipe	m	86	\$ 200.00	\$	17,200.00
3.5	Supply and construct subsoil drainage	m	305	\$ 25.00	\$	7,625.00
<b>4 PAVEMENT WORKS</b>						
4.1	Localised undercutting	cu.m	245	\$ 30.00	\$	7,350.00
4.2	Supply and place make up metal	cu.m	245	\$ 45.00	\$	11,025.00
4.3	Sub-base construction with AP65 250mm thick	sq.m	2720	\$ 15.00	\$	40,800.00
4.4	Supply and construct basecourse 150mm thick	sq.m	2720	\$ 15.00	\$	40,800.00
<b>5 KERBING CONSTRUCTION</b>						
5.1	Construct mountable concrete nib	m	210	\$ 70.00	\$	14,700.00
5.2	Construct non mountable concrete kerb & channel	m	305	\$ 80.00	\$	24,400.00
5.3	Construct reinforced 150mm thick concrete apron	sq.m	140	\$ 80.00	\$	11,200.00
<b>6 FIRST COAT SEALING</b>						
6.1	Preparation of surface	sq.m	2658	\$ 3.00	\$	7,974.00
6.2	Supply and place grade 5 membrane seal	sq.m	2658	\$ 3.00	\$	7,974.00
6.3	Asphaltic Concrete paving 40mm thick	sq.m	2658	\$ 40.00	\$	106,320.00
<b>7 FOOTPATH AND BERM CONSTRUCTION</b>						
7.1	Construct concrete footpath / vehicle crossing 100mm thick	sq.m	540	\$ 50.00	\$	27,000.00
7.2	Construct grass berm areas	sq.m	1188	\$ 8.00	\$	9,504.00
<b>8 ROAD MARKING, SIGNS AND STREETLIGHTS</b>						
8.1	Install Roadmarking & RRP's	L.S	1	\$ 10,000.00	\$	10,000.00
8.2	Supply & Install new signs	each	20	\$ 400.00	\$	8,000.00
8.3	Supply and Install new streetlights	each	12	\$ 3,000.00	\$	36,000.00
<b>9 UTILITIES</b>						
9.1	Offset/Protect Survey Marks	each	2	\$ 2,000.00	\$	4,000.00
9.2	New 150mm SN16 uPVC sewer main	m	86	\$ 100.00	\$	8,600.00
9.3	New 1050mm dia sewer manhole	each	1	\$ 3,000.00	\$	3,000.00
9.4	New 100mm uPVC sewer laterals	m	30	\$ 75.00	\$	2,250.00
9.5	New 25mm PE water laterals	m	30	\$ 15.00	\$	450.00
9.6	New 150mm dia PVC water main	m	86	\$ 250.00	\$	21,500.00
9.7	New power cable & ducting	m	172	\$ 100.00	\$	17,200.00
9.8	New telecom cable & ducting	m	172	\$ 65.00	\$	11,180.00
9.9	New spare ducting	m	172	\$ 50.00	\$	8,600.00
9.10	New gas main	m	86	\$ 200.00	\$	17,200.00
<b>10 PROJECT SPECIFIC ITEMS</b>						
10.1	To be added as required				\$	-
10.2	To be added as required				\$	-
10.3	To be added as required				\$	-
10.4	To be added as required				\$	-
10.5	To be added as required				\$	-
<b>SUB TOTAL \$ (EXCL GST)</b>					\$	<b>632,002.00</b>
<b>11 CONTINGENCY</b>						
11.1	Contingency	L.S	25%	\$ 632,002.00	\$	158,000.50
<b>12 PROFESSIONAL FEES</b>						
12.1	Fees	L.S	15%	\$ 632,002.00	\$	94,800.30



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TOTAL \$ (EXCL GST) \$	884,802.80
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Summary

