Wellington International Airport Limited

Price Setting Event Disclosure for the Pricing Period 1 July 2007 to 31 March 2012

Prepared in accordance with the Commerce Act (Specified Airport Services Information Disclosure) Determination 2010

31 October 2011

Contents

1. Introduction

This disclosure is the first price setting event disclosure prepared by Wellington International Airport Limited (WIAL) and is for the period 1 July 2007 to 31 March 2012 (the pricing period). The disclosure is required under Clause 2.10(3) of the Commerce Act (Specified Airport Services Information Disclosure) Determination 2010 (the Determination) and represents the price setting event immediately preceding the commencement date of the Determination.

This price setting event disclosure has been prepared to provide the information required by Clause 2.5 of the Determination, as required by clause 2.10(3). The disclosure contained in this document is ordered in accordance with the specific clauses in the Determination.

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2. Publication of the Price Setting Event Disclosure Information

2.1. Context of this Disclosure

In providing the price setting event disclosure required by the Determination, WIAL wishes to inform interested persons of the following matters:

- The information contained in this Disclosure document has been extracted from historical records prepared when the Determination requirements were not in existence and could not have been contemplated. A description of the key documents referred to by WIAL in preparation of this Disclosure document is set out in the introduction to Section 3 of this paper.
- The underlying assumptions applied by WIAL, including the allocation of assets and costs between specified airport services and non regulated activities, in determining the charges to airlines and passengers that apply in the pricing period were not independently audited or independently reviewed.
- Directors' certification is not required for this Disclosure document. This Disclosure document has not been, and is not required to be, audited by a third party.
- There is certain information required to be disclosed by the Determination that WIAL does not have available and could not have contemplated would be required when it established prices for the pricing period. WIAL has therefore received exemptions from the Commerce Commission (the Commission) in respect of this information.
- WIAL has also appreciated guidance it has received from the Commission on other aspects of the required disclosures during the preparation of this Disclosure document. WIAL has noted in the document where exemptions or guidance have been received as they relate to the information requirement being addressed.

3. Price Setting Event Disclosures

Determination Reference	WIAL Comment
Introduction	This Disclosure document describes the price setting process undertaken by WIAL to establish landing and terminal charges for the pricing period. The requirements of the Determination were not contemplated at the time the prices were established and consequently WIAL has been required to extract, analyse or summarise information from WIAL's key consultation documents in order to meet the Determination requirements for this disclosure document. Key consultation documents WIAL has had regard to are listed below: ➢ WIAL's Final Pricing Proposal dated 9 May 2007; ➢ WIAL's Supplement to Final Proposal dated 21 May 2007; ➢ WIAL's Pricing Model – v7 (in Microsoft Excel format); and ➢ Asset valuation and capital expenditure files providing input to the Pricing Model. WIAL has also had regard to a number of other documents in preparing the detailed comments on the key capital expenditure projects. These documents include: ➢ WIAL business planning documents; ➢ WIAL capital expenditure presentations to airlines; and ➢ Reports from external advisors regarding capacity, utilisation and development options for key WIAL facilities where prospective congestion was identified.
Clause 2.5(1)(a) & (b) Public Disclosure of Forecast Total Revenue Requirement and Report on Demand Forecasts	The disclosure schedules 18 and 19 are attached at Appendix A. Explanatory comments on several aspects of the schedules are provided below. **Schedule 18a Revenue Requirement** The calculation of the revenue requirement set out by the Commission in Schedule 18a is not entirely consistent with WIAL's pricing calculation model. As a result, there are a number of differences which need to be reconciled between the two approaches. The Commission has advised WIAL to disclose the differences as Other Factors in Schedule 18a with supporting explanation to be separately provided. The differences in the revenue requirement calculated by the two approaches, are set out in the table below:

Determination Reference	WIAL Comment

Revenue Requirement in Schedule 18a	2008 $000	2009 $000	2010 $000	2011 $000	2012 $000
WIAL's forecast revenue requirement	43,838	46,104	48,210	51,107	54,184
Adjustment Required (disclosed as Other Factors)	12,869	14,426	14,419	12,763	(62,429)
Commission revenue requirement before adjustment	56,707	60,530	62,629	63,870	(8,245)

Schedule 18a - Other Factors

A breakdown of Other Factors is as follows:

- Asset revaluation

  WIAL forecast its asset revaluations in 2012, the final year of the pricing period, which was when the next revaluation was forecast to be undertaken. WIAL's pricing methodology was forecast to achieve a smoothed pricing path that achieved its cost of capital, less any pricing concessions, over the full pricing period. As a result, WIAL's pricing methodology smoothed the forecast revaluation over the pricing period. The revaluation has been evenly phased within other factors over the five year period.

- IDF wash up adjustment

  WIAL applied a credit in 2008 with respect to a wash up for international departure fee (IDF) revenue from the previous pricing period. This arose from the Government amending the requirements for collection of Government agency charges. As a result any surplus revenues, above cost, collected up until commencement of the pricing period would be applied as a credit to revenue required from airlines in the pricing period and this has also been evenly phased within other factors over the pricing period.

- Reduction in revenue requirement below NPV = 0

  WIAL forecast an NPV for the period below zero for the pricing asset base. The annual price increase to achieve NPV = 0 over the pricing period was 3.48%. However, the final pricing set was at a lower annual price increase of 2.85%. This adjustment shows the annual revenue foregone.

- Annual NPV surplus/(deficits) from activities not in pricing asset base

  WIAL forecast a NPV for the period below zero for its airport activity assets not included in the pricing asset base. This

Determination Reference	WIAL Comment

adjustment reflects the annual revenue shortfall earned by WIAL from its airport activity assets excluded from the pricing asset base compared to its cost of capital on those assets.

- Other adjustments

  The remaining other adjustments are due to the following:

  - WIAL's pricing approach was targeted to achieve a smoothed increase in prices over the pricing period; and
  - WIAL's Pricing Model applied a discounted cash flow approach which was applied to the annual financial surpluses/(deficits).

- Summary of Other Factors:

	2008 $000	2009 $000	2010 $000	2011 $000	2012 $000
Phasing of asset revaluation	15,407	15,407	15,407	15,407	(61,629)
Phasing of IDF wash up adjustment	(855)	214	214	214	214
Reduction in revenue requirement below NPV=0	(2,186)	(1,896)	(802)	376	1,669
Annual NPV surplus/(deficits) from activities not in pricing asset base	(1,927)	(1,690)	(1,415)	(1,133)	(1,130)
Other adjustments	2,430	2,390	1,014	(2,101)	(1,553)
Total Other Factors	**12,869**	**14,426**	**14,419**	**12,763**	**(62,429)**

Schedule 18a - Aircraft and Freight Revenue Requirement

A breakdown of revenue is required into the three identified airport activities. The disclosure produced by WIAL provides amounts for both the airfield and specified passenger terminal activities but shows aircraft and freight required revenue as zero. WIAL advises that this is due to the following:

- Landing charge revenues received from aircraft carrying freight are included in the airfield activity.
- Other revenues received from aircraft and freight comprise separate commercial lease arrangements that were excluded from the pricing consultation following discussions with WIAL's substantial customers and therefore are not included within required revenue from landing and terminal charges. As a result, the revenue from these leases is included as a reduction in required revenue (since the aircraft and freight assets are included in the forecast value of assets employed) and this adjustment is

Determination Reference	WIAL Comment
	reported in the Forecast Other Income line in Schedule 18a. **Schedule 19 – Demand Forecasts** This schedule requires WIAL to publish forecast terminal passengers busy hour data and aircraft movements busy hour and busy day data for 10 years from commencement of the pricing period. WIAL did not obtain forecasts in this manner for 2008, and the subsequent years, and consequently cannot disclose this information. WIAL has received an exemption from the Commission in respect of these disclosure requirements. In undertaking planning for required capital expenditure projects during the pricing period, WIAL undertook planning for identified facilities that were congested or where congestion was forecast in the near future. This planning, and the forecast outcomes, is explained in the comments concerning the North Pier Terminal Expansion capital expenditure project in Appendix E. WIAL will provide the information required in Schedule 19 for future pricing periods.
Clause 2.5(1)(c) Description of Building Block Inputs	Clause 2.5(1)(c) requires comment on how each of the building block inputs to Schedule 18 have been determined including an explanation of: *"(vii) the rationale for the basis of preparing these components, and any related assumptions;* *(ix) the extent to which each component is used to determine the forecast total revenue requirement; and* *(x) the differences (if any) between the preparation of each component and the most recent corresponding historical financial information disclosure in accordance with clause 2.3 [Annual Disclosure Relating to Financial Information]."* Note: Since the first annual disclosures required by clause 2.3 are not due until 28 February 2012 comment in respect of historical disclosure information presented in accordance with clause 2.3 per Clause (x) above cannot be provided.
2.5(1)(c)(i) Forecast Value of Assets Employed	WIAL's forecast of assets employed was determined from the following formula for the assets comprising WIAL's identified airport activities to be used in the asset base to determine revenue required from aeronautical pricing: *Forecast value of assets employed = allocated share of asset valuation at 31 March 2006 plus capital expenditure less depreciation plus/minus forecast revaluation gains/(losses) plus working capital. The annual Forecast Value of Capital Employed was the average of the opening and closing values for each year.* Each of the components of this formula are discussed below. ➢ Asset valuation effective 31 March 2006. WIAL's land and building assets where valued by independent valuers - Telfer Young and civil works assets valued by Opus. Plant

Determination Reference	WIAL Comment
	and equipment assets were not revalued as these were not material in comparison to the total asset base. Land was valued at Market Value Existing Use with zonal, discounted cash flow and civil works replacement cost valuation approaches undertaken. Telfer Young recommended the valuation resulting from the zonal approach. Buildings and civil works assets were valued at Optimised Depreciated Replacement Cost. Further comment is provided in respect of clause 2.5(1)(d) below. ➢ The addition of forecast capital expenditure. A detailed capital expenditure forecast was prepared for the period 2007-2012. The forecast commenced in 2007 because the starting valuation was at the end of the 2006 year and this value was rolled forward to the commencement of the new pricing period. Comment on the key capital expenditure projects is provided below to meet the requirements of clause 2.5(1)(f). ➢ The deduction of forecast depreciation. Refer to comments on clause 2.5(1)(c)(iv) below. ➢ The forecast of revaluation gains/(losses). Refer to comments on clause 2.5(1)(c)(vi) below. ➢ Allocation of assets, depreciation, capital expenditure and revaluations to the asset base for pricing. WIAL maintains a detailed fixed asset register recording approximately 10,000 individual assets. Each asset is allocated a business code that attributes the asset to an identified business activity or to a common asset grouping. WIAL established the total assets attributable to identified airport activities by applying the following allocation process: o Directly attributable assets were aggregated from the business codes; o Terminal common assets were allocated to specified terminal and terminal commercial activities based on the share of the value of directly allocated assets in each business activity; and o Other common or shared assets were allocated to identified airport and commercial activities based on the total value of directly allocated and terminal common assets for each business activity. Accordingly, this methodology used directly allocated asset values as proxy allocators for common or shared assets. The allocation of forecast capital expenditure was calculated for each item of capital expenditure. ➢ The addition of forecast working capital.

<table>
<tr><th>Determination Reference</th><th>WIAL Comment</th></tr>
<tr><td></td><td>
WIAL forecast its working capital based on historical levels of working capital for identified airport activities.
Forecast Value of Asset Employed
This was therefore derived from WIAL's Forecast Asset Base as follows:
<table>
<tr><th></th><th>2008
$000</th><th>2009
$000</th><th>2010
$000</th><th>2011
$000</th><th>2012
$000</th></tr>
<tr><td>Opening assets</td><td>311,356</td><td>348,617</td><td>373,750</td><td>373,965</td><td>369,644</td></tr>
<tr><td>Forecast depreciation</td><td>(8,406)</td><td>(10,050)</td><td>(10,798)</td><td>(10,664)</td><td>(10,835)</td></tr>
<tr><td>Forecast revaluations</td><td>0</td><td>0</td><td>0</td><td>0</td><td>77,036</td></tr>
<tr><td>Assets commissioned</td><td>45,667</td><td>35,183</td><td>11,013</td><td>6,343</td><td>3,279</td></tr>
<tr><td>Forecast asset base</td><td>348,617</td><td>373,750</td><td>373,965</td><td>369,644</td><td>439,124</td></tr>
<tr><td>Average value of annual assets employed</td><td>329,986</td><td>361,183</td><td>373,857</td><td>371,804</td><td>404,384</td></tr>
<tr><td>Average Value of Working Capital</td><td>4,544</td><td>4,933</td><td>4,929</td><td>4,924</td><td>4,918</td></tr>
<tr><td>Forecast Value of Assets Employed</td><td>334,530</td><td>366,116</td><td>378,786</td><td>376,728</td><td>409,301</td></tr>
</table>
</td></tr>
<tr><td>2.5(1)(c)(ii) Cost of Capital</td><td>
WIAL commissioned independent economic advisors LECG to provide a recommendation on the appropriate cost of capital (WACC) for application by WIAL in its building block model. Late in the consultation the Government legislated for a reduction in the corporate tax rate. WIAL updated the WACC calculation for this and at the same time updated its risk free rate to current data. The WACC assumptions adopted by WIAL were as follows:
<table>
<tr><th></th><th>WACC Parameters
2009 - 2012</th></tr>
<tr><td>Risk free rate</td><td>6.16%</td></tr>
<tr><td>Debt margin</td><td>1.5%</td></tr>
<tr><td>Cost of debt</td><td>7.66%</td></tr>
<tr><td>Leverage ratio</td><td>40.0%</td></tr>
<tr><td>Asset beta</td><td>0.6</td></tr>
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<table>
<tr><th>Determination Reference</th><th>WIAL Comment</th></tr>
<tr><td></td><td>
<table>
<tr><td>Equity beta</td><td>1.0</td></tr>
<tr><td>Tax adjusted market risk premium</td><td>8.0%</td></tr>
<tr><td>Corporate tax rate</td><td>30%(*)</td></tr>
<tr><td>Cost of equity</td><td>12.3%</td></tr>
<tr><td>WACC</td><td>9.5%</td></tr>
</table>
(*) For the 2008 year, the corporate tax rate was 33%, all other variables unchanged, and WACC was 9.3%.

The WACC adopted by WIAL is multiplied by the forecast value of capital employed to calculate the required return from its pricing asset base.
</td></tr>
<tr><td>2.5(1)(c)(iii) Forecast Operational Expenditure</td><td>
WIAL used its actual total company expenses for the year to 31 March 2006 as the base for forecasting its operational expenditure for the next pricing period.

The main forecast assumptions applied for the pricing period are set out below:
➢ Allowance for inflation of 2.5% per annum.
➢ Allowance for real cost increases in staff remuneration of 1.0% per annum plus an increase of 0.5% per annum commencing in 2009 for KiwiSaver.
➢ Provision for an additional 4 employees (airside and operations) in 2008 and 1 (airside) in 2012.
➢ A 10% increase in insurance premiums in 2008 with a further 10% increase in 2012 based on historic experience that periodic real increases in insurance premiums arise due to changes in asset values and for unanticipated market events.
➢ Costs for completion of the pricing period consultation were provided in 2008 with forecast costs for the 2012-2017 consultation not then provided until 2011 and 2012.
➢ A number of variable costs were increased based on the forecast increase in passenger numbers. These were cleaning and security, energy, sundry materials, toilet consumables, air conditioning, doors/lifts & escalators, rubbish removal, terminal systems, lighting & electrical, buildings and other repairs and maintenance.

The forecast costs were then allocated as below:
➢ Direct costs allocated to identified airport activities; and
➢ Other shared costs allocated using cost allocators (either causal or proxy) that were deemed appropriate for that cost item.
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Determination Reference	WIAL Comment
	The cost items, and the basis of allocation for these, are shown at Appendix B. Schedule 18(b)(iv) requires costs to be disclosed in three cost categories specified in the Determination. WIAL did not classify its operating cost base in this manner for the pricing period. The Commission has provided an exemption from the requirement to disclose operating costs by these categories with operating costs being required to be shown in aggregate only. The allocated costs for identified airport activities were included in the building block model for the determination of pricing.
2.5(1)(c)(iv) Forecast Depreciation	Asset lives are reviewed by the valuers at each valuation, with the valuers recommending lives to be adopted. For existing assets, depreciation forecasts were based on applying these asset lives. Depreciation lives for new capital expenditure were applied for each asset grouping based on management's estimate of the average life for assets within that grouping. The straight line depreciation rates applied were: ➢ Buildings – 4.1% ➢ Building ancillary services – 9.3% ➢ Civil works - 2.0% ➢ Computer and communications equipment – 20% ➢ Other plant and equipment – 9.3% Forecast depreciation is allocated to identified airport activities and the pricing asset base in the same manner as for assets as detailed in the comments for clause 2.5(1)(c)(i).
2.5(1)(c)(v) Forecast Tax	WIAL determined its tax forecast applying a tax payable approach recognising the amended tax cash flows that arise from the recognition of asset tax depreciation rather than accounting book depreciation. WIAL did not include other tax adjustments in the tax calculation because historically these have been immaterial and there was no basis to expect this to change in future periods. The annual forecast tax expense for each identified airport activity was determined by the following formula: *Tax expense = (earnings before depreciation and revaluations less forecast tax depreciation) * corporate tax rate WHERE* *Corporate tax rate in 2008 = 33% and from 1 April 2008 (2009 financial year) = 30%.* The forecast tax expense was included as an input to the building block model.
2.5(1)(c)(vi) Forecast Revaluations	WIAL's pricing model assumed that an asset revaluation would be undertaken in the final year of the pricing period and forecast revaluation gains were included in that final year. Forecast revaluation assumptions were determined following advice received from WIAL's valuers Telfer Young, Opus and Wareham Cameron. The forecast assumptions adopted by WIAL are set out below:

Determination Reference	WIAL Comment

	Forecast Annual Revaluation Increase Adopted by WIAL	Forecast Revaluations for Identified Airport Activities ($m)[1]
Land	2.5%	19.2
Buildings	5.0%	29.1
Civil Works	5.0%	28.7
Total		**77.0**

Note 1: These forecast revaluations those shown in Schedule 18a.

The forecast revaluations for assets included in the consultation pricing asset base were included as income in the building block model.

Clause 2.5(1)(d) Valuation to Determine Forecast Value of Assets Employed

Section 16 of the Airport Authorities (Airport Companies Information Disclosure) Regulations 1999 required WIAL to make available copies of valuation reports where assets used in identified airport activities were revalued. This valuation report comprised the valuations for WIAL's land and civil works assets (copy attached at Appendix C). Valuation information for buildings was only provided in respect of buildings used to provide identified airport activities.

These assets were allocated to aeronautical activities in the manner explained in the comments for clause 2.5(c)(i) above. A summary of the asset allocation undertaken is shown below:

Asset Category $000	Value Advised in 2006 Disclosure Valuation Reports	Pricing Asset Base	Assets for Specified Airport Services Not in Pricing Asset Base	Total Identified Airport Activity Assets at 31 March 2007
Land	231,128	129,116	15,304	144,420
Civil Works	66,166	64,356	1,260	65,615
Specialised Buildings	136,399	72,894	19,942	92,837
Plants & Equipment[1]	8,993	8,464	20	8,484
Total	**442,686**	**274,830**	**36,526**	**311,356**

Determination Reference	WIAL Comment
	Note 1: Not revalued but included in the valuation report and table for completeness.
Clause 2.5(1)(e) Forecast capital Expenditure by Category and Key Capital Expenditure Projects	Section 4C of the Airport Authorities Act 1966 requires WIAL to consult with every substantial customer on capital expenditure projects that exceed 20% of the value of its identified airport activity assets. While none of WIAL's forecast individual capital expenditure projects exceeded this threshold WIAL did undertake discussions with its substantial customers for a number of growth projects. WIAL undertook a business planning project in 2004 and early 2005. While the project did not extend to completion of a new airport Master Plan, extensive consideration was given to WIAL's medium term growth prospects and the investment in facilities that would be required to accommodate expected growth. The business plan resulting from the project was completed in early 2005 and discussions were commenced with the airlines in respect of the key capital expenditure projects in late 2005. Specific comments on each of the key projects are provided in Appendix D including setting out of the disclosure requirements required by clause 2.5(1)(f). This Determination requires WIAL to comment on the aims and objectives of any proposed investments. The Commission has provided an exemption from this requirements such that the aims and objectives must be disclosed for key capital expenditure projects only.
Clause 2.5(1)(f) Future Key Capital Expenditure Projects	The key capital expenditure projects forecast for the 2008-2012 pricing period are explained in more detail in Appendix D.
Clause 2.5(1)(g) Assumptions or Justifications for Forecast Operational Expenditure by Category	The Commission has provided an exemption from the requirements of this clause subject to assumptions and justifications for aggregate forecast operational expenditure being disclosed under clause 2.5(1)(c)(iii). WIAL has provided this information above.
Clause 2.5(2)(a) Summary of Pricing	➢ Determination of Required Revenue WIAL determines its revenue requirements from application of the building block model as set out in the formula below: *Revenue Required = Return on Capital + Operating Costs + Depreciation on Assets + Taxation +/– Expected Revaluation of Assets* Where: *Return on capital = Forecast value of assets employed times weighted average cost of capital.*

Determination Reference	WIAL Comment
Methodology	The objective of the building block model applied for the pricing period was to derive revenue, and pricing, that would ensure that WIAL forecast a NPV for the pricing period of zero. Required revenue from aeronautical pricing was determined by applying the building block calculation to inputs for the airfield and specified terminal activities, but excluding most assets where revenue was derived from an alternative source, e.g. lease income. The exception was check in counter revenue which was pursuant to counter licence agreements, which stated that this revenue be included in the revenue requirement – for aeronautical pricing. A summary of the outcomes from WIAL's pricing model for the consultation period, and the assumptions applied by WIAL in determining its building block components are detailed in the information required by clause 2.5(1)(c) above. ➢ WIAL's Revenue and Pricing Model WIAL developed a pricing model using Microsoft Excel to aggregate the building block inputs to produce a required revenue statement for each identified airport activity. The revenue statements also showed the forecast NPV of the surpluses or deficits for each airport activity. The "goal seek" function was utilised to determine the change in revenues, and prices, required to achieve an NPV equal to zero for the five year pricing period. That is, WIAL did not seek to establish annual prices that would produce an NPV of zero in each individual year during the pricing period. The pricing model calculated the required change in prices which then recalculated annual revenues. A number of commercial concessions were made during consultation which were adjusted for in the pricing calculations. These included the following: ○ WIAL excluded a considerable value of aeronautical assets from the pricing asset base including the entire main terminal central hall and thoroughfares from check in to the aircraft piers, both reclassified as commercial assets for that pricing period, together with all assets for aeronautical leased properties, irrespective of whether these were required for passenger processing activities. Examples of leased assets that should have been retained in the pricing asset base were Bridge Street houses purchased by WIAL in response to an Environment Court proceeding concerning proximity of the houses to the airport and in particular the houses falling within the airport's 300m strip width. The total value of such assets excluded from the pricing asset base was $51.2 million. ○ Following consultation with its substantial customers, WIAL set final prices which achieved a required revenue below the level required to produce WIAL's cost of capital i.e. below NPV = 0. The NPV over the pricing period of this revenue concession was $1.9m. ➢ Structure of Charges WIAL's charges for the pricing period were levied on a passenger basis. For prices that applied until 30 June 2002 WIAL levied charges

Determination Reference	WIAL Comment
	on an aircraft weight basis for airfield services and an aircraft seat basis for terminal services. During the 2002 consultation process the airlines requested that WIAL introduce passenger based charges and following consideration of the merits of this approach WIAL agreed to change its charging structure. In the consultation for the 2008-2012 pricing period WIAL retained passenger based charges. Aircraft operators not operating commercial passenger services, nor using the Eastern apron and terminal, were forecast to produce less than 1% of WIAL's revenue for aeronautical services. For these aircraft operators WIAL proposed: ○ Retaining weight based charges for operators of commercial aircraft. ○ Retaining a fixed charge for private general aviation aircraft. ➢ Forecast Passenger Numbers WIAL's pricing model was structured to determine the level of charges that would be required, when multiplied by forecast passenger or aircraft volumes, to produce required revenue. The passenger forecasts were prepared by WIAL and submitted to its substantial customers for consideration. The airlines were also requested to advise WIAL whether they wished WIAL to commission a forecast from an external adviser however this was not requested. WIAL's passenger number forecasts are shown in Appendix A at Schedule 19. The passenger charges established allowed for several passenger groupings to be exempt from charges. The forecast exempted passenger volumes were deducted from the total passenger forecasts before prices were determined. The exempted passenger groupings were: ○ Infants; ○ Positioning of crews; and ○ Transit passengers. In addition charges for aircraft carrying international passengers returning to their destination (i.e. arrived in Wellington on a diverted aircraft and not processed through Customs) would be levied at an airfield MCTOW charge only and not the full passenger services charge. ➢ Composition of Passenger Charges Passenger charges were therefore established from the matrix approach set out below which was adopted in 2002:

Determination Reference	WIAL Comment

	Airfield charge	Terminal charge	Air bridge charge
International passenger	Jet passenger charge reflecting jet consumption of runway	International terminal charge based on assumed consumption of international terminal, net of international departure fee	Per passenger charge applied to jets on assumption all jets would use bridges
International departure fee	N/A	Fixed charge per passenger	N/A
Domestic jet passenger	Jet passenger charge reflecting jet consumption of runway	Domestic terminal based on assumed consumption of domestic terminal	Per passenger charge applied to jets on assumption all jets would use bridges
Domestic propeller aircraft passenger	Propeller passenger charge reflecting jet consumption of runway	Domestic terminal charge based on assumed consumption of domestic terminal	N/A

- Required Change in Passenger Charges

WIAL sought comments from its substantial customers on their preference for a single increase in charges at the commencement of the new pricing period compared to incremental increases throughout the pricing period. There were different views expressed by the substantial customers and WIAL ultimately concluded that an incremental annual change in charges was appropriate.

WIAL also considered the manner in which an increase in charges would be applied. In the previous pricing period, WIAL's charges were set to achieve an NPV=0 separately for each airport activity. In the pricing period this would have required significant changes to the charging components because changes to the building block inputs, such as capital expenditure and passenger number variation from that forecast in the previous pricing period, since the prices were previously set meant that the forecast outcomes by airport activity were not aligned at an NPV=0 level for the pricing period as they had been previously.

WIAL did not wish to introduce any unnecessary volatility into the forecast prices and therefore resolved to apply uniform price increases to all charges. The outcome of the pricing model and consultation were:

Charges Payable by Operators of Scheduled Passenger Services	Pricing Increment Applied by WIAL	Pricing Model Increment to Achieve NPV=0
Increase in charges on 1 July 2007 and then annually from 1 April 2008 until 1 April 2011	2.85% per annum	3.48% per annum

Determination Reference	WIAL Comment
	WIAL did not propose a change in the international departure fee which was collected directly from passengers at the airport. ➢ Check in Counter Charges Charges for the use of check in counters were also levied to the airlines. These were excluded from consultation as the charges were established in separate discussions with individual airlines with separate licences established with each airline. The licence agreements contained the charges and terms of use that applied for airline use of check in counters. The purpose of this approach was to provide airlines with confidence that they would have sufficient access to these facilities while also preserving flexibility for WIAL should counter allocation need to be reconsidered during the pricing period, such as following commencement of services by a new airline. The forecast income received from counter charges was offset against the required revenue from aeronautical charges in WIAL's pricing model. ➢ Parking Charges Aircraft parking charges at WIAL are provided for in the charging structure and apply to itinerant aircraft only; not regular users of Wellington airport. WIAL uses its discretion to levy the charge which occurs only intermittently and produces a low level of income and no parking revenue was forecast. These charges were increased in a single increment in line with other charges as noted below. ➢ Other Charges Charges were also established for aircraft operators that did not utilise the Eastern (main) apron or the terminal. The total charges from these operators were forecast to be less than 1% of revenue from aeronautical charges. WIAL concluded that it would retain weight based or fixed charges for the new pricing period as the most suitable pricing bases for aircraft operators not operating scheduled passenger services. WIAL also considered that the market risk sharing issues discussed above were not so significant for these airlines and concluded that it would apply a one off increases of 9.4% at the commencement of the new pricing period for these charges.
2.5(2)(b)(i) Description of Charged Services	WIAL's passenger services charge for scheduled airline operators applies to all relevant services to airlines and passengers. The list of services provided is set out below. ➢ Airfield services o Runway and taxiways including all entrances and exits o Aprons including parking stands and aircraft manoeuvring areas o Airport fire services

Determination Reference	WIAL Comment
	○ Airside safety services ○ Asset management of airfield services including planning and repairs and maintenance. ➢ Terminal services ○ Check in hall ○ Landside areas for passengers and visitors ○ Secure airside areas for passengers following security screening and gate lounges for passengers not requiring security screening ○ Egresses throughout terminal for arriving and departing passengers ○ Baggage collection area and facilities for airlines/Aviation Security to process baggage ○ Terminal systems required for processing or administration of passengers including security, flight display system, public address system, building fire system, closed circuit television system and communication systems. ○ Non leased facilities required by for the operation of border control services for international passengers. ○ Non leased facilities required for the operation of security and police services. ○ All building infrastructure to provide passenger utility and comfort including wash facilities, heating and air conditioning, electricity and lighting. ○ Operations staffing and management to facilitate effective daily operation of the terminal building and interaction with airlines. ○ Asset management of terminal services including planning and repairs and maintenance. ➢ Air bridge services (for jet aircraft only) ○ Use of air bridges for departing and arriving passengers ○ Asset management of air bridge services including planning and repairs and maintenance. ➢ Corporate costs ○ Company overheads allocated to other activities for corporate functions including executive management, finance, human resources, information technology, property management and marketing and communications. ○ Company management overhead costs such as directors' fees, non-activity attributable insurances and office

Determination Reference	WIAL Comment
	administration costs. International departing passengers were also levied a departure fee payable directly to WIAL. This fee, in conjunction with the passenger services charge fee, provided the total revenue received from WIAL for the services above. The international departure fee revenue is attributed to terminal activities. Charges to aircraft operators that do not provide scheduled passenger services are for the airfield services listed above together with a share of allocated corporate costs.
2.5(2)(b)(ii) Relationship between Quality of Service and Cost for Each Charged Service	WIAL's prices were set to reflect the provision of high quality services to airlines at an efficient level of operating costs. The terminal facilities were relatively new, with the main terminal building having been replaced in mid 1999, and WIAL demonstrated its comparative cost efficiency to other Australasian airports during its consultation, with WIAL's operating cost per passenger the lowest of the Australasian airports. Other than the capital expenditure projects commented on below WIAL did not forecast to achieve specific service quality or efficiency improvements during the pricing period, with WIAL's intent therefore to maintain its existing high standard of services. In seeking to ensure that high quality services were provided WIAL anticipated that this would require continuing daily interaction with airlines, and other parties, and staff at the airport concerning WIAL facility or service issues that could impact on airline operations. WIAL intended to retain the following key support functions within WIAL: ➢ WIAL Operations – a monitoring centre and support staffing to be provided 24 hours per day. Operations staff were charged with resolving minor service interruption issues as they arose. ➢ WIAL Maintenance – responsible for undertaking appropriate preventative maintenance programmes as well as responding to unexpected breakdowns in facilities. ➢ WIAL Airside – a monitoring team for compliance and safety issues for all aircraft movement areas. In levying the charges to aircraft operators and passengers WIAL committed to making sufficient facilities available to ensure that demand forecast passenger and aircraft demand could be accommodated (this was taken as part of a detailed review of airport congestions issues explained in further detail in Appendix D). In providing the facilities WIAL was also required to comply with considerable safety and security requirements imposed by the Civil Aviation Authority and Aviation Security. The objectives of meeting demand and complying with regulatory requirements were the drivers for WIAL's management of the airport and capital expenditure planning. WIAL notes that interruptions to key facilities were required to be disclosed in the annual Disclosure Financial Statements required by the Airport Authorities (Airport Companies Information Disclosure) Regulations 1999. This provided a public measure of WIAL's management of key facilities.

<table>
<tr><th>Determination Reference</th><th>WIAL Comment</th></tr>
<tr><td></td><td></td></tr>
<tr><td>2.5(2)(b)(iii) Methodology Used to Allocate Costs to Particular Charged Services</td><td>A description of WIAL's asset and cost allocation processes are provided in the comments regarding clauses 2.5(1)(c)(i) and 2.5(1)(c)(iii).</td></tr>
<tr><td>2.5(2)(b)(iv) Significant Changes to, or Rebalancing of Prices from the Previous Pricing Period</td><td>There were no significant changes to, or rebalancing of, prices from the previous pricing period. WIAL retained the price structure from the previous period and:
Applied incremental annual increases to the passenger services charge.
Retained the international departure fee at the same level as the previous pricing period.
Applied single increases at the commencement of the pricing period for charges to operators of aircraft not providing scheduled passenger services.</td></tr>
<tr><td>2.5(2)(b)(v) Methodology for Determining Pricing for Charged Services and How These Were Reconciled With the Forecast Revenue Requirement</td><td>This is explained in detail in 2.5(2)(a) above. The prices, and changes in prices, were determined that when multiplied by forecast passenger and other incidental traffic volumes produced the required revenue necessary to ensure that net present value did not exceed zero.

WIAL then made a commercial judgment to establish changes in prices that were below the required revenue required to produce WIAL's cost of capital over the pricing period.

The composition of the required revenue derived from the charges commented above was forecast to be as follows:
<table>
<tr><th></th><th>2008
$000</th><th>2009
$000</th><th>2010
$000</th><th>2011
$000</th><th>2012
$000</th></tr>
<tr><td>Airfield Revenue</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Allocated proportion of revenue from passenger services charge</td><td>20,910</td><td>22,107</td><td>23,210</td><td>24,667</td><td>26,216</td></tr>
<tr><td>Revenue from weight based and general aviation landing charges</td><td>300</td><td>300</td><td>300</td><td>300</td><td>300</td></tr>
<tr><td>Specified Terminal</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Allocated proportion of revenue from passenger services charge</td><td>14,673</td><td>15,513</td><td>16,287</td><td>17,310</td><td>18,398</td></tr>
<tr><td>Allocated proportion of revenue from passenger services charge for air bridges</td><td>1,262</td><td>1,335</td><td>1,401</td><td>1,490</td><td>1,584</td></tr>
</table></td></tr>
</table>

Determination Reference	WIAL Comment						
		Revenue from international departure fee	6,275	6,432	6,593	6,923	7,269
		Revenue from check in counter rentals	418	418	418	418	418
		Total Required Revenue	**43,838**	**46,104**	**48,210**	**51,107**	**54,184**

Determination Reference	WIAL Comment
2.5(2)(b)(vi) Terminal Access Charges	WIAL included a separate charge for air bridge usage in the total passenger charge. The air bridge charge was determined for the 2002-2007 pricing period by establishing the level of charges that was required to produce an NPV of zero for air bridges as a standalone aeronautical activity. That is, the building block inputs were determined separately for air bridges. As the air bridges were a component of the passenger charges the 2.85% annual increase in charges was also applied to the air bridge component for the 2008-2012 pricing period.
2.5(2)(c) Explanation of the Extent to Which the Airport Pricing Methodology Will Lead to Efficient Prices including whether there are any Cross Subsidies	The prices established by WIAL for the 2002-2007 consultation period were derived from application of the building block model that produced an NPV of zero for each individual airport activity. Prices established for this pricing period therefore reflected recovery of average cost, including WIAL's return on capital, for each activity charged separately in that pricing period (i.e. airfield, domestic terminal, international terminal, and air bridges). WIAL's pricing approach for the 2007-2012 pricing period was structured on a recovery of average cost and specific economic efficiency objectives were not established for these prices. The pricing methodology applied by WIAL is set out below. ➢ 2002-2007 pricing period The revenue requirement for the 2002-2007 pricing period was derived from application of the building block model that produced an NPV of zero for separately charged airport activities (i.e. airfield, domestic terminal, international terminal, and air bridges). Prices for this pricing period reflected a recovery of average cost, including WIAL's return on capital, for each of these activities over the pricing period. ➢ 2007-2012 pricing period The 2002-2007 price setting approach was retained for the 2007-2012 pricing period, with prices derived from application of the building block model and established to recover the average cost of WIAL's airport activities but not at an individual activity level. Instead the change in prices was applied to each of the separately charged activities established in the 2002-2007 pricing period and ensured that the net present value for WIAL's total airport activities did not exceed zero. A consequence of this approach was that an NPV deficit was forecast in the airfield activity, which was offset by a forecast NPV surplus in the specified terminal activity for the pricing period. WIAL considered that economic efficiency has three dimensions, being allocative, productive and dynamic efficiency, and that an average cost approach is consistent with productive and dynamic efficiency since this enabled WIAL to continue to invest in enhanced facilities. However, allocative efficiency was not considered for the pricing period. WIAL considered that cross subsidies arise where a service is priced below marginal cost. Given the high fixed costs and low marginal costs of WIAL's aeronautical business, WIAL considered that it was unlikely that any cross subsidies would arise despite the 2007-2012

Determination Reference	WIAL Comment
	pricing period approach not being based on average cost per individual activity.
Clause 2.5(3) Standard Prices	WIAL's pricing schedule for the period 1 July 2007 to 31 March 2012 is attached at Appendix E.

Appendix A – Schedule 18: Report on the Forecast Total Revenue Requirement and Schedule 19: Report on Demand Forecasts

Regulated Airport: **Wellington International Airport Limited**
Pricing Period Starting Year Ended: **31 March 2008**

SCHEDULE 18: REPORT ON THE FORECAST TOTAL REVENUE REQUIREMENTS

ref

18a: Revenue Requirement

Overview of the methodology used to determine the revenue requirement

Section 4A of the Airport Authorities Act 1966 provides for WIAL to set charges for use of the airport services or facilities. Section 4B of the Act mandates that WIAL must consult with every substantial customer in respect of any charge payable by every substantial customer or passengers at least every 5 years.

WIAL applied the building block model to achieve NPV not exceeding zero over the pricing period. This ensures that the required revenue is smoothed over the pricing period, but as a result NPV may not equal zero for individual years within the pricing period.

The building block approach provides for required revenue to be established from the following formula:
Revenue Required = Return on Capital + Operating Costs + Depreciation on Assets + Taxation +/– Expected Revaluation of Assets
Where:
Return on Capital = Weighted Average Cost of Capital * Capital Employed

	($000)	Year 1	Year 2	Year 3	Year 4	Year 5
	for year ended	31 Mar 08	31 Mar 09	31 Mar 10	31 Mar 11	31 Mar 12
	Forecast value of assets employed	334,530	366,116	378,786	376,728	409,301
	Forecast cost of capital	9.30%	9.50%	9.50%	9.50%	9.50%
	Forecast return on assets employed	31,111	34,781	35,985	35,789	38,884
plus	Forecast operational expenditure	10,684	10,816	10,937	12,153	13,357
plus	Forecast depreciation	8,406	10,050	10,798	10,664	10,835
plus	Forecast tax	10,134	8,838	9,203	9,909	10,729
plus (less)	Forecast revaluations	–	–	–	–	(77,036)
less	Forecast other income	3,628	3,954	4,294	4,647	5,013
plus (less)	Other factors	(12,870)	(14,426)	(14,419)	(12,762)	62,429
	Forecast total revenue requirement	43,838	46,104	48,210	51,107	54,184
	Forecast total revenue requirement for the following regulated activities					
	Airfield activities	21,210	22,407	23,510	24,967	26,516
	Aircraft and freight activities					
	Specified passenger terminal activities	22,628	23,698	24,700	26,140	27,669
	Total	43,838	46,104	48,210	51,107	54,184

Description of any other factors that are considered in determining the forecast total revenue requirement

The consultation process between WIAL and every substantial customer included discussion of comprehensive information on each of the building block inputs. The inputs proposed by WIAL were modified following responses received from substantial customers throughout the consultation process. The modifications comprised changes in WIAL's forecast assumptions following the receipt of information from substantial customers and commercial concessions made by WIAL in respect of the building block inputs.

The commercial concessions made by WIAL during the consultation had the impact of reducing the revenue required. These are described in the attached document Disclosure Following Price Setting Event for Pricing Period 1 July 2007 to 31 March 2012.

Regulated Airport: **Wellington International Airport Limited**
Pricing Period Starting Year Ended: **31 March 2008**

SCHEDULE 18: FORECAST TOTAL REVENUE REQUIREMENTS (cont)

Year of most recent disclosure (year ended)

ref	($000)	for year ended	Year 0 *	Year 1 31 Mar 08	Year 2 31 Mar 09	Year 3 31 Mar 10	Year 4 31 Mar 11	Year 5 31 Mar 12	Year 6 31 Mar 13	Year 7 31 Mar 14	Year 8 31 Mar 15	Year 9 31 Mar 16	Year 10 31 Mar 17	Total
	18b(i): Forecast Asset Base													
	Forecast asset base—previous year			311,356	348,617	373,749	373,965	369,643						
less	Forecast depreciation			8,406	10,050	10,798	10,664	10,835						
plus	Forecast revaluations			–	–	–	–	77,036						
plus	Assets commissioned			45,667	35,183	11,013	6,343	3,279						
less	Asset disposals													
plus (less)	Forecast adjustment resulting from cost allocation													
	Forecast asset base			348,617	373,749	373,965	369,643	439,123						
	18b(ii): Forecast Works Under Construction													
	Works under construction—previous year			27,196	12,523	–	–	–						
plus	Capital expenditure			30,994	22,660	11,013	6,343	3,279						
less	Assets commissioned			45,667	35,183	11,013	6,343	3,279						
	Works under construction			12,523	–	–	–	–						
	18b(iii): Forecast Capital Expenditure													
	Capital Expenditure by Category													
	Capacity growth			27,395	19,094	–	–	–	–	–	–	–	–	
	Asset replacement and renewal			3,599	3,565	11,013	6,343	3,279	3,585	3,285	3,069	3,227	3,059	
	Total capital expenditure			30,994	22,660	11,013	6,343	3,279	3,585	3,285	3,069	3,227	3,059	
	Capital Expenditure by Key Capital Expenditure Project													
	South Runway End Safety Area			2,625	–	–								2,625
	North Runway End Safety Area			5,670	–	–								5,670
	Northern Pier Eastern Gate Expansion			4,513	–	–								4,513
	Northern Pier Terminal and Western Gate Expansion			14,588	19,094	–								33,682
	Airfield Pavement Maintenance Programme			1,872	1,707	7,338	2,094	923	2,389	2,178	1,978	2,401	2,181	25,061
	[Project 6]													–
	[Project 7]													–
	[Project 8]													–
	[Project 9]													–
	[Project 10]													–
	[Project 11]													–
	[Project 12]													–
	[Project 13]													–
	[Project 14]													–
	[Project 15]													–
	[Project 16]													–
	[Project 17]													–
	[Project 18]													–
	[Project 19]													–
	[Project 20]													–
	Other capital expenditure			1,727	1,858	3,675	4,249	2,356	1,196	1,107	1,091	826	878	18,963
	Total Capital Expenditure			30,994	22,660	11,013	6,343	3,279	3,585	3,285	3,069	3,227	3,059	90,513

* *Year 0 disclosure applies only if the pricing period starting year and the year of most recent disclosure do not coincide*

Regulated Airport | Wellington International Airport Limited
Pricing Period Starting Year Ended | 31 March 2008

SCHEDULE 18: FORECAST TOTAL REVENUE REQUIREMENTS (cont 2)

ref

Basis for Cost Allocation

Operating Costs:

The process for WIAL's allocation of operating costs was consistent with the Commission's input methodology. For each operating cost item WIAL:

- Allocated direct costs to identified airport activities; and
- Allocated other costs using cost allocators (either proxy or causal) that were deemed appropriate for that cost item.

Fixed Assets:

WIAL maintains a detailed fixed asset register recording approximately 10,000 individual assets. Each asset is allocated a business code that attributes the asset to an identified business activity or to a common asset grouping. WIAL establishes the total assets attributable to identified airport activities by applying the following allocation process:

- Directly attributable assets are aggregated from the business codes;
- Terminal common assets are allocated to specified terminal and terminal retail activities based on the share of directly allocated assets in each business activity (by net book value);
- Other common or shared assets are allocated to identified airport and commercial activities based on the total of directly allocated and terminal common assets for each business activity (by net book value).

An explanation of where and why disclosures differ from the cost-allocation Input Methodology and/or, where costs are shared between regulated and non-regulated assets, an explanation of the basis for that allocation.

Key Capital Expenditure Projects—Consumer Demands Assessment

Refer to Appendix D of the attached document Disclosure Following Price Setting Event for Pricing Period 1 July 2007 to 31 March 2012.

An explanation of how consumer demands have been assessed and incorporated for each reported project and the degree to which consumers agree with project scope, timing and cost.

($000)		Year 1	Year 2	Year 3	Year 4	Year 5
	for year ended	31 Mar 08	31 Mar 09	31 Mar 10	31 Mar 11	31 Mar 12
18b(iv) FORECAST OPERATIONAL EXPENDITURE	##					
Corporate overheads		Information not available for pricing period (exemption granted by Commerce Commission)				
Asset management and airport operations						
Asset maintenance						
Total operational expenditure		10,684	10,816	10,937	12,153	13,357

Regulated Airport: **Wellington International Airport Limited**
Pricing Period Starting Year Ended: **31 March 2008**

SCHEDULE 19: REPORT ON DEMAND FORECASTS

19a: Passenger terminal demand

($000)

			for year ended	Year 1 31 Mar 08	Year 2 31 Mar 09	Year 3 31 Mar 10	Year 4 31 Mar 11	Year 5 31 Mar 12	Year 6 31 Mar 13	Year 7 31 Mar 14	Year 8 31 Mar 15	Year 9 31 Mar 16	Year 10 31 Mar 17
Busy hour passenger numbers	Inbound passengers	Domestic		Information not available for pricing period (exemption granted by Commerce Commission)									
		International											
		Combined *											
	Outbound passengers	Domestic		Information not available for pricing period (exemption granted by Commerce Commission)									
		International											
		Combined *											
Number of passengers during year	Inbound passengers	Domestic		2,029	2,070	2,111	2,175	2,240	2,307	2,376	2,448	2,521	2,597
		International		295	302	310	325	341	359	376	395	415	436
		Total		2,324	2,372	2,421	2,500	2,581	2,666	2,753	2,843	2,936	3,032
	Outbound passengers	Domestic		2,029	2,070	2,111	2,175	2,240	2,307	2,376	2,448	2,521	2,597
		International		295	302	310	325	341	359	376	395	415	436
		Total		2,324	2,372	2,421	2,500	2,581	2,666	2,753	2,843	2,936	3,032
	International transit and transfer passengers†												

* No disclosure of combined terminal forecasts is required for airports with no shared passenger terminal functional components.

† NB. Forecasts of international transit and transfer passenger numbers relate only to airports with extant or planned international transit and transfer facilities

Regulated Airport: **Wellington International Airport Limited**
Pricing Period Starting Year Ended: **31 March 2008**

SCHEDULE 19: REPORT ON DEMAND FORECASTS (cont)

19b: Aircraft Runway Movements

	($000)		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
		for year ended	31 Mar 08	31 Mar 09	31 Mar 10	31 Mar 11	31 Mar 12	31 Mar 13	31 Mar 14	31 Mar 15	31 Mar 16	31 Mar 17
Movements during busy period (total number of aircraft)	During the runway busy hour		Information not available for pricing period (exemption granted by Commerce Commission)									
	During the runway busy day											
Landings during year (total number of aircraft)	Aircraft 30 tonnes MCTOW or more		18,250	18,439	18,704	19,014	19,330	19,564	19,889	20,220	20,557	20,900
	Aircraft 3 tonnes or more but less than 30 tonnes MCTOW		27,356	27,614	28,005	28,401	28,804	29,212	29,627	30,048	30,475	30,909
	Aircraft less than 3 tonnes MCTOW		6,480	6,480	6,480	6,480	6,480	6,480	6,480	6,480	6,480	6,480
	Total		52,087	52,533	53,189	53,896	54,614	55,257	55,996	56,748	57,512	58,289
Landings during year (total MCTOW in tonnes)	Aircraft 30 tonnes MCTOW or more		1,079	1,091	1,106	1,125	1,144	1,157	1,177	1,197	1,217	1,238
	Aircraft 3 tonnes or more but less than 30 tonnes MCTOW		359	363	368	373	379	384	390	396	401	407
	Aircraft less than 3 tonnes MCTOW		7	7	7	7	7	7	7	7	7	7
	Total		1,446	1,460	1,481	1,505	1,530	1,549	1,574	1,599	1,626	1,652
Landings during year (total number of aircraft)	Air passenger services—international		3,264	3,305	3,346	3,430	3,516	3,516	3,604	3,694	3,786	3,881
	Air passenger services—domestic		40,545	40,951	41,565	42,189	42,821	43,464	44,116	44,777	45,449	46,131
	Other aircraft		8,277	8,277	8,277	8,277	8,277	8,277	8,277	8,277	8,277	8,277
Landings during year (total MCTOW in tonnes)	Air passenger services—international		230	233	236	242	248	248	254	260	267	273
	Air passenger services—domestic		1,199	1,211	1,229	1,247	1,266	1,284	1,303	1,323	1,342	1,362
	Other aircraft		17	17	17	17	17	17	17	17	17	17

Description of the basis for forecasts, and/or assumptions made in forecasting

WIAL 's objective in completing a demand forecast for the pricing period ending 31 March 2012 was to establish a base for pricing of aeronautical services to airlines. A third party forecast was not required at this time for planning purposes because WIAL was part way through a capital upgrade programme that commenced in 2005. Planning undertaken for the capital programme prior to its commencement gave consideration to passenger forecasts (further comment on the capital expenditure consultation and planning is provided in the attached document Disclosure Following Price Setting Event for Pricing Period 1 July 2007 to 31 March 2012):

+ The specifications of the aircraft expected to land at WIAL and their requirements for the runway end safety areas.
+ Passenger volume and busy hour forecasts in establishing the requirements for expansion of the terminal.

WIAL proposed to every substantial customers that it would provide its own forecasts for passenger growth for consultation and would not commission a third party to prepare a forecast unless this was required by the airlines. The airlines did not request WIAL to commission a third party forecast.

In the prior consultation (period ending 30 June 2007) WIAL implemented charges based on a passenger basis at the request of the airlines. For the 2008 to 2012 pricing period WIAL proposed that passenger based charging be continued and consequently this was the demand forecast considered by airlines in the consultation. WIAL provided forecast aircraft movement and MCTOW demand data in its pricing model for the pricing period however these forecasts were not discussed during the consultation as they were not fundamental inputs to the determination of charges.

Appendix B – Cost Allocation Factors for the Pricing Period

Expense Items	Allocation Base	Explanation
Staff salaries and wages	Airfield salaries	Determined from personnel engaged within specific business areas (AFS and airside staff)
Staff salaries and wages	Operations salaries	Allocation to all activities based on estimate of commercial staff time
Staff salaries and wages	Commercial Salaries	Allocation to all activities based on estimate of commercial staff time
Staff salaries and wages	Corporate Salaries	Allocation to all activities based on estimate of corporate staff time
Employment overhead costs	Salaries	Labour overheads allocated in proportion to salaries
Air conditioning, buildings maintenance, toilet consumables	Adjusted Buildings	Share of adjusted building assets
Rubbish removal, terminal systems	Aeronautical/ Commercial	Allocation to headline aeronautical/commercial activities based on management estimate of operations staff time spent on business activities
Aerobridge maintenance	Air Bridges	100% allocation to air bridges
Airside maintenance, apron management, bird control, emergency plan, landing charge expenses, motor vehicles, noise monitoring	Airfield	100% allocation to airfield
Uniforms and clothing	Airfield/Specified Terminal	Allocation to airfield and specified terminal based on share of assets
Cleaning and security, doors lifts & escalators, energy, fire systems, lighting & electrical	Buildings	Share of building assets
Commercial salaries, campus management, business development, marketing, property development, shuttle, traffic control	Commercial	100% allocation to commercial
Consultation/ regulatory costs	Management estimate	Costs attributed to airfield and specified terminal activities
Building compliance, insurance, other maintenance, pest control, signage	Fixed Assets	Share of fixed assets
Grounds maintenance	Land	Share of land and civil works

Expense Items	Allocation Base	Explanation
Rates	Rental	Share of property rental income
Audit fees, bank fees, computer maintenance, consultancy fees, directors fees, entertainment, external relations, general expenses, legal fees, plant and equipment hire, postage & courier, printing and stationery, publications, statutory planning, subscriptions, sundry materials, telephone and radio, travel and accommodation	Revenue	Share of revenue

Appendix C - 31 March 2006 Asset Valuation Prepared for Disclosure Pursuant to the Airport Authority (Airport Companies Information Disclosure) Regulations 1999

Valuers Property Advisors

TelferYoung

Asset Valuation

Prepared for Disclosure Purposes Pursuant to the Airport Authority (Airport Companies Information Disclosure) Regulations 1999

Wellington International Airport Limited

Effective Date: 31 March 2006

TelferYoung
Valuers – Property Advisors

Valuers Property Advisors

TelferYoung

31 March 2006

The Chief Financial Officer
Wellington International Airport Limited
P O Box 14-175
WELLINGTON

Attention: Mr Mike Basher

Dear Sir

Re: Wellington International Airport Limited
Asset Valuation – Prepared for Disclosure Purposes Pursuant to the Airport Authorities (Airport companies Information Disclosure Regulations 1999)

Thank you for your instructions requesting we provide you with an Asset Valuation for Wellington International Airport Limited Assets.

We have inspected the airport complex, undertaken the necessary investigations and analysis and are now in a position to furnish you with our asset valuation, including the required input from OPUS.

For your convenience we have provided an executive summary which summaries our value conclusions. This is followed by our formal valuation report.

This report must be read in conjunction with TelferYoungs' Statement of Limiting Conditions and Valuation Policy.

Yours faithfully
TelferYoung (Canterbury) Limited

C N Stanley, Director
Registered Valuer, M Prop Stud (Distn)
FNZIV, FNZPI, AAMINZ

CNS:AJS
chris.stanley@canterbury.telferyoung.com

Yours faithfully
TelferYoung (Auckland) Limited

M E Gamby, Director
Registered Valuer, M Prop Stud (Distn)
Dip UV
FNZIV(Life), FNZPI(Life)

MEG:AJS
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+ John Ryan + John Tappenden + Mark Dunbar + Chris Stanley + Mark Beatson + Ian Telfer + Victoria Murdoch

+ TelferYoung (Northland) Ltd, 09 438 9599 + TelferYoung (Auckland) Ltd, 09 379 8956 + TelferYoung (Waikato) Ltd, 07 846 9030
+ TelferYoung (Taranaki) Ltd, 06 757 5753 + TelferYoung (Hawkes Bay) Ltd, 06 835 6179 + TelferYoung (Wellington) Ltd, 04 472 3683
+ TelferYoung (Nelson) Ltd, 03 546 9600

Valuers Property Advisors

Executive Summary

Wellington International Airport

TelferYoung

Executive Summary

Instructing Party
Wellington International Airport Limited. (WIAL)

Instructions
To assess a current market value of the Wellington International Airport Limited Aeronautical Assets for disclosure reporting purposes pursuant to the Airport Authorities (Airport Companies Information Disclosure) Regulations 1999.

Effective Date of Valuation
31 March 2006

Basis of Valuation
The valuation of the Wellington International Airport Assets has been undertaken in accordance with the Wellington International Airport Limited Asset Valuation Handbook in conjunction with Opus International Consultants Limited.

The valuation for the entity's business assets has been modified, by means of deletion for these disclosure purposes.

The valuation complies with the Institute of Chartered Accountants of New Zealand (ICANZ) Financial Reporting Standard No. 3 and the Property Institute of New Zealand Valuation (PINZ) Practice Standard No. 3. The valuation also complies with the International Valuation Standards (IVSC) and International Accounting Standards (IAS) modified to New Zealand requirements.

Valuation Methodology
The valuation methodologies utilised for each asset class are summarised as follows:

Valuation Methodology	
Asset Class	**Methodology**
Land	Zonal Approach with Notional Subdivision (DCF) and Civil Works Approach checks
Specialised Building Assets	Optimised Depreciated Replacement Cost
Civil Works	Optimised Depreciation Replacement Cost
Plant, Machinery and Equipment	Book Value

Table 1

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Value Summary

The values disclosed in the summary below are for the asset classes that include aeronautical assets. Allocation of individual assets to aeronautical and contestable activities is undertaken by Wellington International Airport.

Asset Value Summary	
Asset Class	**Fair Value - Current Market Value**
Land – Total	$231,128,000
Specialised Building Assets	$130,995,000
Residential Property	$5,404,000
Civil Works	$66,166,000 (incl adjustments for investment properties & carpark)
Plant, Machinery and Equipment	$8,993,000
Total	**$442,686.000**

Table 2

All assessed values are plus GST (if any).

Yours faithfully
TelferYoung (Canterbury) Limited

C N Stanley, Director
Registered Valuer, M Prop Stud (Distn)

FNZIV, FPINZ, AAMINZ

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Yours faithfully
TelferYoung (Auckland) Limited

M E Gamby, Director
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Valuers Property Advisors

Disclosure Asset Valuation

Prepared for Disclosure Purposes Pursuant to the Airport Authority (Airport Companies Information Disclosure) Regulations 1999

Wellington International Airport Limited

31 March 2006

Telfer Young

Disclosure Asset Valuation

1.0 Instructions

TelferYoung (TY) has been engaged by Wellington International Airport Ltd (WIAL) to establish the current market value of Business Assets of Wellington International Airport for financial reporting purposes, and to amend that valuation, by means of deletion to meet disclosure requirements of the Airport Authorities (Airport Companies Information Disclosure) Regulations 1999.

Where assets have mixed aeronautical (such as the main terminal) contestable uses, they are included in the disclosure valuation in full. Similarly land and civil works are included in their entirety. Allocation of assets to aeronautical and contestable activities for pricing/reporting purposes is undertaken by WIAL.

TelferYoung have been instructed to coordinate the total valuation of different classes, valued by different organisations.

The Asset classes to be valued by each organisation is summarised as follows:

Valuation Responsibility	
Organisation	**Valuation Task**
TelferYoung	Land and Buildings
Opus International Consultants Limited	Civil Works

Table 3

2.0 Effective Date of Valuation

31 March 2006.

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3.0 Basis of Valuation

3.1 Methodologies

The valuation of WIAL Business Assets has been undertaken in accordance with the WIAL Asset Valuation Handbook dated March 2006. A copy of the handbook is enclosed as **Appendix 1.**

WIAL assets incorporate a combination of specialised and market assets and therefore different valuation methodologies are required for individual asset classes.

The methods employed for each asset class are summarised as follows:

+ Land – Fair Value in accordance with FRS3 of ICANZ and PS 3 of PINZ.

+ Market Assets – Land and buildings, DCF valuations

+ Plant, Machinery and Equipment – Book Value.

3.2 Airport Components

WIAL aeronautical assets have been separated into separate components/categories/campuses as follows:

+ Main Airport Campus
+ Residential Holdings

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3.3 Asset Classification

Assets have been separated into separate categories in consultation with WIAL.

Once separated into separate classes the appropriate valuation and methodology has been utilised for each asset class.

The main airport campus has been identified as a specialised asset being an asset that is seldom if ever sold in the market place, except as part of a business of which they are part (the business in occupation). Such assets may also be referred to as limited, or non-market, assets depending on the degree of specialised design, configuration, or application.

The appropriate methodology for the main airport campus is to establish the land value on the basis of Fair Value, also referred to as market value, or open market value, or current market value, being land valued in its highest and best use.

In relation to the specialised buildings, civil works and, plant, machinery and equipment, these assets are assessed on the basis of ODRC.

Residential property holdings have been assessed on a market basis having regard to the fact they are held under separate titles.

4.0 Documentation

TelferYoung have been provided with and relied upon information supplied by WIAL in relation to:

+ Certificates of Title and land area details
+ Gross building areas and historic construction cost information
+ WIAL Fixed Asset Register
+ Commercial Lease Profile
+ Ground Lease Profile

Where appropriate or possible we have verified the information/documentation provided. We would stress that we cannot accept responsibility for the accuracy of any information supplied.

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5.0 Statement of Limiting Conditions and Valuation Policy

We refer you to our Statement of Limiting Conditions and Valuation Policies, which are enclosed as **Appendix 2** to this report.

These valuation policies/limiting conditions apply to this valuation unless stated otherwise and should be read in conjunction with each section as appropriate.

6.0 Property Overview

Wellington International Airport (WIA) is located in Wellington, the capital city of New Zealand. The airport services the greater Wellington region and is the major airport hub for domestic passenger travel throughout New Zealand.

In the year to 31 December 2005, WIA handled 4.54 million passengers comprising 3.858 million domestic and 0.582 million international passengers.

Wellington Airport encompasses a total land holding of approximately 110.6 hectares extending from Cobham Drive in the north to Moa Point Road to the south, east to Calabar Road and west to Tirangi Road.

The airport provides a single runway on a north south axis with associated taxiways and aprons. The main terminal building is located to the east of the runway. To the southeast there is an industrial area servicing the aviation industry. To the west there are further hangars together with the Airport Retail Park.

7.0 Location

The airport is located approximately nine kilometres southeast of the Central Business District in the eastern suburb of Rongotai. The airport extends from Evans Bay in the north to Lyall Bay in the south. To the east it is adjoined by the Miramar Golf Club and to the west by mixed-use light industrial and residential properties.

The following location map identifies the property in relation to adjoining land.

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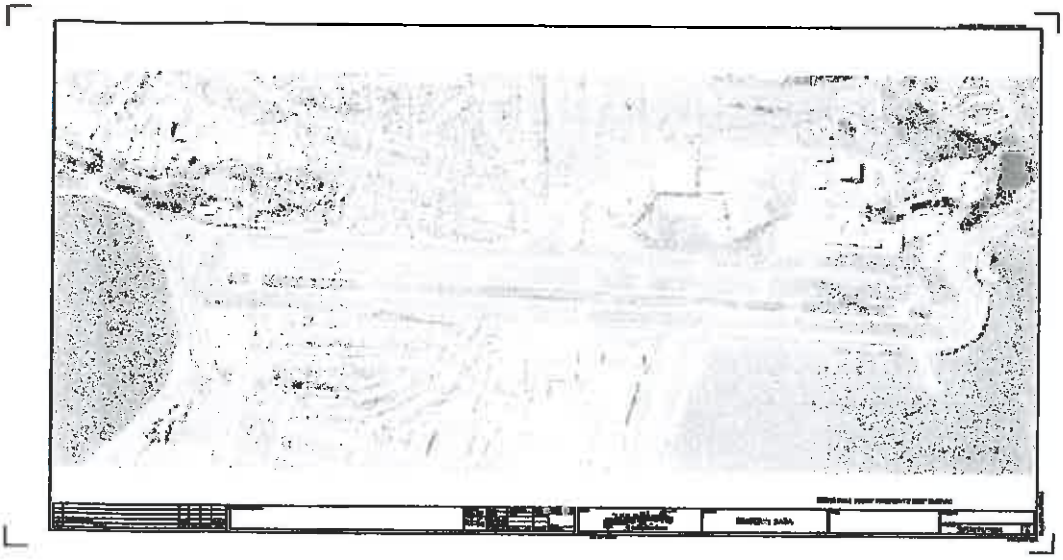
Figure 1 Location Map

Wellington Airport is the major focal point in this sector of the city with associated traffic linkages through to the Central Business District.



8.0 Legal Description

We have been provided with a summary of title information[1] by management of WIAL. We are aware that a number of the titles contain Memorials of Encumbrances. We have been advised by WIAL that these do not adversely affect the value of the WIAL land when assessed on a Fair Value basis.

We have not searched or sighted the individual titles and have relied upon the information supplied.

Title details are summarised as **Table 4**:

Location	Title Reference	Land Area
Stewart Duff Drive	51A/720	969,984m^2
Stewart Duff Drive	45A/74	1,9042m^2
Wexford Road	36D/925	57,668m^2
Tirangi Road, 113-117	113/117 46C/667	4,323m^2
George Bolt Street, 1-5	46C/668	8,339m^2
George Bolt Street, 2-16	46C/672	18,715m^2
George Bolt/Cochrane Street	62499	5,684m^2
Bridge Street, 3	56A/908	443m^2
Bridge Street, 15	WN294190	445m^2
Bridge Street, 19	270/154	445m^2
Bridge Street, 21	270/158	446m^2
Bridge Street, 25	258/187	668m^2
Bridge Street, 31	16AW/186	724m^2
Bridge Street, 33	260/101	724m^2
Bridge Street, 39	262/61	723m^2
Bridge Street, 41	265/297	716m^2
Bridge Street, 43	9C/1416	771m^2
Bridge Street, 45	245/70	682m^2
Bridge Street, 51	267/78	597m^2
Bridge Street, 53-55	266/102	915m^2
Bridge Street, 57	29D/826	402m^2
Bridge Street, 59	320/105	393m^2
Bridge Street, 61	320/104	399m^2
Bridge Street, 67	322/108	310m^2
Bridge Street, 73	297/248	452m^2
Broadway, 335	42B/707	506m^2
Broadway, 337	42B/708	506m^2
Broadway, 341	42B/710	506m^2
Broadway, 343	42B/709	506m^2
Broadway, 390	317/104	269m^2
Broadway, 364	374/298	460m^2
Broadway, 363	47D/260	488m^2
Broadway, 366	327110	504m^2
Broadway, 338	357/296	506m^2
Broadway, 370	356/267	506m^2
Broadway, 372	379/249	506m^2
Coutts Street, 234	370/155	402m^2

[1] The term 'title' is used throughout the body of this report as a commonly understood term to describe a Computer Freehold, or Leasehold, Register Identifier.

Location	Title Reference	Land Area
Coutts Street, 238	454/120	402m^2
Coutts Street, 242	357/174	402m^2
Coutts Street, 244	340/142	402m^2
Coutts Street, 250	10B/942	718m^2
Coutts Street,252	355/113	573m^2
Coutts Street, 254	358/16	534m^2
Miro Street, 2	295/38	498m^2
Miro Street, 3	305/266	165m^2
Broadway, 321	287/266	210m^2
Miro Street, 7	35A/78	266m^2
Miro Street, 9	45A/77	315m^2
Miro Street, 11	896/19	312m^2
Miro Street, 13	863/60	488m^2
Miro Street, 15	300/140	450m^2
Miro Street, 17	298/224	451m^2
Miro Street, 19	298/135	487m^2
Broadway/Calabar	22946	647m^2
Total Land Area		**110.6995 Hectares**

Table 4

These 52 titles are held on a freehold basis.

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9.0 The Land

The Wellington International Airport land holding comprises a rather irregular shaped parcel of land extending from Evans Bay in the north to Lyall Bay in the south. The primary access points are from Calabar Road on the eastern boundary and Moa Point Road on the western boundary.

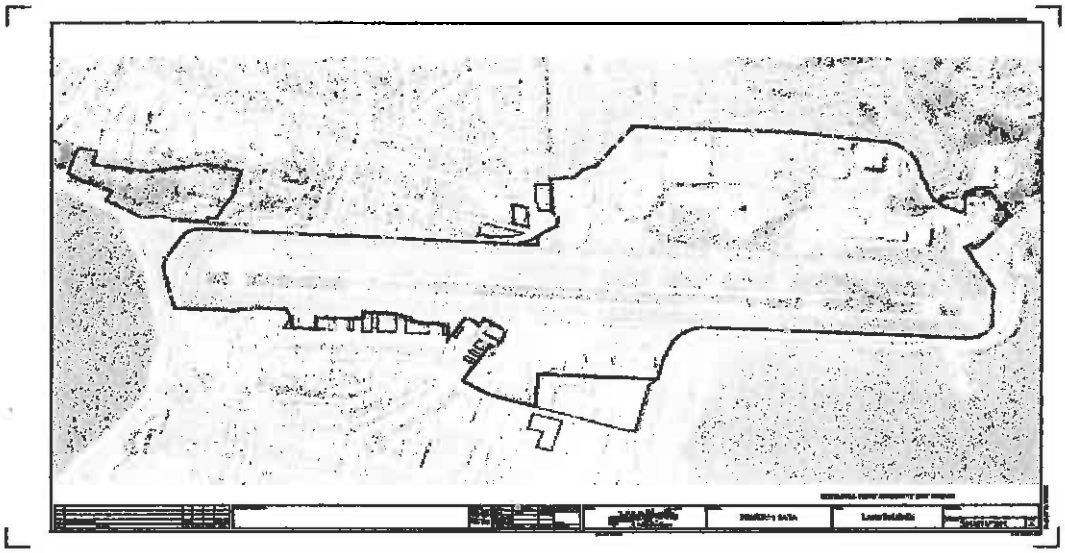
The bulk of the land is held in one contiguous holding although there are a number of residential and commercial sites separated from the main holding in the east by Calabar Road and Stewart Duff Drive and to the south comprising the Moa Point holding. The Wexford Road property is situated above Cobham Drive and Calabar Road.

The land is generally level with the exception of the Wexford Road land holding in the northeastern corner and the Moa Point site in the south. In addition there are elevated areas known as the Southern Knoll and Southern Hillside in the main titles.

A significant proportion of the total land holding has been reclaimed and filled especially at the northern and southern ends of the runway as illustrated in Opus report 'Civil Works Costs for Land Valuation Alternatives' in Appendix 4

The southern end of the site is protected by a substantial sea wall.

Figure 2 Site Plan



All Local Authority services are available to the site.

We have not undertaken an environment audit of the site and assume there is no site contamination. We have not obtained a Land Information Memorandum (LIM) for the property.

We have made no boundary survey of the property and assume no responsibility in connection with such matters. Unless otherwise stated it is assumed that all improvements will be within the Title boundaries.

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10.0 Resource Management

The entire airport land is zoned Airport and Golf Course Recreation Precinct with the exception of the small area comprising the Moa Point land holding, zoned as a Reserve, under the Wellington City District Plan which became operative on 27 July 2000.

The Airport and Golf Course Recreation Precinct separates the activities of the Wellington Airport and the Miramar Golf Course into two distinct areas with rules allowing for the respective adjoining activities. The zone allows for the continued use and development of Wellington Airport to provide certainty to both airport operators and the community.

The zoning recognises that Wellington Airport is the country's air transport hub and its busiest domestic airport. The Plan provisions recognise the function of the Airport as a major arrival and departure point for people and cargo and also recognises the need for activities that are ancillary to this principle use.

Within the airport a range of uses is permitted that are essentially for the safe, efficient and economic operation of the airport. These include runways, taxiways, terminals, air carrier facilities, fuel storage, refuelling options, and aircraft maintenance as well as a number of support and commercial activities. Fuel storage and refuelling facilities are essential to the operation of the airport but are subject to hazardous substance rules due to the nature of the product.

The area provisions have been developed in recognition of the 1993 development plan of the Airport prepared for WIAL. The principle objectives of the airport precinct can be summarised as follows:

+ To promote the efficient operation of the airport and a planned approach to its future development.
+ To protect the amenity of areas surrounding and within the precinct from adverse environmental effects.
+ To prevent or mitigate any adverse effects of the storage, use, disposal or transportation of hazardous substances.
+ To avoid or mitigate the adverse effects of natural and technological hazards on people, property and the environment.

Permitted activities include:

+ Activities related to the primary function of the airport area and activities and services ancillary to this primary function.
+ Any use, construction, removal, demolition, repair, alteration or addition to building structures.
+ Subdivision including lease, company lease, cross lease and unit title subdivision.
+ Upgrade and maintenance of the existing formed roadways and access ways.

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Controlled activities include:

+ The use, storage and handling of aviation fuels.
+ Use, Storage and handling of hazardous substances.

There are appropriate designations relating to air space in the vicinity of the airport that provide for approach/slope gradients to the runway. There are also height restriction planes rising from the edge of the runway controlling building development adjacent to the airport.

The airport precinct has maximum building heights as follows:

+ Main terminal building – 25.0 metres
+ Carpark building – 20.0 metres
+ Travellers accommodation – 12.0 metres
+ Recreational and Commercial – 12.0 metres
+ Aircraft maintenance – 15.0 metres

11.0 The Buildings

11.1 Overview

The buildings in the main airport complex can generally categorised as follows:

+ Main terminal building and associated piers/terminal link
+ Hangars and associated activities along the western apron
+ Northeastern industrial area including the fire service building
+ Hangars and aeronautical associated buildings in the southeastern industrial area
+ Residential land holdings on Bridge Street, Coutts Street, Miro Street and Broadway

11.2 Main Terminal and Associated Piers/Terminal Link

The main terminal building was constructed in 1997 and completed in July 1999. The building provides a gross floor area to the main terminal building of **19,650m^2** with associated terminal links providing a further **15,715m^2.** The main terminal building is a multi user terminal.

The main terminal building is a three level structure with each level providing the following primary functions:

+ Ground Floor – Baggage claim , handling facilities and international processing
+ First Floor – Airline check-in area, arrivals and departure lounges and retail precincts
+ Second Floor –Conference and airline lounge facilities

Construction can be simply described as follows:

Foundations:	Concrete
Flooring:	Concrete
Frame:	Reinforced concrete and steel
Roof Framing:	Steel
Exterior Walls:	Aluminium framed curtain wall glazing and profile metal cladding
Roofing:	Galvanised long run profile metal

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The north pier is a two level structure extending from the main terminal building. The ground floor provides office accommodation, international processing and in bound duty free. The first floor comprises an international passenger processing hall, international lounge facilities, duty free store and a small retail precinct.

The southwest pier comprises a domestic passenger lounge, domestic arrival and departure concourse and airline lounge facilities.

11.3 Southeast Industrial

The southeastern industrial area contains industrial buildings some of which are occupied by industries associated with the airlines. Major buildings include:

+ DHL Building
+ Aviation Ground Services building
+ IACB Building

The DHL building is relatively new providing good quality industrial accommodation. The AGS building is a more modest structure and the IACB building is a substantial but aged two level building adjacent to the airport apron.

11.4 Northern Industrial

The two major buildings in the northern industrial sector are:

+ Airport Fire Service building
+ AVSEC Building

The Airport Fire Service building was erected in 1973 and provides offices, staff amenities and garaging facilities. The AVSEC building provides two levels of office accommodation.

11.5 Western Apron

There are three major buildings adjoining the western apron comprising:

+ Gibson Hangar
+ Brierley Hangar
+ West Side 1

The Gibson hangar is the largest single structure dating back to the 1950's. This is a substantial hangar structure with heavy timber columns supporting timber trusses. The building is currently occupied by Air National.

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The Brierley north, south and infill date from the 1970's. This is a simple gable roof building with a concrete floor, steel portal frames and galvanised metal cladding.

The West Side 1 building provides a hangar at the eastern end with the balance providing light industrial accommodation together with a large office suite at the Tirangi Road frontage.

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12.0 Civil Works

Civil Works being improvements to the land include:

+ Runways, stubways, taxi ways and aprons
+ Roads, carparks, storage yards and footpaths
+ Miscellaneous traffic facilities
+ Airfield and glassed areas
+ Site services
+ Fencing and gates
+ Sea protection works
+ Underground services

Full details of the Civil Works and the methodology associated with establishing the value is contained in **Appendix 3** in the Opus Valuation Report.

13.0 Plant, Machinery and Equipment

Plant, machinery and equipment assets include items such as:

+ Motor vehicles
+ Computers and office equipment
+ Furniture and fittings
+ Specialised airport equipment including air bridges, baggage systems and fire services

The plant, machinery and equipment has been recorded at book values of **$7,590,000.**

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14.0 Valuation Methodology

14.1 Overview

All assets at Wellington International Airport have been valued in accordance with the Wellington International Airport Limited Asset Valuation Handbook dated March 2006.

The valuation handbook requires the WIAL asset register to be separated into **specialised assets** and **market assets.**

The specialised asset class is then separated into Identified Airport Activities - Aeronautical assets and Specialised Assets being Non-Identified Airport Activities/Non-Aeronautical Assets with composite assets as Shared Specialist Assets.

Market assets are normally categorised as surplus assets, being assets intended for sale, or investments in assets held as investments. Market assets of WIAL are classified as Investment Assets, Business Assets and Strategic Assets.

Having allocated the assets into the appropriate classification the prescribed methodology is then utilised.

14.2 Land

The land at Wellington Airport can be classified as follows:

+ Specialist land, being land used for airport activities regarded as aeronautical under the Airport Authorities Amendment Act and specialised, non-aeronautical assets required for airport operations; and

+ Market land, being land used for purposes outside those specified above, e.g. industrial, service, retail and land associated with the Vehicle Business.

The approach has been adopted to allocate land into various activities within the specialised and market related classifications. All land is assessed a Fair Value as required under Financial Reporting Standard No. 3. Land values assessed are based on potential use, location, size and services provided.

Fair Value and Market Value are treated as being equivalent terms. Fair Value is based upon the **"highest and best use"** principle, which may not necessarily be the existing use. The highest and best use in relation to Fair Value is the most probable use of a property, which is physically possible, appropriately justified, legally permissible, financially feasible, and which results in the highest value of the asset being valued.

To derive an appropriate fair value/current market value for the land, consideration was given to a number of recognised valuation approaches including:

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+ **Valuation Using Market Comparables – Zonal Approach**[2]

Under this approach local commercial, industrial, service and residential land sales are used as a benchmark and applied to the Wellington International Airport with appropriate adjustment for sales, location, titles, easement and services. The application under this approach requires the development of an overall plan identifying actual and potential use, land value zones and intensity of development. This is commonly referred to as the zonal approach.

+ **Alternative Use Plus Airport Costs – Notional Subdivision (DCF)**[3]

This is an assessment of the underlying land block value assuming the most likely alternative use of the land assessed on a Notional Subdivision, Discounted Cash Flow, basis (DCF) to which is added the cost to enable the land to be used for airport purposes. Such costs will include planning approval, preliminary development and Airport Developer cost of capital holding costs. There is a considerable development period applicable to airports and the associated costs must be reflected in the built up land value rate.

+ **Brownfields – Civil Works**[4]

This is a valuation approach using land cost rates associated with the construction, renewal of an in-use asset in a developed location. Brownfields methodology recognises that large infrastructural assets such as airports are generally developed incrementally over time. Unit cost rates are usually higher than for a Greenfields alternative reflecting increased difficulty of an incremental development in a confined location.

In establishing an appropriate land value for Wellington Airport we have placed greatest weight upon the zonal approach, which we believe is the most appropriate basis to establish a Fair Value. We have utilised the other approaches to test our conclusions/calculations. In order of importance our methodology application is:

1 **Market Comparables – Zonal Approach,**

2 **Alternative Use Plus Holding Costs – Notional Subdivision (DCF), and**

3 **Brownfields - Civil Works**

---

[2] The Zonal Approach, as advocated by Mr Horsley, was approved by the arbitral Tribunal in the Arbitration between Wellington International Airport Limited, Claimant and Air New Zealand & Ors. Respondent: August- September 2002, and accepted.