SCHEDULE OF PRICES - SUMMARY SHEET		
Project Number :	12006.3	
Project Description:	Christchurch Airport Network Valuation - Collector Road	
Drawing Reference Number :	11223	
Date Prepared :	26th August 2013	
Prepared By:	JO	
Checked By:	RG	
ITEM	DESCRIPTION	TOTAL
1	PRELIMINARY AND GENERAL	\$ 60,000.00
2	EARTHWORKS	\$ 644,875.00
3	STORMWATER CONSTRUCTION	\$ 1,340,625.00
4	PAVEMENT WORKS	\$ 2,082,970.00
5	KERBING CONSTRUCTION	\$ 589,120.00
6	FIRST COAT SEALING	\$ 2,472,684.00
7	FOOTPATH AND BERM CONSTRUCTION	\$ 814,380.00
8	ROAD MARKING, SIGNS AND STREETLIGHTS	\$ 259,000.00
9	UTILITIES	\$ 4,536,995.00
10	PROJECT SPECIFIC ITEMS	\$ -
<b>SUB TOTAL \$ (EXCL GST)</b>		\$ 12,800,649.00
11	CONTINGENCY	\$ 3,200,162.25
12	PROFESSIONAL FEES	\$ 1,920,097.35
<b>TOTAL \$ (EXCL GST)</b>		\$ 17,920,908.60
DESCRIPTION OF COSTING APPROACH		
General item includes: Establishment/Disestablishment, Traffic Management Plan, On Site Traffic Control, Survey Control and Setting Out, and As-builts		
Earthworks item based on flat land and no clearing required		
Stormwater Construction item based on 300mm SW main running length of road with sumps / manholes every 90m		
*Pavement Works* based on 250mm subbase & 150mm basecourse and 20% allowance for stabilisation & 30% allowance for undercutting		
*Kerbing Construction* based on non mountable kerb		
*First Coat Sealing* based on 40mm thick asphalt concrete surfacing		
*Footpath Construction* based on cross section provided		
Berm Construction* based on cross section provided		
Fencing works have not been allowed for		
Road Marking based on cross section provided		
Signs works based on typical signage requirements		
Street lighting works based on typical lighting requirements		
Utilities: Telecom - 3 ducts + cable have been allowed for. Laterals have not been allowed for		
Utilities: Power - 3 ducts + cable have been allowed for. Laterals have not been allowed for		
Utilities: 100mm gas main only has been allowed for		
Utilities: 2x spare ducts have been allowed for		
Utilities: 150mm watermain and 25mm laterals have been allowed for		
Utilities: 150mm sewer main and 100mm laterals have been allowed for		
A contingency has been allowed for.		
Water valves & meters have not been allowed for		
Topographical survey costs have not been allowed for.		
Pavement sampling and testing costs have not been allowed for.		
Professional Fees have been allowed for.		
All measurements and areas based on cross section and plan provided		
Consents have not been allowed for		
Street Furniture has not been allowed for		
Fibre optic has not been allowed for		
Power transformers have not been allowed for		
Utility pits / manholes(Power / Telecom etc) have not been allowed for		
Traffic signals have not been allowed for		