[3] The Notional Subdivision Approach (DCF) was advocated in the cited Arbitration by Mr Horsley as a check method, described by the arbitral Tribunal as AUV plus holding costs and approved by the arbitral Tribunal as a check methodology.

[4] The Civil Works Approach, recommended by Professor Van Zijl as complying with the definition of Fair Value for Financial reporting purposes, was presented by Mr Horsley but rejected by the arbitral Tribunal. It is required as a check method, as a minimum, to comply with FRS-3.

14.3 Buildings

The bulk of the buildings at WIA fall within the definition of Identified Airport Activities in terms of the Airport Authority Amendment Act.

Identified Airport Activities include:

+ Airfield activities
+ Aircraft and flight activities
+ Specified passenger terminal activities

Other assets that are specialised but are not aeronautical "Identified Airport Activities" include space allocated within the main terminal building for retail activities, carparking, offices and storage that exist because of the airport activities.

In valuing specialised building assets we have adopted an Optimised Depreciated Replacement Cost (ODRC).[5]

Specialised assets are defined as assets that are rarely if ever sold in the market, except as part of the business of which they are part (the business in occupation). Such assets may also be referred to as limited, or non-market, assets depending on their degree of specialised design, configuration, or application.

The Optimised Depreciated Replacement Cost approach measures the minimum cost of replacing or replicating the service potential embodied in the assets with modern equivalent assets in the most efficient way practicable, given the service requirements, the age and condition of the existing assets and replacement in the normal course of business.

Optimised Replacement Cost (ORC) is a build-up approach to establish the replacement cost of an existing asset with a substantially identical new asset. The replacement cost is based on the Modern Equivalent Asset, (MEA) which is an asset that replicates existing services using modern materials and modern technologies in the most efficient asset configuration after eliminating surplus assets and obsolescence. The optimisation process recognised that an asset may be technically obsolescent or over engineered, or the asset may have a greater capacity than required.

The ORC process arrives at the least cost replacement option for an asset, using modern equivalent design and construction. From ORC an appropriate allowance for depreciation is deducted to arrive at ODRC.

In establishing the replacement cost of any individual asset reference has been made to current equivalent building costings that incorporate allowance for:

[5] ODRC complies with ICANZ, PINZ and IVSC Standards. It was the method for valuing specialised assets approved by the arbitral Tribunal in the cited arbitration.

+ Physical building development
+ Professional fees (engineers, architect and other professional fees)
+ Interest incurred during construction period

The most significant building considered under the ODRC approach is the main terminal building and associated piers. We have been provided with original building costings for the construction of these assets. These construction costs have been indexed to current construction costs to arrive at an estimate of the current replacement cost. This is the most reliable method of assessing the replacement cost of the MEA for a building that is considered optimised.

In relation to the main terminal building we have also had the benefit of tendered costs for the planned International Terminal extension.

In relation to the smaller scale buildings, market based construction costs have been utilised. We have calculated replacement costs that include an allowance for professional fees and interest costs.

In establishing the depreciation factor to apply we have consulted with the airport management to establish the planned total life of the structures, and the estimated remaining life/residual life from which depreciation rates have been developed.

14.4 Civil Works

Civil works are valued on a similar basis to specialised buildings being the Optimised Depreciated Replacement Cost approach.

The Civil Works valuation includes sea protection and site services. The sea protection civil works are removed from the civil works as they are included with the values established for the land and buildings. The site services to the extent that they would otherwise create duplication of value are removed from the civil works.

14.5 Plant, Machinery and Equipment

The plant, machinery and equipment assets comprise a mixture of specialised and non-specialised assets. The assets are recorded at Book Value.

15.0 Airport Land Zones

The total airport land holding has been separated into thirteen land zones.

The land zones have been established having regard to an overall plan for the airport campus identifying:

+ Actual use
+ Potential use
+ Land value zones
+ Intensity of development

In consultation with WIAL management we have established the following zones:

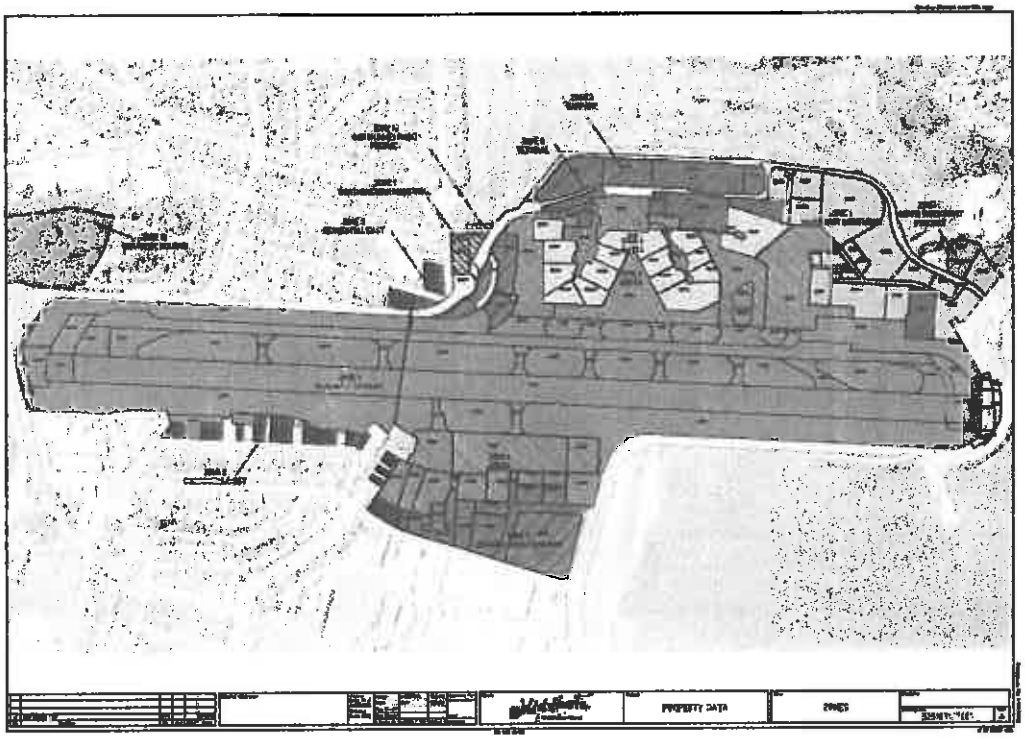
Wellington International Airport				
Zone No.	**Zone**	**Comparable Use Intensity**	**Land Area**	**Percentage of Total Area**
1	Northern Industrial	Industrial/Commercial	15,262m^2	1.38%
2	Residential East Residential West	Residential Residential	12,577m^2 4,904m^2	1.14% 0.44%
3	Carparking	Commercial	58,529m^2	5.29%
4	Apron	Industrial	151,776m^2	13.71%
5	Runway Taxi Stubway	Industrial	532,042m^2	48.06%
6	Gates	Industrial	60,452m^2	5.46%
7	South Industrial	Industrial	70,632m^2	6.38%
8	Terminal	Commercial	15,797m^2	1.43%
9	Airport Retail Park	Commercial	52,334m^2	4.73%
10	North Investment	Industrial	3,804m^2	0.34%
11	South Investment	Industrial	8,871m^2	0.80%
12	Strategic Holdings	Industrial Reserve	76,710m^2	6.93%
13	Roads	Industrial	43,305m^2	3.91%
Totals			**1106995 hectares**	**100%**

Table 5

In **Appendix 5** we provide a complete breakdown of each individual zone detailing land areas.

The zones are identified on the following property plan.

Figure 3 Land Zones



16.0 Land Valuation

16.1 Market Comparables - Zonal Approach

With the zonal approach we have established thirteen separate zones for the total airport land holding.

Having established these zones we have then calculated land value rates to establish a market value for each component.

The land value rates have been established by reference to market transactions primarily within the Wellington commercial and industrial market. We have also given consideration to sales of substantial land holdings that have occurred outside the Wellington region.

We have made reference to sales outside the Wellington region as we are not aware of any sales of land holdings of the scale of Wellington Airport within the general Wellington region. There have, however, been several sales of large blocks in the Auckland area that give some assistance in establishing the total block value for a land holding of this scale.

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The land value rates analysed from the sales have then been adjusted for each zone to reflect factors such as:

+ Size
+ Location
+ Access
+ Profile

The land values established for each zone reflects the existence of the sea wall. The sea wall has been subsumed in the value of the land. This also applies to services/utilities in terms of sewer, stormwater, electricity and high pressure water provided as services to the land boundaries.

In terms of the zonal approach we have concluded that the most probable use of the site on a "highest and best use basis", rather than the actual use, would be as a coordinated commercial/bulk retail/retail/service industrial District Centre. This could also be described as the next best alternative use value if the existing use as an airport is to be disregarded.

The location of the land close to the Central Business District, with all its traffic linkages, and proximity to a large residential catchment in Miramar, Rongatai, Kilbirnie and Seatoun would make this an ideal location for a district shopping centre. This form of development could also include low to medium rise office development, accommodation, entertainment and possible some high density residential.
There has been a significant volume of sales in the Rongotai/Miramar area over the last twelve months that assist in establishing land value rates for suburban commercial/suburban industrial land.

Appendix 6 contains a schedule of sales evidence for:

+ Suburban commercial land

+ Suburban industrial land

+ Central Business District land

+ Block land sales

The land sales shown in Appendix 6 indicate land values in the immediate vicinity of the airport from $\$350/m^2$ to $\$850/m^2$. The lower level relates to a dated sale in 2004. Since this time there has been continued growth in land values in this sector of the city. The highest sale, dating from March 2005 relates to the sale of Lessee's Interest opposite the Airport Retail Park.

The land value rates achieved in ground rental settlements at the airport have also been considered. The Caltex Service Station site was set at an analysed land value rate of $\$613/m^2$ in June 2004,

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Land value rates for each zone have been derived as follows:

+ **Zone 1 - Northeastern Industrial**

We have commenced with a base land value rate of $625/m^2$ based upon commercial suburban sales and also reflecting the ground lease settlements. Adjustment has then been made to reflect the scale and profile areas within the zone.

+ **Zone 2 - Residential**

The Residential zone has been split into two components comprising Residential East and Residential West.

In both locations we have adopted the 2005 Rating Values as we believe these provide a realistic estimate of the fair value of the land.

+ **Zone 3 – Vehicle Business**

For the carparks we have commenced with a base land value rate derived from the suburban commercial sales in Rongotai/Miramar. We have adjusted for the size and shape of the total carpark land holding. The main carpark area has been set at $425/m^2$ with a lower rate of $300/m^2$ for the long term carpark.

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+ **Zone 4 - Apron**

The Apron comprises approximately 15.2 hectares. We have commenced with a base industrial land value rate as evidenced by sales within Seaview, Porirua and Rongotai/Miramar. This results in an adopted land value rate of $225/m^2$.

+ **Zone 5 - Runway**

The largest land component with a total area of 53.2 hectares. Once again we have commenced with a land value rate derived from industrial land sales and then adjusted this for the scale of the total land holding. The scale demands a significant discount and accordingly we have adopted a rate of $125/m^2$.

+ **Zone 6 - Gates**

A total area of 6.04 hectares. Commencing with an industrial land value rate adjusted for size. We have adopted an overall rate of $300/m^2$.

+ **Zone 7 – Southeast Industrial**

A total area of 8.57 hectares. Commencing with a base industrial land value rate then adjusted for shape and size results in an average rate of $300/m^2$.

Within the zone we have separated our land values for the area in the Southern Hillside and the Southern Knoll. The Southern Knoll comprises an area of $10651m^2$ and is within the southeast industrial compound. We have adopted a rate of 50% of the base land value of $300/m^2$.

+ **Zone 8 – Main Terminal**

The main terminal zone has an area of 1.58 hectares. We have adopted the highest land value rate of $800/m^2$ for the entire campus of the main terminal area.

+ **Zone 9 – Airport Retail Park**

This zone incorporates the investment properties including the Airport Retail Park as well as land set aside for long term investment development. The total land holding is 5.2 hectares and we have utilised an overall rate of $525/m^2$.

This land value rate has been calculated by reference to the most recent sales in the Rongotai area and where land value rates for smaller holdings have exceeded $850/m^2$. The rate adopted also reflects that the property is held in several titles.

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Zone 10 – North Investment

This zone comprises the two sites at the intersection of Broadway Street and Stewart Duff Drive close to the main entry point to the airport. The properties are the Caltex service station and the adjoining development site. Land value rates reflect high intensity industrial / suburban commercial rates.

Zone 11 – South Investment

This zone comprises three sites in the south eastern industrial area. The land falls outside the main campus. The holding includes the AGS building, adjoining land and the southern hillside. The two level sites are valued in line with the southern industrial area .

With the Southern Hillside we have adopted a rate of $\$25/m^2$, which reflects the fact that this is a steep hill face unlikely to be developed in the medium to long term.

+ **Zone 12 – Strategic Holdings**

This comprises two properties being:

+ Wexford Road

+ Moa Point Road

The Wexford Road site totals 5.7 hectares with a significant component of the land involved in hill slope highly unlikely to be developed in the medium to long term. We have established a land value rate for the main building platform associated with the building. To this we have applied a higher land value rate with a significantly lower land value applied to the remaining land area.

In relation to Moa Point Road, this forms part of a reserve, and the land value rate adopted reflects the intensity of the use and the long term restrictions on any alternative use.

+ **Zone 13 - Roads**

The zone totals 4.33 hectares. To establish the value for the roading component we have derived an average land value rate for the entire property holding excluding the residential component and the strategic holdings. We have then applied the average land value rate to the roading component. We believe this is the most appropriate approach for this property component.

Land Value Summary - Zonal Approach

The land value calculations are shown in **Appendix 7.**

The Zonal Approach land values are summarised as follows:

Wellington International Airport					
Zone	**Zone**	**Land Area**	**Land Value**	**Average**	**Ratio**
North Eastern Industrial	1	15,262m^2	$6,809,000	$446	1.38%
Residential – East	2	12,577m^2	$4,181,000	$332	1.10%
Residential – West	2	4,904m^2	$1,805,000	$365	0.40%
Carparking	3	58,529m^2	$24,091,075	$412	5.29%
Apron	4	151,76m^2	$34,149,600	$225	13.72%
Runway/Taxiway/Stubway	5	532,042m^2	$66,505,250	$125	48.10%
Gates	6	60,452m^2	$18,135,600	$300	5.47%
South Eastern Industrial	7	70,632m^2	$19,591,950	$277	6.39%
Terminal	8	15,797m^2	$12,637,600	$800	1.43%
Airport Retail Park	9	52,334m^2	$27,475,350	$525	4.73%
North Investment	10	3,804m^2	$2,377,500	$625	0.34%
South Investment	11	8,871m^2	$1,078,115	$122	0.80%
Strategic Holdings	12	76,710m^2	$2,937,090	$38	6.94%
Roads	13	43,305m^2	$9,353,880	$216	3,92%
Total		**1,106,995m^2**	**$231,128,010**	**$209**	**100.00%**

Table 7

The overall rate of $208/m^2 can be compared with the land value rates derived from two major sales in Auckland.

The most significant evidence relates to the sale of the Albany Centre in December 2004 for a discounted total price of $220,000,000. This site has an area of 43.7377 hectares and was intended as a comprehensive centre providing a range of uses including a retail shopping centre, office, commercial industrial and high density residential. The sale price analyses to a rate of **$503/m^2.** A range of approximate values within the overall price can be analysed on a subjectively determined basis:

+ Office - low density, Residential: $250/m^2
+ Commercial – office park/industrial: $280/m^2
+ Residential High Density: $590/m^2
+ Commercial – Shopping Centre: $680/m^2

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16.2 Alternative Use Plus Holding Costs – Notional Subdivision (DCF)

The most probable next best alternative use for the Airport land, if it were not WIA, would be a combination of commercial/industrial and residential land suitable for subdivision and development as a large-scale development project.

The methodology used for valuing land in large parcels, supported by valuation principle and case law, is:

+ Direct comparison with block land sales, and

+ Notional Subdivision, utilising accepted valuation approaches of Hypothetical Subdivisonal Budget Formula (Hyposub) and/or Discounted Cash Flow (DCF) techniques.

There are no sales of land parcels of a comparable location, size, zone or potential in the Wellington Region from which to make a direct block land sales comparison. Nor are there comparables elsewhere in New Zealand. The Albany Centre land sale referred to above is not a satisfactory comparison as it is the site of a sub regional centre, is less than half the size and contains zones that may not equate with a logical alternative use of the WIA land. An alternative use of the WIA land would likely include low-density residential and medium-density commercial/industrial development of a scale and quality in harmony with surrounding development were it not for Wellington Airport.

The Hyposub method is a point in time estimate approach to value that does not have regard to time value of money (TVM) principles. This static exercise is suitable for small single stage developments, usually of not more than 50 -100 subdivided lots. The Hyposub method is therefore not an appropriate approach to determine the land value on an alternative use basis given the size of the WIA land holding, with potential to achieve a subdivision of over 1100 lots staged over an estimated 10 years development timeframe.

In the absence of direct market evidence of alternative use land sales the preferred technique to value large parcels of development land involves the discounting of potential cash flows over the develop/sell horizon.

A logical scheme of potential subdivision development is established, development costs estimated, sale prices of potential sites assessed by comparison with sales evidence and a time frame estimated over which the land can be developed and sold. Cash flows, both positive and negative are discounted over the projected develop/sell time period utilising a discount rate selected after a consideration of large development projects, market enquiry and valuer judgment.

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The DCF valuation is undertaken on a monthly basis, traditionally using non-escalating cash flows to minimise errors in subjective judgment and to maintain consistency over time. Sensitivity analysis is carried out at different discount rates to indicate parameters of value, usually within a discount range 5% either side of the most probable value estimate. Sensitivity for WIAL land indicates a range in values 10% either side of the probable DCF value estimate.

An additional sensitivity technique involves the application of single and dual discount rates over the hold and develop/hold period. Land held prior to development commencement carries a low risk. Costs of development carry a high risk. For WIA land under the AUV principle the lag between block land purchase and commencement of development would be minimal. The difference of discounting at dual discount rates compared to a single rate has a small positive affect on value.

Land values have been summarised at **Sheet 1 of Appendix 8.**

In relation to the Discounted Cashflow valuation in Appendix 8 we have made the following assumptions:

+ Selling Expenses - These have been calculated at 3% of the gross sale price. This is in line with market parameters from real estate agents and associated legal fees for a subdivision of this scale.

+ Development Costs – Development costs have been established at $40,000 per site. Development costs includes all physical construction work Services. It also includes an allowance for contingencies at 15% and professional fees at 10%.

+ Rates – An allowance of $1,250,000 per annum has been made for Local Authority rates over the development period.

+ Management Costs – Management costs for managing the contract for the subdivision have been set at $90,000 per annum.

+ Marketing Costs – Marketing Costs have been allowed at $1,000 per site, included as part of selling expenses.

In terms of development of the site we have established the following subdivision profile.

Potential Development		
Zone	**Percentage of Land Area**	**Total Area**
Residential 1	30%	33.2 hectares
Residential 2	20%	22.1 hectares
Industrial/Commercial	20%	22.1 hectares
Reserve/Open Space	10%	11.1 hectares
Roads	20%	22.1 hectares
Total	**100%**	**110.6 hectares**

In terms of individual site values we have established average values for each lot having regard to current market parameters. In relation to the zones we have established the following average land areas and values:

Average Land Values		
Zone	**Area**	**Value**
Residential 1	$650m^2$	$280,000 incl GST
Residential 2	$450m^2$	$250,000 incl GST
Industrial/Commercial	$2000m^2$	$1,200,000 ecl GST

A Notional Subdivision (DCF) of WIA land on an alternative use basis does not account for the costs to bring the land to Airport Use, over an estimated time period of 5 years.[6] These costs are:

+ Rates over the time that the land is held pending Airport Use. We have adopted $1,250,000.

+ Planning Approval required to achieve a suitable Airport Zoning. We have adopted an amount of $2,220,000.

+ Holding Risk at Airport Developer Cost of Capital. We have adopted a rate of 9.50%.

Land Value Summary - Alternative Use value Plus Airport Costs – Notional Subdivision (DCF)

The combination of the DCF of development/sell cash flows and the Airport Use costs is the Alternative Use Plus Airport Costs check value of **$237,700,000 as follows:**

Alternative Use Plus Airport Costs Value	
Component	**Value**
Land Value Cashflow	$145,290,000
Airport Use Costs	$92,410,000
Total	**$237,700,000**

Table 8

[6] The time frame of 5 years was accepted as agreed by the arbitral Tribunal in the cited arbitration.

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16.3 Brownfields – Civil Works

Brownfields, is a valuation approach using land cost rates associated with the construction of an in-use asset in a developed location. For an Airport, development occurs incrementally over time. To the historic land holding either, land is brought into service as and when required by the development of land holdings held for strategic development or, land is purchased as and when required at current market value and developed for airport use. At WIA, both scenarios have applied.

The Brownfields - Civil Works approach to valuation involves the classification of WIAL land assets between 'natural' land and 'created' land. Created land is also referred to as 'reclaimed' land.

The Civil Works approach to valuing land recognises that the Replacement Cost of created land will usually exceed the value of existing natural land assessed on a direct market value comparison approach. The Replacement Cost of created land will also invariably exceed the value of Greenfields land because Brownfields sites are constrained by their existing location, available and suitably zoned land, resource consent requirements and, in WIAL's case, by the constraints of topography, with hill land to the east, Lyall Bay to the south and Evans Bay to the north.

Estimated areas of reclaimed land and land encompassed by the 'foot' of the hill have been provided by OPUS.

The created land at the Northern end of WIA, into Evans Bay, has an estimated area of 20,712m^2. The reclaimed area at the southern end, into Lyall Bay, has an estimated area of 215,694m^2.The land encompassed by the 'foot' of the original hill has an estimated area of 117,826m^2.

Two approaches have been considered for the assessment of WIA land on a Civil Works approach, although it is recognised that there are a number of methods and variations that could be considered when undertaking the calculations. The methods referred to and adopted in this report are the "Reproduction' scenario and the "Flat Site' scenario.

+ **'Reproduction' Scenario**

This approach considers the ODRC of created land by reproducing the land in an efficient manner from its original state, including an allowance for excavating and removing the hill that originally was part of the WIA land. A variation is to include the 'Replacement Cost' of the reclamation without an allowance for depreciation, which will indicate a higher figure.

The Fair Value of WIA land under this scenario has been assessed as follows:

'Reproduction' Scenario		
Land Component	**Basis of Valuation**	**Valuation Methodology**
Naturally Flat Land	Fair Value in its current flat state *Plus:* Holding Costs	Discounted Cash Flow approach (apportioned)
Original hilly land	Fair Value in its original hilly state *Plus:* The costs to excavate and remove the hill *Plus:* Holding costs	Discounted Cash Flow approach. Cost approach
Created Land	ODRC of reclamation	ODRC approach

Table 9

+ **'Flat Site' Scenario**

This considers the ODRC of created land by reproducing the land in an efficient manner from its current flat state, excluding any allowance for excavating and removing the hill area. . A variation is to include the 'Replacement Cost' of the reclamation without an allowance for depreciation, which will indicate a higher figure.

The Fair Value of WIA land under this scenario has been assessed as follows:

'Flat Site' Scenario		
Land Component	**Basis of Valuation**	**Valuation Methodology**
Naturally Flat Land *Plus:* Original hilly land footprint	Fair Value in its current flat state *Plus:* Holding Costs	Discounted Cash Flow approach (apportioned)
Created Land	ODRC of reclamation	ODRC approach

Table 10

The ODRC of created land has been provided by OPUS. Components considered by OPUS in assessing the ODRC of created land include:

+ supply and handling of fill material;
+ disposal of surplus material;
+ creation of the land platform;
+ retainment and protection of the platform (sea protection works);
+ resource consents;
+ professional fees for investigation, design and supervision; and
+ financial holding costs.

Tables 11 and 12 below provide a summary of the ODRC estimates provided by OPUS for the 'reproduction' and 'flat' site scenarios described above.

'Reproduction' Scenario

Component	Civil Works Costs	Professional Fees	Financial Costs	Total Cost ($)	Depreciated Cost	Annual Depreciation
Hill Removal	$24,273,000	$2,719,000	$7,379,000	$34,371,000	$34,371,000	$0
Disposal of Surplus	$6,886,000	$771,000	$2,093,000	$9,750,000	$9,750,000	$0
Reclamation	$6,637,000	$743,000	$2,018,000	$9,398,000	$9,398,000	$0
Sea Protection	$32,102,000	$3,595,000	$8,732,000	$44,429,000	$35,411,000	$236,000
Resource Consents	$0	$1,500,000	$720,000	$2,220,000	$2,220,000	$0
TOTAL	**$69,898,000**	**$9,329,000**	**$20,942,000**	**$100,168,000**	**$91,150,000**	**$236,000**

Table 11

'Flat Site' Scenario

Component	Civil Works Costs	Professional Fees	Financial Costs	Total Cost ($)	Depreciated Cost	Annual Depreciation
Bulk Fill	$37,486,000	$4,198,000	$11,396,000	$5,308,000	$5,308,000	$0
Reclamation	$6,637,000	$743,000	$2,018,000	$9,398,000	$9,398,000	$0
Sea Protection	$32,102,000	$3,595,000	$8,732,000	$44,429,000	$35,411,000	$236,000
Resource Consents	$0	$1,500,000	$720,000	$2,220,000	$2,220,000	$0
TOTAL	**$76,225,000**	**$10,037,000**	**$22,865,000**	**$109,127,000**	**$100,109,000**	**$236,000**

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Table 12

Detail of the methodology and assumptions adopted by OPUS in assessing an ODRC of WIA created land is provided in **Appendix 4.**

Brownfields - Civil Works Approach Valuation Summary

We set out the 'Reproduction' and 'Flat' site Civil Works scenarios in **Appendix 9.** A summary of our calculations is repeated below as **Table 13.**

Reproduction Scenario	
Naturally Flat Land	$100,748,570
Originally Hilly Land	$26,912,440
Created Land	$70,000,000
Cost to bring Natural Land to Airport Use	$92,618,930
Fair Market Value (Replacement Cost)	**$290,279,940**
Flat Site Scenario	
Naturally Flat Land & Original Hilly Land Footprint	$116,537,254
Created Land	$77,000,000
Cost to bring Natural Land to Airport Use	$85,827,765
Fair Market Value (Replacement Cost)	**$279,365,019**

Table 13
It is recognised that a number of alternative scenarios, including variations on the 'Reproduction' and 'Flat site' scenarios exist.

16.4 Land Value Summary

Land Value Summary	
Approach	**Value**
Zonal	$231,128,010
Alternative Use plus Costs	$237,700,000
Reproduction "Scenario"	$299,454,111
Flat Site "Scenario	$290,687,526

The four approaches show a significant range which we would expect due to the scale of the land holdings and the subjective assumption required.

We believe the zonal approach is the most appropriate basis on which to establish the Fair Value of WIA land. We have therefore adopted a Fair Land Value as at 31 March 2006 of **TWO HUNDRED AND THIRTY ONE MILLION ONE HUNDRED AND TWENTY EIGHT THOUSAND DOLLARS ($231,128,000)** plus GST (if any).

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17.0 Buildings – Main Airport Campus - Aeronautical

17.1 The Buildings

Aeronautical/Specialised buildings on the main airport campus are as follows:

+ Main Terminal Building
+ North Pier
+ South Pier
+ Southwest Pier
+ Terminal Link
+ Elevated Road
+ Airport Fire Service building
+ AVSEC
+ Gibson Hangar
+ Brierley Infill/North/South

For all these buildings we have utilised the ODRC approach. **Appendix 10** of the report contains the spreadsheets showing our calculations. For those subject to market leases we have also utilised an Investment Approach.

With the specialised buildings we have firstly determined an optimised area. This has been established in consultation with WIAL having regard to their long term strategic plan.

We have discussed each building with WIAL Management. Based on the present needs and anticipated needs it is considered that there is no surplus capacity and the existing areas are in effect the optimised area.

Having established the appropriate floor area we have then considered each critical element in the calculation.

17.2 Modern Equivalent Asset

To establish the modern equivalent asset rate (MEA) we have had regard to current building costings. The vast bulk of the value of the property relates to the main terminal building and associated piers. We have detailed initial costings for these buildings that date from the late 1990's. We also have the benefit of quantity surveyors estimates for the planned International Terminal building.

In relation to the hangars we have costs associated with smaller scale buildings such as the Avis and Hertz areas and the extension to the DHL building.

From this base cost data we have then indexed costs to arrive at a current equivalent replacement cost rate. In terms of building costings and indices we have had regard to specific building costings prepared by:

+ Rawlinsons
+ Maltbys

In relation to building cost indices we have had regard to those prepared by:

+ Maltbys
+ Capital Goods Price Index (CGPI)

The increase in construction costs since the last valuation in 2002 for a range of buildings can be illustrated as follows:

Building Type	2002	2005	Percentage Increase
Warehouse	535	680	27.1%
Retail Shopping Centre	1125	1425	26.7%
Offices	1125	1425	26.7%

Table 14

17.3 Professional Fees

Professional fees have been calculated for each individual building based upon the complexity of the design, scale and capital cost. The professional fees include fees for design, engineering, and consultancy.

For the substantial specialised buildings such as the main terminal building and the Piers we have allowed professional fees at 17.5%, which reflects the actual costs, incurred when these buildings were developed. In relation to other buildings we have utilised a market rate of 8.0%.

17.4 Construction Period

For the main terminal building and associated piers we have allowed a construction period of 2.5 years. For all other buildings we have adopted an allowance of 1.5 years from construction to commissioning.

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17.5 Interest Costs

We have allowed interest costs at 8.0% on the cost plus professional fees. The interest rate is calculated over half the calculated construction period, which reflects costs incurred during the construction process.

The interest rate utilised is based upon an opportunity cost rate for investment rather than an actual borrowing cost.

17.6 Total Life

The total life for each building is based upon the planned life for the structure, having consideration to the construction materials employed.

17.7 Effective Age

The effective age of each building is calculated having regard to the actual life adjusted for refurbishment and any major capital upgrade.

17.8 Remaining Life

The remaining life of each asset reflects its current condition, and its physical and economic efficiency.

In our discussions with WIAL the redevelopment and additions to the North Pier, and reconfiguration of the International Processing Area of the Main Terminal Building, was disclosed. The impact of these works is limited to particular areas, and should be recorded against that particular area.

WIAL have advised TelferYoung on the extent of the write offs for each of these projects. At a global level the values calculated on an ODRC basis need to be reduced to accommodate these changes. The extent of the write off has been deducted from the ODRC values established for this component of the building.

The write off in Stage 1 is estimated as follows:

+	International Processing Area	$300,000
+	Main Terminal Building	$750,000
Total		$1,050,000

Stage 2 is estimated as follows:

+	International Processing Area	$1,500,000

This is a total write off of $2,550,000. This is shown as a deduction in the following summary.

17.9 ODRC Summary

The following **Table 15** summarises the calculations on an ODRC basis for the aeronautical building assets.

ODRC Summary			
Description	**Modern Equivalent Asset Rate $/m^2**	**ORC**	**ODRC**
Airport Fire Service	$1,750	$1,304,213	$760,791
AVSEC Building	$1,750	$613,040	$551,736
Main Terminal	$3,400	$86,351,925	$75,989,694
North Pier	$3,200	$39,870,304	$31,976,243
South Pier	$2,900	$1,443,076	$1,174,597
Southwest Pier	$2,900	$15,187,909	$12,150,327
Terminal Link	$2,900	$6,049,676	$5,308,899
Elevated Road	$4,200	$5,428,500	$4,777,080
Gibson Hangar	$1,150	$1,323,103	$183,764
Brierley Infill	$1,150	$155,349	$93,210
Brierley North	$1,150	$1,305,988	$391,796
Brierley South	$1,150	$621,397	$186,419
Maintenance Shed	$540	$13,600	$2,267
Total		**$161,120,124**	**$133,546,824**
Less Write Off			**$2.550,000**
Total			**$130,996,824**
Adopt			**$130,995,000**

Table 15
Full calculations are shown in **Appendix 10**

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17.10 Specialised Buildings – Investment Approach

Within the specialised asset class there are three buildings which are subject to arms length commercial leases. The three buildings are:

+ AVSEC Building
+ Gibson Hangar
+ Brierley – Infill, North and South

With these buildings we have also undertaken a traditional capitalisation approach to ensure the results indicated by the ODRC approach reflect, as near as possible, market conditions. In Appendix 10 following the ODRC valuation there are further spreadsheets detailing our capitalisation calculations.

A summary of the two approaches for these three buildings is as follows:

Value Comparison – ODRC vs Capitalisation Approach		
Building	**ODRC**	**Market Approach**
AVSEC Building	$551,736	$673,727
Gibson Hangar	$183,764	$12,600
Brierley Infill	$671,425	$624,278
Total	**$1,406,926**	**$1,310,605**

In total the two approaches show a reasonably good correlation with the ODRC supporting a value of some $96,000 greater than that on the market value residual approach.

The AVSEC Building provides a higher value on a market approach which reflects the high profile this property enjoys and its marketability as an investment product.

In relation to the Gibson Hangar the market approach shows a very low residual which reflects the fact that the rental for the Gibson Hangar is considerably well below market rental levels. We believe that if the rental was struck at market levels a market residual value close to that established with the ODRC approach would result.

In relation to the Brierley Infill the two approaches show a close correlation.

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18.0 Residential Land Holdings

18.1 General

WIAL have residential land holdings both to the east and west of the main airport campus.

The western component extends along Miro Street and Broadway. The eastern component extends along Bridge Street and Coutts Street.

Each residential property is held under a separate title and could be sold as a single package.

We have assessed the market value of each unit by reference to the most recent rating valuation which are as at 1 September 2005. Due to the relatively minor component the residential properties make to the total property holding we believe this is an acceptable approach when considering the establishment of property values for financial reporting purposes.

We would refer you to **Appendix 14,** which details the Capital Value for each residential property component together with the Land Value and value of Improvements. The values for these components are summarised as follows:

Residential Property Holdings – Summary		
Land Value	**Improvements Value**	**Capital Value**
$5,986,000	$5,404,000	$11,390,000

Table 22

19.0 Ground Lease Assets

There are a total of 12 aeronautical ground leases at Wellington International Airport. In **Appendix 18** we have summarised the ground lease profile.

A number of the smaller ground leases are on a monthly basis generating minimal income. The major ground leases relate areas occupied by:

+ Air New Zealand Domestic Cargo
+ Mobil (JUHI)
+ Ministry of Defence
+ Air New Zealand Hangar
+ Air New Zealand Flight Kitchen

The total ground lease income is currently **$432,815** per annum plus GST.

20.0 Valuation Conclusion

The disclosure valuation for Wellington International Airport Limited as at 31 March 2006 can be summarised as follows:

Asset Value Summary	
Asset Class	**Fair Value - Current Market Value**
Land – Total	$231,128,000
Specialised Building Assets	$130,995,000
Residential Property	$5,404,000
Civil Works	$66,166,000 (incl adjustments for investment properties & carpark)
Plant, Machinery and Equipment	$8,993,000
Total	**$442,686,000**

Table 25

21.0 General

Theses values assessed for the WIAL assets have been prepared in accordance with the Wellington International Airport Limited Asset Valuation Handbook March 2006.

The valuation is considered to represent the Fair Value of WIAL assets as at 31 March 2006.

We trust that this form of report meets your requirements but should you require any further information or clarification of any point please do not hesitate to contact the undersigned.

Yours faithfully
TelferYoung (Canterbury) Limited

C N Stanley, Director
Registered Valuer, M Prop Stud (Distn)

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Yours faithfully
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Valuers Property Advisors

Wellington International Airport Limited

Appendix 1

WIAL Asset Valuation Handbook

31 March 2006

Telfer Young

Wellington International Airport Limited

Asset Valuation Handbook

March 2006

Prepared for:

Wellington International Airport Limited

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Wellington

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1. Introduction

This handbook has been prepared by TelferYoung in conjunction with the valuation of the assets of Wellington International Airport Limited ("WIAL") required by WIAL as at 31 March 2006. It identifies the recommended valuation methodologies and the approach used in the valuation.

This handbook replaces Ernst & Young's Valuation Handbook prepared for WIAL in July 1999 ("WIAL's Original Valuation Handbook") which was based on valuation and accounting standards that applied at the time, specifically the Institute of Chartered Accountants ("ICANZ") SSAP28 and SSAP17.[1] These standards were used in the valuation of WIAL's assets between 1999 and 2004, as adapted to embrace ICANZ Financial Reporting Standard (FRS-3) and the New Zealand Institute of Valuers (NZIV) Valuation Standard 3 (VS3).[2]

As discussed in the next section of this handbook the relevant valuation and accounting standards have been revised further since that time and this new handbook takes account of those revised standards.

The 1999 handbook was publicly disclosed in accordance with the requirements of the Airport Authorities (Airport Companies Information Disclosure) Regulations 1999 and this replacement handbook will also be disclosed under the Regulations by August 2006.

This handbook covers the following matters:

+ Valuation and financial reporting standards.

+ Relevant considerations arising from the final Award of Hon Sir Ian Barker QC in the arbitration between WIAL and the airlines dated 23 September 2002 in respect of the valuation of WIAL'S "aeronautical" assets.

+ Recommended methodologies for the valuation of WIAL's assets.

+ Valuation procedure;

+ Asset definition/classification;

[1] The Institute of Chartered Accountants (ICANZ) was rebranded as The New Zealand Institute of Chartered Accountants (NZICA) in 2005. The New Zealand Institute of Chartered Accountants is the operating name of the Institute of Chartered Accounts of New Zealand, a body established under the Institute of Chartered Accountants of New Zealand Act 1996. All references to the New Zealand Institute of Chartered Accountants or to NZICA in this document means the Institute of Chartered Accountants of New Zealand.

[2] The New Zealand Institute of Valuers (NZIV) was established by the Valuers Act 1948. In May 2000 the New Zealand Institute of Valuers joined with the Property Land Economy Institute of New Zealand (PLEINZ) and the Institute of Plant and Machinery Valuers (IPMV) to create the New Zealand Property Institute (NZPI). In 2005 NZPI changed its name to the Property Institute of New Zealand (PINZ). NZIV continues as an incorporated society under the Valuers Act 1948

+ Recommended Valuation Approach; and

+ Definitions and abbreviations used in this handbook, set out in the appendices attached to this handbook.

2. Valuation and Financial Reporting Standards

Legal precedent has determined that any 'proper' valuation must accord with generally accepted valuation principles as set out in valuation standards and general valuation practice as to the application of valuation methodologies. Proper valuation practice requires a valuer to evaluate the asset by using a number of appropriate methodologies since the answers derived through several methodologies improve the confidence with which the valuer can ultimately give an opinion on the value of the asset.[3]

The Property Institute of New Zealand (PINZ) Valuation Standards provide primary guidance for an asset valuation of WIAL. Regard should, however, be given to other valuation directives including New Zealand Accounting Standards (NZICA) and International Valuation Standards (IVS).

The International Valuation Standards Committee, (IVCS), has developed appropriate international valuation reporting standards. The IVS Standards adopted by PINZ require that where there is no market-based evidence of fair value for the same or similar asset because the specialised nature of the item of property and the item is rarely sold, except as part of a continuing business, an entity may need to estimate fair value using an income or depreciated replacement cost approach.[4]

2.1. Financial Reporting Standard 3 – FRS-3

The New Zealand Institute of Chartered Accounts (NZICA), has developed the appropriate reporting standard for financial reporting for this class of asset. NZ GAAP Financial Reporting Standard No. 3 (FRS-3) "Financial Reporting for Property, Plant & Equipment" is the primary standard for this class of asset as at 31 March 2006.