DETAILED SCHEDULE OF PRICES						
Project Number :		12006.3				
Project Description:		Christchurch Airport Network Valuation - Collector Road				
Drawing Reference Number :		11223				
Date Prepared :		26th August 2013				
Prepared By:		JO				
Checked By:		RG				
ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL	
<b>1 PRELIMINARY AND GENERAL</b>						
1.1	Establishment and Disestablishment	L.S	1	\$ 20,000.00	\$ 20,000.00	
1.2	Traffic Management Plan	L.S	1	\$ 1,000.00	\$ 1,000.00	
1.3	Site Safety Plan	L.S	1		\$ -	
1.4	Environmental Plan	L.S	1		\$ -	
1.5	On Site Traffic Control	L.S	1	\$ 30,000.00	\$ 30,000.00	
1.6	Survey Control and Setting Out	L.S	1	\$ 5,000.00	\$ 5,000.00	
1.7	Quality Control Testing by Contractor	L.S	1		\$ -	
1.8	Supply as built information	L.S	1	\$ 4,000.00	\$ 4,000.00	
<b>2 EARTHWORKS</b>						
2.1	Topsiiling stripping 150mm thick	cu.m	12150	\$ 10.00	\$ 121,500.00	
2.2	Cut to waste carraigeway	cu.m	18726	\$ 25.00	\$ 468,150.00	
2.3	Cut to waste footpaths	cu.m	2209	\$ 25.00	\$ 55,225.00	
<b>3 STORMWATER CONSTRUCTION</b>						
3.1	Supply and construct 600mm dia. sump	each	82	\$ 1,200.00	\$ 98,400.00	
3.2	Supply and construct 1050mm dia. stormwater manhole	each	41	\$ 3,000.00	\$ 123,000.00	
3.3	Supply and construct 90mm dia. uPVC domestic stormwater conenctions	m	1012.5	\$ 90.00	\$ 91,125.00	
3.4	Supply and construct 225mm dia. stormwater pipe	m	600	\$ 180.00	\$ 108,000.00	
3.5	Supply and construct 300mm dia. stormwater pipe	m	3680	\$ 200.00	\$ 736,000.00	
3.6	Supply and construct subsoil drainage	m	7364	\$ 25.00	\$ 184,100.00	
<b>4 PAVEMENT WORKS</b>						
4.1	Localised undercutting	cu.m	4838	\$ 30.00	\$ 145,140.00	
4.2	Supply and place make up metal	cu.m	4838	\$ 45.00	\$ 217,710.00	
4.3	Sub-base construction with cement stabilisation 250mm thick	sq.m	10750	\$ 25.00	\$ 268,750.00	
4.4	Sub-base construction with AP65 250mm thick	sq.m	43004	\$ 15.00	\$ 645,060.00	
4.5	Supply and construct basecourse 150mm thick	sq.m	53754	\$ 15.00	\$ 806,310.00	
<b>5 KERBING CONSTRUCTION</b>						
5.1	Construct non mountable concrete kerb & channel	m	7364	\$ 80.00	\$ 589,120.00	
<b>6 FIRST COAT SEALING</b>						
6.1	Preparation of surface	sq.m	53754	\$ 3.00	\$ 161,262.00	
6.2	Supply and place grade 5 sealing chip	sq.m	53754	\$ 3.00	\$ 161,262.00	
6.3	Asphaltic Concrete paving 50mm thick	sq.m	53754	\$ 40.00	\$ 2,150,160.00	
<b>7 FOOTPATH AND BERM CONSTRUCTION</b>						
7.1	Construct concrete footpath / vehicle crossing 100mm thick	sq.m	9941	\$ 60.00	\$ 596,460.00	
7.2	Construct reinforced concrete vehicle crossing 150mm thick	sq.m	1104	\$ 80.00	\$ 88,320.00	
7.3	Construct grass berm areas	sq.m	16200	\$ 8.00	\$ 129,600.00	
<b>8 ROAD MARKING, SIGNS AND STREETLIGHTS</b>						
8.1	Install Roadmarking & RRPm's	L.S	1	\$ 25,000.00	\$ 25,000.00	
8.2	Supply & Install new signs	each	30	\$ 400.00	\$ 12,000.00	
8.3	Supply and Install new streetlights	each	74	\$ 3,000.00	\$ 222,000.00	
<b>9 UTILITIES</b>						
9.1	Offset/Protect Survey Marks	each	10	\$ 2,000.00	\$ 20,000.00	
9.2	New 150mm SN16 uPVC sewer main	m	3681	\$ 100.00	\$ 368,100.00	
9.3	New 150mm pvc water main	m	3681	\$ 250.00	\$ 920,250.00	
9.4	New 1050mm dia sewer manhole	each	40	3000.00	\$ 120,000.00	
9.5	New 100mm SN16 uPVC sewer laterals	m	2025	75.00	\$ 151,875.00	
9.6	New 25mm PE water laterals	m	2025	15.00	\$ 30,375.00	
9.7	New telecom cable & ducting	m	11043	65.00	\$ 717,795.00	
9.8	New power cable & ducting	m	11043	100.00	\$ 1,104,300.00	
9.9	New spare ducting	m	7362	50.00	\$ 368,100.00	
9.10	New 100mm gas main	m	3681	200.00	\$ 736,200.00	
<b>10 PROJECT SPECIFIC ITEMS</b>						
10.1	To be added as required				\$ -	
10.2	To be added as required				\$ -	
10.3	To be added as required				\$ -	
10.4	To be added as required				\$ -	
10.5	To be added as required				\$ -	

Schedule

<b>SUB TOTAL \$ (EXCL GST) \$</b>					<b>12,800,649.00</b>	
<b>11</b>	<b>CONTINGENCY</b>					
11.1	Contingency	L.S	25%	\$ 12,800,649.00	\$	3,200,162.25
<b>12</b>	<b>PROFESSIONAL FEES</b>					
12.1	Fees	L.S	15%	\$ 12,800,649.00	\$	1,920,097.35
<b>TOTAL \$ (EXCL GST) \$</b>						<b>17,920,908.60</b>