FRS-s and NZIV Valuation Standard 3 (VS3) were adopted by PINZ in Professional Practice 2004 (PP2004) as at 1 May 2004 and became mandatory standards for PINZ members from July 2004.

Guidance Note 3.2 of PP2004 is to be read in conjunction with Practice Standard 3 (PS3) bringing New Zealand Practice in line with International Valuation Standards adjusted for New Zealand conditions. Definitions used in PP2004 are generally those of International Valuation Standards.

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[3] Boat Park Limited v Hutchinson [1999] 2 NZLR 74, at pages 83 and 84.

[4] NZ IAS 16 at paragraph 3L,
PINZ Professional Practice 3 (PS3) at 3.2 and Guidance Note 3.2 Asset Classification framework for valuation purposes.

Following the introduction of FRS-3 the valuation of WIAL company assets have reflected the change to fair value (FV), other than for the alternative valuation of land at replacement cost, which was not followed.

New Zealand equivalent to International Accounting Standard 16 (NZ IAS 16) approved as part of a stable platform of New Zealand equivalents for the Accounting Standards Review Board, applies from 1 January 2007. NZ IAS 16 became regulation from 30 December 2004.[5]

There is a requirement for the valuation of airport property, land, civil works, buildings (including building ancillary services), and plant machinery and equipment to be completed in accordance with FRS-3, with NZ IAS 16 and with the relevant PINZ standards and guidelines, notably PS3 and GN 3.2: Valuations for Financial Reporting Purposes in New Zealand.

Valuation standards and guidance notes issued by NZIV have therefore been adopted by PINZ under Professional Practice 2004 (PP2004). To date, PINZ has not prepared a valuation standard that can be read alongside NZ IAS 16.

2.2. Statement of Accounting Practice No. 17 SSAP-17

WIAL's valuation for 2006 will be governed by the existing accounting standards; FRS-S for property plant and equipment and SSAP 17 for investment properties recognising the new standards to apply from 1 January 2007.

Investment property is property that is held, or development property intended to be held, primarily for capital growth or rental or similar income. [SSAP-17 paragraph 3.2]

Investment Properties, other than development properties, should be recorded at their net current value. Investment properties including development properties are to be valued annually by an independent valuer. [SSAP 17 paragraph 5.4]

Net Current Value is the open market value, less the costs of disposal that could reasonably be anticipated. Open market value is the price for which a property might reasonably be expected to be sold at the operative date. [SSAP-17 paragraph 3.6]

2.3. Financial Reporting Standard NZ IAS 16

NZ IAS 16 is the core new standard covering the accounting for fixed assets and will replace FRS-3. WIAL's opening transitional balance date is 1 April 2006, which means that the balance sheet will be reassessed for companies utilising NZIFRS.[6] Under NZIFRS, NZIAS 36 deals with impairment and is mandatory for all assets regardless of

[5] NZICA New Zealand Equivalents to International Financial Reporting Standards NZ IAS 16 approved 24 November 2004 by the Accounting Standards Review Board.

[6] NZIFRS is the acronym for New Zealand International Financial Reporting Standards.

being carried at cost or revaluation and even in a revaluation year if there is any indication of impairment.

In November 2004, the Financial Reporting Standards Board of NZICA issued the New Zealand equivalent to IAS 16 - Property, Plant and Equipment that will supersede FRS-3. NZ IAS 16 will be mandatory for issuers of financial statements from 1 January 2007.

The valuation requirements for WIAL assets under NZ IAS 16 and FRS-3 are considered by TelferYoung to be the same. Accordingly, definitions and directions that affect the valuation of WIAL assets as at 31 March 2006 are taken from the new financial reporting standards.

Under NZ IAS 16, an entity may elect to revalue items of property, plant and equipment after initial recognition provided that:

> *"After recognition as an asset, an item of property, plant and equipment whose fair value can be measured reliably shall be carried at a revalued amount, being its fair value at the date of the revaluation less any subsequent accumulated depreciation and subsequent accumulated impairment losses. Revaluations shall be made with sufficient regularity to ensure that the carrying amount does not differ materially from that which would be determined using fair value at the balance sheet date."* [NZ IAS 16 paragraph 31]

Fair value is the basis of valuation for WIAL assets. Fair value is usually determined from market-based evidence.

> *"The Fair Value of land and buildings is usually determined from market-based evidence by appraisal that is normally undertaken by professionally qualified valuers."* [NZ IAS 16 paragraph 32]

Where possible 'fair value' requires a determination using market-based evidence. There is no market-based evidence for the determination of fair value for WIAL's specialised assets. Accordingly, fair value must be subjectively determined:

> *"If there is no market-based evidence of fair value because of the specialised nature of the item of property, plant and equipment and the item is rarely sold, except as part of a continuing business, an entity may need to estimate fair value using an income or a depreciated replacement cost approach."* [NZ IAS 16 paragraph 32]

The terms 'fair value' and in New Zealand 'Open Market Value' referred to in financial reporting standards, are synonymous with 'Market Value' as defined in International Valuation Standard 1 as set out in PS3 of PINZ, PP2004. The publication expands on the relationship between fair value and market value under PS3:

> *"Where the Fair Value of the asset is able to be reliably determined using market-based evidence, this value will apply.*

Where Fair Value is not able to be reliably determined using market-based evidence, for the same or a similar asset, Depreciated Replacement Cost (DRC) is used to estimate Fair Value" [PP2004 PS3 paragraph 3]

NZ IAS 16 and GN 3.2 of PP2004 have identical wording for the adoption of the depreciated replacement cost method of valuation in the event that a market-based assessment cannot be provided.

"Depreciated Replacement Cost" is a method of valuation that is based on an estimate of:

(a) in the case of property:

i. the fair value of land; plus

ii. the current gross replacement costs of improvements less allowances for physical deterioration, and optimisation for obsolescence and relevant surplus capacity; and

(b) in the case of plant and equipment, the current gross replacement cost less allowances for physical deterioration and optimisation for obsolescence and relevant surplus capacity. [NZ IAS 16 paragraph 33.1 and PP2004 GN 3.2 paragraph 4.1]

NZ IAS 16 provides guidance as to the valuation of land:

"Optimisation is not applied in determining the value of the land component of the depreciated replacement cost of property. The value of the land component will always reflect the fair value of the actual land held, in terms of both its size and location." [NZ IAS 16 paragraph 33.12]

"In instances where the land is under utilised the fair value the land will be determined by reference to the highest and best use of such land." [NZ IAS 16 paragraph 33.12]

"The fair value of land would normally be determined from market-based evidence. However, in the rare instances where extensive works have been carried out in order to prepare land for use in the entity's business, available market evidence will normally relate to land of the same size and in the same general vicinity but which is priced for uses that are sub-optimal relative to the use for which the works were carried out. In these rare instances the fair value of the land should be determined by having regard to the replacement cost of the land. ***For example, consider the case where an airport or port company acquires a section of seabed, fills it in and builds a seawall in order to produce flat land for use in the entity's business. The reclaimed land is in the precise location where the entity requires land. Market evidence may exist for other land of the same size and in the same general vicinity as the reclaimed land, but that other land is not suitable for the use intended by the entity. Thus, the market evidence on the fair value of that other land is not relevant to the***

reclaimed land, and the best indicator of the fair value of the reclaimed land would be the replacement cost of that land. *Land resulting from extensive works by a local or central government body in constructing new roading provides a similar example."* [NZ IAS 16 paragraph 33.13] [emphasis added]

"If an entity adopts the allowed alternative treatment in NZ IAS 23, an amount equal to the amount of borrowing costs that would be embodied in the fair value of the asset is included as a component of depreciated replacement cost." [NZ IAS 16 paragraph 33.14]

Valuations shall be conducted either:

"(a) By an independent valuer; or

(b) Where an entity employs a person sufficiently experienced to conduct a valuation, by that person, so long as the valuation has been subject to review by an independent valuer." [NZ IAS 16 paragraph 35.1]

"The fair value of property, plant and equipment is determined or reviewed by an independent valuer who holds a recognised and relevant professional qualification and who has recent experience in the location and category of the property, plant and equipment being valued." [NZ IAS 16 paragraph 35.2]

"For plant and equipment, where there is an active market or readily available price indices that establish the item's fair value with reasonable reliability, the value need not be conducted or reviewed by an independent valuer or experienced employee." [NZ IAS 16 paragraph 35.3]

Reporting standards require classes of property, plant or equipment having different useful lives or providing benefits to the entity in different patterns, thus requiring different depreciation rate and methods, to be grouped and to be accounted for separately. [NZ IAS paragraph 37] Judgement is required to decide which components of complex items of property, plant and equipment are accounted for separately.

Components will not need to be accounted for separately if materially the same total depreciation expenses, carrying amounts and revaluation movements will otherwise result. [NZ IAS 16 paragraph 45]

2.4. Impairment of Assets (NZ IAS 36)

NZ IAS 36 *Impairment of Assets* will be applied by WIAL to determine whether any item of property, plant or equipment is impaired. WIAL will undertake an impairment test and provide advice to the valuers of adjustments required to the valuation, if any.

2.5. Investment Property (NZ IAS 40)

This New Zealand equivalent to international standards defines investment property as

"...property held to earn rentals or for capital appreciation or both. Therefore, an investment property generates cash flows largely independently of the other assets held by the entity. This distinguishes investment property from owner-occupied property." [NZ IAS 40 paragraph 7]

""NZ IAS 16 Property Plant and Equipment" applies to owner-occupied property.

Examples of investment property are:

(a) land held for long-term capital appreciation rather than for short-term sale in the ordinary course of business.

(b) land held for a currently undetermined future use. (If an entity has not determined that it will use the land as owner-occupied property or for short-term sale in the ordinary course of business, the land is regarded as held for capital appreciation.)

(c) a building owned by the entity (or held by the entity under a finance lease) and leased out under one or more operating leases.

(d) a building that is vacant but is held to be leased out under one or more operating leases". [NZ IAS 40 paragraph 8]

The methods used to assess fair value under NZ IAS-40 are to reflect market conditions at the balance sheet date [NZ IAS 40 paragraph 38]

3. Final Award of the Hon Sir Ian Barker - Relevant Considerations

We have been provided with a copy of the September 2002 Award.

The September 2002 Arbitration Award made a number of general and specific findings (detailed in Appendix 1) which are relevant considerations in the valuation of the assets of Wellington International Airport as at 31 March 2006. The arbitration determined issues regarding valuation methodology for the "aeronautical" airport assets that could not be agreed between WIAL and the Airlines in the consultation process leading up to WIAL's setting of landing charges for "identified airport assets" under the Airport Authorities Act 1966 ("the Act") as at 30 June 2002.

In terms of general findings, the Arbitral Tribunal made findings on the relevance to WIAL's valuations of High Court and Court of Appeal litigation between WIAL and the airlines in the 1990s (see paragraphs 14 to 18 of the Award) and in particular the High Court judgement of McGechan J dated 15 October 1993. In that judgement McGechan J held that WIAL's pricing decision, subject to the proceedings at that time, was not unreasonable and declined to issue judicial review.

The Arbitral Tribunal noted that there was no appeal from this decision and that WIAL and the airlines were bound by the judgements, which included findings that WIAL's approach

to valuations and the setting of charges was governed by the Act. The judgement noted that under the Act, WIAL was obliged to act as a commercial undertaking and was entitled to adopt a conventional valuation approach to its valuations under the Act using valuation and accounting standards. The Arbitral Tribunal also expressly recognised the common use of WIAL's valuations for both financial reporting and pricing purposes.

As detailed in **Appendix 1**, the Award also upheld WIAL's use of 'market value' or 'fair value' valuation of airport land "as it is" using zonal or DCF methodologies and ODRC for specialised assets. The revisions to valuation and accounting standards since the Award do not detract from the Arbitral Tribunal's findings on appropriate valuation methodologies for the aeronautical or identified airport assets included in WIAL's assets.

The Arbitral Tribunal's finding does not forbid the use of civil works methodology for the valuation of WIAL's land, does not forbid the use of this methodology regardless of any changes in valuation and accounting standards and the availability of better information for its application. It is noted that the civil works methodology is supportable under the revised valuation and accounting standards. However, unless records do become available to enable a more informed assessment of a civil works valuation of land, such a valuation is best used as a check.

4. Recommended Methodologies

4.1. Land Methodology

The following methods are considered appropriate for the valuation of WIAL's land assets.

Fair Value. The fair value (FV) of the land having regard to:

+ Zonal methodology (zonal) by comparison with market evidence of comparable land adjusted for variations including size, use and services, as appropriate'

+ Hypothetical subdivision methodology (DCF) based on market-based evidence for unsubdivided land, and

+ Civil Works (ORC). This check method involves the cost of replicating the land, to which is added the ODRC of the buildings, civil works, plant, machinery and equipment on the land. This will represent the highest value of the assets. This method follows FRS-3 and NZ IAS 16 Standards. It is acknowledged there is a lack of historic records at development or vesting to establish historic cost (HC). The development of WIAL land involved peculiar elements, including the destruction of a hill and reclamation of nearby land for schools, parks, highways and sewerage works.

4.2. Specialised Assets Methodology

The following method is considered appropriate for the valuation of WIAL's specialised assets:

Fair Value. The fair value (FV) of the specialised assets having regard to:

+ Optimised Depreciated Replacement Cost (ODRC) of the specialised buildings, civil works, plant, machinery and equipment. ODRC is a term that is equivalent to the term depreciated replacement cost (DRC), which is a term used in FRS-3 and NZ IAS 16.[7] ODRC measures the minimum cost of replacing or replicating the service potential embodied in the assets with modern equivalent assets in the most efficient way practicable, given the service requirements, the age and condition of the existing assets and replacement in the normal course of the business. The ODRC of these assets is added to the fair value of the land asset.

4.3. Inappropriate Methodology

The following methods are considered inappropriate for the valuation of WIAL specialised assets:

+ Opportunity Cost - The Highest and Best Use Alternative, (H&BU) for the land or foregone value of the next best alternative, often referred to as Alternative Use Value (AUV) to which, depending on viewpoint, holding costs are added. There is no Valuation Standard, Financial Reporting Standard of legal precedent support for the adoption of this methodology for an in-use land asset that is to be value "as it is".

+ Depreciated Historic Cost (DHC) - Historic Cost of the land, and improvements to the land, less depreciation applied to the improvements. This method does not allow for optimisation of over designed assets and presents difficulties in the determination of 'historic cost' where there is a lack of historic records.

+ Optimised Deprival Value (ODV) - The value to the entity being the lower of optimised depreciated replacement cost (ODRC) and Economic Value (EV). The maximum amount a business would be willing to pay to avoid being deprived of the services of the asset. The application of this methodology is circular.

The principal reason for adopting the preferred valuation methodology for specialised land and improvements have regard to the absence of market-based evidence and the requirement to adhere to Financial Reporting Standards and Valuation Standards.

International airport sales have created some limited 'market level' benchmarks to the extent that, as a property asset, airports could be valued using market bases, but no direct comparisons can be drawn from International data as they do not accord with New Zealand market or regulatory conditions.

Unlike other 'going concern' property such as hotels, shopping centres and office buildings, which are valued using market bases, airports contain significant specialised components, including Identified Airport Activities assets, for which it is accepted by International and New Zealand accounting and valuation bodies a cost based approach is

[7] Depreciated Replacement Cost (DRC) and Optimised Depreciated Replacement Cost (ODRC) are terms used interchangeably.

most appropriate. Replicating specialised assets under ODRC methodology is the starting point for the valuation of specialised assets, whereas for assets in a competitive market, value is derived from market-based evidence either by sales and/or the net present value of future cash flows.

The Airport Authorities Amendment Act (AAA) identifies activities (aircraft and freight), airfield and specified passenger terminal) for which airport companies must consult their substantial customers concerning charges. These activities can be regarded as including specialised elements and include facilities to enable the landing and take-off of aircraft, servicing and maintenance of aircraft and the handling of aircraft freight and aircraft passenger movement.

Because WIAL also owns property for which a market definition (MV) and market-based evidence can be applied, these assets are not specialised and comparison can be made with properties that freely trade in the open market.

Each asset division requires specific consideration within its asset classification. Under DRC methodology assets that are considered specialised require two independent calculations, one for the land under fair value and the other for the improvements to the land under ODRC. The summation of land assessed at fair value and buildings plus civil works plus plant, machinery and equipment assessed on an ODRC basis is the total value of the specialised company assets.

Market assets are valued by comparison with sales and/or on the present value of future cash flows. These approaches provide a total real estate asset value, which is then allocated into two components being land assessed at market value and the residue being the value of improvements. Plant machinery and equipment that is not specialised is valued on a market basis, or can be included at book value.

The addition of these separately determined asset value classifications is intended to replicate what a market should be but may or may not accord with market value under Highest and Best Use principles. There is no separate test of economic viability permitted under DRC methodology.

The absence of a market test for specialised assets may be addressed in part by a consideration of impairment under NZ IAS 36 in accordance with the NZICA 2004 New Zealand Equivalents to International Standards. It must be reiterated that in New Zealand there is no separately identifiable market for specialised airport assets, including aeronautical assets that trade on the open market independent of the business associated with them, or, if they are no longer required as business assets, they sell or trade at a market value for disposal.

The constraints of the DRC approach do not apply to market assets.

4.4. Asset Concept and Summary of methodology

Therefore, given that WIAL comprises a combination of specialised and market assets, the methodology is:

+ Fair Value being a summation of the fair value of land and Depreciated Replacement Cost (ODRC) for the Identified Airport Activities (aeronautical) and other specialised (non aeronautical) property with check market valuations where there is a discrete asset with identifiable rental regime; and

+ Market value, by direct sales comparison and/or the present value of future cash flows under normal economic principles for investment property, with an allocation into market value for the land and the residue value to improvements. Book value for non specialised plant machinery and equipment.

The application of this methodology will ensure that the resulting company asset valuation is both reflective of market value where it can be applied and a proper basis for the initial consideration of the pricing of the Identified Airport Activities (aeronautical) components of specialised property.

The following is an Asset Concept Diagram for WIAL assets.

Chart 1 - Asset Concept Diagram

5. Valuation Procedure

5.1. Valuation Process Land

To separate and identify which assets are to be valued under each of DRC or Highest and Best use market value principles a zonal approach to WIAL real estate land assets will be adopted. A zonal approach to land values is a logical division, the land in each zone reflecting the value of aeronautical and non aeronautical values.

Direct market comparison with block land sales adjusted for size and location, using Discounted Cash Flow (DCF) methodology applied to the large holding plus a consideration of the ODRC value of civil works and the full costs of establishing the airport use as it is, will be used as one check method.

A civil works approach to land creation is as further check method that accords with FRS-3 and NZ IAS 16. This check method involves the cost of replicating the land (Replacement Cost) in its current configuration incorporating a value for the underlying land to which is added the ODRC of civil works and the full costs of establishing the land to airport use as it is.

Land values assessed will accept that all roads to boundaries are in place and provide access to the land. Internal roads are civil works added as improvements. Land values take into account the advantages and disadvantages of easements.

Land values will include utilities within boundaries and civil works that are site specific. Utilities of WIAL comprise all power, gas, water, sewerage situated on or within the land and are treated as subsumed within the land.

5.2. Valuation Process Improvements

The approach to the property asset valuation will have regard to all factors considered relevant for an ODRC valuation of WIAL specialised assets and the present value of future cash flows for market assets. Accordingly all assets will be inspected to identify those that are specialised and those to be valued on a current market basis.

Major specialised assets will be categorised by use, and recorded by building area, age, functionality, surplus capacity (if any), total life and residual life. Assets that comprise the Car Park Business, the Advertising Signage Business, the leased property and Airport Retail Park will be separately identified as these are market assets.

An initial inspection will follow detailed discussions with senior financial, engineering and facility management staff as appropriate to provide a breakdown of capital costs, new building and site development work including specialised service upgrades and recent purchases.

For specialised assets the relationship of assets to one another and the categorisation into Identified Airport Activities (aeronautical) and other specialised (non aeronautical) assets will be undertaken in conjunction with WIAL personnel. Functionality of buildings and civil works will be addressed in discussions with WIAL. Costings of similar assets will be analysed where available. A modern equivalent asset (MEA) cost will be established and an Optimised Replacement Cost (ORC) calculated for all specialised assets.

Total and residual lives will be determined for all building and civil works. An overall asset and componentised (BAS) analysis of costs as appropriate will be included based on WIAL advice. WIAL will provide historic data and may need to provide Quantity Surveying support for MEA calculations and componentisation.

Spreadsheets of building cost information to supplement indexed original costs will be constructed and componentised for all specialised building and civil works.

Meetings will occur as required with WIAL's experts to ensure that cost data on an overall and componentised basis fairly reflects the ORC of WIAL assets. Information will be compared with the WIAL Valuation Handbook for consistency.

A further inspection may be required with specialist facility management and engineering staff as appropriate and with other experts. The estimated residual life of building structures, building services, building fit-out civil works and componentisation in accordance with BAS will be reviewed. Capital upgrading and anticipated effects on residual componentised asset lives will be considered. Spreadsheets will be reworked as required and anomalies identified between overall asset and componentised asset lives.

Liaison will take place with senior financial and management personnel to identify capital costs required to achieve anticipated lives. Where costs are identified that reduce the

ODRC value they will be deducted as a separate item to avoid over valuation. This process and revised value estimates will identify capital upgrading either undertaken or proposed that creates a mismatch between information supplied and an initial assessment. This iterative process corrects for a mismatch between the values prepared on a holistic basis and residual values prepared on a componentised basis.

WIAL will address impairment issues, if any, under IAS 36 and values will be amended.

Following a further meeting with financial advisers and management, a third visit may be required to match building lives before finalising values.

Figure 1 - Valuation Process

6. Asset Definition/Classification

6.1. Asset Definitions

The company assets at Wellington International Airport can be grouped under four classes:

+ Land;
+ Civil works;
+ Buildings (including building ancillary services); and
+ Plant, machinery and equipment.

Land

As a proportion of total value the land holding at the airport is likely to dominate the overall asset value. The land can be classified as:

+ Specialised land, being land used for airport activities regarded as aeronautical under the Airport Authorities Amendment Act and specialised, non aeronautical assets required for airport operations; and
+ Market land, being land used for purposes outside those specified above e.g. industrial, service, retail and business car park.

A zonal approach will be adopted to allocate land into various activities within the specialised and market related classifications. All land will be assessed at Fair Value under FRS-3. Differences in land value will occur based on potential use, location, size, and services provided.

Land Use Zone classifications are set out in Chart 2 below:

Chart 2 - Land Use Zone Classifications

Civil Works

These are improvements to the land and include:

+ Runways, stubways, taxiways and aprons;
+ Airfield and grassed areas;
+ Roads, carparks, storage yards and footpaths;
+ Miscellaneous traffic facilities;
+ Utility services;
+ Sundry items such as fences, gates, subway; and
+ Sea protection works (the cost of these works are subsumed as part of the land value and deducted from civil works).

For the purposes of valuation, it is necessary to subdivide each of these asset groups into component and sometimes sub-component levels. FRS-3 requires that where the components of an item have different useful lives or provide different benefits, these components are recorded and depreciated as separate assets (componentisation). These component levels are shown for Civil Works in **Table 1** as follows.

Table 1 - Asset Group and Component Levels

For buildings the component levels are shown in **Table 2** as follows:

Table 2 - Asset Group Building Components

Outlined in **Appendix 3** are the building improvements that are owned by WIAL as at the effective date of valuation.

Plant, Machinery and Equipment

Plant, machinery and equipment include such items as motor vehicles, furniture and fittings, computers and office equipment and other specialised airport equipment. Relative to overall asset value these have low materiality. Plant integral to building structures such as electrical, air-conditioning, elevators, lighting, boilers, generators, fixed partitioning etc. are considered to be part of buildings and will be included as such in the 'building' class. These items are generally referred to as building ancillary services (BAS).

Plant, machinery and equipment will not be revalued. Current book values will be adopted as deemed cost under IAS 16. The last revaluation was in 2002.

6.2. Real Estate Asset Classification

The classification of a real estate asset dictates the valuation method to be applied (and also the accounting treatment). **Chart 3** provides a summary of the real estate asset classification process.

Chart 3 - Real Estate Asset Classification Process

6.2.1. Specialises versus Market Assets

In addressing the degree of specialisation, regard will be given to:

+ the use of the asset;
+ the degree of special adaptation;
+ the location;
+ whether that category of asset has a readily definable market;
+ guidance by the directors and/or technical personnel of WIAL; and
+ the WIAL fixed asset register.

The key characteristics of specialised assets are that they:

+ are useful to a limited number of uses or users;

+ rarely, if ever, sell on the open market, except as part of the business in occupation;

+ are generally specialised structures; and

+ earn income, which has not been fully derived from an 'open market'.

In general, specialised assets are those, which, due to some specialised physical or geographical factor, offer very little utility for any purpose other than that for which they were originally designed. The Airport Authorities Amendment Act specifies "identified airport activities" that will generally comprise assets of an aeronautical related nature. These are stated below as sourced from the Act.

"Identified airport activities" *means any one or more of the following, as the case may be:*

(a) Airfield activities:

(b) Aircraft and freight activities:

(c) Specified passenger terminal activities:

"Airfield activities" *means the activities undertaken (including the facilities and services provided) to enable the landing and take-off of aircraft; and includes -*

(a) The provision of one or more of the following:

(i) Airfields, runways, taxiways, and parking aprons for aircraft:

(ii) Facilities and services for air traffic and parking apron control:

(iii) Airfield and associated lighting:

(iv) Services to maintain and repair airfields, runways, taxiways, and parking aprons for aircraft:

(v) Rescue, fire, safety, and environmental hazard control services:

(vi) Airfield supervisory and security services:

(b) The holding of any facilities and assets (including land) acquired or held to provide airfield activities in the future (whether or not used for any other purpose in the meantime):

"Aircraft and freight activities" *means the activities undertaken (including the facilities and services provided) to enable, within a security area or areas of the relevant airport, the servicing and maintenance of aircraft and the handling of freight transported, or to be transported, by aircraft, and includes -*

(a) The provision within a security area or areas of the relevant airport, of any one or more of the following:

(i) Hangers:

(ii) Facilities and services for the refuelling of aircraft, flight catering, and waste disposal:

(iii) Facilities and services for the storing of freight.

(iv) Security, customs and quarantine services for freight.

(b) The holding of any facilities and assets (including land) acquired or held to provide aircraft and freight activities in the future (whether or not used for any other purpose in the meantime):

***"Specified passenger terminal activities"** means the activities undertaken (including the facilities and services provided) in relation to aircraft passenger while those passengers are in a security area or areas of the relevant airport; and includes -*

(a) The provision, within a security area or areas of the relevant airport, of any one or more of the following:

(i) Passenger seating areas, thoroughfares, and airbridges:

(ii) Flight information and public address systems:

(iii) Facilities and services for the operation of customs, immigration, and quarantine checks and control:

(iv) Facilities for the collection of duty-free items:

(v) Facilities and services for the operation of security and Police services:

(b) Any activities undertaken (including the facilities and services provided) in a passenger terminal to enable the check-in of aircraft passengers, including services for baggage handling:

(c) The holding of any facilities and assets (including land) acquired or held to provide specified passenger terminal activities in the future (whether or not used for any other purpose in the meantime); -

But does not include the provision of any space for retail activities.

Assets that are specialised but are not aeronautical "identified airport activities" assets will include space allocated within the terminal for retail activities, (excluding the Car Park Business which is a market asset) offices and storage that exist because of the airport activities.

By definition, market assets are those that are non-specialised and therefore do not fall into the specialised asset category. These are assets capable of offering significant utility to a variety of different enterprises/users. Market assets are those normally traded in an open

market or where market-based price indicators are available to be applied to the market derived rentals.

Distinguishing between specialised assets and market assets at Wellington International Airport is fundamental to the asset valuation as it will determine the specific valuation method to be supplied.

Market assets are those for which there is a definable market, the asset cashflows have been determined competitively and those cashflows are able to be valued by reference to known market benchmarks.

Specialised assets, are assets comprising predominantly "identified airfield activities" assets. Certain assets will be of a 'composite' nature. An obvious example is the Main Terminal Building which, based on the above, comprises identified airport activities and specialised assets but no market components.

Table 4 sets out for each of the four asset classes, the separation of general assets within each class into non-specialised and specialised.

Table 3 - Asset Class Separation into Non-specialised and Specialised Assets

Chart 4 extends to Chart 3 to include the valuation methods to be used in the assessment value.

Chart 4 - Asset Classification and Valuation Method

7. Recommended Valuation Approach

7.1. Valuation Concepts

+ *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 arm's length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion. [PP2004 General Valuation Concepts and Principles, paragraph 5.2]

+ *Market Value* is based on the 'highest and best use' of an asset, which may not necessarily be the existing use. *Highest and best use* in relation to market value is

the most probable use of an asset which is physically possible, appropriately justified, legally permissible, financially feasible, and which results in the highest value of the asset being valued. [PP2004 General Valuation Concepts and Principles, paragraph 6.3]

+ *Fair Value* is the amount for which an asset could be exchanged or a liability settled, between knowledgeable, willing parties in an arm's length transaction. [PP2004 General Valuation Concepts and Principles, paragraph 8.1]

7.2. Market Comparables/Income

The Sales Comparison and Investment Approaches are well known to valuers. Both methods draw directly on market transactions considered to be relevant. For commercial property the Investment Approach is usually the most appropriate as the primary motive for the investment is regular receipt of rental income.

Identified airport activities exclude by definition retailing, carparking, offices and storage for which the rentals at WIAL have been commercially negotiated. Notwithstanding that these assets are common applications of commercial property, in the context of WIAL valuations they are specialised. These assets and their method of valuation can be contrasted with assets such as the Airport Retail Park and the Car Park Business for which the income approach is considered to be most appropriate and will be applied.

7.3. Optimised Depreciated Replacement Cost ('ODRC')

ODRC is a non-market calculation intended as a surrogate for valuing assets in their continuing use where there are neither competitive markets for assets or for their services or outputs.

ODRC is calculated on the gross replacement cost of modern equivalent assets, (MEA) adjusted for over design, over capacity and redundant assets, (functionalisation) less an appropriate allowance for depreciation (and/or major periodic maintenance, where appropriate) to arrive at the optimised depreciated replacement cost. Impairment will need to be considered by WIAL in terms of NZ IAS36.

ODRC measures the minimum cost of replacing or replicating the service potential with modern equivalent assets in the most efficient way practicable, given the service requirements, the age and condition of the existing assets and replacement in the normal course of business.

The greater the level of optimisation, the lower the implied ODRC value of an airport. Possible degrees of optimisation are illustrated in **Chart 5**. Bar A is the reinstatement cost value of the existing airport assets adjusted for depreciation only. Bar F reflects the highest degree of optimisation, and involves adjustment for technological obsolescence, over-design, surplus floor area, site reconfiguration and relocation of the airport.

Chart 5 - Scales of Optimisation

Bar F can also be seen as the least constrained optimisation. The optimal airport configuration and site location are chosen and valued without limits on location or asset grouping. Scenario E is, effectively, option F restricted to the existing site while scenarios, D, C, B and A become progressively more constrained.

WIAL specialised assets will be valued within Scenario E at or about the hypothetical point of the arrow, recognising the opportunity of increased optimisation within the "E" scenario.

A key element of the ODRC process is the extent of optimisation. ODRC valuations allow for 'incremental optimisation', which allows progressive or incremental optimisation to the extent that such incremental growth occurs in the normal course of business. Under-utilised assets are 'replaced' by assets of lower capacity, and redundant assets are 'removed', but the historical configuration of the assets is 'retained'. The concept is often referred to as "Brownfields" in contrast to "Greenfields", which allows for a new product at a new location.

The incremental ODRC approach recognises that there is always some degree of sub-optimality and allowance for growth in future demand. It also reflects the historical development of the existing business, the time lag in asset planning and construction, the very long lives of the assets and the replacement of its components, in the normal course of business. As systems expand and change, a degree of sub-optimality at any point of time is inevitable and is part of the total cost of output.

The value of WIAL assets will change over time under the 'Brownfields' approach as buildings reach the end of their useful life, or their use may potentially change from specialised to market asset.

The existence of an infrastructure outside the boundaries of the airport land is a given under 'Brownfields' and is implied in the fair land value of the entity, but does not apply under 'Greenfields'.

Greenfields optimisation attempts to value the replacement cost of assets based on what is the most effective, or optimal, set of assets to achieve the required level of service potential (in terms of capacity, service quality and useful life). Greenfields optimisation therefore assumes the capacity to build an entirely new optimal network of assets in a changed location for the entity, regardless of the historical constraints which may have applied.

In practice, a Greenfields replacement cannot occur in the normal course of business, except in rare circumstances. Furthermore, a Greenfields replacement is rarely feasible, given the constraints imposed by the existing assets and customer access. Such would apply at Wellington International Airport. Within the optimisation continuum in **Chart 5**, Site reconfiguration "E" is considered to be most appropriate for WIAL purposes.

The incremental (or Brownfields) and Greenfields ODRC approaches assume no improvement in performance or service. Therefore, the ODRC value of the existing assets, although based on modern equivalent assets, does not reflect higher service and quality or a greater capacity than currently exists at WIAL.

Application of the ODRC approach is consistent with asset valuation guidelines for infrastructural assets. These guidelines suggest the value should be based on the Deprival Value (DV) concept, of which the basic principles are:

(i) Where an entity would replace the service potential embodied in an asset if deprived of it, the asset should be measured at its *current cost* (that is, the lowest cost at which the gross service potential of the asset could currently be obtained in the normal course of business). This is the amount which an entity would need to receive in compensation to restore the asset to its former capacity;

(ii) Where an entity would not replace an asset if deprived of it, the asset would be measured at the greater of its *market value* and the present value of future net cash inflows expected from continued use of the asset. This is the amount by which an entity would be worse off if deprived of the asset; and

(iii) Where an asset is surplus to requirements, the asset should be measured at its market value.

For WIAL, (i) is most likely and therefore the use of ODRC is appropriate. The guidelines consider that the measurement of physical non-current assets at deprival value provides relevant information about the cost of providing goods and services.

7.4. Application of Both Market Comparables/Investment and ODRC Methods

Given that Wellington International Airport contains both specialised and market assets, both cost and market based valuation approaches are required. The application of these methods will ensure that the resulting valuation is both reflective of market value and a proper basis for pricing specialised Identified Airport Activities (aeronautical) components. Using this approach, the valuation is one which:

+ values the market related (and therefore competitively negotiated) revenue streams in accordance with market benchmarks, specifically return expectations for the likes of the Airport Retail Park, industrial land holdings, the Car Park Business; and

+ provides a proper cost assessment for the specialised components, for which the airport entity should be entitled to a market related return (pricing) of the airport activities assets and other specialised assets.

7.5. Overview of Valuation Application

Chart 6 summarises the asset classification (including the assets within each class), valuation method and valuation concept.

Chart 6 - Asset Classification, Valuation Method and Valuation Concept

The asset valuation of Wellington International Airport will therefore be calculated as:

Market Assets $ (based on market comparables/income) +	Specialised Assets $ (based on ODRC)	=	Wellington International Airport

The separation of assets into market and specialised will be undertaken in close conjunction with WIAL management. In most cases the separation will be relatively straightforward. The airport terminals represent the more difficult assets given their 'composite' nature. While certain activities are clearly specialised but not identified airport activities (aeronautical) (e.g. retail concessions) or specialised airport activities (e.g. baggage make-up and handling), there will be certain areas that serve both or could be regarded as common, and therefore an allocation of these areas will be required for aeronautical pricing. This will require considered attention from both WIAL management and their valuer.

7.6. Specific Asset Classes

Considerations and additional guidance in respect of specific asset classes is provided below:

7.6.1. Land

Consistent with the concept of separating activities between 'market' and 'specialised', the underlying land at Wellington International Airport should be similarly divided.

Market Assets

For market assets the land value will be 'implicit' in the assessed value of the 'whole' asset as determined by a market comparable/investment approach. There will, however, need to be an allocation of asset value between land and improvements, essentially for accounting purposes, and this issue is further discussed in **Section 7.6.8 - Summation/Allocation**.

Land held for future commercial development should be valued having regard to likely use, timing and comparable land values for the likely/proposed use. It may also be appropriate to consider the land value on a residual basis, i.e. the residual value derived from the most likely development and associated cashflows.

Where there are formal land or ground leases between WIAL and third parties, which are common for a market activity (e.g. a rental car agency ground lease), the asset to be valued is the lessor's interest in the land. This will be undertaken by either estimating the freehold

value of the land and deducting the present value of residual lessee's interest or alternatively, valuing WIAL's interest based on the ground lease terms and conditions including the present value of future income rent and value reversion.

Specialised

The vast majority of WIAL's land is of a specialised nature given that it supports airport activities. Having regard to accounting standards, valuation standards and valuation guidelines, the land value will be determined after a consideration of the following:

+ The current market buying price for the land in its current use by comparison with land sales;

+ The current reproduction costs of land to provide the same service potential or future economic benefits of the land asset, and

+ The addition or deduction to reflect the unique features of the WIAL land that includes size, location, titles, easements and services.

In assessing the value of specialised land at WIAL, the following approaches will be undertaken from which a land valuation conclusion will be determined, in accordance with the following hierarchy of methods.

7.6.1.1. Zonal Methodology

(i) *Market Comparisons* - using predominantly local commercial, industrial, service and residential land sales rates as a benchmark applied to Wellington International Airport with appropriate adjustments for size, location, titles, easements and services. This will include both sales and purchases involving WIAL, where available. The application of this approach will require development of an overall zonal plan, identifying actual use, potential use, land value zones and intensity of development.

7.6.1.2. Notional Subdivision plus Holding Costs

(ii) *Alternative Use plus Airport Costs* - an assessment of the underlying block land value assuming the most likely alternative use(s) of the land, to which is added the costs to enable the land to be used for airport purposes. Such costs would include planning approval, preliminary development and holding costs (principally finance). There are considerable development periods applicable to airports and the associated costs should be reflected in a build up land valuation;

(iii) *Discounted Cashflow* - The present value of a large parcel of airport land assembled from smaller land parcels by comparison with sales of smaller land parcels accumulated, subdivided and discounted to present day values.

7.6.1.3. Replacement Cost

(iv) *Brownfields* - valuation, using land cost rates associated with the construction/renewal of an in-use asset in the specific developed location. Brownfields methodology recognises that large infrastructural assets such as

airports are generally developed incrementally over time in a specific location. The unit cost rates are usually higher than a Greenfields alternative, reflecting the increased difficulties of incremental development in a confined location;

7.6.2. Civil Works

Civil works are to be valued at their optimised depreciated replacement cost (ODRC) specific considerations include:

+ Optimisation will typically adjust for over capacity or surplus assets, obsolescence, over-design and over-building.

+ The optimised replacement costs will include an allowance for construction costs, professional service costs and if WIAL directs financial costs during construction;

+ Assets that suffer little deterioration or have a high value in an alternative use will generally have a high residual value. Where the asset is subject to deterioration and/or has little value in an alternative use, the residual value is low or zero.

+ The estimated remaining lives and age assigned to assets should reflect their condition and also WIAL management intentions for the assets. In some cases remaining economic lives (as determined by management) may be less than remaining physical lives. Impairment or other considerations will have an impact on the ODRC.