# APPENDIX V DISCOUNTED CASHFLOW



**CIAL DISCLOSURE LAND VALUATION as at 30 June 2013**  
Scenario: Sell-Down of Land

Alternative Land Use	Legal Area (ha)	Adopted FHLV	Gross Realisation	1 Sep 13 : Aug 14			2 Sep 14 : Aug 15			3 Sep 15 : Aug 16			4 Sep 16 : Aug 17			5 Sep 17 : Aug 18			6 Sep 18 : Aug 19			7 Sep 19 : Aug 20			8 Sep 20 : Aug 21		
				% Sold	Land Area Rev. Growth:	Gross Real. 0.0%	% Sold	Land Area Rev. Growth:	Gross Real. 3.0%	% Sold	Land Area Rev. Growth:	Gross Real. 3.0%	% Sold	Land Area Rev. Growth:	Gross Real. 3.0%	% Sold	Land Area Rev. Growth:	Gross Real. 3.0%	% Sold	Land Area Rev. Growth:	Gross Real. 3.0%	% Sold	Land Area Rev. Growth:	Gross Real. 3.0%	% Sold	Land Area Rev. Growth:	Gross Real. 3.0%
1 Retail / Office	12%	67,8198 ha	\$2,600,000/ha	15%	10.1730 ha	\$26,449,706	15%	10.1730 ha	\$27,243,197	15%	10.1730 ha	\$28,060,493	7.5%	5.0865 ha	\$14,451,154	7.5%	5.0865 ha	\$14,894,689	7.5%	5.0865 ha	\$15,331,229	7.5%	5.0865 ha	\$15,791,166	7.5%	5.0865 ha	\$16,264,901
2 Light Industrial / Distribu	31%	173,4600 ha	\$1,400,000/ha										10%	17.3460 ha	\$26,536,222	10%	17.3460 ha	\$27,332,308	10%	17.3460 ha	\$28,152,278	10%	17.3460 ha	\$28,996,846	10%	17.3460 ha	\$29,866,751
3 Residential	34%	186,8379 ha	\$750,000/ha																								
4.1 Future Urban (outside M	22%	123,0961 ha	\$150,000/ha																								
	<b>100%</b>	<b>551.2137 ha</b>																									
5 Existing Roading / Utilities		11,7551 ha																									
6 Future Roading		42,8000 ha																									
7 Reserves / Infrastructure		7,0000 ha																									
<b>Gross Realisation</b>		<b>612.7688ha</b>			<b>10.1730ha</b>	<b>\$26,449,706</b>		<b>10.1730ha</b>	<b>\$27,243,197</b>		<b>10.1730ha</b>	<b>\$28,060,493</b>		<b>22.4325ha</b>	<b>\$40,987,376</b>		<b>22.4325ha</b>	<b>\$42,216,997</b>		<b>41.1163ha</b>	<b>\$59,728,229</b>		<b>41.1163ha</b>	<b>\$61,520,076</b>		<b>41.1163ha</b>	<b>\$63,365,079</b>
<b>Less: Selling Expenses</b>																											
Sales Commissions	2.5%		\$14,444,205			\$661,243		\$681,060		\$701,512		\$1,024,684		\$1,055,425		\$1,493,206		\$1,538,002		\$1,538,002		\$1,538,002		\$1,538,002		\$1,584,142	
Promotion	0.5%		\$2,888,841			\$132,249		\$132,249		\$140,302		\$204,937		\$211,085		\$298,641		\$307,600		\$307,600		\$307,600		\$307,600		\$316,828	
<b>Net Realisation</b>			<b>\$590,435,159</b>			<b>\$25,656,215</b>		<b>\$26,425,901</b>		<b>\$27,218,678</b>		<b>\$39,757,755</b>		<b>\$40,950,487</b>		<b>\$57,936,382</b>		<b>\$59,674,474</b>									<b>\$61,464,709</b>
<b>Less: Development Costs</b>																											
Planning / Consent Costs			(\$3,500,000)	20%		(\$700,000)	25%	(\$901,250)	30%	(\$1,113,945)	20%	(\$764,909)	5%	(\$196,964)		(\$22,624,647)	15%	(\$17,477,540)	5%	(\$6,000,622)							
Future Connecting Road Network including Services			(\$97,581,096)																								
<b>Total Development Costs</b>			<b>(\$700,000)</b>			<b>(\$901,250)</b>		<b>(\$1,113,945)</b>		<b>(\$1,113,945)</b>		<b>(\$27,422,283)</b>		<b>(\$38,636,898)</b>		<b>(\$22,624,647)</b>		<b>(\$17,477,540)</b>		<b>(\$6,000,622)</b>							<b>(\$6,000,622)</b>
<b>Net Cashflow (Annual in Arrears)</b>			<b>\$459,354,063</b>			<b>\$24,956,215</b>		<b>\$25,524,651</b>		<b>\$26,104,733</b>		<b>\$12,335,471</b>		<b>\$2,313,589</b>		<b>\$35,311,738</b>		<b>\$42,196,934</b>									<b>\$55,464,086</b>