+ Renewal expenditure is calculated as the uniform annual amount which has a present value equal to that of the long term renewal expenditure stream required to maintain the current level of service in perpetuity. In lieu of a long term maintenance plan, annual depreciation can be used as a surrogate for the average annual renewal expenditure. Annual depreciation can be calculated as

$$\frac{ORC - RV}{EL} = D$$

where

ORC	=	optimised replacement cost
RV	=	residual value
EL	=	economic life
D	=	depreciation

7.6.3. Optimised Depreciated Replacement Cost - Civil Works

In accordance with NZ Valuation guidelines/practices, specialised assets are to be valued in terms of their optimised depreciated replacement cost (ODRC). The initial step in this process is calculation of replacement cost (RC). This is calculated by multiplying asset quantities by unit cost rates for a modern equivalent asset (MEA) factored (F) to include an allowance for other direct costs such as professional fees, site establishment and if WIAL directs financial charges during construction.

$$RC = \Sigma[\text{unit}) \times \$/\text{unit}]F$$

$$F = (1 + a)(1 + b + c)$$

Where
- a = site establishment/preliminary and general costs
- b = professional fees for investigation, design and supervision
- c = financial charges as a percentage of the construction cost expressed as a decimal.

The replacement costs are optimised (ORC) to represent the lowest cost, most efficient combination of assets providing the same levels of service as the existing assets (i.e. over-capacity, over-design and obsolescence of technology, materials and construction practices are removed).

The ORC is then depreciated to reflect the loss of service potential of the asset. The ODRC is calculated on a straight line basis taking account of the residual value (RV) at the end of the assets economic life.

$$ODRC = (ORC - RV) \times \frac{RL}{EL} + RV$$

Where:

+ remaining life (RL) is calculated as the asset base life less age, modified for utilisation, condition and performance and taking into account other considerations such as obsolescence, economics, relocation; and

+ economic life (EL) is calculated by

EL = age + RL

Confidence Levels

The accuracy of the valuation depends on the reliability of five contributing factors for each component, namely;

+ completeness of the asset register;

+ reliability of unit costs used;

+ component optimisation assessments;

+ estimates of remaining lives of components; and

+ estimates of residual values of components.

Asset Validation

A programme of asset inspection, measurement and recording is necessary to validate the existence and use of assets, to confirm physical dimensions and quantities and to assess condition and remaining life estimates. Keeping the asset register up to date is a necessary ongoing process.

Unit Costs

Costs are a key determinant of valuation, and these are not always reliable, especially for those components which are not regularly built. Rates can vary significantly with time and location, subject to the variations in supply and demand. It is important for the valuer employed by WIAL to keep a database of unit cost information which is kept up to date with recent contract prices and monitored for anomalies.

Age versus Condition

Depreciation is calculated firstly on the basis of age of a component, where it is known, and, secondly, as an estimate of 50% of life elapsed, where not known. However, it is condition that is more relevant than age in calculating the remaining life of an asset and hence the level of depreciation.

Sensitivity Analysis

A sensitivity analysis should be carried out to identify the critical elements of the valuation. Elements to be analysed should be prioritised according to their materiality. For the purpose of civil works valuation these will be:

+ unit cost rates;
+ quantities;
+ asset condition assumptions;
+ remaining/economic life; and
+ residual value.

7.6.4. Buildings

The most significant building at WIAL is the Main Terminal Building, incorporating the piers and related building structures including offices. This overall structure contains both specialised aeronautical activities and specialised non aeronautical activities. Accordingly, ODRC is the correct method to be applied.

A valuation of the major airport building assets may be attempted on a net realisable - market value approach by allocating to those areas of the buildings that do not currently have market rentals an estimated market rental for the building component of the property in order to assess a current market value on an investment basis, less disposal costs. This would be a check only and would not be the value adopted for specialised assets.

ODRC

The terminal and piers accommodating specialised activities, both aeronautical "Identified Airport Activities" and non aeronautical activities will be valued using the ODRC method. The considerations outlined for civil works in **7.6.2** will similarly be applied to these assets without regard to a residual value.

Other building assets, referred to as market assets, owned by WIAL will be assessed on a market comparables/investments approach given the existence of market related leases, potential market rentals and market investment approaches and/or comparable sales evidence.

7.6.5. Building Ancillary Services

7.6.5.1. Assets Categorised as Building Ancillary Services

Building Ancillary Services ('BAS') are deemed to be services that are installed within a Building Structure that are used solely for the purposes of enhancing the service potential and/or provision of either individual areas or the whole area within that particular structure. While the value of BAS is 'implicit' in the values arrived at for 'buildings', its separate identification and valuation is required for tax and accounting depreciation purposes.

A schedule of BAS elements is provided in **Appendix 5**. **[WIAL to provide updated Appendix 5]**

7.6.5.2. Quantification of BAS

In order to establish the quantity of BAS within every building an inspection of the buildings will be undertaken during the valuation process.

A schedule of BAS assets will be prepared separated into identified airfield activities and specialised non aeronautical activities, BAS assets within these may also be further and separately detailed.

In each area there may or will be minor BAS assets such as light fittings, carpet, ceilings, sprinkler heads, internal partitions, etc. A record of these assets should be available.

It is also likely that major BAS system such as electrical and plumbing reticulation and mechanical services that serve the total building will also be recorded. Only a small percentage of the total system serving each individual area may be evident from an overall quantity perspective.

The major (and frequently most valuable) components of these BAS assets such as switchboards and panels, boilers, chillers and pumps may be physically situated in areas that are remote from the individual areas being served by that asset.

Where this is the case the valuer is to quantify the asset by adjusting the percentage of the overall major BAS asset or system within the individual area.

Utilising the following formula for this adjustment the quantify is:

{B multiplied by (C ÷ D)} where

+ B equals the total percentage for the major BAS asset or system for the Building.

+ C equals floor area occupied by the individual area under review.

+ D equals the total building floor area.

By utilising this approach the valuer can ensure that a logical and equitable percentage share is attributed to each area/tenancy that is served by a major BAS asset or system.

7.6.5.3. Valuation Methodology

There are two accepted methodologies for valuing buildings, either market/investment comparison or ODRC. It is important that the BAS are valued in accordance with the approach utilised for the overall building. This means that close liaison between the valuers concerned, and WIAL management must be in evidence in order that assets are not omitted, double counted or attributed values resulting from the incorrect utilisation of a valuation methodology.

Market Evidence Approach

This approach does not specifically establish individual values of the component parts of a building; rather concentrating on the value of the whole based on the sum of the individual tenant areas' generated income. To ascertain individual market values for the structure and BAS it is recommended that the following logical allocation should be undertaken.

The valuer calculates the market value of the whole building in accordance with standard valuation guidelines. Estimates of the replacement costs (RC) and depreciated replacement costs (DRC) of the actual structure and BAS are made.

In relation to the Building Structures the valuer adopts a standard, acceptable, RC approach using current building materials and standards and appropriate building costs together with all necessary fees. This is usually undertaken on per square metre basis and should exclude any allowance for BAS.

When estimating RC of BAS assets, this equates the monetary cost of replacing an existing asset with a direct substantially similar new asset in respect of productive output and/or service potential. In addition to the "basic ex works" price of the new asset, allowances have to be added for freight, customs and/or tax duties (where applicable), installation fees and commissioning.

Depreciated Replacement Cost (or DRC) takes the estimated replacement with new cost of an asset and then through the utilisation of mathematical depreciation formulae reduces such costs to a level known as DRC.

The DRC analysis of both structure and BAS must recognise the following factors in respect of each asset or asset category under review at the date of valuation:

+ current effective age;

+ current and future utilisation;

+ total overall and remaining economic life;

+ residual value of the asset at the end of its economic life;

+ current conditions; and

+ obsolescence (both physical and economic).

It is generally accepted in valuation terms that there are two different bases of depreciation that can be utilised for asset valuation purposes. These are:

+ straight-line depreciation - this allows for a constant percentage of the RC of the asset to be deducted from the reducing balance in each period.

or

+ diminishing value depreciation - this method calculates depreciation for each period by using a constant percentage of the assets reducing value.

For the purposes of this valuation, straight-line depreciation will be used to calculate DRC of structures and BAS. Further to this the residual value is to be generally considered as nil for BAS assets although there are some elements that have a Residual Life.

Once DRC have been confirmed, the individual market value of the asset concerned (either structure or individual BAS) can then be apportioned as follows:

MV = {**X** multiplied by [Y divided by Z]} where

+ X equals the total structure and BAS DRC ascribed.

+ Y equals the total structure and BAS DRC estimated.

+ Z equals the individual structure and BAS DRC estimated.

It is not considered realistic to simply assess BAS in isolation without regard to the structure. In many cases the refurbishment of BAS occurs more frequently than upgrading of structures and to disregard such a factor would lead to the incorrect allocation of the total market value to the individual assets/categories found within each building.

The basis of the componentisation and allocation of values should take into account both a holistic and build up basis of components, taking into account all factors that are deemed appropriate.

ODRC Approach

The optimisation of the overall existing building to adjust for over capacity or surplus assets, obsolescence, over-design or over-building is generally calculated on a per square metre basis without detailed reference to the structure and individual BAS.

In order to arrive at ODRC for structure and individual BAS assets it is again necessary to undertake an allocation process. This is in line with the previous section on market value with the addition that existing quantities in relation to the structure and BAS services firstly have to be "optimised".

This should be undertaken taking into account the percentage difference in size between the actual building and the optimised building. In other words if the optimised building utilised for current valuation purposes is 80% of the size of the actual existing building, the assumption may be that, in relation to both structures and BAS, the same percentage will apply to the actual quantities of such assets.

Based on this assumption, the valuer estimates RC and DRC amounts for the existing structure and BAS, as before, then reduces these amounts in line with the previously noted optimisation or size percentage reduction process.

These figures are then utilised to find individual ODRC sums by using the following formula:

ODRC = {AA multiplied by (BB divided by CC)} where

+ AA equals the total ODRC ascribed to the structure and BAS.

+ BB equals the total estimated DRC of the structure and BAS.

+ CC equals the individual estimated DRC of the structure and BAS.

As stated in the previous section, it is not considered realistic to simply assess BAS in isolation with regard to the structure.

7.6.6. Plant, Machinery and Equipment

Plant, Machinery and Equipment include such items as motor vehicles, air bridges, general furniture and fittings, maintenance plant, computers and administration equipment. The valuation will apply book value.

7.6.7. Capital Expenditure in Progress

There are capital projects currently underway at Wellington International Airport. Each project will need to be reviewed with WIAL management and will either be adopted by WIAL as:

+ costs incurred to date; or

+ estimated completion value, less costs to complete.

It is considered that the closer the project is to being finished, the more probable that estimated completion value, less costs to complete, will be adopted.

7.6.8. Summation/Allocation

The summation of the market asset values and specialised value assessments, together with capital expenditure in progress, will represent the asset valuation for Wellington International Airport.

It has previously been noted that the valuation method for market assets will not provide a split/allocation between land and improvements. Separation is required by WIAL for ongoing accounting and depreciation. For those assets of a market nature, the apportionment may be calculated as:

	Market Comparison/Income Valuation	*$*
Less:	*Estimate of ODRC for Improvements*	*$*
Equals:	*Notional Land Value*	

Under this approach, land values will reflect the cashflow potential of the improvements.

The alternative market-based approach is to calculate improvements as the residual after deduction of Fair land value allocated on a zonal basis as follows:

	Market Comparison/Income Valuation	*$*
Less:	*Zonal Land Value*	*$*
Equals:	*Estimated Residual Value Improvements*	

Under market valuation principles the value of improvements is a residual calculation derived from the total market value of a property less market value of land. Accordingly, the alternative approach could be adopted for the allocation of market values into land and improvements for financial allocation purpose.

7.6.9. Impairment Test

WIAL management is responsible for undertaking an impairment test and provide advice to the valuer of adjustments required, if any.

8. Appendices

Appendix 1

Findings of Final Award of Hon Sir Ian Barker QC

"Final Award of Hon Sir Barker QC ("Arbitral Tribunal") dated 23 September 2002 ("the September 2002 Arbitration Award")

1. The September 2002 Arbitration Award made a number of general and specific findings which remain relevant considerations in the valuation of the assets of Wellington International Airport as at 31 March 2006. The arbitration determined issues regarding valuation methodology for the "aeronautical" airport assets that could not be agreed between WIAL and the Airlines in the consultation process leading up to WIAL's setting of landing charges for "identifiable airport assets" under the Airport Authorities Act 1966 ("the Act") as at 30 June 2002.

2. In terms of general findings, the Arbitral Tribunal made findings on the relevance to WIAL's valuations of High Court and Court of Appeal litigation between WIAL and the Airlines in the 1990s (see paragraphs 14 to 18 of the Award) and in particular the High Court judgement of McGechan J dated 15 October 1993. In that judgement he held that WIAL's pricing decision, subject to the proceedings at that time, was not unreasonable and declined to issue judicial review. The Arbitral Tribunal noted that there was no appeal from this decision. In particular, the Arbitral Tribunal found at paragraph 18 of the Award that:

> *"...the learned Judge made a number of comments about the scheme of the Act (the Airport Authorities Act 1966) and the way in which it mandated the asset valuation exercises necessary to reach a basis of fee setting. I regard this decision as binding on any Arbitral Tribunal considering the appropriate valuation methodologies for Wellington Airport."*

3. In making its determination, the Arbitral Tribunal also noted at paragraph 171:

> *"The statute is the starting-point for the Arbitral Tribunal's consideration of the issues, as it was for McGechan J. It requires WIAL to act 'commercially. In the Tribunal's view, an airport company, acting commercially, would seek to find a valuation methodology for its land, which will produce the true market value of the land, i.e. what a willing buyer would pay to a willing seller. This is particularly so when one considers the Court of Appeal in the 1992 appeal noted the airport be valued 'as it is'."*

4. Further, the Arbitral Tribunal recognised the common uses of WIAL's valuation. It stated at paragraph 172 of the final Award that:

> *"The Arbitral Tribunal finds it hard to accept the notion of different valuations for different purposes which postulates that the land value for financial reporting purposes (i.e. market value) should be different and, in fact, higher than some lower value used as the basis for assessing a return on the assets. Any valuation must take into account all imponderables."*

5. At paragraph 175 the Arbitral Tribunal also stated in this regard:

"I place little store on the evidence of Dr Carpenter (a witness for the airlines) that some companies keep various sets of books for various purposes."

6. The Arbitral Tribunal concluded its Award by making declarations as sought by WIAL in paragraph 26(a), (b), (c) and (e) of its Statement of Claim but deleting reference to depreciated replacement costs for land. Paragraph 26 of WIAL's Statement of Claim substantially endorsed by the Arbitral Tribunal in paragraph 50 of the Award states:

> *"26. Accordingly, the issues of valuation methodology regarding non-contestable airport assets referred to in paragraph 22 thereof should be resolved as follows:*
>
> *(a) It is appropriate for WIAL and its valuers to adopt, in relation to valuation, one of more of the zonal, DCF or DRC methodologies in the methodological form employed by its valuers, in order to assess the value of the land component of the non-contestable airport assets.*
>
> *(b) The adoption of one or more of zonal, DCF or DRC methodologies may include the adoption of a methodology as a preferred or most preferred methodology or as a check methodology.*
>
> *(c) AUV which comprises the 2002 land value together with hypothetical holding costs calculated over the period 1997 to 2002 less revaluation gains over the same 5 year period, is not an appropriate methodology.*
>
> *(d) Alternatively to (c), if such AUV plus holding costs is an appropriate methodology then it is one to which WIAL and its valuers need give little weight.*
>
> *(e) It is not appropriate for WIAL or its valuers to take into account any other methodology.*

7. The Arbitral Tribunal at paragraph 195 of the Award also declared that:

> *"(a) Historic costs/DRC/Civil Works is not an appropriate methodology for valuing the airport land;*
>
> *(b) If the notional subdivision DCF/AUV methodology is to be used in valuing land, then the treatment of holding costs should be on the basis suggested by WIAL's witness* (i.e. Mr Graeme Horsley). *This ruling does not give approval to any calculation of those holding costs as to items or quantum. The Arbitral Tribunal does not express any views on these, because they are are details of a valuation not a question of methodology."* [Bracketed words added]

8. At paragraph 187 of the Award, the Arbitral Tribunal stated:

> *"In the Arbitral Tribunal's view, ODRC is one acceptable methodology which WIAL is entitled to choose as a commercial operator."*

9. In making its determination the Arbitral Tribunal had regard to the Commerce Commission's findings in respect of valuation methodology in its report to the Minister of Commerce on its airfield price control study dated 6 August 2002. The Tribunal noted that the Commerce Commission had reported that airport land should be valued at its opportunity costs, namely its value in its best alternative use, in the event that the airport were to close. It had further reported (by majority) that specialist non-land airfield assets should be valued at historic cost (DHC), as represented by vesting valuation plus acquisition since vesting at the cost of purchase or acquisition.

10. At paragraph 178, the Arbitral Tribunal stated as follows on the Commission's views on valuation according to "Fair Value":

> *"The Arbitral Tribunal notes that the Commerce Commission at paragraph 5.49 of its final Report stated that 'fair value is not a concept that has a counterpart in economic principles'. With respect, that statement does not sit will within the statutory framework on which WIAL is entitled to operate when setting landing charges."*

11. At paragraph 182, the Arbitral Tribunal found as follows in respect of opportunity cost as a valuation methodology for land (as also advocated by the airlines):

> *"The airline's evidence was that in accordance with fundamental principles of economics, the only appropriate methodology for valuation of land for pricing purposes is the opportunity cost/AUV approach. The Arbitral Tribunal notes that McGechan J in the 1993 case, was not overly impressed with economic theories and brought the argument back to the Act, which is what this Tribunal must do. The Arbitral Tribunal cannot find that the methodology suggested by WIAL is forbidden to it, just because it does not accord with the economic theories at the time advocated by the airlines. WIAL is entitled to value the land on* MVEU (i.e. the airport 'as it is') *because it represents the true market value, what a willing buyer would pay to a willing seller, albeit given that a market does not exist."*[Bracketed words added]

12. At paragraph 187, the Arbitral Tribunal stated:

> *"The Tribunal agrees with the views of dissenting members of the Commerce Commission on the appropriateness of ODRC."*

13. At paragraph 181, the Arbitral Tribunal states that:

> *"Whilst the civil works approach may have some support in theory, the Arbitral Tribunal does not consider it appropriate in the present context. Mr Vessey freely admitted that records are not available from which an informed assessment of civil works costs could be made. Mr Hanna's view was that this method gave rise*

to the highest valuation is shown to be correct. Mr Horsely, in the exercise of his valuer's judgement has rejected this approach.

Appendix 2

Definitions

Definitions

+ *Aeronautical Assets* - Assets that are specialised and used for aeronautical purposes including, land, seawalls, runways, terminals, piers, fingers, civil works, and utilities within aeronautical site boundaries.

+ *Borrowing Costs* - Interest and other costs incurred by an entity in connection with the borrowing of funds.

+ *Componentisation* - Components that have different useful lives or which provide a different pattern of economic benefits to an entity are to be recorded separately for financial reporting purposes. This requirement necessitates apportionments where instructed by the reporting entity to measure the consumption in the financial statements.

+ *Depreciation* - The measure of the consumption of the economic benefits embodied in an asset whether arising from the passing of time, or obsolescence.

+ *Depreciated Placement Cost* - The current gross replacement cost of improvements less an allowance for physical deterioration and optimisation for obsolescence and relevant surplus capacity.

+ *Economic Life* - The period of time beyond which it is economically worthwhile to replace rather than to continue to repair and maintain an asset.

+ *Fair Value* - The amount for which an asset could be exchanged or a liability settled, between knowledgeable, willing parties in an arm's-length transaction.

+ *Highest and Best Use* - The most probable use of a property, which is physically possible, appropriately justified, legally permissible, financially feasible, and which results in the highest value of the property being value.

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

+ *Modern Equivalent Asset* - An asset which replicates existing services using modern materials and modern technologies in the most efficient asset configuration after eliminating surplus assets, obsolescence and over-design, but without site reconfiguration or change of location.

+ *Optimisation* - The process by which a least cost replacement option is determined for the remaining service potential of an asset. This process recognises that an asset may be technically obsolescent or over-engineered, or the asset may have a greater capacity than that required.

+ *Optimised Depreciated Replacement Cost* - A term that is equivalent to the term depreciated replacement cost (DRC), which is used in FRS-3. ODRC measures the minimum cost of replacing or replicating the service potential embodied in the assets with modern equivalent assets in the most efficient way practicable, given the service requirements, the age and condition of the existing assets and replacement in the normal course of the business.

+ *Optimised Replacement Cost* - Embodied in the term *Optimisation* - The least cost replacement option.

+ *Replacement Cost* - The cost of replacing an existing asset with a substantially identical new asset.

+ *Residual Value* - The net amount that the entity expects to obtain for an asset at the end of its useful life after deducting the costs of disposal, to the extent that such costs have not been capitalised as part of the cost of the asset.

+ *Specialised Assets* - Assets that are rarely if every sold in the market, except as part of the business of which they are part (the business in occupation). Such assets may also be referred to as limited, or non-market, assets depending on their degree of specialised design, configuration, or application.

+ *Value-in-Use* - The present value of the net future cash flows obtainable from an asset's continuing use and ultimate disposal.

Appendix 3

Abbreviations

Abbreviations

AAA	Airport Authorities Amendment Act
AUV	Alternative Use Value
BAS	Building Ancillary Services
DCF	Discounted Cash Flow
DRC	Depreciated Replacement Cost
DV	Deprival Value
EL	Economic Life
FRS-3	Financial Reporting Standard No. 3 of ICANZ
FV	Fair Value
GN 3.2	Guidance Note 3.2 of PINZ Professional Practice 2004
HBU	Highest and Best Use
ICANZ	Institute of Chartered Accountants of New Zealand
IFRS	International Financial Reporting Standards
IVS	International Valuation Standards
IVSC	International Valuation Standards Committee
MEA	Modern Equivalent Asset
MV	Market Value
MVEU	Market Value Existing Use
NHBU	Next Highest and Best Use
NMV	Net Market Value
NZ IAS16	New Zealand Equivalent to International Accounting Standard 16
NZ IAS23	New Zealand Equivalent to International Accounting Standard IAS23
NZ IAS36	New Zealand Equivalent to International Accounting Standard 36
NZIFRS	New Zealand International Financial Reporting Standards

NZICA	New Zealand Institute of Chartered Accountants
NZIV	New Zealand Institute of Valuers
ODRC	Optimised Depreciated Replacement Cost
ORC	Optimised Replacement Cost
PINZ	Property Institute of New Zealand
PP2004	Professional Practice 2004 of PINZ
PS3	Practice Standard 3 of PINZ Professional Practice 2004
RC	Replacement Cost
RL	Residual Life (Remaining Life)
SSAP 17	Statement of Standard Accounting Practice No. 17 for Investment Properties and Properties Intended for Sale, New Zealand Society of Accountants
TL	Total Life
VS3	Valuation Standard 3 of NZIV
WIA	Wellington International Airport
WIAL	Wellington International Airport Limited

Appendix 4

Building Schedule

Building Schedule

Appendix 5

BAS Schedule

WIAL Schedule of BAS Items

Aerials (for televisions) Air-conditioning systems Alarm systems (fire) Alarms (burglar) Awnings Blinds Canopies Carpets Ceilings (suspended) Cleaners cradles Cranes (overhead travelling) Curtains Dock levellers Door closers Doors (for strongrooms) Doors (roller and the like) Drapes Dry risers Electrical reticulation Escalators Fences Flagpoles Flooring (parquet) Floors (for computer rooms) Fume extraction systems (ducted) Furniture (fitted)	Gas dowsing systems Generators (standby) Grills (roller and the like) Hand driers (air type) Handrails Heat detectors Heaters (electric) Heating systems Hose reels (fire) Incinerators Lifts Light fittings Lighting controllers (emergency) Maintenance units (for building) Meters (gas) Meters (water) Monitoring systems Partitions (demountable) Plumbing Plumbing fixtures Public address systems Pumps (heat)	Railings Runway beams Sanitary appliances Security systems Signs Smoke detectors Sprinkler systems Strongboxes Towel cabinets Ventilating fans Vinyl flooring Walkways Water heaters Water savers

Valuers Property Advisors

Wellington International Airport Limited

Appendix 2

Statement of Limiting Conditions

Appendix 2

Statement of Limiting Conditions and Valuation Policy

This report must be read in conjunction with TelferYoung (Auckland) Limited and TelferYoung (Canterbury) Limited Statement of Limiting Conditions and Valuation Policy, which is as follows:

Purpose

This valuation report has been completed for the specific purpose stated. No responsibility is accepted in the event that this report is used for any other purpose.

Responsibility To Third Party

Our responsibility in connection with this valuation is limited to the client to whom the report is addressed and to that client only. We disclaim all responsibility and will accept no liability to any other party without reference first to TelferYoung (Canterbury) Limited and the author of the report. TelferYoung (Canterbury) Limited reserves the right to alter, amend, explain or limit any further information given to any other party.

Reproduction Of Report

Neither the whole nor any part of this valuation and report or any reference to it may be included in any published document, circular or statement without first obtaining our written approval of the form and context in which it may appear.

Date Of Valuation

Unless otherwise stated, the effective date of the valuation is the date of the inspection of the property. This valuation is current as at the date of valuation only. The value assessed herein may change significantly and unexpectedly over a relatively short period (including as a result of general market movements or factors specific to the particular property). We do not accept liability for losses arising from such subsequent changes in value.

Without limiting the generality of the above comment, we do not assume any responsibility or accept any liability where this valuation is relied upon after the expiration of 3 months from the date of the valuation, or such earlier date if you become aware of any factors that have any effect on the valuation.

Legislation

We have not obtained a Land Information Memorandum (LIM) or Property Information Memorandum (PIM) for this property which unless otherwise stated is assumed to conform to all requirements of the Resource Management Act 1991, the New Zealand Building Code contained in the First Schedule to the Building Regulations 1992, the Building Act 1991 and the Building Act 2004. Our valuation reports are prepared on the basis that properties comply with all relevant legislation and regulations unless otherwise stated. Legislation that may be of importance in this regard includes Health & Safety in Employment Act 1992, the Fire Safety and Evacuation of Buildings Regulation 1992, and the Disabled Persons Community Welfare Act 1975.

Registrations

Unless otherwise stated, our valuation is subject to there being no detrimental or beneficial registrations affecting the value of the property other than those appearing on the title. Such registrations may include Wahi Tapu and Historic Places Trust registrations.

Reliability Of Data

The data and statistical information contained herein was gathered for valuation purposes from reliable sources and is believed to be correct. All reasonable attempts have been made to verify the authenticity of this information but we cannot guarantee its accuracy.

Assumptions

This report contains assumptions believed to be fair and reasonable at the date of valuation. In the event that assumptions made based on information relied upon is later proven incorrect, or known by the recipient to be incorrect at the date of reporting, TelferYoung (Canterbury) Ltd reserves the right to reconsider the report, and if necessary, reassess values.

GST

When analysing the sales and/or leasing evidence relied upon for this valuation, it is noted that we have attempted to ascertain whether or not the sale price/rental is inclusive or exclusive of Goods and Services Tax (GST). The national database of sales evidence does not currently identify whether or not the sale price is inclusive or exclusive of GST. Where we have not been able to verify the matter of GST, we have assumed that the national database record of sale price is inclusive of GST (if any) for residential properties and plus GST (if any) for non residential properties. Should this not be the case for any particular sale or rental used as evidence, we reserve the right to reconsider our valuation.

Land Survey

We have made no survey of the property and assume no responsibility in connection with these matters. Unless otherwise stated, it is assumed all improvements lie within the title boundaries.

Unless otherwise stated, we have not undertaken investigations or been supplied with geotechnical reports with respect to the nature of the underlying land. Unless otherwise stated, we have assumed the land to be firm and suitable ground for the existing and/or potential development without the need for additional and expensive foundation and retaining work or drainage systems.

Contamination

Unless otherwise stated our valuation and report assume that the land and buildings are unaffected by harmful contaminants or noxious materials which may impact on value. Verification that the property is free from contamination and has not been affected by noxious materials should be obtained from a suitably qualified environmental expert.

Not A Structural Survey

While due care has been taken to note any building defects, our inspection has been undertaken for valuation purposes only, and does not constitute a structural survey. Verification that the building is sound should be obtained from a suitably qualified building engineer.

Systems

In preparing this valuation, it has been assumed that all hot and cold water systems, electric systems, ventilating systems and other devices, fittings, installations or conveniences, including lifts and escalators

where appropriate, as are in the building to be in proper working order and functioning for the purposes for which they were designed.

Market Valuations

Market valuations are carried out in accordance with the Valuation Standards and Guidance Notes recommended by the New Zealand Institute of Valuers and the New Zealand Property Institute, where the definition of Market Value is "the estimated amount for which an asset 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 have each acted knowledgeably, prudently and without compulsion".

No allowances are made in our valuations for any expenses of realisation or to reflect the balance of any outstanding mortgages either in respect of capital or interest accrued thereon.

Mortgage Recommendation

The value provided in this valuation report is our opinion of the current market value on a willing buyer/willing seller basis. That value may change in the future due to market conditions and changes to the state of the subject property. Any decision to lend should take these factors into account and allow a reasonable and prudent margin between the amount advanced and the current market value given in this valuation. Additionally the margin should also recognise the consequences and costs of a forced sale. Where there is no recommendation contained in the report this has been omitted at the express request of the instructing party.

Water Leaks & Penetration Effects

We are aware that a number of buildings have developed problems associated with water leaks, water penetration, weatherproofing, moisture and water exit control systems, mould, fungi, mildew, rot, decay, gradual deterioration, micro organisms, bacteria, protozoa or like forms. Problems can result from defects in design, construction methods and materials used, or any combination of defects.

Our valuation has been assessed conditional upon all buildings and structures being constructed strictly in terms of recommended practices and free from defect unless otherwise stated. We are not qualified to undertake nor have we undertaken a structural survey of the buildings or structures. We accept no liability for any defects that may arise as a result of poor building design, construction methods or building materials. If you have any concerns, you should engage a suitably qualified person to report on this matter. Defects revealed by a report by a suitably qualified expert may affect the value of the property.

Asbestos

We are unable to comment on the existence or otherwise of asbestos within any structure or the land. A suitably qualified expert should be engaged to determine if asbestos is present. Asbestos in a building or the land may affect our assessment of value.

Leases

The interpretation of leases or other contractual agreements referred to in this report is solely the opinion of the author and should not be construed as a legal interpretation. Further, summaries of contractual agreements which may appear in the report or appendices, are presented for the sole purpose of giving the reader an overview of the salient facts thereof.

Tenancies

Unless specifically requested, we do not make detailed enquiries into the covenant strength of occupational tenants but rely on our judgement of the market perception of them. Furthermore, we assume, unless otherwise advised, that the tenant is independent of the owner and capable of meeting its financial obligations under the lease and that there are no arrears of rent or undisclosed breaches of covenant. Further, it is assumed that all

rents referred to in this report represent the rental arrangement stipulated in the contractual agreements pertaining to the tenants occupancy, to the extent that such rents have not been prepaid, abated or inflated to reflect extraordinary circumstances, unless such conditions have been identified and noted in this report.

Cross Lease Title

Unless otherwise stated the property has been valued on the basis that the title is not defective, and that all required consents have been given to buildings and structures erected on the land. This includes all consents required from the balance cross lease owners to any alterations or additions to leased structures. We advise that our valuation is based on a physical inspection of the property and we have not searched Council records to verify whether there are any additions since the date of lease.

Solicitor Nominee Companies & Contributory Mortgages

In terms of Rule 2.1 of the Solicitor Nominee Company Rules 1996, we certify that we have been instructed as independent registered valuers and we are aware that this valuation is to be used for the investment of funds. We consent to the distribution of this report to the intending lenders and as at the date of this report our consent has not been withdrawn

Plaster Finish Disclaimer

The building is clad in a plaster-based finish. We are aware from media reports that a number of homes with such finishes have developed problems from a variety of causes including the use of marine sands in the plaster mix. The problems encountered include the eventual deterioration of the plaster finish and the failure of the fixings beneath the plaster finish.

We have undertaken a general visual inspection of the exterior of the building and any relevant comments revealed by that inspection appear elsewhere in this report. Beyond that, we have not undertaken any investigation or testing of the plaster finish and accept no liability for any defects. We have not ascertained the integrity of the fixings nor the composition of the plaster. If you have any concerns, you should undertake further investigations.

Valuers Property Advisors

Wellington International Airport Limited

Appendix 3

Civil Works Valuation

Opus

Telfer Young

WELLINGTON INTERNATIONAL AIRPORT
CIVIL WORKS VALUATION 2006

Wellington International Airport
Civil Works Valuation 2006

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Status: Final

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Executive Summary

Wellington International Airport Limited (WIAL) has commissioned Opus to value the airports civil works assets as at 31 March 2006.

This valuation is summarised by asset group in the table below.

Component	Replacement Value (ORC)	Depreciated Value (ODRC)
Infrastructure Assets		
Formation	$13,914,000	$13,914,000
Pavements	$79,406,000	$39,848,000
Utility Services	$15,471,000	$8,118,000
Airside Drainage	$7,047,000	$3,788,000
Sundries	$8,071,000	$4,222,000
Grassed Areas	$7,710,000	$7,710,000
Car Parks	$2,217,000	$1,361,000
Sea Protection	$44,429,000	$35,411,000
Miscellaneous	$701,000	$361,000
Total	**$178,966,000**	**$114,733,000**
(less) Deductions for Works Implicit in Land Values		
Utility Services	-$15,471,000	-$8,118,000
Car Parks	-$2,217,000	-$1,361,000
Sea Protection	-$44,429,000	-$35,411,000
Sub Total	**$116,849,000**	**$69,843,000**
(less) Improvements in Investment Properties		-$1,666,000
(less) Improvements in Vehicle Business		-$2,011,000
Civil Works Value		**$66,166,000**

Contents

APPENDICES

1 Purpose of Valuation

Wellington International Airport Limited (WIAL) has commissioned Opus to undertake a revaluation of the airport's civil works assets as at 31 March 2006. The valuation is for financial reporting purposes.

2 Valuation Summary

A summary of the valuation for each asset group is shown in Table 1 below.

Table 1. Valuation Summary

Component	Replacement Value (ORC)	Depreciated Value (ODRC)
Infrastructure Assets		
Formation	$13,914,000	$13,914,000
Pavements	$79,406,000	$39,848,000
Utility Services	$15,471,000	$8,118,000
Airside Drainage	$7,047,000	$3,788,000
Sundries	$8,071,000	$4,222,000
Grassed Areas	$7,710,000	$7,710,000
Car Parks	$2,217,000	$1,361,000
Sea Protection	$44,429,000	$35,411,000
Miscellaneous	$701,000	$361,000
Total	**$178,966,000**	**$114,733,000**
(less) Deductions for Works Implicit in Land Values		
Utility Services	-$15,471,000	-$8,118,000
Car Parks	-$2,217,000	-$1,361,000
Sea Protection	-$44,429,000	-$35,411,000
Sub Total	**$116,849,000**	**$69,843,000**
(less) Improvements in Investment Properties		-$1,666,000
(less) Improvements in Vehicle Business		-$2,011,000
Civil Works Value		**$66,166,000**

3 Comparison with 2002 Valuation

There has been a significant movement in the civil works valuation since the previous update in 2002. This has been largely driven by increases in construction costs. The comparison between the 2006 valuation with the previous valuation completed in 2002 is summarised in Table 2 below. The variations between 2006 and 2002 are discussed following this table.

Table 2. 2006-2002 Valuation Comparison

Component	Replacemt Value (ORC)		Depreciated Value (ODRC)		
	Mar- 06	Mar- 02	Mar- 06	Mar- 02	% increase
Improvements					
Formation	$13,914,000	$9,759,000	$13,914,000	$9,759,000	43%
Pavements	$79,406,000	$47,989,000	$39,848,000	$28,526,000	40%
Services	$22,518,000	$10,555,000	$11,906,000	$7,370,000	62%
Sundries	$8,071,000	$7,345,000	$4,222,000	$3,443,000	23%
Grassed Areas	$7,710,000	$10,516,000	$7,710,000	$6,580,000	17%
Car Parks	$2,217,000	$972,000	$1,361,000	$707,000	93%
Sea Protection	$44,429,000	$28,611,000	$35,411,000	$23,640,000	50%
Miscellaneous	$701,000	$1,146,000	$361,000	$749,000	-52%
TOTAL	**$178,966,000**	**$116,893,000**	**$114,733,000**	**$80,775,000**	42%
Total (excl seawalls, carparks & utility services)	**$116,849,000**	**$76,755,000**	**$69,843,000**	**$49,058,000**	42%

3.1 Valuation Changes

The valuation has increased by 42% since the previous update in 2002. The main contributors to this are price rise (30%), capital expenditure (5%) and improved inventory for utility services (5%). There are a number of other variations between the current valuation and the 2002 values. The full list of variations include:

- CAPEX
- Price increases
- Allowances for other costs
- Reassessment of the utility services assets
- Additions, Disposals and Adjustments
- Remaining life adjustments

Each of these is discussed in detail below.

3.1.1 CAPEX

Approximately $4M of capital expenditure, principally for renewal works, has been undertaken since the previous valuation. The major contributor to this has been pavement renewals of around $2.5M and ongoing repairs to the sea protection works of close to $1M.

3.1.2 Price Variations

The most significant increase in the valuation is from price variations.

Cost Drivers

Significant growth of economic activity in the construction sector combined with a wide range of local and international factors has resulted in large rises in construction costs over the last two to three years. A review of major roading projects by an Industry Expert (an unpublished report prepared by Transit NZ) showed that there were real increases in prices between 10% and 15% in the first half of 2004. A second review showed a further 8 to17% increase in costs for the 04/05 year. In other words construction costs had shown increases somewhere between 20 and 30% in the span of two years.

The major factors contributing to these cost escalations include:

- Legislative changes
- International factors
- Local factors

Legislative changes

The overall impact of legislative changes on prices has been significant. The Resource Management Amendment Act 2003 has been a major contributor imposing increased requirements to involve stakeholders to a greater degree in decision making (resulting in dedicated stakeholder management resources and increased project duration), increased requirements for noise mitigation and other environmental effects (eg dust control, air emissions etc) a lessening of objector deterrents resulting in repetitive objections and increased information processing prolonging resolution and increasing project costs adherence to the Kyoto Protocol requiring increased attention to climate change effects.

Other legislative changes include:

- Adoption of European Union Environmental Standards which are more stringent than those previously used
- Local Government Act 2003 has driven up expectations in terms of sustainability
- Increase in water and air quality standards
- the new Building Act 2004 Act is having an indirect impact on civil construction costs
- Compliance with the Holidays Act and the Employment Relations has increased the cost of labour
- More stringent OSH requirements

International Factors

International factors such as the burgeoning demand from China for resources and materials and supply restraints on oil, plus many other have all contributed to escalating costs of imported materials.

The price of a barrel of crude oil has trebled in the last three years. This has lead to significant increases in the trade price of diesel and bitumen. For projects with large earthworks, the diesel component contributes in the order of 2.5% of the contract price. Similarly bitumen is a significant factor in pavement projects.

The international demand for structural steel has risen at an alarming rate with prices rising between 20 and 25% in one six month period. Reinforcing steel though sourced locally also rose to match the international prices.

Local Materials

List prices of some concrete products rose as much as 30% in the latter half of 2004 and a further 12% in early 2005 for a combined increase of 42% in one year. Quarry products (sand and aggregate) have shown significant increases. This has been driven mainly by increases in transport costs but also by the dwindling of supply from some existing sources and the higher costs to establish new sources and possibly increased travel distances.

Market Buoyancy

The recent increase in the amount of new capital work, both Government (eg Land Transport NZs capital works budget) and private, has contributed to, and will continue to contribute to, inflating construction costs. This combined with shortages in manual workers, non-manual supervision and professional and management staff has meant that most large companies in the construction sector have been spending significant amounts on offshore recruitment and on training. The Australian construction market has also been extremely buoyant and their ability to offer higher salaries and benefits has put a further drain on the NZ pool of skilled and experienced labour. The market buoyancy has also fuelled wage and salary expectations with increase in labour costs of 10 to 15%. The high demand for construction services has increased profit margins from the traditional 2.5 to 5% to closer to 10% with predictions that these will rise higher to above 12% as the industry as a whole lifts its margins.

Relative Contribution

The relative contribution the various factors to the overall price increases are tabulated below.

Table 3. Summary of Price Rise Factors

Factor	Contribution to Price Rise
Material Prices	35%
Wages & salaries	25%
Corporate costs & profit	40%
TOTAL	100%

Price Indices

Construction cost indices (Statistics NZs Capital Goods Price Index and Land Transport NZs Highway Construction Index) both show movements in the order of 20% over the period of 2002 to 2006. This is well short of the 30% rise in cost rates over this same period. One possible reason for this is that these indices are input based and as such fail to pick up any additional costs incurred by the contractor such as contractor overheads, profits and trade margins. Also included are all the other costs incurred by the purchaser such as professional fees (engineers, architects, lawyers etc.), land purchase costs, resource consents, planning permission, insurance etc. With the buoyancy in the construction sector over this period, it is these additional costs that have contributed disproportionately to the price rise.

Forward Price Expectations

The international price drivers are not expected to wan, which when combined with the likelihood that the overvalued NZ$ has to eventually fall, suggests that the recent price rises for construction materials are likely to continue at least in the short term. The forecast expenditure levels over the next decade (particularly in the roading sector) have added further buoyancy to the construction industry and along with the continued shortages in the labour market mean that the corporate and labour cost drivers will also sustain price increases in the short to medium term. The October 2005 NZIER Update express the view that construction activity as a whole may be close to a plateau but need not be expected to decline significantly from current levels.

3.1.3 Allowance for Other Costs

Revised Overhead Cost Factor

For the previous valuation undertaken in 2002 the overhead factor applied to unit cost rates included allowances for site establishment, investigations, design and construction supervision as well as an allowance for holding costs charged at the WACC of 9.5% per annum. For this valuation, a further allowance of 25% has been included for the combined on-site and off-site corporate overheads including profit margins. For previous valuations these corporate overheads were accounted for

and hidden in the unit cost rates specified for each asset. This year, unit costs have been set at the base rates so that the corporate overhead can be applied separately. The comparisons of the previously used overhead factors with those used for the current valuation are tabulated below.

Table 4. Overhead Factor Comparison 2002-2006

Asset Group	2002 Overhead Factor	2006 Overhead Factor
Earthworks	1.47	1.77
Sea protection works	1.45	1.73
Pavements	1.24	1.43
Utilities	1.23	1.43
Sundries	1.20	1.43

Curfew Hours Overhead Cost Factor

For this valuation curfew overhead cost factors have been applied to the unit costs of runway and taxiway pavement surface layers and utility services adjacent to the runway and taxiways. The reason for this is the replacement of these assets can only be done outside normal working hours. These overhead factors are summarised in Table 5 below.

Table 5. Curfew Overhead Factors

Asset	Curfew Mark-up
AC Surface Layer	1.62
Utility Services	1.62

3.1.4 Reassessment of Utility Service Assets

The ORC and ODRC values for 2006 of the services assets have double since the previous valuation in 2002. The reason for this large increase is a result of improved inventory developed (using GIS data) for this valuation.

The 2006 values for ORC and ODRC require further refinement as the inventory information derived from the drawings and GIS data is not complete and several assumptions have been made to reach these figures, particularly the division of ownership between WIAL and the City Council.

3.1.5 Additions, Disposals and Adjustments

There have been no significant additions to or disposals from the civil works assets since the 2002 valuation. The value of the grassed areas has however been adjusted resulting in a significant decrease in replacement cost from the 2002 value. The 2002 cost over-stated the proportion of grassed area with 350mm thick subbase below the topsoil layer. A strip around the perimeter of the runway and stubways is underlain with a layer of subbase material. This layer is designed to provide increased strength to prevent aircraft wheels sinking into the soil in the event of an aircraft deviating off the paved areas. For this valuation, we have revised the area of subbase coverage based on test pit information. The depreciated value has however not decreased proportionately but rather has shown a small increase. This is because the underlying subbase material had previously been depreciated at the same rate as subbase under the paved areas. We have revised our assumption for this valuation making the grass asset totally non depreciable.

3.1.6 Remaining Life Amendments

Some of the existing pavement areas will be destroyed and replaced as a by product of planned redevelopment. The remaining lives of these assets have been amended to reflect the date of this future work. These assets are listed below in Table 6.

Table 6 – Summary of Remaining Life Amendments

Asset	Space ID	Obsolescence Date	Comment
South End RESA	MA - 61	30/06/07	Future Stubway 11
South End RESA	MA - 62	30/06/07	Future Starter Extension 34
South End RESA	MA - 64	30/06/07	Future Extension
North End RESA	MA - 71	30/06/07	Future Stubway 12
North End RESA	MA - 72	30/06/07	Future Starter Extension 16
North End RESA	MA - 73	30/06/07	Future New Embankment
Aerobridge Paving	GA - 22 to 28	30/06/08	Aerobridge Expansion

4 Civil Works Assets

4.1 Formation

Formation is the platform of compacted insitu material upon which the pavements are constructed. Formation costs include an allowance for:

- profiling (cut and fill earthworks)
- removal and replacement of unsuitable material
- subsoil drainage
- flank regrading and grassing

A unit cost of $\$10/m^2$ used for calculating replacement cost is based on greenfield construction conditions. This rate has been applied to the total area of development. The formation is considered not to depreciate and this is treated as having a residual value of 100 percent of the replacement cost.

4.2 Pavements & Grassed Areas

The pavement assets comprise

- runway
- taxiways/stubways – network of access lanes that link the runway to the airport terminal and to the aircraft service hardstand/apron areas
- aprons and hardstanding areas
- shoulders
- roads, carparks, footpaths and miscellaneous pavement areas

Pavements usually comprise three layers

- subbase
- basecourse
- surface layer

The subbase and basecourse layers are the compacted rock aggregates consisting of clean sand, gravel and crushed rock. The distinction between them is in the quality of material. Basecourse is the higher quality aggregate and is placed on top of the subbase layer. There are three types of pavement surface at WIAL. These are:

- concrete
- asphaltic concrete
- chipseal

The surface layer serves to spread vertical loads, resist lateral loads and to protect the lower layers from the weather. Asphaltic concrete (AC) is the predominant pavement surface at WIAL. The AC surfacing is comprised of two layers; an upper layer which has a resurfacing cycle of 10-15 years and a lower layer which has a base life expectancy which lasts four cycles of the upper surface (40-60 years) before requiring reconstruction. The underlying basecourse layer could under normal conditions be expected to require replacement at the same time (ie 40-60 years) with the lower subbase layer surviving a further cycle (ie base life of 80-120 years).

Load testing was carried out in May 1998 using a Boeing 737-200 series aircraft and a Benkelman Beam to measure pavement deflections. Core samples were also taken for

analysis. The purpose of this testing was to gain an appreciation of the integrity and life expectancy of the major pavement assets. While there was indication that the basecourse had experienced some degradation, it could reasonably be expected to have considerable remaining life, provide the AC surfacing layer is adequately maintained. On this basis, the base life expectancy of the basecourse has been doubled to match that of the subbase layer (ie 80-120 years).

The AC layer is assumed to have zero residual value. A nominal 20% of replacement cost has been assumed for the basecourse/subbase materials to reflect their potential reuse at the end of their economic life (be it of a lower quality).

Concrete is used in the apron areas where there is likelihood of fuel spillage from parked aircraft (aviation fuel tends to soften and damage bitumen based materials). Concrete is also used at each end of the runway, providing superior strength characteristics to cope with the high lateral wheel loads. For the concrete handstand areas, the concrete slabs are assumed to have a base life expectancy of 50 years and residual value of zero. The underlying basecourse/subbase layers are assumed to survive a double slab cycle, having a base life expectancy of 100 years and a residual value of 20% of replacement cost.

Chipseal is used in the surrounds to the Western apron where only light loads are present. This pavement has an assumed structural thickness of 150 mm of basecourse. The base life expectancy of the basecourse has been set at 50 years with reseals at 12.5 year cycles. The seal has zero residual value and the basecourse a nominal 20% of replacement cost.

The grassed area asset is comprised of 75 mm of topsoil and grass seed. The grass asset also includes the airstrips which flank the perimeter of the runways and taxiways. These grassed airstrip are underlain with a 350mm thickness of subbase material as a precautionary measure in the event of an aircraft deviating off the paved areas. Grassed areas are assumed to be non-depreciable.

The remaining life estimates assessed using the above life cycle assumptions, were reviewed to tie in with the Airport Annual Pavements Repairs and Maintenance 2004 (October 2005 Report prepared by Beca).

The values assumed for the input parameters for each pavement component are detailed in appendix A.

4.3 Services

Utility services include:

- Water supply
- Sewage network
- Stormwater services
- Airside drainage
- Telecommunications

- Electrical supply

Prior to this valuation WIAL did not have an inventory for its utility services assets. As a result utility services had to be valued on a unit cost basis applied to the total land area. Since then, plans showing the extent of these assets have been produced and used to develop an inventory for each utility service for this valuation. The level of detail did not include pipe diameters or cable/duct sizes for power and telecommunications. However assumptions have been made as to the likely sizes of these assets. Details of unit cost rates and average life and remaining life assumptions are presented in Tables A2 and A3 in Appendix A.

Land has been valued assuming the property is fully serviced. Accordingly the costs of main services inside the WIAL property boundary have been excluded in the value of the civil works assets.

4.4 Sundry Items

Sundry items include the following assets:

- Signage
- Pavement markings
- Traffic/carpark furniture
- Fences

The unit rates for sundry items with the exception of fences have been indexed up from those used for the 2002 valuation. Unit rates for fences have been derived from recent construction costs and cost rates produced by Rawlinsons.

4.5 Sea Protection Works

Sea protection works at the airport comprise three main assets: the Southern and Western seawalls and the breakwater. The cost of the sea protection works is subsumed as part of the land valuation. While the sea protection works has no impact on the overall valuation, its value is required for accounting, pricing and taxation purposes.

Seawalls

Seawalls are placed in a highly aggressive environment, and the amour units are continuously being worn down and damaged. However, it is the amour layer alone that provides the structure's resistance to waves. The under layers and core may be regarded as non-deteriorating, particularly as the breakdown produce of the amour layer adds to and reinforces the under layer.

The armour relies to a large extent on interlocking between whole units for its performance. Only a limited extent of damage can be tolerated before there is a danger of complete and disastrous failure of sections of the breakwater. The armour layer is therefore inspected continually, particularly after large storms, for signs of a larger than acceptable aggregation

of broken or displaced units. Additional new units are then added to such areas to restore complete protection. This constant process of renewal is capable of extending the life of the structure in perpetuity.

Deterioration of the armour units occurs most significantly by abrasion and erosion of the armour mass through rocking and other movement when under wave attack. The armour begins service in a tightly packed state, and deterioration occurs only slowly. However the rate of deterioration increases with age as wear reduces the interlocking and allows increased movement. Correspondingly, maintenance requirements start at a low level, and increase with time. Eventually, equilibrium between damage and renewal is reached (ie. the value of the armour layer oscillates around an average value of 50% of the replacement cost). For both the southern and western seawalls, equilibrium is expected to be reached after approximately 60 years.

For the Southern seawall, the toe, retaining wall and gabions are also assumed to deteriorate, having base lives of 50, 80 and 60 years respectively. For the Western seawall, the existing sheet-pile system is deteriorating, requiring repair at a rate of $25,000 per annum over the next 25 years.

Breakwater

The breakwater, unlike the seawalls with their renewable armouring, is of rigid concrete construction with a finite life. On the basis of its maintenance history and current condition, it has an expected life of 80 years. Residual value is assumed to be zero.

4.6 Car Parks

A cost based valuation has been included for car parks to provide a basis for calculating an appropriate depreciation provision. Car parks are however categorised as non-specialised assets as they can be linked to a definable market for which cash flows can be determined. Valuation of such assets is assessed either by comparable market sales or on an income/investment approach. These non-specialised assets have been valued separately by Telfer Young. To avoid double counting the cost based value of the car park assets has been deducted from the civil works total.

5 Methodology

WIAL assets have been valued in accordance with the methodology presented in the WIAL Asset Valuation Handbook. Operational assets have been separated into two classes; specialised (monopoly) assets and non-specialised assets. The value of the specialised assets is based on Optimised Depreciated Replacement Cost (ODRC) while non-specialised assets are valued using sales comparison and income approaches.

Opus's responsibility is confined to producing an ODRC value for the specialised civil works assets. The basic approach has involved:

(i) adjustment of asset quantities, materials and techniques to reflect an optimum (least cost) replacement that offers equivalent service to that currently provided.

(ii) calculation of optimum replacement cost (ORC) by multiplying asset quantities by appropriate unit construction cost rates and including an allowance for other costs (contractor off and on-site overheads, professional fees and financial charges).

(iii) calculation of ODRC by deducting an allowance for depreciation, taking into account age, remaining life and residual value.

5.1 Optimisation

Optimisation in a valuation context means provision of the same utility at minimum overall cost. This involves adjustment to eliminate any excess capacity (surplus or redundant assets), over-design (greater than necessary thickness of pavement), technological obsolescence, and/or pricing of a more efficient layout (relocation or reconfiguration). The optimisation with respect to WIAL's civil works assets includes the following:

Capacity - the current capacity of airport pavements is considered to be near optimum for the currently offered levels of service.

Over-design - some existing pavements are considered to be overly thick with respect to that necessary to service current operations. Reduced thicknesses have been adopted for calculating the ORC values.

Obsolescence - elimination of technological obsolescence involves costing a replacement with modern equivalents. In other words, unit costs reflect modern materials and construction techniques.

Layout - optimisation from the perspective of site reconfiguration is considered to be outside the scope of this valuation.

Brownfield costs - unit costs reflect the operational constraints on access, delivery, safety, security, material handling and storage, and hours available for construction work. Costs from the major upgrade works currently in progress have been taken into consideration in establishing unit cost rates for renewal work.

5.2 Other Costs

Replacement costs have been factored to allow for other costs such as professional fees and financial charges. Allowances (expressed as a percentage of construction cost) include:

4% for investigations (6% if over water)
4% for design (6% seabed construction)
4% for construction supervision
25% for contractors off-site and on-site overheads (including profit margins)

Using a 9.5% (per annum) discount rate, the held cost of fees and construction are present valued to the end of the construction period. The discounting takes into account the timing of the various costs (details are included in Appendix B). The calculated factors are:

1.73 for Sea Protection works
1.43 for Pavements, utility services and sundry items

5.3 Replacement Costs

Replacement cost is calculated by the product of asset quantity times unit cost, factored to allow for other costs such as professional fees and finance charges. Non-depreciable assets have been valued using cost rates that reflect the greenfield environment and scale of development that existed when the airport was originally constructed. Similarly, the overhead factor for finance costs is based on the lengthy construction period associated with total airport construction.

Depreciable assets have been valued using rates that reflect typical brownfield renewal costs. These brownfield rates reflect the additional cost associated with these smaller scale renewal contracts undertaken in a "built-up" environment. The overhead factor is significantly lower than that used for the non-depreciable assets, reflecting the shorter duration of renewal projects.

Airside surface pavement assets have been valued using rates that reflect the increased costs associated with the requirement for this work to be undertaken during curfew hours.

5.4 Depreciation

Depreciation of civil works assets is estimated on a straight-line basis taking into account economic life, remaining life and residual value.

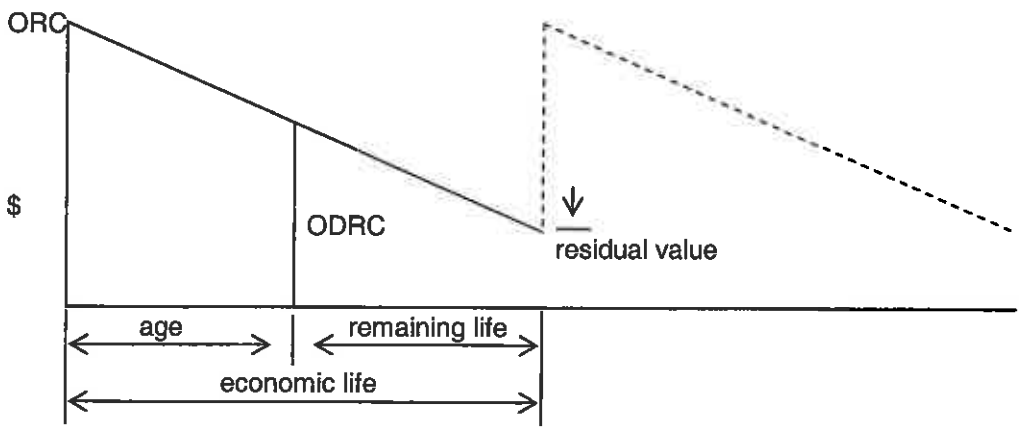

Figure 1 : Depreciation Profile

Each asset (component, subcomponent) is assigned a base life (estimate of average useful life), which is converted to economic life by adjusting for age (in accordance with the New Zealand NAMs guidelines). This adjustment is based on the premise that as an asset gets older, it's total life expectancy increases. An initial assessment of remaining life is then calculated as the difference between economic life and age of the asset. Further

adjustments are then made to the remaining life estimate to take into account asset condition and future demand, where this information has been readily available. Scheduled replacements and renewals proposed in the ten year expenditure plan, have also been taken into account in finalising the estimates of remaining life.

Residual value of an asset is its predicted value at the end of its economic life. Some pavement components, basecourse and subbase for example, are likely to be reusable at the end of their economic lives and are assigned residual values which reflect this.

6 Future Improvements

The following improvements to the valuation process are suggested for the next valuation:

1. To consider converting all civil works data into a GIS database. Currently civil works data has been measured from drawing files (CAD files) and stored in spreadsheets. Repeating this process for each revaluation is time consuming and requires considerable checking to ensure all assets are included. The present CAD based system has no direct linkages to feature attributes (material, type, size, condition) and no linkage to asset data. A GIS model has many advantages over the current spreadsheet model. These are:

    - Asset and component information can be viewed in detail
    - A more direct audit trail for asset and valuation data. (The asset valuation can be "displayed" spatially so that coverage and correct allocations to designated sections (eg space id and campus) can be verified visually.
    - Customised reports can be readily produced on spatial criteria or attribute criteria.
    - Asset data can be added, deleted and adjusted to reflect the current state of the asset and up-to-date inventory

    A GIS based inventory will also be a useful as a general management tool for all WIAL assets and provide the critical link between asset management and financial reporting.

2. To maintain a database of construction costs that will provide evidence to support future cost based valuation of the assets. These should include records of other costs such as professional fees and contractor overheads.

Appendix A

Valuation Parameters

Table A1. Summary of Pavement Component Details

Component	Thickness (mm)	Unit Cost	Base Life (yr)	Residual Value
Concrete	250-350	$\$700/m^3$	50	0%
AC – Upper Layer - Lower layer	35-80 100	$\$490/m^3$ $\$485/m^3$	10-15 40-60	0%
Chipseal	na	$\$6.5/m^2$	10	0%
Basecourse	75-250	$\$80/m^3$	80 – 120	20%
Subbase	200-450	$\$65/m^3$	80 – 120	20%
Formation	na	$\$10/m^2$	Infinite	100%
Grassed Areas –topsoil - Subbase	75 350	$\$40/m^3$ $\$65/m^3$	Infinite	100%

Table A2. Summary of Water & Drainage Details

Utility Type	Description	Size	Cost
Water	Pipe	80 dia	$200
		150 dia	$240
		200 dia	$264
	Ancillary	Valves	$1,502
		Hydrants	$2,070
		Meters	$5,600
Sewage	Pipe	100 dia	$140
		150 dia	$165
		225 dia	$310
Stormwater	Pipe	225 dia	$282
		300 dia	$302
		450 dia	$350
		525 dia	$537
		600 dia	$665
	Ancillary	Cleaning Eye	$330
		Manhole	$4,033
		Sump double	$2,380
		Sump single	$2,990
Airside Drainage	Storm-water Channels	Various	$585

Table A3. Summary of Telecommunications & Power Details

Utility Type	Description	Size	Cost
Telecommunications	Duct/Conduit	32 dia	$80/m
		50 dia	$80/m
		100 dia	$80/m
		110 dia	$80/m
	Trenching	Trenching	$50/m
Power	Conduit/Cable	32 dia	$80/m
		50 dia	$85/m
		100 dia	$100/m
		110 dia	$200/m
		150 dia	$270/m
	Lighting	Lighting Pole	$2,000
		Lights	$2,000
		Flood Light Pole	$5,000

Average base lives and average remaining lives have been determined for the water, sewer and stormwater utilities based on construction dates for various sections of each network. This is summarised in Table A4 below.

Table A4. Summary of Remaining Life Information

Utility Type	Component	Average Base Life	Average Remaining Life	Residual Value
Main services	Water	62	33	0%
	Sewers	62	33	15%
	Drainage	62	33	15%
	Surface drains	62	33	10%
Telecomm	Conduits /cabling	20	10	0%
Power	Conduits /cabling	20	10	0%

Appendix B

Allowance for Other Costs

Allowances for Professional Fees and Financial Charges plus the Contractors Onsite/Offsite Overheads and Profit
(expressed as a % of the construction cost calculated on base cost rates)

1 - multiplier applied to the construction cost to account for the cost and timing of professional fees and financial charges.
2 - multiplier applied to resorce consents costs to account for the cost and timing of professional fees and financial charges.

1. Civil Works

Investigations (excluding consents)	- land based assets	4%
	- land creation earthworkworks	6%
	- seabed construction	6%
Design		4%
Construction Supervision		4%
Contractors Onsite/Offsite Overheads and Profit		25%
Labour mark-up for woking curfew hours		18% (all surfacing work on runways, stubways and taxiways)
Finance Charges (%/yr)		9.5%

Note: The finance charge for renewable assets (eg pavements & utility services) is limited to 3 months holding duration).

ASSET		Years Prior to Commissioning 6 (-5.5)	5 (-4.5)	4 (-3.5)	3 (-2.5)	2 (-1.5)	1 (-0.5)	0	Total	Curfew Markup	Prof Fees	O'heads & Profit	Finance Charge
Sea Protection	Investigations		2%	4%									
	Design			2%	2%								
	Constrn Supervision				3%	1%							
	Overheads/Profit				18%	7%							
	Construction				70%	30%							
	Total	0%	2%	6%	94%	38%	0%		73%		14%	25%	34%
Earthworks	Investigations		2%	3%	1%								
(hill removal and	Design			2%	2%								
reclamation)	Constrn Supervision			1%	2%	1%							
	Overheads/Profit			5%	15%	5%							
	Construction			20%	60%	20%							
	Total	0%	2%	31%	81%	26%	0%		77%		14%	25%	38%
Pavements	Investigations						4%						
(Normal work hours)	Design						4%						
	Constrn Supervision						4%						
	Overheads/Profit						25%						
	Construction						100%						
	Total	0%	0%	0%	0%	0%	140%		43%		12%	25%	6%
AC Surface Layer	Investigations						4%						
for Curfew Hours	Design						4%						
(used for runway	Constrn Supervision						4%						
& taxiway pavements)	Overheads/Profit						25%						
	Labour mark-up						18%						
	Construction						100%						
	Total	0%	0%	0%	0%	0%	158%		62%	18%	12%	25%	7%
Utility Services	Investigations						4%						
	Design						4%						
	Constrn Supervision						4%						
	Overheads/Profit						25%						
	Construction						100%						
	Total	0%	0%	0%	0%	0%	140%		43%		12%	25%	6%
Utility Services	Investigations						4%						
for Curfew Hours	Design						4%						
(used for utilities	Constrn Supervision						4%						
adjacent to runway	Overheads/Profit						25%						
and taxiway)	Labour mark-up						18%						
	Construction						100%						
	Total	0%	0%	0%	0%	0%	158%		62%	18%	12%	25%	7%
Sundry Items	Investigations						4%						
Traffic Facilities	Design						4%						
	Constrn Supervision						4%						
	Overheads/Profit						25%						
	Construction						100%						
	Total	0%	0%	0%	0%	0%	140%		43%		12%	25%	6%

2. Resource Consents

Finance Charges (%/yr)	10%

Activity	Years Prior to Commissioning 6 (-5.5)	5 (-4.5)	4 (-3.5)	3 (-2.5)	2 (-1.5)	1 (-0.5)	0	Total
Excavation and Reclamation		80%	20%					48%

Valuers Property Advisors

Wellington International Airport Limited

Appendix 4

Civil Works Costs for Land Valuation Alternatives
Opus

Telfer Young

Wellington International Airport 2006 Civil Works Costs for Land Valuation Alternatives

Final Report

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Contents

APPENDICES

1 Introduction

Opus International Consultants Ltd (Opus) has been engaged by Wellington International Airport Limited (WIAL) to provide revaluation of the civil works costs associated with alternative methods for the valuation of airport land. The current valuation is based on the market value of a flat site. This alternative method is based on the notion that the civil works costs associated with creating the land asset, provides a measure of existing use value.

2 Scope

The scope of the work is to provide a valuation of the civil works associated with land creation at Wellington Airport. Two options have been costed. These are:

i) *reproduction cost* – the civil works costs to remove the on-site hill and to construct and protect the created land platform; and

ii) *flat site option* – similar to option (i) except that the original airport site is assumed to be relatively flat (ie no hill) and that the fill for the created platform is sourced off-site.

The cost components associated with these land creation options include:

- flattening the site (hill removal)
- supply and handling of fill material
- disposal of surplus material
- creation of the land platform (reclamation)
- retainment and protection of the platform (sea protection works)
- relocation and reinstatement of severed services and roads
- resource consents
- professional fees for investigation, design and supervision
- financial holding costs.

Note: No allowance has been made for the purchase and disposal of the 180 houses that were located on the hill prior to its removal.

The valuation is stated in 31 March 2006 dollar terms.

3 Sources of Information

This revaluation draws on the work undertaken for the original valuation in 2001. The following sources of information were used to assess the quantities involved:

- Photographs taken before, during and after the construction of the current airport.
- Drawing – Rongotai Airport Project Grading (WDO 25458)
- Report on Compaction Control and Pavement Construction. Ministry of Works 1959

- Study of the Development of Wellington Airport. WD Scott & Co (NZ) Ltd. 1979
- New Zealand Freelance Paper "Wellington Airport Souvenir Issue" 15 July 1959.
- Current Wellington Street maps.
- Recent construction costs for reclamation works and sea protection structures.
- GIS drawings of Wellington Airport
- 1936 marine chart of Evans Bay
- Marine chart of Lyall Bay
- BCHF 1994 topographic and dive survey of Lyall Bay Western reclamation.
- MOW drawing 16872 of seabed depths at the southern extension

4 Methodology

The valuation of the civil works assets has been undertaken on an Optimised Depreciated Replacement Cost (ODRC) basis. This approach involves:

- adjustment of quantities materials and technologies to reflect an optimum (least cost) asset that offers equivalent service as that currently provided;
- calculation of optimised replacement cost (ORC) by multiplying quantities by appropriate unit cost rates and including an allowance for other costs (professional fees and financial charges)
- calculation of ODRC by deducting an allowance for depreciation, taking into account the residual value, age and remaining life of the existing asset.

5 Costs

The unit costs were derived using construction cost information from a variety of sources. These included:

- recent local competitively tendered construction works.
- published cost information eg. Rawlinsons Construction Handbook.
- cost rates used for earlier valuations of the civil works assets at Wellington Airport.
- Opus' database of costing information and experience of typical industry rates.

Costs have been adjusted to reflect greenfield construction and the scale of development associated with project.

6 Optimisation

Optimisation is the provision of the same utility at minimum cost. This involves adjustment of the asset bases by eliminating excess capacity (surplus or redundant assets), over-design and technological obsolescence. It can also involve site reconfiguration or even relocation.

Optimisation with regards to the land creation assets involves:

- Costing in terms of a modern equivalent asset, ie using up-to-date construction materials, equipment and techniques.
- Costing on a greenfield's basis. ie assumes that the current airport is developed as a single, continuous project.

7 Allowance for Other Costs

Replacement costs have been factored to allow for other costs such as professional fees and financial charges. Allowances (expressed as a percentage of the construction cost) include:

- Investigation 6% (includes allowance for extra geotechnical input)
- Design 4%
- contractor overheads 25%
- construction supervision 4%

Using a 9.5% (per annum) interest rate, the held costs of fees and construction are discounted to the end of the construction period, ie the point where construction is complete and the airport is ready for operation. The discounting takes into account the timing of the individual cost elements. An overall project duration of 5 years has been assumed with investigations (including resource consents) occurring in the first year, hill removal, reclamation and construction of sea protection works over the next 2½ years and the airport proper (pavements, utility services and buildings) over the final 1½ years.

The following financial costs (expressed as a % of the construction cost) have been assessed for holding expenditure over the duration of the construction period;

- earthworks (reclamation and hill removal) 38%
- sea protection works 34%
- resource consents 48%

The total allowances made for professional fees and financial charges are:

- earthworks (reclamation and hill removal) 77%
- sea protection works 73%
- resource consents 48%

Details are included in appendix B.

8 Depreciation

Depreciation of civil works components has been calculated on a straight-line basis taking into account the forecast economic life, remaining life and residual value. A depreciation

allowance has been made for those civil works assets that physically deteriorate and require periodic replacement, eg the outer armour layers of the sea protection works.

9 Options

9.1 Reproduction Cost Option

9.1.1 Hill Removal Costs

A cost estimate has been prepared for the total earthworks associated with the excavation and removal of the hill to create the formation platform for the airport development. The volume of material was estimated using contours of the hill and airport. Other sources of information were reviewed to provide back-up confirmation of the quantities calculated. Historic photographs were also used to assess the topography before and after the hill was removed. The following assumptions were made in assessing the earthwork costs:

- That the crest of the hill was 40m above the subsequent platform level.
- That there was 18m of general material cover to rock.
- Excavated/waste material was disposed as fill for the Evans Bay reclamation and creation of the platform at the southern end of the airport.
- A contingency of 15% has been included to reflect the uncertainty associated with the estimated quantity of excavation.

9.1.2 Disposal of Surplus Material

The calculated quantity of material excavated to remove the hill exceeds the quantity required for reclamation of the airport platform (by approximately 800,000m^3). Two options have been considered for disposal of this surplus material:

(i) For reclamation in Evans Bay, and

(ii) Disposal at a remote site

Evans Bay

For the Evans Bay option costs are included for transport (2km) and compaction of the surplus material. Other costs associated with the reclamation (eg sea protection works and drainage etc.) and the resulting value of the created land have not been included in this valuation. It is assumed that WIAL did not benefit from the Evans Bay reclamation other than the cost saving of having a nearby site for the disposal of surplus material.

Remote Site

By way of comparison, disposal at a more remote site (10km) has been costed. Costs include transport and compaction of the surplus material.

The Evans Bay option has been included for the Reproduction Cost valuation as it represents the lower cost alternative for the disposal of surplus material.

9.1.3 Reclamation

Construction of the current runway platform involved reclamation at both ends of the runway; to the north into Evans Bay (21,000m^2) and to the south and west into Lyall Bay (216,000m^2). The following approach was used to estimate the quantity of earthworks involved in these reclamations. The original shoreline contours were superimposed on a plan of the existing airport layout. Current surface levels were overlain with spot levels of the original seabed, to guage the depth of the fill across the reclaimed areas. Earthwork quantities were calculated by multiplying scaled off areas by the assessed depth of fill at each location.

The following assumptions were made in assessing the bulk filling costs:

- That the finished platform level averages 6.7m above mean sea level. (It varies between 4.6m at the southern end to 12.8m at the northern end)
- The plan area of reclaimed land (net of road causeways and sea protection works) was taken from GIS data.
- The average sea bed depth for the northern reclamation is 2.45m below mean sea level. This depth is taken from the 1936 marine chart of Evans Bay.
- The average sea bed depth for the western reclamation is 0.85m below mean sea level. This figure is derived from the 1994 BCHF topographic and dive survey plan, a current marine chart of Lyall Bay and construction photographs.
- The average sea bed depth for the southern reclamation is 5.5m below mean sea level. This figure is taken from the southern sea wall construction drawing MOW 16872.
- Bulk fill is free on site, from the hill removal. The cost is only for placing, compaction, shaping and proof load testing.
- A contingency of +15% on the estimated bulk fill volumes has been included to allow for the uncertainty associated with the estimation of the volumes.

9.1.4 Sea Protection Works

The retention works are rock fill bunds constructed on the sea bed in Lyall Bay, around the perimeters of the southern and western reclamation areas.
The sea protection structures are the layers of rock armouring and concrete armour units placed on the seaward face of these bunds, plus the concrete block breakwater.

It has been assumed that the retention works and sea protection for the northern reclamation is provided by reclaimed land beyond the airport reclamation. No costs for retention and sea protection of this reclamation have been included.

Sea protection works at the airport comprise three main assets: the Southern and Western seawalls and the breakwater

Seawalls

Seawalls are placed in a highly aggressive environment, and the amour units are continuously being worn down and damaged. However, it is the amour layer alone that provides the structure's resistance to waves. The underlayers and core may be regarded as non-deteriorating, particularly as the breakdown produce of the amour layer adds to and reinforces the underlayer.

The armour relies to a large extent on interlocking between whole units for its performance. Only a limited extent of damage can be tolerated before there is a danger of complete and disastrous failure of sections of the seawall. The armour layer is therefore inspected continually, particularly after large storms, for signs of a larger than acceptable aggregation of broken or displaced units. Additional new units are then added to such areas to restore complete protection. This constant process of renewal is capable of extending the life of the structure in perpetuity, providing equilibrium between ageing and replacement is reached.

Deterioration of the armour units occurs most significantly by abrasion and erosion of the armour mass through rocking and other movement when under wave attack. The armour begins service in a tightly packed state, and deterioration only slowly. However the rate of deterioration increases with age as wear reduces the interlocking and allows increased movement. Correspondingly, maintenance requirements start at a low level, and increase with time. Eventually, an equilibrium between damage and renewal is reached ie. the value of the armour layer oscillates around an average value of 50% of the replacement cost. For both the southern and western seawalls, equilibrium is expected to be reached after approximately 60 years.

For the Southern seawall, the toe, retaining wall and gabions are also assumed to deteriorate, having base lives of 50, 80 and 60 years respectively. For the Western seawall, the existing sheetpile system is deteriorating, requiring repair at a rate of $25,000 per annum over the next 25 years.

Breakwater

The breakwater, unlike the seawalls with their renewable armouring, is of rigid concrete construction with a finite life. On the basis of its maintenance history and current condition, it has an expected life of 80 years. Residual value is assumed to be zero.

9.1.5 Severance and Relocation of Roads and Services

Airport construction resulted in the severance of roads and services to the Eastern Suburbs of Miramar and Seatoun. New roads (approximately 7km) were constructed skirting the embankments at each end of the runway. Most services were relocated to the pedestrian subway connecting to Coutts St. The 600mm gas main feeder was relocated around the northern end of the airport.

Because these assets are not part of the WIAL asset base, their costs have not been included in this valuation.

9.2 Flat Site Option

For the flat site option, material for the reclamation is assumed to be sourced from off-site. A zero cost option assumes that there is a large scale excavation occurring locally and the contractor is prepared to supply the material free of charge to avoid otherwise costs of disposal. The alternative is to purchase and excavate material from some off-site vacant property and to transport the material to site. Two options have been costed; one sited 5 km from the airport and the other 10km away. The costs include excavation and transport of the material. A weighted cost rate has been used for excavation to allow for a mix of earth and rock likely to be encountered.

The zero cost option is extremely unlikely given the scale (1.65 million cubic metres of material) and the high intensity and relatively tight timeframe of operation envisaged. The 5 km site has been used in valuing the flat site option.

10 Formation Costs

The valuation of the civil works assets already includes an allowance for the formation costs (ie the cost of cut and fill earthworks and subgrade preparation) across the entire site. To avoid double counting, these subgrade costs have been deducted from the costings for the created land areas ie the hill footprint and reclamation areas.

11 Resource Consents

An estimate has been made of the cost to obtain the required approvals under the Resource Management Act 1991, for earthworks, reclamation and ancillary works. It is assumed that all necessary approvals have been obtained authorising the use of the land for airport purposes, that existing activities and structures on the land have been demolished or removed and that the land is controlled by WIAL.

In assessing the cost, consideration has been taken of the range of specialist assessments that would likely be required. The main items of cost include;

- Specialist investigations of environmental effects
- Public consultation

- Council hearing
- Environmental court hearing
- Legal representation and preparation of application

An overall cost of $1.5M is estimated with a range of ± 20%.

12 Results

The values of the civil works costs for the created land asset (including resource consents) are tabulated below for the both the reproduction and flat site options.

Component	Civil Works Costs	Professional Fees	Financial Costs	Total Cost ($)	Deprec'd Cost	Annual Deprn
Hill Removal	$24,273,000	$2,719,000	$7,379,000	$34,371,000	$34,371,000	$0
Disposal of Surplus	$6,886,000	$771,000	$2,093,000	$9,750,000	$9,750,000	$0
Reclamation	$6,637,000	$743,000	$2,018,000	$9,398,000	$9,398,000	$0
Sea Protection	$32,102,000	$3,595,000	$8,732,000	$44,429,000	$35,411,000	$236,000
Resource Consents	$0	$1,500,000	$720,000	$2,220,000	$2,220,000	$0
TOTAL	**$69,898,000**	**$9,329,000**	**$20,942,000**	**$100,168,000**	**$91,150,000**	**$236,000**

Table 1 March 2006 Reproduction Cost

Component	Civil Works Costs	Professional Fees	Financial Costs	Total Cost ($)	Deprec'd Cost	Annual Deprn
Bulk Fill	$37,486,000	$4,198,000	$11,396,000	$53,080,000	$53,080,000	$0
Reclamation	$6,637,000	$743,000	$2,018,000	$9,398,000	$9,398,000	$0
Sea Protection	$32,102,000	$3,595,000	$8,732,000	$44,429,000	$35,411,000	$236,000
Resource Consents	$0	$1,500,000	$720,000	$2,220,000	$2,220,000	$0
TOTAL	**$76,225,000**	**$10,037,000**	**$22,865,000**	**$109,127,000**	**$100,109,000**	**$236,000**

Table 2 March 2006 Replacement Cost for Flat Site Option

13 Discussion

13.1 Range of Values

On the basis of the information available and the level of investigation undertaken for this valuation, the estimates reflect preliminary assessed costs (PAC) with an accuracy range of ± 20%. This $ range is shown in table 3 for the two options.

Option	Total Cost ($M)	Range ($M)
Reproduction Cost	100.2	80 - 120
Flat Site	109.1	87 - 131

Table 3 : Range of Values

13.2 Availability of Historic Information

Historic information about the costs and quantities of civil works associated with the construction of Wellington Airport was sought from both the Wellington City Council and National Archives. Only limited information was made available and of little use for the intended purpose of establishing historic costs or providing definitive quantity information.

14 Changes from 2001 Valuation

14.1 2001 & 2006 Comparison

The comparative values are tabulated below.