Discount Rate	Total NPV	On Gross Land Area	On Useable Land Area	9 Sep 21 : Aug 22			10 Sep 22 : Aug 23			11 Sep 23 : Aug 24			12 Sep 24 : Aug 25			13 Sep 25 : Aug 26			14 Sep 26 : Aug 27			15 Sep 27 : Aug 28		
				% Sold	Land Area Rev. Growth:	Gross Real. 3.0%	% Sold	Land Area Rev. Growth:	Gross Real. 3.0%	% Sold	Land Area Rev. Growth:	Gross Real. 3.0%	% Sold	Land Area Rev. Growth:	Gross Real. 3.0%	% Sold	Land Area Rev. Growth:	Gross Real. 3.0%	% Sold	Land Area Rev. Growth:	Gross Real. 3.0%	% Sold	Land Area Rev. Growth:	Gross Real. 3.0%
7.50%	\$163,860,000	\$287,409/ha	\$297,271/ha	7.5%	5.0865 ha	\$16,752,848	10%	6.7820 ha	\$23,007,245	10%	17.3460 ha	\$31,685,637	10%	17.3460 ha	\$33,615,292	10%	17.3460 ha	\$34,623,751	10%	18.6838 ha	\$20,578,328	10%	18.6838 ha	\$21,195,678
20.00%	\$143,255,000	\$233,783/ha	\$259,890/ha	10%	17.3460 ha	\$30,762,754	10%	17.3460 ha	\$31,685,637	10%	18.6838 ha	\$18,832,086	10%	18.6838 ha	\$19,397,048	10%	18.6838 ha	\$19,978,960	50%	61.5480 ha	\$13,162,915	50%	61.5480 ha	\$13,557,803
22.50%	\$126,444,000	\$206,349/ha	\$229,392/ha																					
<b>Adopt</b>	<b>\$143,255,000</b>	<b>\$233,783/ha</b>	<b>\$259,890/ha</b>																					
					<b>41.1163ha</b>	<b>\$65,266,649</b>		<b>42.8118ha</b>	<b>\$72,976,460</b>		<b>36.0298ha</b>	<b>\$51,468,291</b>		<b>36.0298ha</b>	<b>\$53,012,340</b>		<b>97.5778ha</b>	<b>\$67,765,625</b>		<b>80.2318ha</b>	<b>\$34,136,131</b>		<b>18.6838ha</b>	<b>\$21,195,678</b>
						\$1,631,666		\$1,824,411		\$1,286,707		\$1,325,308		\$1,694,141		\$853,403		\$529,892		\$529,892		\$105,978		\$105,978
						\$326,333		\$364,882		\$257,341		\$265,962		\$338,828		\$170,681		\$170,681		\$170,681		\$170,681		\$170,681
						\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0
						<b>\$63,308,649</b>		<b>\$70,787,166</b>		<b>\$49,924,242</b>		<b>\$51,421,970</b>		<b>\$65,732,657</b>		<b>\$33,112,047</b>		<b>\$20,559,808</b>						
						\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0
<b>Net Cashflow (Annual in Arrears)</b>					<b>\$63,308,649</b>		<b>\$70,787,166</b>		<b>\$49,924,242</b>		<b>\$51,421,970</b>		<b>\$65,732,657</b>		<b>\$33,112,047</b>		<b>\$20,559,808</b>							