Component	2006 ODRC	2001 ODRC	% Increase
Hill Removal	$34,371,000	$23,921,000	44%
Disposal of Surplus	$9,750,000	$5,938,000	64%
Reclamation	$9,398,000	$6,171,000	52%
Sea Protection	$35,411,000	$23,562,000	50%
Resource Consents	$2,220,000	$1,510,000	47%
TOTAL	**$91,150,000**	**$61,102,000**	49%

Table 4 2001 & 2006 Comparative Values for Reproduction Costs

Component	2006 ODRC	2001 ODRC	% Increase
Bulk Fill	$53,080,000	$35,593,000	49%
Reclamation	$9,398,000	$6,171,000	52%
Sea Protection	$35,411,000	$23,562,000	50%
Resource Consents	$2,220,000	$1,510,000	47%
TOTAL	**$100,109,000**	**$66,837,000**	50%

Table 5 2001 & 2006 Comparative Values for Flat Site Costs

The change from 2001 is due to a substantial increase in the unit rates and overhead factors.

14.2 Price Variations

Significant growth of economic activity in the construction sector combined with a wide range of local and international factors has resulted in large rises in construction costs over the last two to three years. A review of major roading projects by an Industry Expert (an unpublished report prepared by Transit NZ) showed that there were real increases in prices between 10% and 15% in the first half of 2004. A second review showed a further 8 to17% increase in costs for the 04/05 year. In other words construction costs had shown increases somewhere between 20 and 30% in the span of two years.

The major factors contributing to these cost escalations include:

- Legislative changes
- International factors
- Local factors

Legislative changes

The overall impact of legislative changes on prices has been significant. The Resource Management Amendment Act 2003 has been a major contributor imposing increased requirements to involve stakeholders to a greater degree in decision making (resulting in dedicated stakeholder management resources and increased project duration), increased requirements for noise mitigation and other environmental effects (eg dust control, air emissions etc) a lessening of objector deterrents resulting in repetitive objections and increased information processing prolonging resolution and increasing project costs adherence to the Kyoto Protocol requiring increased attention to climate change effects.

Other legislative changes include:

- Adoption of European Union Environmental Standards which are more stringent than those previously used
- Local Government Act 2003 has driven up expectations in terms of sustainability
- Increase in water and air quality standards
- the new Building Act 2004 Act is having an indirect impact on civil construction costs
- Compliance with the Holidays Act and the Employment Relations has increased the cost of labour
- More stringent OSH requirements

International Factors

International factors such as the burgeoning demand from China for resources and materials and supply restraints on oil, plus many other have all contributed to escalating costs of imported materials.

The price of a barrel of crude oil has trebled in the last three years. This has lead to significant increases in the trade price of diesel and bitumen. For projects with large earthworks, the diesel component contributes in the order of 2.5% of the contract price. Similarly bitumen is a significant factor in pavement projects.

The international demand for structural steel has risen at an alarming rate with prices rising between 20 and 25% in one six month period. Reinforcing steel though sourced locally also rose to match the international prices.

Local Materials

List prices of some concrete products rose as much as 30% in the latter half of 2004 and a further 12% in early 2005 for a combined increase of 42% in one year. Quarry products (sand and aggregate) have shown significant increases. This has been driven mainly by increases in transport costs but also by the dwindling of supply from some existing sources and the higher costs to establish new sources and possibly increased travel distances.

Market Buoyancy

The recent increase in the amount of new capital work, both Government (eg Transfund's capital works budget) and private, has contributed to, and will continue to contribute to, inflating construction costs. This combined with shortages in manual workers, non-manual supervision and professional and management staff has meant that most large companies in the construction sector have been spending significant amounts on offshore recruitment and on training. The Australian construction market has also been extremely buoyant and their ability to offer higher salaries and benefits has put a further drain on the NZ pool of skilled and experienced labour. The market buoyancy has also fuelled wage and salary expectations with increase in labour costs of 10 to 15%. The high demand for construction services has increased profit margins from the traditional 2.5 to 5% to closer to 10% with predictions that these will rise higher to above 12% as the industry as a whole lifts its margins.

Relative Contribution

The relative contribution the various factors to the overall price increases are tabulated below.

Factor	Contribution to Price Rise
Material Prices	35%
Wages & salaries	25%
Corporate costs & profit	40%
TOTAL	100%

Table 6. Summary of Price Rise Factors

Forward Price Expectations

The international price drivers are not expected to wan, which when combined with the likelihood that the overvalue NZ$ has to eventually fall, suggests that the recent price rises for construction materials are likely to continue at least in the short term. The forecast expenditure levels over the next decade (particularly in the roading sector) have added further buoyancy to the construction industry and along with the continued shortages in the labour market mean that the corporate and labour cost drivers will also sustain price increases in the short to medium term. The October 2005 NZIER Update express the view that construction activity as a whole may be close to a plateau but need not be expected to decline significantly from current levels.

14.3 Changes in the Overhead Cost Factor

For the previous valuation undertaken in September 2001 the overhead factor applied to unit cost rates included allowances for site establishment, investigations, design and construction supervision as well as an allowance for holding costs charged at the WACC of 9.5% per annum. For this valuation, a further allowance of 25% has been included for the combined on-site and off-site corporate overheads including profit margins. For previous valuations these corporate overheads were accounted for and hidden in the unit cost rates specified for each asset. This year, unit costs have been set at the base rates so that the corporate overhead can be applied separately. Also the % fee for investigations has been increased to 6% to cover the more extensive geotechnical investigations envisaged for such work. The comparisons of the previously used overhead factors with those used for the current valuation are tabulated below.

Asset Group	2001 Overhead Factor	2006 Overhead Factor
Earthworks	1.47	1.77
Sea protection works	1.45	1.73
Resource Consents	1.51	1.48

Table 7. Overhead Factor Comparison 2001-2006

Appendix A

Cost Estimates

COST ESTIMATE

Project: Wellington Airport - Land Valuation				Type:	ROC	PxC	FEC
Contract No.:	Office: Wellington				-30%+50%	-20%+20%	-5%+10%
					Name	Signature	Date
				Prepared:	John Vessey	Ken Wey	8/03/2006
Cost Index: Opus				Verified:			

Item	Description	Unit	Quantity	Unit Rate	Amount $	Range	
HILL REMOVAL							
	Earthworks						
	clear site	LS	1	150,000	150,000		
	General Material	m^3	2,120,000	5.50	11,660,000		
	rock	m^3	610,000	10.00	6,100,000		
	Contingency	%		15	2,606,500		
				Sub Total	20,596,500		
	Subgrade preparation	m^2	117600	10.00	1,178,000		
				Sub Total	19,418,500		
	Contractor onite/offsite overheads (include site e	%		25	4,854,625		
	Investigation, Design, Construction Supervision	%		14	2,718,590		
	Financial Costs	%		38	7,379,030		
	Resource consents						
				TOTAL	34,370,745	27,496,596	41,244,894
DISPOSAL OF SURPLUS MATERIAL							
1	Evans Bay Reclamation (2km)						
	Transport	m^3	798,350	3.00	2,395,050		
	Compaction	m^3	798,350	3.00	2,395,050		
	Contingency	%		15	718,515		
				Sub Total	5,508,615		
	Contractor onite/offsite overheads (include sit	%		25	1,377,154		
	Investigation, Design, Construction Supervisi	%		14	771,206		
	Financial Costs	%		38	2,093,274		
	Resource consents						
				TOTAL	9,750,249	7,800,199	11,700,298
2	Remote Site (10km)						
	Transport	m^3	798,350	15.00	11,975,250		
	Compaction	m^3	798,350	3.00	2,395,050		
	Contingency	%		15	2,155,545		
				Sub Total	16,525,845		
	Contractor onite/offsite overheads (include sit	%		25	4,131,461		
	Investigation, Design, Construction Supervisi	%		14	2,313,618		
	Financial Costs	%		38	6,279,321		
	Resource consents						
				TOTAL	29,250,746	23,400,597	35,100,895
BULK FILL							
1	Local Source (free of charge)						
				TOTAL	0	0	0
2	Local Source (5km)						
	Excavate	m^3	1,931,650	6.00	11,589,900		
	Transport	m^3	1,931,650	7.50	14,487,375		
	Contingency	%		15	3,911,591		
				Sub Total	29,982,866		
	Contractor onite/offsite overheads (include sit	%		25	7,497,217		
	Investigation, Design, Construction Supervisi	%		14	4,196,441		
	Financial Costs	%		38	11,395,769		
	Resource consents						
				TOTAL	53,080,293	42,464,235	63,696,352

COST ESTIMATE

Project: Wellington Airport - Land Valuation				Type:	ROC	PaC	FEC
Contract No.:	Office: Wellington				-30%+50%	-20%+20%	-5%+10%
					Name	Signature	Date
				Prepared:	John Vessey	Ken Way	8/03/2006
Cost Index: Opus				Verified:			

Item	Description	Unit	Quantity	Unit Rate	Amount $	Range	
3	Remote Source (10km)						
	Excavate	m^3	1,931,650	6.50	12,555,725		
	Transport	m^3	1,931,650	17.50	33,803,875		
	Contingency	%		15	6,953,940		
				Sub Total	53,313,540		
	Contractor onite/offsite overheads (include si	%		25	13,328,385		
	Investigation, Design, Construction Supervisi	%		14	7,463,896		
	Financial Costs	%		38	20,259,145		
	Resource consents						
				TOTAL	94,364,966	75,491,973	113,237,959
RECLAMATION							
	Northern Reclamation	m^3	192,150	3.75	720,563		
	Western Reclamation	m^3	1,300,750	3.75	4,877,813		
	Southern Reclamation	m^3	150,000	3.75	562,500		
	Contingency	%		20	1,232,175		
				Sub Total	7,393,050		
	Subgrade preparation	m^2	208360	10.00	2,083,600		
				Sub Total	5,309,450		
	Contractor onite/offsite overheads (include site e	%		25	1,327,363		
	Investigation, Design, Construction Supervision	%		14	743,323		
	Financial Costs	%		38	2,017,591		
	Resource consents						
			1,642,900	TOTAL	9,397,727	7,518,181	11,277,272
SEA PROTECTION WORKS							
	Southern Sea Wall						
	accropode	ea	2,430	2,500	6,075,000		
	core	m^3	96,020	50	4,801,000		
	underlayer 1	m^3	13,950	100	1,395,000		
	underlayer 2	m^3	75,900	50	3,795,000		
	toe	m^3	6,530	100	653,000		
	retaining walls	LS	1	500,000	500,000		
	gabions	m^2	6,600	200	1,320,000		
	Western Sea Wall						
	armour rock	m^3	7,000	100	700,000		
	underlayer	m^3	5,250	100	525,000		
	causeway fill	m^3	77,500	25	1,937,500		
	Breakwater						
	blocks	ea	1,235	2,000	2,470,000		
	Insitu Concrete	m^3	2,520	500	1,260,000		
	accropode	ea	100	2,500	250,000		
	Contingency	%			-		
				Sub Total	25,681,500		
	Establishment	%		25	6,420,375		
	Investigation, Design, Construction Supervision	%		14	3,595,410		
	Financial Costs	%		34	8,731,710		
	Resource consents						
				TOTAL	44,428,995	35,543,196	53,314,794

Appendix B

Allowances for other Costs

Allowances for Professional Fees and Financial Charges plus the Contractors Onsite/Offsite Overheads and Profit
(expressed as a % of the construction cost calculated on base cost rates)

1 - multiplier applied to the construction cost to account for the cost and timing of professional fees and financial charges.
2 - multiplier applied to resorce consents costs to account for the cost and timing of professional fees and financial charges.

1. Civil Works

Investigations (excluding consents)	- land based assets	4%	
	- land creation earthworkworks	6%	
	- seabed construction	6%	
Design		4%	
Construction Supervision		4%	
Contractors Onsite/Offsite Overheads and Profit		25%	
Labour mark-up for woking curfew hours		18%	(all surfacing work on runways, stubways and taxiways)
Finance Charges (%/yr)		9.5%	

Note: The finance charge for renewable assets (eg pavements & utility services) is limited to 3 months holding duration).

ASSET		Years Prior to Commissioning 6 (-5.5)	5 (-4.5)	4 (-3.5)	3 (-2.5)	2 (-1.5)	1 (-0.5)	0	Total	Curfew Markup	Prof Fees	O'heads & Profit	Finance Charge
Sea Protection	Investigations		2%	4%									
	Design			2%	2%								
	Constrn Supervision				3%	1%							
	Overheads/Profit				18%	7%							
	Construction				70%	30%							
	Total	0%	2%	6%	94%	38%	0%		73%		14%	25%	34%
Earthworks	Investigations		2%	3%	1%								
(hill removal and	Design			2%	2%								
reclamation)	Constrn Supervision			1%	2%	1%							
	Overheads/Profit			5%	15%	5%							
	Construction			20%	60%	20%							
	Total	0%	2%	31%	81%	26%	0%		77%		14%	25%	38%
Pavements	Investigations						4%						
(Normal work hours)	Design						4%						
	Constrn Supervision						4%						
	Overheads/Profit						25%						
	Construction						100%						
	Total	0%	0%	0%	0%	0%	140%		43%		12%	25%	6%
AC Surface Layer	Investigations						4%						
for Curfew Hours	Design						4%						
(used for runway	Constrn Supervision						4%						
& taxiway pavements	Overheads/Profit						25%						
	Labour mark-up						18%						
	Construction						100%						
	Total	0%	0%	0%	0%	0%	158%		62%	18%	12%	25%	7%
Utility Services	Investigations						4%						
	Design						4%						
	Constrn Supervision						4%						
	Overheads/Profit						25%						
	Construction						100%						
	Total	0%	0%	0%	0%	0%	140%		43%		12%	25%	6%
Utility Services	Investigations						4%						
for Curfew Hours	Design						4%						
(used for utilities	Constrn Supervision						4%						
adjacent to runway	Overheads/Profit						25%						
and taxiway)	Labour mark-up						18%						
	Construction						100%						
	Total	0%	0%	0%	0%	0%	158%		62%	18%	12%	25%	7%
Sundry Items	Investigations						4%						
Traffic Facilities	Design						4%						
	Constrn Supervision						4%						
	Overheads/Profit						25%						
	Construction						100%						
	Total	0%	0%	0%	0%	0%	140%		43%		12%	25%	6%

2. Resource Consents

Finance Charges (%/yr)	10%

Activity	Years Prior to Commissioning 6 (-5.5)	5 (-4.5)	4 (-3.5)	3 (-2.5)	2 (-1.5)	1 (-0.5)	0	Total
Excavation and Reclamation		80%	20%					48%

Appendix C

Earthworks & Reclamation Layout

Extent of Reclamation and Earthworks

Reclamation 1953–59

Source Material 1953–59

Reclamation 1972

Valuers Property Advisors

Wellington International Airport Limited

Appendix 5

Land Zones

Telfer Young

Wellington International Airport				
Zone	**Zone Number**	**Land Area**	**Area Ratio**	**Comparable Use Intensity**
North Eastern Industrial	1	15,262	1.38%	Industrial / Commercial
Residential - East	2	12,577	1.14%	Residential
Residential - West	2	4,904	0.44%	Residential
Car Parking	3	58,529	5.29%	Commercial
Apron	4	151,776	13.71%	Industrial
Runway / Taxiway / Stubway	5	532,042	48.06%	Industrial
Gates	6	60,452	5.46%	Industrial
South Eastern Industrial	7	70,632	6.38%	Industrial
Terminal	8	15,797	1.43%	Commercial
Western - Airport Retail Park	9	52,334	4.73%	Commercial
North Investment	10	3,804	0.34%	Industrial / Commercial
South Investment	11	8,871	0.80%	Industrial
Strategic Holdings	12	76,710	6.93%	Industrial / Reserve
Roads	13	43,305	3.91%	Industrial
Total Land Area		**1,106,995**	**100%**	

Wellington International Airport
Correct 31/03/06

Location	Certificate of Title	Legal Description	Land Area
Freehold			
Stewart Duff Drive	51A/720	Pt Lot 1 DP 78304, Sections 1,2 & 3 SO 37422	969,984
Stewart Duff Drive	45A/74	Lot 2 DP 78304	19,042
Wexford Road	36D/925	Sec A SO 31875	57,668
Tirangi Road 113-117	46C/667	Lots 37 & 38 DP 21360	4,323
George Bolt Street 1-5	46C/668	Lots 39 - 40 & 66 DP 21360	8,339
George Bolt Street 2-16	46C/672	Lots 43 -51 DP 21360	18,715
George Bolt & Cochrane	62499	Sec 1 SO 303569	5,684
Bridge Street 3	56A/908	Part Lot 1 DP 1950	443
Bridge Street 15	WN294/190	Lot 6 DP 1950	445
Bridge Street 19	270/154	Lot 8 DP 1950	445
Bridge Street 21	270/158	Lot 9 DP 1950	446
Bridge Street 25	258/187	Lot 18 & Part Lot 19 Blk IV	668
Bridge Street 31	16A/186	Sec 170 Blk V11 Port Nicholson SD	724
Bridge Street 33	260/101	Part Lot 22 DP 1950	724
Bridge Street 39	262/61	Part Lot 24 DP 1950	723
Bridge Street 41	265/297	Part Lot 25 DP 1950	716
Bridge Street 43	9C/1416	Part Lot 26 Blk IV	771
Bridge Street 45	245/70	Lot 27 DP 1950	682
Bridge Street 51	267/78	Lot 30 DP 1950	597
Bridge Street 53 - 55	266/102	Part Lots 1 & 31 DP 1950	915
Bridge Street 57	29D/826	Section 123 Evans Bay	402
Bridge Street 59	320/105	Lot 1 DP 7024	393
Bridge Street 61	320/104	Lot 2 DP 7024	399
Bridge Street 67	322/108	Lot 4 DP 7085	310
Bridge Street 73	297/248	Lot 40 DP 1950	452
Broadway 335	42B/707	Lot 6 DP 2385	506
Broadway 337	42B/708	Lot 7 DP 2385	506
Broadway 341	42B/710	Lot 8 DP 2385	506
Broadway 343	42B/709	Lot 9 DP 2385	506
Broadway 360	317/104	Lot 4 DP 5054	269
Broadway 364	374/298	Lot 5 DP 5054	460
Broadway 363	47D/260	Lot 8 DP 5055	488
Broadway 366	327/110	Lot 7 DP 5054	504
Broadway 368	357/296	Lot 8 DP 5054	506
Broadway 370	356/267	Lot 9 DP 5054	506
Broadway 372	579/249	Lot 10 DP 5054	506
Coutts Street 234	370/155	Lot 16 DP 6741	402
Coutts Street 238	454/120	Lot 18 DP 6741	402
Coutts Street 242	357/174	Lot 20 DP 6741	402
Coutts Street 244	340/142	Lot 21 DP 6741	402
Coutts Street 250	10B/942	Lot 1 DP 7159 & Lot 1 DP 33243	718
Coutts Street 252	355/113	Lot 2 DP 7159	573
Coutts Street 254	358/16	Lot 3 Dp 7159	534
Miro Street 2 / Broadway 333	295/38	Lot 5 DP 2385	498
Miro Street 3	305/266	Lot 4 DP 2385	165
Broadway 321	287/226	Part Lot 3 DP 2385	210
Miro Street 7	45A/78	Lot 6 DP 78304	266
Miro Street 9	45A/77	Lot 5 DP 78304	315
Miro Street 11	896/19	Part Lot 19 DP 5210	312
Miro Street 13	863/60	Part Lot 20 DP 5210 & Lot 4 DP 20924	488
Miro Street 15	300/140	Part Lot 21 DP 5210	450
Miro Street 17	298/224	Part Lot 22 DP 5210	451
Miro Street 19	298/135	Part Lot 23 DP 5210	487
Broadway Calabar Inter	22946	Sec 1 SO 38354	647
Sub Total			1,106,995
Leasehold			
Tirangi Road 108 - 112	45843	Lots 33 & 34 DP 21360	3,864
Tirangi Road 114 - 118	Lease 523294.1	Lot 32 DP 21360	1,932
Sub Total			5,796
Total Land Area			1,112,791

Valuers Property Advisors

Wellington International Airport Limited

Appendix 6

Land Sales Data

Wellington International Airport
Suburban Commercial Sales

Address	Location	Sale Date	Sale Price	Land Area	$/m2 Rate	Zoning
53 Kingsford Smith	Rongotai	1/06/2004	$ 560,000	1,101	$ 509	Suburban Centre
7 McGregor St	Rongotai	1/07/2005	$ 725,000	933	$ 427	Suburban Centre
11 Tauhinu Rd	Mirimar	1/04/2004	$ 2,100,000	5,992	$ 350	Suburban Centre
9 Mahora St	Kilbirnie	1/09/2003	$ 1,000,000	1,274	$ 785	Suburban Centre
389 Broadway	Mirimar	1/11/2003	$ 1,167,888	1,697	$ 688	Outer residential
114 - 118 Tirangi Rd	Rongotai	1/04/2005	$ 1,640,500	1,932	$ 849	Suburban Centre Leasehold
108 - 112 Tirangi 25 - 27 Kingsford Smith	Rongotai	17/12/2004	$ 2,600,000	3,864	$ 673	Suburban Centre Leasehold

Wellington International Airport
Suburban Industrial Sales

Address	Location	Sale Date	Sale Price	Land Area	$/m2 Rate	Zoning
15 Barnes St	Seaview	1/06/2005	$ 2,558,000	17,055	$ 150	Suburban Centre
19 Meachem St	Seaview	1/09/2003	$ 1,200,000	8,620	$ 139	Suburban Centre
220 Gracefield St	Seaview	1/06/2005	$ 450,000	1,500	$ 300	Suburban Centre
Wareham Pl	Seaview	1/07/2005	$ 840,000	1,944	$ 432	Suburban Centre
Wareham Pl	Seaview	1/07/2005	$ 850,000	1,852	$ 459	Suburban Centre
Wareham Pl	Seaview	1/07/2005	$ 350,000	869	$ 403	Suburban Centre
Wareham Pl	Seaview	1/07/2005	$ 385,000	957	$ 402	Suburban Centre

Wellington International Airport CBD Sales							
Address	Location	Sale Date	Sale Price	Land Area	$/m2 Rate	Zoning
116 Taranaki St	Te Aro	1/05/2004	$ 1,270,000	484	$ 2,624	Central Area
26 Martin Sq	Te Aro	1/05/2004	$ 420,000	228	$ 1,842	Central Area
264 Taranaki St	Te Aro	1/04/2004	$ 2,100,000	1,741	$ 1,206	Central Area
36 Ghuznee St	Te Aro	1/04/2004	$ 1,150,000	639	$ 1,800	Central Area
133 Tory St	Te Aro	1/03/2004	$ 8,800,000	8,906	$ 988	Central Area
Ebor / Jessie St	Te Aro	1/02/2004	$ 1,500,000	1,065	$ 1,408	Central Area
8 Martin Sq	Te Aro	1/02/2004	$ 551,000	432	$ 1,275	Central Area
75 -79 Kent Tce	Te Aro	1/01/2004	$ 4,200,000	1,922	$ 2,185	Central Area
42 - 48 Cable St	Te Aro	1/04/2004	$ 3,600,000	926	$ 3,888	Central Area
2 -10 Customhouse	CBD	1/12/2002	$ 6,400,000	754	$ 7,878	Central Area
9 Bunny St	CBD	1/05/2005	$ 14,000,000	3,498	$ 4,000	Central Area
83 -85 Waterloo Quay	Thorndon	1/07/2005	$ 4,845,000	1,615	$ 3,000	Central Area
70 Pipitea St	Thorndon	1/06/2005	$ 9,900,000	2,475	$ 4,000	Central Area
21 -23 Kate Shepherd	Thorndon	1/12/2003	$ 2,090,000	891	$ 2,346	Central Area

Wellington International Airport Large Block Sales							
Address	Location	Sale Date	Sale Price		Land Area	$/m2 Rate	Zoning
Savill Drive	Otahuhu	1/01/2004	$ 34,400,000		265,000	$ 130	Business 6
Albany Centre	Albany	1/12/2004	$ 220,000,000		437,377	$ 503	Ind / Com /Res
Montgomery Dr	Mangere	1/06/2003	$ 16,500,000		520,012	$ 32	Industrial

Valuers Property Advisors

Wellington International Airport Limited

Appendix 7

Land Value Calculations

Zonal Approach

Telfer Young

Wellington International Airport

Description	WIAL Space ID 1	WIAL Space ID 2	Land Area	Land Value Rate	Fair Value
Zone 1 - North Eastern Industrial					
Kidney Site	NA	0014	4,343	$ 625	$ 2,714,375
Oil Company	NA	0020	6,062	$ 375	$ 2,273,250
Airport Fire	NA	0018	3,578	$ 375	$ 1,341,750
Subway	NA	0006	348	$ 375	$ 130,500
Grassed Area	NA	0008	931	$ 375	$ 349,125
Total			**15,262**	**$ 446**	**$ 6,809,000**

Wellington International Airport

Description Zone 2	WIAL Space ID 1	 2	Land Area	Land Value Rate	Rating Value 2005
Residential West					
Bridge Street - 3	HO	0003	443	$ 361	$ 160,000
Bridge Street - 5	HO	0005	714	$ 280	$ 200,000
Bridge Street - 15	HO	0015	445	$ 348	$ 155,000
Bridge Street - 19	HO	0019	445	$ 360	$ 160,000
Bridge Street - 21	HO	0021	446	$ 370	$ 165,000
Bridge Street - 25	HO	0025	668	$ 299	$ 200,000
Bridge Street - 31	HO	0031	724	$ 276	$ 200,000
Bridge Street - 33	HO	0033	724	$ 276	$ 200,000
Bridge Street - 39	HO	0039	723	$ 277	$ 200,000
Bridge Street - 41	HO	0041	716	$ 279	$ 200,000
Bridge Street - 43	HO	0043	771	$ 259	$ 200,000
Bridge Street - 45	HO	0045	682	$ 293	$ 200,000
Bridge Street - 51	HO	0051	597	$ 310	$ 185,000
Bridge Street - 53	HO	0053	470	$ 340	$ 160,000
Bridge Street - 55	HO	0055	445	$ 360	$ 160,000
Bridge Street - 57	HO	0057	402	$ 398	$ 160,000
Bridge Street - 59	HO	0059	393	$ 394	$ 155,000
Bridge Street - 61	HO	0061	399	$ 388	$ 155,000
Bridge Street - 67	HO	0067	310	$ 471	$ 146,000
Bridge Street - 73	HO	0073	452	$ 354	$ 160,000
Coutts Street -234	HO	0234	402	$ 410	$ 165,000
Coutts Street -242	HO	0242	402	$ 410	$ 165,000
Coutts Street -238	HO	0238	402	$ 410	$ 165,000
Coutts Street -244	HO	0242	402	$ 410	$ 165,000
Sub Total			12,577		$ 4,181,000
Residential East					
Broadway -335	NA	0335	506	$ 375	$ 190,000
Broadway -337	NA	0337	506	$ 375	$ 190,000
Broadway -341	NA	0341	506	$ 375	$ 190,000
Broadway -343	NA	0343	506	$ 375	$ 190,000
Broadway -372	NA	0372	506	$ 405	$ 205,000
Miro Street - 13	NA	0013	488	$ 328	$ 160,000
Miro Street - 15	NA	0015	450	$ 356	$ 160,000
Miro Street - 17	NA	0017	451	$ 355	$ 160,000
Miro Street - 19	NA	0019	487	$ 329	$ 160,000
Miro Street - 2 / Broadway 333	NA	0002	498	$ 402	$ 200,000
Sub Total			4,904		$ 1,805,000
Total			**17,481**	**$ 342**	**$ 5,986,000**

Wellington International Airport					
Description	**WIAL Space ID**		**Land**	**Land Value**	**Fair Value**
Zone 3	**1**	**2**	**Area**	**Rate**	
Car Parks					
Rental & Bus Car Park	CP	0001	9,991	$ 425	$ 4,246,175
Staff South Car Park	CP	0002	4,064	$ 425	$ 1,727,200
Car Park North	CP	0003	9,489	$ 425	$ 4,032,825
Car Park Building	CP	0004	6,474	$ 425	$ 2,751,450
Car Park South	CP	0005	13,238	$ 425	$ 5,626,150
Taxi Area	CP	0006	2,745	$ 425	$ 1,166,625
Long Term Car Park	SA	0014	6,270	$ 300	$ 1,881,000
PSV Exit	CP	0007	2,263	$ 425	$ 961,775
PSV	CP	0008	2,406	$ 425	$ 1,022,550
Air NZ Valet	CP	0009	1,589	$ 425	$ 675,325
Total			**58,529**	**$ 412**	**$ 24,091,075**

Wellington International Airport							
Description	**WIAL Space ID**		**Land**	**Land Value**		**Fair Value**	
Zone 4	**1**	**2**	**Area**	**Rate**			
Apron							
North Apron	AP	0001	14,627	$	225	$	3,291,075
Eastern Apron General	AP	0002	21,235	$	225	$	4,777,875
South Eastern Apron	AP	0003	19,460	$	225	$	4,378,500
Southern Apron	AP	0004	27,060	$	225	$	6,088,500
Baggage Apron	AP	0005	1,613	$	225	$	362,925
Military Apron	AP	0006	5,541	$	225	$	1,246,725
Western Apron	AP	0007	21,605	$	225	$	4,861,125
General apron	AP	0008	8,584	$	225	$	1,931,400
Aero Club	AP	0009	3,442	$	225	$	774,450
Engine Testing Bay	AP	0010	1,579	$	225	$	355,275
GSE Area North	AP	0011	1,436	$	225	$	323,100
Apron Retail Area	AP	0012	5,768	$	225	$	1,297,800
SE Apron Grassed	AP	0013	1,587	$	225	$	357,075
SE Apron Grassed	AP	0014	1,080	$	225	$	243,000
Military Hangar	WA	0002	4,981	$	225	$	1,120,725
Gibson Hangar	WA	0003	1,758	$	225	$	395,550
Air National Hangar	WA	0009	3,931	$	225	$	884,475
Wellington Aero Club	WA	0012	3,687	$	225	$	829,575
Life Flight	WA	0032	2,350	$	225	$	528,750
Small Aviation	WA	0033	452	$	225	$	101,700
Total			**151,776**	**$**	**225**	**$**	**34,149,600**

Wellington International Airport

Description	WIAL Space ID		Land	Land Value	Fair Value
Zone 5	1	2	Area	Rate	
Runway & Taxiway					
Runway Main	MA	0001	121,220	$ 125	$ 15,152,500
Taxiway	MA	0002	47,880	$ 125	$ 5,985,000
Grassed Area	MA	0003	289,913	$ 125	$ 36,239,125
Stubway A	MA	0004	4,588	$ 125	$ 573,500
Stubway B	MA	0005	2,026	$ 125	$ 253,250
Stubway C	MA	0006	2,015	$ 125	$ 251,875
Stubway D	MA	0007	4,147	$ 125	$ 518,375
Stubway E	MA	0008	1,674	$ 125	$ 209,250
Stubway 1	MA	0009	4,220	$ 125	$ 527,500
Stubway 2	MA	0010	5,966	$ 125	$ 745,750
Stubway 3	MA	0011	1,695	$ 125	$ 211,875
Stubway 4	MA	0012	1,663	$ 125	$ 207,875
Stubway 5	MA	0013	1,692	$ 125	$ 211,500
Stubway 6	MA	0014	1,491	$ 125	$ 186,375
Stubway 7	MA	0015	1,536	$ 125	$ 192,000
Stubway 8	MA	0016	1,628	$ 125	$ 203,500
Stubway 9	MA	0017	3,835	$ 125	$ 479,375
Stubway 10	MA	0018	3,559	$ 125	$ 444,875
Stubway 11	MA	0061	3,685	$ 125	$ 460,625
Stubway W1	MA	0019	1,646	$ 125	$ 205,750
Stubway W2	MA	0020	1,855	$ 125	$ 231,875
Starter Extension 34	MA	0062	3,730	$ 125	$ 466,250
RESA	MA	0063			
RESA	MA	0064	2,414	$ 125	$ 301,750
RESA	MA	0065			
Runway 16	MA	0066			
Runway 16 B	MA	0067			
Runway 16A ex sea wall	MA	0068			
Runway 16B ex sea wall	MA	0069			
Stubway 12	MA	0071	4,963	$ 125	$ 620,375
Starter Extension 16	MA	0072	3,674	$ 125	$ 459,250
RESA	MA	0073	3,817	$ 125	$ 477,125
RESA	MA	0074			
Runway 34	MA	0075			
Runway 34	MA	0076			
Wellington Roofing	WA	0019	610	$ 125	$ 76,250
Bridge St Car Park	WA	0020	3,686	$ 125	$ 460,750
Airways	WA	0021	1,214	$ 125	$ 151,750
Total			**532,042**	**$ 125**	**$ 66,505,250**

Wellington International Airport							
Description	**WIAL Space ID**		**Land**	**Land Value**		**Fair Value**	
Zone 6	**1**	**2**	**Area**	**Rate**			
Gates							
Southern Gates 4 - 9	GA	0009	10,308	$	300	$	3,092,400
Gate 10	GA	0010	3,126	$	300	$	937,800
Gate 11	GA	0011	1,944	$	300	$	583,200
Gate 12	GA	0012	2,302	$	300	$	690,600
Gate 15 / 14 / 13	GA	0015	7,263	$	300	$	2,178,900
Gates 16	GA	0016	2,753	$	300	$	825,900
Gate 17	GA	0017	3,015	$	300	$	904,500
Gate 20 / 19 / 18	GA	0020	6,811	$	300	$	2,043,300
Gate 21	GA	0021	2,568	$	300	$	770,400
Gate 22	GA	0022	3,657	$	300	$	1,097,100
Gate 23	GA	0023	3,084	$	300	$	925,200
Gate 24 / 25	GA	0025	3,033	$	300	$	909,900
Gate 26	GA	0026	3,762	$	300	$	1,128,600
Gate 27	GA	0027	3,654	$	300	$	1,096,200
Gate 28	GA	0028	3,172	$	300	$	951,600
Total			**60,452**	**$**	**300**	**$**	**18,135,600**

Wellington International Airport

Description Zone 7	WIAL Space ID 1	 2	Land Area	Land Value Rate		Fair Value	
South Eastern Industrial							
Air NZ Domestic	SA	0001	3,583	$	300	$	1,074,900
IACB	SA	0002	8,038	$	300	$	2,411,400
NZ Post	SA	0003	3,979	$	300	$	1,193,700
MAF	SA	0004	361	$	300	$	108,300
Field Staff Building	SA	0005	1,590	$	300	$	477,000
Capital Jet	SA	0006	717	$	300	$	215,100
Vacant ex AFS	SA	0007	505	$	300	$	151,500
Sky Pet	SA	0010	761	$	300	$	228,300
Air NZ Hangar	SA	0011	18,376	$	300	$	5,512,800
AEI / DHL Yard	SA	0012	2,519	$	300	$	755,700
AEI / DHL	SA	0013	2,479	$	300	$	743,700
Southern Commercial 4	SA	0015	6,053	$	300	$	1,815,900
Southern Knoll	SA	0020	10,651	$	150	$	1,597,650
Mixed Use	SA	0021	1,422	$	300	$	426,600
LSG Sky Chef	EA	0020	3,419	$	300	$	1,025,700
Avis / Hertz Yard	EA	0021	2,886	$	300	$	865,800
Avis / Hertz Building	EA	0022	3,293	$	300	$	987,900
Total			**70,632**	**$**	**277**	**$**	**19,591,950**

Wellington International Airport						
Description	**WIAL Space ID**		**Land**	**Land Value**		**Fair Value**
Zone 8	**1**	**2**	**Area**	**Rate**		
Terminal						
Link	TL	0000	765	$ 800	$	612,000
Main Terminal	TM	0000	7,983	$ 800	$	6,386,400
South Pier	TS	0000	629	$ 800	$	503,200
Southwest Pier	TW	0000	1,666	$ 800	$	1,332,800
Terminal - North Pier	TN	0000	4,754	$ 800	$	3,803,200
Total			**15,797**	**$ 800**	**$**	**12,637,600**

Wellington International Airport							
Description	**WIAL Space ID**		**Land**	**Land Value**		**Fair Value**	
Zone 9	**1**	**2**	**Area**	**Rate**			
Western Industrial / ARP							
Airport Retail Park	WA	0001	18,715	$	525	$	9,825,375
Airport Retail Park Parking	WA	0004	6,212	$	525	$	3,261,300
Wareham Towers	WA	0007	2,097	$	525	$	1,100,925
Mitre 10	WA	0008	4,323	$	525	$	2,269,575
Westside 1	WA	0010	2,320	$	525	$	1,218,000
Tirangi Road Car Park	WA	0011	5,655	$	525	$	2,968,875
85 Tirangi Rd	WA	0014	494	$	525	$	259,350
87 Tirangi Rd	WA	0015	485	$	525	$	254,625
89 Tirangi Rd	WA	0016	489	$	525	$	256,725
91 Tirangi Rd	WA	0017	669	$	525	$	351,225
Ward Wright	WA	0018	780	$	525	$	409,500
Cochrane St	WA	0025	5,684	$	525	$	2,984,100
Future Purpose	WA	0030	2,315	$	525	$	1,215,375
Future Purpose	WA	0031	2,096	$	525	$	1,100,400
Total			**52,334**	**$**	**525**	**$**	**27,475,350**

Wellington International Airport					
Description Zone 10	WIAL Space ID 1	 2	Land Area	Land Value Rate	Fair Value
North Investment Precinct					
Caltex Service Station	NA	0022	3,053	$ 625	$ 1,908,125
North East Properties	NA	0016	751	$ 625	$ 469,375
Total			**3,804**	**$ 625**	**$ 2,377,500**

Wellington International Airport						
Description	**WIAL Space ID**		**Land**	**Land Value**		**Fair Value**
Zone 11	**1**	**2**	**Area**	**Rate**		
South Investment Precinct						
Southern Commercial 5	SA	0016	1,716	$ 300	$	514,800
AGS	SA	0017	2,746	$ 165	$	453,090
Southern Hillside	SA	0018	4,409	$ 25	$	110,225
Total			**8,871**	**$ 122**	**$**	**1,078,115**

Wellington International Airport						
Description Zone 12	WIAL Space ID 1	 2	Land Area	Land Value Rate		Fair Value
Strategic Holdings						
111 Wexford Road	WX	0001	4,300	$ 200	$	860,000
			53,368	$ 30	$	1,601,040
Moa Point Road Lot 2	HO	0020	19,042	$ 25	$	476,050
Total			**76,710**	**$ 38**	**$**	**2,937,090**

Wellington International Airport					
Description	WIAL Space ID		Land	Land Value	Fair Value
Zone 13	1	2	Area	Rate	
Roads					
Public Road Central	RO	0002	25410	$ 216	$ 5,488,560
Public Road South	RO	0003	12758	$ 216	$ 2,755,728
Airside Rd North	RO	0005	2031	$ 216	$ 438,696
Airside Rd West	RO	0009	1218	$ 216	$ 263,088
Easement	RO	0010	540	$ 216	$ 116,640
Airside Rd South	RO	0006	1348	$ 216	$ 291,168
Total			**43305**	**$ 216**	**$ 9,353,880**

Wellington International Airport							
Zone	**Zone Number**	**Land Area**		**Land Value**		**Average Rate**	**Area Ratio**
North Eastern Industrial	1	15,262	$	6,809,000	$	446	1.38%
Residential - East	2	12,577	$	4,181,000	$	332	1.14%
Residential - West	2	4,904	$	1,805,000	$	368	0.44%
Car Parking	3	58,529	$	24,091,075	$	412	5.29%
Apron	4	151,776	$	34,149,600	$	225	13.71%
Runway / Taxiway / Stubway	5	532,042	$	66,505,250	$	125	48.06%
Gates	6	60,452	$	18,135,600	$	300	5.46%
South Eastern Industrial	7	70,632	$	19,591,950	$	277	6.38%
Terminal	8	15,797	$	12,637,600	$	800	1.43%
Western - Airport Retail Park	9	52,334	$	27,475,350	$	525	4.73%
North Investment	10	3,804	$	2,377,500	$	625	0.34%
South Investment	11	8,871	$	1,078,115	$	122	0.80%
Strategic Holdings	12	76,710	$	2,937,090	$	38	6.93%
Roads	13	43,305	$	9,353,880	$	216	3.91%
Total Land Area		**1,106,995**	**$**	**231,128,010**	**$**	**209**	**100%**

Valuers Property Advisors

Wellington International Airport Limited

Appendix 8

Land Value Calculations

Alternative Use Value plus Holding Costs

Notional Subdivision - DCF

Wellington International Airport Limited

Notional Subdivision - Alternative Use Value (DCF) plus Airport Use Costs

Land Value Cash Flow Approach Summary of Monthly Cashflows

Year ended 31 March		1	2	3	4	5	6	7	8	9	10
Hectares Developed p.a.		14	14	14	14	14	14	14	14		
Hectares Sold p.a.		-	16	11	10	12	9	8	8	4	1
No. of Lots sold		-	210	140	135	179	130	127	127	47	15
Gross Realisation											
Residential 1		-	21,155,556	14,933,333	14,933,333	18,666,667	14,933,333	14,933,333	16,675,556	7,715,556	2,986,667
Residential 2		-	21,111,111	13,333,333	13,333,333	20,000,000	13,333,333	13,333,333	12,000,000	2,444,444	-
Industrial/Commercial		-	36,000,000	24,000,000	18,000,000	16,800,000	12,000,000	8,400,000	7,200,000	6,000,000	3,600,000
Reserves/Open Space											
Roads											
Gross Realisation Excl GST		-	78,266,667	52,266,667	46,266,667	55,466,667	40,266,667	36,666,667	35,875,556	16,160,000	6,586,667
Agents & Legal Fees		-	2,348,000	1,568,000	1,388,000	1,664,000	1,208,000	1,100,000	1,076,267	484,800	197,600
Less Marketing Fees		-	210,000	140,000	135,000	179,000	130,000	127,000	127,000	47,000	15,000
Net Realisation		-	75,708,667	50,558,667	44,743,667	53,623,667	38,928,667	35,439,667	34,672,289	15,628,200	6,374,067
Less: Land Develop/hold costs		7,452,593	6,739,537	6,600,648	6,461,759	6,322,870	6,183,981	6,045,093	5,443,704	217,315	82,500
Less: Purchase Costs											
Net Cash Flows		- 7,452,593	68,969,130	43,958,019	38,281,907	47,300,796	32,744,685	29,394,574	29,228,585	15,410,885	6,291,567
Nominal Sum of Net Cashflows	304,127,556										

General Assumptions

Date of Valuation		31-Mar-06
Subdivision Time Frame Develop/Sell(Months)		120
Subdivision Time Frame Develop(Months)		96
Number of stages		8
Escalation Rate (Per Annum Compound) for Sales	0%	0%
Escalation Rate (Per Annum Compound) for Costs	0%	0%
Cost of Sales		
Selling/Legal Costs Per Site		3.0%
Development Costs Per Site Ave. Including Cont 15% and fees 10%		$ 40,000
Rates Costs Per Annum (Holding and development separate) excl GST		$ 1,250,000
Management Costs Per Annum (over period employed)		$ 90,000
Marketing Cost (Per Site) incl in selling costs		$ 1,000
Marketing Costs (Ongoing Costs Per Annum)		$ -
Total Development costs		$ 44,400,000

Land Area Apportionment Assumptions

Type	% Land Area	Area ha	Ave. Size s.m.	No. Lots	Sales/month Average	Price/lot Ave.	Price/lot Excl GST	Total
Residential 1	30%	33.2	650	510	5.0	$ 280,000	$ 248,889	$126,933,333
Residential 2	20%	22.1	450	490	5.0	$ 250,000	$ 222,222	$108,888,889
Industrial/Commercial	20%	22.1	2000	110	1.0	$ 1,350,000	$ 1,200,000	$132,000,000
Reserves/Open Space	10%	11.1						
Roads	20%	22.1						
Total	100%	110.6		1110				$367,822,222

Sensitivity Analysis (Monthly Cashflows)

Disc/Risk	Disc/Hold	Present Value	$ Value/ha	$ Value/s.m.
15%	10%	$180,873,409	$ 1,635,255	$164
20%	10%	$161,151,314	$ 1,456,950	$146
25%	10%	$145,288,500	$ 1,313,536	$131
30%	10%	$132,327,408	$ 1,196,356	$120
Disc/overall				
20%		$149,255,027	$1,349,397	$135
25%		$132,270,898	$1,195,845	$120
Airport Use Costs		$92,410,786	$835,474.84	$84
Fair Value		$237,699,285	$2,149,011	$215
Fair Value Adopt		$237,700,000	$2,000,000	$200

Wellington International Airport Land Valuation - Estimated Cost to Bring to Airport Use						
Year ended 31 March		**1**	**2**	**3**	**4**	**5**
Airport Developer Cost of Capital	9.5%					
Opening Balance		$ 145,288,500	$ 159,255,732	$ 174,444,402	$ 191,075,995	$ 209,287,589
Rates	$ 6,250,000	$ 1,250,000	$ 1,250,000	$ 1,250,000	$ 1,250,000	$ 1,250,000
Planning Approval	$ 2,220,000	$ 2,220,000	$ -	$ -		$ -
Holding Risk	$ 83,940,786	$ 13,967,232	$ 15,188,670	$ 16,631,593	$ 18,211,595	$ 19,941,696
Closing Balance		$ 159,255,732	$ 174,444,402	$ 191,075,995	$ 209,287,589	$ 229,229,285
Sum Total estimated to bring to airport use	**$ 92,410,786**					

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Wellington International Airport Limited

Appendix 9

Land Value Calculations

Brownfields

Civil Works Approach

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Wellington International Airport Civil Works Assumptions	
'Reproduction' Scenario	
Naturally Flat Land	$ 100,748,570
Originally Hilly Land	$ 27,048,466
Created Land	$ 91,150,000
Cost to bring Natural Land to Airport Use	$ 80,507,075
Fair Market Value (Replacement Cost)	$ 299,454,111
'Flat Site' Scenario	
Naturally Flat Land & Original Hilly Land Footprint	$ 116,537,254
Created Land	$ 100,109,000
Cost to bring Natural Land to Airport Use	$ 74,041,272
Fair Market Value (Replacement Cost)	$ 290,687,526

Wellington International Airport Civil Works Assumptions			
'Reproduction' Scenario	**Adjusted Area s.m.**	**Ave. Fair Market Value $/s.m.**	**Fair Value $**
Naturally Flat Land			
North Eastern Industrial	19,066	$134	$ 2,554,844
Residential East	12,175	$134	$ 1,631,450
Residential West	4,398	$134	$ 589,332
Car Parking	52,259	$134	$ 7,002,706
Apron	151,776	$134	$ 20,337,984
Runway, Taxiway & Stubway	177,810	$134	$ 23,826,540
Gates	60,452	$134	$ 8,100,568
South Eastern Industrial	85,773	$134	$ 11,493,582
Terminal	15,797	$134	$ 2,116,798
Western/Airport Retail Park	52,334	$134	$ 7,012,756
Strategic Holdings	76,710	$134	$ 10,279,140
Roads	43,305	$134	$ 5,802,870
Total excl. Reclaimed and Hill foot	751,855		$ 100,748,570
Originally Hilly Land			$ 27,048,466
Cost of Created Land			
Cost of hill removal, disposal of fill			$ 91,150,000
Reclamation and sea protection works			$ -
Cost to bring Natural Land to Airport Use			$ 80,507,075
Fair Market Value (Replacement Cost)			**$ 299,454,111**

Wellington International Airport Civil Works Assumptions			
'Flat' Scenario	**Adjusted Area s.m.**	**Ave. Fair Market Value $/s.m.**	**Fair Value $**
Naturally Flat Land			
North Eastern Industrial	19,066	$134	$ 2,554,844
Residential East	12,175	$134	$ 1,631,450
Residential West	4,398	$134	$ 589,332
Car Parking	52,259	$134	$ 7,002,706
Apron	151,776	$134	$ 20,337,984
Runway, Taxiway & Stubway	295,636	$134	$ 39,615,224
Gates	60,452	$134	$ 8,100,568
South Eastern Industrial	85,773	$134	$ 11,493,582
Terminal	15,797	$134	$ 2,116,798
Western/Airport Retail Park	52,334	$134	$ 7,012,756
Strategic Holdings	76,710	$134	$ 10,279,140
Roads	43,305	$134	$ 5,802,870
Total excl. Reclaimed and Hill foot	869,681		$ 116,537,254
Created Land			
Reclamation and Sea Protection Works			$ 100,109,000
Cost to bring Natural Land to Airport Use			$ 74,041,272
Fair Market Value (Replacement Cost)			**$ 290,687,526**

Wellington International Airport 'Reproduction' Scenario						
Component	**Civil Works Costs**	**Professional Fees**	**Financial Costs**	**Total Cost ($)**	**Depreciated Cost**	**Annual Depreciation**
Hill Removal	$24,273,000	$2,719,000	$7,379,000	$34,371,000	$34,371,000	$0
Disposal of Surplus	$6,886,000	$771,000	$2,093,000	$9,750,000	$9,750,000	$0
Reclamation	$6,637,000	$743,000	$2,018,000	$9,398,000	$9,398,000	$0
Sea Protection	$32,102,000	$3,595,000	$8,732,000	$44,429,000	$35,411,000	$236,000
Resource Consents	$0	$1,500,000	$720,000	$2,220,000	$2,220,000	$0
Total	**$69,898,000**	**$9,328,000**	**$20,942,000**	**$100,168,000**	**$91,150,000**	**$236,000**

Wellington International Airport 'Flat' Scenario						
Component	**Civil Works Costs**	**Professional Fees**	**Financial Costs**	**Total Cost ($)**	**Depreciated Cost**	**Annual Depreciation**
Bulk Fill	$37,486,000	$4,198,000	$11,396,000	$53,080,000	$53,080,000	$0
Reclamation	$6,637,000	$743,000	$2,018,000	$9,398,000	$9,398,000	$0
Sea Protection	$32,102,000	$3,595,000	$8,732,000	$44,429,000	$35,411,000	$236,000
Resource Consents	$0	$1,500,000	$720,000	$2,220,000	$2,220,000	$0
TOTAL	**$76,225,000**	**$10,036,000**	**$22,866,000**	**$109,127,000**	**$100,109,000**	**$236,000**

Wellington International Airport Land Valuation - Estimated Cost to Bring to Airport Use 'Reproduction' Scenario						
Year ended 31 March 2006		1	2	3	4	5
Airport Developer Cost of Capital	9.5%					
Opening Balance		$116,537,254	$128,023,918	$140,245,565	$153,628,269	$168,282,330
Rates	$6,250,000	$1,250,000	$1,250,000	$1,250,000	$1,250,000	$1,250,000
Planning Approval	$0	$7,500,000				
Holding Risk	$67,791,272	$11,486,664	$12,221,647	$13,382,704	$14,654,061	$16,046,196
Closing Balance		$128,023,918	$140,245,565	$153,628,269	$168,282,330	$184,328,526
Sum Total estimated to bring to airport use	**$74,041,272**					

Wellington International Airport Land Valuation - Estimated Cost to Bring to Airport Use 'Reproduction' Scenario						
Year ended 31 March 2006		1	2	3	4	5
Airport Developer Cost of Capital	9.5%					
Opening Balance		$127,797,036	$140,353,380	$153,746,326	$168,411,602	$184,470,079
Rates	$6,250,000	$1,250,000	$1,250,000	$1,250,000	$1,250,000	$1,250,000
Planning Approval	$0	$7,500,000				
Holding Risk	$74,257,075	$12,556,343	$13,392,946	$14,665,276	$16,058,477	$17,584,032
Closing Balance		$140,353,380	$153,746,326	$168,411,602	$184,470,079	$202,054,111
Sum Total estimated to bring to airport use	**$80,507,075**					

Valuation Property Advisors

Wellington International Airport Limited

Appendix 10

ODRC – Aeronautical Assets

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Wellington International Airport
Aeronautical Building Assets

Description	Class	WIAL ID 1	WIAL ID 2	Effective Age	Remain Life	Total Life	Optimised Area	$/m2 MEA	Cost MEA	Fees %	Fees $	Const. Period	Interest	ORC	Depn	ODRC 31/03/2006
Airport Fire Service	Airfield Activities	NA	0018	1973	35	60	651	$ 1,750	$ 1,139,250	8.0%	$ 91,140	1.5	$ 73,823	$ 1,304,213	41.7%	$ 760,791
AVSEC Building	Airfield Activities	-	-	1999	54	60	306	$ 1,750	$ 535,500	8.0%	$ 42,840	1.5	$ 34,700	$ 613,040	10.0%	$ 551,736
Main Terminal	Specified Terminal	TM	0001	1999	44	50	19,650	$ 3,400	$ 66,810,000	17.5%	$ 11,691,750	2.5	$ 7,850,175	$ 86,351,925	12.0%	$ 75,989,694
North Pier	Specified Terminal	TN	0001	1995	40	50	9,664	$ 3,200	$ 30,924,800	17.5%	$ 5,411,840	2.5	$ 3,633,664	$ 39,970,304	20.0%	$ 31,976,243
South Pier	Specified Terminal	TS	0001	1997	35	43	385	$ 2,900	$ 1,116,500	17.5%	$ 195,388	2.5	$ 131,189	$ 1,443,076	18.6%	$ 1,174,597
South West Pier	Specified Terminal	TW	0001	1995	40	50	4,052	$ 2,900	$ 11,750,800	17.5%	$ 2,056,390	2.5	$ 1,380,719	$ 15,187,909	20.0%	$ 12,150,327
Terminal Link	Specified Terminal	TL	0001	2000	43	49	1,614	$ 2,900	$ 4,680,600	17.5%	$ 819,105	2.5	$ 549,971	$ 6,049,676	12.2%	$ 5,308,899
Elevated Road	Shared	-	-	1999	44	50	1,000	$ 4,200	$ 4,200,000	17.5%	$ 735,000	2.5	$ 493,500	$ 5,428,500	12.0%	$ 4,777,080
Gibson Hangar	Aircraft & Freight	WA	0003	1967	5	36	1,005	$ 1,150	$ 1,155,750	8.0%	$ 92,460	1.5	$ 74,893	$ 1,323,103	86.1%	$ 183,764
Brierley Infill	Airfield Activities	WA	0009	1995	15	25	118	$ 1,150	$ 135,700	8.0%	$ 10,856	1.5	$ 8,793	$ 155,349	40.0%	$ 93,210
Brierley North	Airfield Activities	WA	0009	1970	15	50	992	$ 1,150	$ 1,140,800	8.0%	$ 91,264	1.5	$ 73,924	$ 1,305,988	70.0%	$ 391,796
Brierley South	Airfield Activities	WA	0009	1970	15	50	472	$ 1,150	$ 542,800	8.0%	$ 43,424	1.5	$ 35,173	$ 621,397	70.0%	$ 186,419
Maintenance Shed	Shared	SA	0010	1975	5	30	22	$ 540	$ 11,880	8.0%	$ 950	1.5	$ 770	$ 13,600	83.3%	$ 2,267
Total														$ 159,754,481		$ 133,546,824
Adopted Value																$ 133,545,000

Wellington InternationalAirport
Aeronautical Building Assets - Investment Value

Description	WIAL ID		Investment Value			Land Value			Residual
	1	2	Income	Return	Value	Area	Rate	Value	Improvements
AVSEC Building	-	-	$ 86,601	9.25%	$ 936,227	700	$ 375	$ 262,500	$ 673,727
Gibson Hangar	WA	0003	$ 54,000	10.00%	$ 540,000	1,758	$ 300	$ 527,400	$ 12,600
Brierley Infill	WA	0009	$ 137,185	9.00%	$ 1,524,278	3,000	$ 300	$ 900,000	$ 624,278
Brierley North	WA	0009							
Brierley South	WA	0009							
Total									**$ 1,310,605**

Wellington InternationalAirport Aeronautical Leased Building Assets - Comparison					
Description	WIAL ID 1	 2	ORC	ODRC	Investment Residual Imps
AVSEC Building	-	-	$ 613,040	$ 551,736	$ 673,727
Gibson Hangar	WA	0003	$ 1,323,103	$ 183,764	$ 12,600
Brierley Infill	WA	0009	$ 2,082,735	$ 671,425	$ 624,278
Brierley North	WA	0009			
Brierley South	WA	0009			
Total			**$ 4,018,878**	**$ 1,406,926**	**$ 1,310,605**

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Appendix 11

ODRC – Non-Aeronautical Assets

Excluded from this Disclosure Valuation

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Appendix 12

Investment Sales

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Appendix 13

Investment Valuations

Capitalisation
Discounted Cash Flow

Excluded from this Disclosure Valuation

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Values Property Advisors

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Appendix 14

Residential Valuations

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Wellington International Airport
Residential Property Values

Description	WIAL Space ID 1	WIAL Space ID 2	Business Line	Land Valuation Category	Land Area	Land Value Rate	Land Value	Improvements	Rating Capital Value
Residential West									
Bridge Street - 3	HO	0003	AL	Residential	443	$ 361	$ 160,000	$ 175,000	$ 335,000
Bridge Street - 5	HO	0005	AL	Residential	714	$ 280	$ 200,000	$ 145,000	$ 345,000
Bridge Street - 15	HO	0015	AL	Residential	445	$ 348	$ 155,000	$ 140,000	$ 295,000
Bridge Street - 19	HO	0019	AL	Residential	445	$ 360	$ 160,000	$ 125,000	$ 285,000
Bridge Street - 21	HO	0021	AL	Residential	446	$ 370	$ 165,000	$ 130,000	$ 295,000
Bridge Street - 25	HO	0025	AL	Residential	668	$ 299	$ 200,000	$ 175,000	$ 375,000
Bridge Street - 31	HO	0031	AL	Residential	724	$ 276	$ 200,000	$ 160,000	$ 360,000
Bridge Street - 33	HO	0033	AL	Residential	724	$ 276	$ 200,000	$ 160,000	$ 360,000
Bridge Street - 39	HO	0039	AL	Residential	723	$ 277	$ 200,000	$ 130,000	$ 330,000
Bridge Street - 41	HO	0041	AL	Residential	716	$ 279	$ 200,000	$ 155,000	$ 355,000
Bridge Street - 43	HO	0043	AL	Residential	771	$ 259	$ 200,000	$ 160,000	$ 360,000
Bridge Street - 45	HO	0045	AL	Residential	682	$ 293	$ 200,000	$ 160,000	$ 360,000
Bridge Street - 51	HO	0051	AL	Residential	597	$ 310	$ 185,000	$ 150,000	$ 335,000
Bridge Street - 53	HO	0053	AL	Residential	470	$ 340	$ 160,000	$ 135,000	$ 295,000
Bridge Street - 55	HO	0055	AL	Residential	445	$ 360	$ 160,000	$ 140,000	$ 300,000
Bridge Street - 57	HO	0057	AL	Residential	402	$ 398	$ 160,000	$ 200,000	$ 360,000
Bridge Street - 59	HO	0059	AL	Residential	393	$ 394	$ 155,000	$ 175,000	$ 330,000
Bridge Street - 61	HO	0061	AL	Residential	399	$ 388	$ 155,000	$ 205,000	$ 360,000
Bridge Street - 67	HO	0067	AL	Residential	310	$ 471	$ 146,000	$ 149,000	$ 295,000
Bridge Street - 73	HO	0073	AL	Residential	452	$ 354	$ 160,000	$ 200,000	$ 360,000
Coutts Street -234	HO	0234	AL	Residential	402	$ 410	$ 165,000	$ 180,000	$ 345,000
Coutts Street -238	HO	0238	AL	Residential	402	$ 410	$ 165,000	$ 190,000	$ 355,000
Coutts Street -242	HO	0242	AL	Residential	402	$ 410	$ 165,000	$ 175,000	$ 340,000
Coutts Street -244	HO	0242	AL	Residential	402	$ 410	$ 165,000	$ 155,000	$ 320,000
Sub Total					12,577	$ 332	$ 4,181,000	$ 3,869,000	$ 8,050,000
Residential East									
Broadway -335	NA	0335	C	Residential	506	$ 375	$ 190,000	$ 145,000	$ 335,000
Broadway -337	NA	0337	C	Residential	506	$ 375	$ 190,000	$ 130,000	$ 320,000
Broadway -341	NA	0341	C	Residential	506	$ 375	$ 190,000	$ 130,000	$ 320,000
Broadway -343	NA	0343	C	Residential	506	$ 375	$ 190,000	$ 150,000	$ 340,000
Broadway -372	NA	0373	C	Residential	506	$ 405	$ 205,000	$ 135,000	$ 340,000
Miro Street - 13	NA	0013	C	Residential	488	$ 328	$ 160,000	$ 160,000	$ 320,000
Miro Street - 15	NA	0015	C	Residential	450	$ 356	$ 160,000	$ 215,000	$ 375,000
Miro Street - 17	NA	0017	C	Residential	451	$ 355	$ 160,000	$ 160,000	$ 320,000
Miro Street - 19	NA	0019	C	Residential	487	$ 329	$ 160,000	$ 125,000	$ 285,000
Miro Street - 2	NA	0002	C	Residential	498	$ 402	$ 200,000	$ 185,000	$ 385,000
Sub Total					4,904	$ 368	$ 1,805,000	$ 1,535,000	$ 3,340,000
Total					**17,481**	**$ 342**	**$ 5,986,000**	**$ 5,404,000**	**$ 11,390,000**

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Wellington International Airport Limited

Appendix 15

Carpark ODRC Valuation

Excluded from this Disclosure Valuation

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Appendix 16

Vehicle Business Valuation

Discounted Cash Flow

Excluded from this Disclosure Valuation

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Valuation Property Advisors

Wellington International Airport Limited

Appendix 17

Lease Summary

Excluded from this Disclosure Valuation

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Wellington International Airport Limited

Appendix 18

Ground Lease Summary

Wellington International Airport Limited
Ground Lease Summary

Tenant	Location	Commencement	Term (yrs)	Expiry	Reviews	Next Review	Area		Rent
Air NZ Domestic Cargo	Southern	1/07/1995	20	30/06/2005	5.0	1/07/2005	3,583	$	43,498
Air NZ Flight Kitchen	Southern	1/01/1977	25		5.0	1/01/2002	3,419	$	32,993
Air NZ Hangar	Westside	1/07/1996	20	30/06/2016	5.0	1/07/2001	18,376	$	81,948
Air Work (NZ) Ltd	Westside	1/01/1986	Monthly				160	$	3,200
Ansett Express	Southern	1/03/1987	15	5/03/2004	3.0	1/03/2002	3,321	$	36,265
Capital Jet	East	1/04/1993	12	31/03/2005	3.0		270	$	8,100
Life Flight Trust	Westside	1/02/2003	21	31/01/2024	5.0	1/02/2006	2,350	$	39,950
Meterological Office	Westside	1/05/2003		30/04/2003		1/05/2003	-	$	1,200
Ministry of Defence	Westside	1/08/1986	21	31/07/2007	3.0		3,473	$	75,500
Mobil (JUHI)	North	18/05/1998	25	17/05/2023	3.0	18/05/2004	5,839	$	87,461
Wellington Aviation	Westside	1/04/1993	Monthly				162	$	2,200
Wellington District Aero Club	Westside	1/10/2002	3	30/09/2005			3,000	$	20,000
Wellington Homing Pigeon Society	Gaudin St	1/11/1994	Monthly				56	$	500
Total								**$**	**432,815**

Valuers Property Advisors

Wellington International Airport Limited

Appendix 19

WIAL Lessees Interest

Excluded from this Disclosure Valuation

Appendix D – Comment on Key Capital Expenditure Projects for the Pricing Period

South Runway End Safety Area (RESA)

Disclosure Requirement	WIAL Comment
Description of works	Completion of an extended area of runway pavement as a designated runway end safety area for aircraft landings (that is, the area is required to be additional to the technical operating runway length for landings). Total forecast cost of $23.5 million, most of which was incurred as capital work in progress prior to commencement of the 2008-2012 pricing period.
Aims and objectives	To meet the International Civil Aviation Organisation (ICAO), and following adoption by the NZ Civil Aviation Authority (CAA), requirement for a RESA. The ICAO recommendation was for RESA's of up to 240 metre however WIAL adopted the minimum possible of a 90 metre southern RESA. WIAL also sought an outcome that did not disadvantage some airlines by ensuring that the operational length of the airport runway was not compromised (i.e. if the operational length of the runway had been shortened operators of Boeing 737 aircraft on international services would have had to reduce the number of passengers that could have carried on these aircraft).
Process by which need for the expenditure was determined	Monitoring of ICAO and CAA requirements. It was evident that the CAA was intending to, and subsequently did, adopt the ICAO requirement for NZ airports and consequently WIAL considered it had no option but to construct a southern RESA.
Any consumer engagement undertaken as part of process and how consumer demands have been assessed	WIAL commenced discussions on the Southern RESA project with its substantial airline customers and BARNZ in September 2005. Presentations were made to the airlines and BARNZ, and correspondence exchanged evaluating the requirement for the project and its components. There was consensus amongst the parties that the RESA was required, and that runway safety could be enhanced by building over the road at the South end of the runway.
Any alternative projects considered and the rationale for excluding the alternatives	There were no viable alternative options to the core of the project which was to construct a tunnel to bridge over the southern public road and to enable the runway pavement to be extended above the road tunnel. The project included two components that were not supported by airlines. • Stubway – included in the project was construction of a new stubway that would enable aircraft to proceed from the taxiway to the southern end of the runway and use the new RESA area for take offs. In the absence of this taxiway aircraft requiring use of the full available distance for take offs would have had to enter the runway short of the RESA area, taxi to the end of the runway and then undertake a 180 degree turn before taking off. While this was feasible for the aircraft operating at WIAL it would have introduced safety concerns, substantially decreased efficient use of the runway and penalised aircraft operators requiring the full runway length. Two of the substantial airline customers supported construction of the stubway.

Disclosure Requirement	WIAL Comment
	• Width of the tunnel – wingspan clearance distances are mandated by the CAA for specific aircraft types (sizes). WIAL in proposing the width of the tunnel to construct intended to make allowance for Code D and E aircraft which were not regularly scheduled at WIAL at that time, although they had been in the past. In the absence of this expenditure WIAL would not have been able to offer alternate airport status for larger aircraft in the event of weather disruptions at other airports and in the longer term, without undertaking this expenditure at a different time, would not have been able to seek the commencement of long haul services directly from WIAL. The airlines submitted that this expenditure was not necessary. WIAL concluded that deferring this component of the expenditure to a later date would be inefficient as it would cost considerably more to undertake as a separate project and WIAL did not wish to constrain its future business options to accommodate larger aircraft. The forecast cost of these components of the total project was $4.8 million.
The extent to which the project is reflected in pricing	The full cost of the project was included in the capital expenditure forecast with effect from 2008 when construction was scheduled for completion.
Any constraints or other factors on which successful completion of the project is contingent	No

North Runway End Safety Area (RESA)

Disclosure Requirement	WIAL Comment
Description of works	Completion of an extended area of runway pavement as a designated runway end safety area for aircraft landings (that is, the area is required to be additional to the technical operating runway length for landings). Total forecast cost of $7.5 million.
Aims and objectives	To meet the International Civil Aviation Organisation (ICAO), and following adoption by the NZ Civil Aviation Authority (CAA), requirement for a RESA. The ICAO recommendation was for RESA's of up to 240 metre however WIAL adopted the minimum possible of a 90 metre North RESA. WIAL also sought an outcome that did not disadvantage some airlines by ensuring that the operational length of the airport runway was not compromised (i.e. if the runway had been shortened operators of Boeing 737 aircraft on international services would have had to reduce the number of passengers that could have carried on the aircraft).
Process by which need for the expenditure was determined	Monitoring of ICAO and CAA requirements. CAA had adopted the ICAO requirement for NZ airports and consequently WIAL was required to construct a northern RESA.
Any consumer engagement	WIAL commenced discussions on the Northern RESA project with its substantial airline customers and BARNZ in September

Disclosure Requirement	WIAL Comment
undertaken as part of process and how consumer demands have been assessed	2005. Presentations were made to the airlines and BARNZ, and correspondence exchanged evaluating the requirement for the project and its components. WIAL initially presented a solution with an approximate cost of $15 million to the airlines and the airlines did not agree that a North RESA needed to be constructed and that the runway could be shortened. WIAL did not agree that it was appropriate to shorten the runway and subsequently presented four north RESA options for airline consideration at a meeting in May 2006. The presentation also showed the effective runway lengths required for different aircraft types and in different weather conditions.
Any alternative projects considered and the rationale for excluding the alternatives	The options presented to the airlines were: • Construction of a RESA that would extend outside the airport boundary and require realignment of State Highway 1 – cost $21.4 million. No airlines supported this option and WIAL considered a later option was a viable alternative. • Option 2 – build within the boundary and with construction of further pavement towards the Northern fence – cost $10.4 million. Not considered a necessary option if Option 1 not pursued. • Option 3 – build within the boundary using the existing runway footprint but with an extended taxiway to enable full use of the RESA for take offs – cost $7.5 million. This was identified as the least cost solution that would minimise the prospective take-off weight constraints faced by some of the airlines. That is, in some weather conditions airlines had to limit the number of passengers they could book on international flights due to the runway take off length available. • Option 4 – paint a RESA solution onto the existing runway pavement and effectively shorten the available runway length. This option was discounted because it would have increased the take-off weight constraints for two of the airlines. Following discussion of the options with the airlines option 3 was selected. This option was supported by two of the airlines operating at WIAL.
The extent to which the project is reflected in pricing	The full cost of the project was included in the capital expenditure forecast with effect from 2008 when construction was scheduled for completion.
Any constraints or other factors on which successful completion of the project is contingent	No

North Pier Terminal Expansion

Disclosure Requirement	WIAL Comment
Description of works	Construction of additional aircraft gates and North Pier terminal area comprising three project stages:

<table>
<tr><th>Disclosure Requirement</th><th>WIAL Comment</th></tr>
<tr><td></td><td>

Expansion of international passenger arrivals and departures processing areas.
Construction of additional aircraft gates and modifications to existing terminal footprint to improve efficiency of terminal space and swing gate/terminal utilisation for international and domestic flights
Expansion of lounge and bathroom passenger facilities in North Pier

</td></tr>
<tr><td>Aims and objectives</td><td>To meet current and forecast congestion of aircraft gates and passenger processing facilities and lounge space in the North Pier</td></tr>
<tr><td>Process by which need for the expenditure was determined</td><td>
WIAL undertook an extensive business planning process in 2004/05 which considered demand for facilities and actual or prospective congestion of facilities. Several expert reports were commissioned from Airplan and Airbiz Limited which were founded after receipt of information and discussions with a number of parties including WIAL, the airlines and Government agencies. The reports receive from Airbiz included:

Airbiz - Wellington Airport Secondary Processing, X-ray Unit Capacity
Airplan – Wellington Airport STAGE 1 - Terminal Facilities Planning Study
Airbiz – Wellington Airport International Pier Expansion

These reports analysed the current and expected apron stand usage and current and expected passenger demand for a variety of areas and processing functions within the terminal. The reports identified current demand, analysed future demand, considered simulated passenger flows in particular areas of the terminal and made recommendations on the facilities that required expansion or development.

Fundamental conclusions were:

Expansion of international passenger arrivals and departures processing areas. Some of the key facilities for processing of arriving international passengers were designed to accommodate 500 passengers per hour. Current peak time demand was up to 700 passengers per hour. Specific facilities where congestion was occurring, or forecast to occur, were:
<table>
<tr><th>Facility</th><th>Forecast Year</th><th>Busy Hour Aircraft Arrivals</th><th>Forecast Passengers (85% aircraft load)[1]</th></tr>
<tr><td>International MAF arrivals processing</td><td>2004</td><td>5 aircraft</td><td>649[2]</td></tr>
<tr><td>International departure lounge</td><td>2006</td><td>6 aircraft</td><td>779</td></tr>
<tr><td>International baggage claim</td><td>2006</td><td>6 aircraft</td><td>779</td></tr>
<tr><td>International customs departure processing</td><td>2010</td><td>7 aircraft</td><td>921</td></tr>
<tr><td>International customs arrivals processing</td><td>2010</td><td>7 aircraft</td><td>921</td></tr>
</table>
Note 1: Airbiz - Wellington Airport Secondary Processing, X-ray Unit Capacity pps 9-10

Note 2: Extrapolated number from assumptions in Airbiz report

</td></tr>
</table>

Disclosure Requirement	WIAL Comment
	WIAL concluded that expansion of passenger processing areas was necessary. • The North Pier currently provided six aircraft gates that were being used to accommodate international services, for which 5 gates were required at that time, and for domestic aircraft jet aircraft not operated by Air NZ. WIAL received advice on schedules from airlines that indicated six gates could be required in the short term for international services which would have occupied the entire North Pier, thereby offering no capacity for domestic aircraft during international peak periods and prevented WIAL from accommodating further growth in these international peak periods. WIAL concluded that additional aircraft gate capacity was required to facilitate some crossover of international and domestic aircraft demand and to accommodate prospective growth in international services. • Passenger lounge space in the North Pier was congested during peak international service demand. Airbiz commented that "*The existing international departure lounges area comprises some 890m2 which includes 286 seats. This will provide capacity for 4 large Code C aircraft up to 180 seats or 5 small Code C aircraft.*" With the expected growth in international services from future indicative schedules WIAL also concluded that expansion of the lounge facilities for international passengers would be required.
Any consumer engagement undertaken as part of process and how consumer demands have been assessed	WIAL commenced discussions on the North Pier expansion project with its substantial airline customers and BARNZ in September 2005. Presentations were made to the airlines and BARNZ, and correspondence exchanged over a period of more than a year evaluating the requirement for the project and its components. The culmination of discussions with the substantial customers and BARNZ was: • Support for expansion of the international passenger arrivals processing area including the agency processing and baggage collection facilities. • Support from two airlines for expansion of the aircraft gate facilities. • Support from two airlines for expansion of the North Pier passenger lounge facilities. At the time this phase of the project was being considered Air NZ and Qantas were seeking to form an alliance for trans-Tasman services. One airline submitted that if the alliance proceeded then there may not be a requirement for this project. WIAL actively opposed regulatory approval of the alliance and considered it would be detrimental to competition in airline services at Wellington. In resolving that it was appropriate to proceed with the projects WIAL: • Noted the existing and forecast congestion of the facilities. • Noted the support from some of its airline customers for the projects to proceed. • Concluded that competitive air services for Wellington would be severely constrained if the indicated increases in international aircraft demand could not be accommodated. With the Air NZ/Qantas alliance application still to be resolved WIAL established a wash up arrangement in respect of phase

Disclosure Requirement	WIAL Comment
	3 of the project which is explained further below.
Any alternative projects considered and the rationale for excluding the alternatives	Wellington Airport is constrained to a small land footprint (e.g. WIAL occupies 111 hectares of land compared to approximately 1,500 hectares for AIAL and 800 hectares for CIAL) in comparison to other airports that process a similar number of passengers and aircraft movements. This increases the requirement for WIAL to be efficient in how it utilises this space and for it to seek maximum flexibility from its facilities wherever possible. WIAL therefore concluded that expansion of the North Pier was the only effective way to increase processing capacity while avoiding the greater cost of constructing entirely new facilities, which would be difficult to find a location for on the current site. The addition of incremental capacity was the only practical option available to WIAL. WIAL submitted concept plans to the substantial customers and other stakeholders in September 2005 with the detailed plans developed utilising external expertise and from ongoing discussions with customers over the project development. Discussions with airlines and other stakeholders during this detailed design and construction processes were necessary to ensure that the completed works provided as many operating efficiencies as possible for the airlines.
The extent to which the project is reflected in pricing	The total North Pier expansion project was completed in three construction phases. • Phase 1 was expansion of the international passenger arrivals processing and duty free facilities. This phase was completed in December 2006 at a total cost of $12.7m (aeronautical component $3.2m). This phase of the project was completed before commencement of the pricing period but was underway when pricing consultation was being undertaken with substantial customers. The aeronautical component of the project expenditure was included in the asset base to determine pricing. • Phase 2 was expansion of the aircraft gates and terminal facilities on the Eastern side of the pier. The forecast cost of this phase was $12.9m all of which was required for aeronautical facilities. This phase was completed in October 2007. This expenditure was included in the assets to determine pricing. • Phase 3 of the project was expansion of the North Pier passenger lounge and gate facilities. The forecast cost of this phase was $41.8m (aeronautical component $33.7m). Completion of this phase was forecast by March 2009, and was ultimately completed in October 2010. The expenditure for this project was included in the asset base to determine pricing. However as construction of this phase had not commenced when the consultation was completed WIAL established a wash up arrangement that would provide the airlines with compensation in the next pricing period if the project was not undertaken or if completion of the project was delayed by more than 12 months from the forecast timing. The compensation would be provided as a pricing credit in the next period for any over recovery of revenue by WIAL.
Any constraints or other factors on which successful completion of the project is contingent	Air New Zealand and Qantas were seeking regulatory approval to form a trans Tasman alliance that would have enabled them to jointly plan their trans Tasman services. If the alliance was approved the risk existed that Air NZ and Qantas would have sought to consolidate services thereby reducing the forecast demand for international services at peak times. WIAL acknowledged that

Disclosure Requirement	WIAL Comment
	expansion of the international terminal facility may need to be reconsidered if this eventuality occurred. WIAL did not expect approval to be given to the alliance and included the required capital expenditure in its forecasts for the pricing period. As commented above WIAL however provided a wash up arrangement in respect of this project in the event that WIAL was incorrect and regulatory approval for the alliance was provided, and the terminal expansion was either not required or delayed. Subsequent to completion of the pricing consultation both New Zealand and Australian regulators denied approval for the alliance.

Airfield Pavement Maintenance Programme

Disclosure Requirement	WIAL Comment
Description of works	Ongoing maintenance of all sealed surfaces, including the runway, taxiway, aprons and parking stands, required to accommodate aircraft movements. The most significant component of this programme in the forecast period was the upgrade and replacement of the surface of the runway. Fundamentally an additional layer installed on top of the existing runway surface. The previous runway overlay was undertaken in 1995/96.
Aims and objectives	To ensure all sealed surfaces continue to meet engineering safety standards for aircraft operations.
Process by which need for the expenditure was determined	WIAL's runway and other sealed surfaces are inspected at least annually by external engineers with reports provided to WIAL on the status of the sealed surfaces and the requirement for repair or replacement. Provision for the overlay of the runway surface was recommended by the external engineers for the 2010 financial year.
Any consumer engagement undertaken as part of process and how consumer demands have been assessed	WIAL submitted the forecast expenditure for this programme to every substantial customer and BARNZ as part of the capital expenditure forecast for the upcoming pricing period. No comment was received from airlines in respect of this expenditure.
Any alternative projects considered and the rationale for excluding the alternatives	No alternative options were possible in respect of the requirement for repair or replacement of the sealed surfaces. The design requirements for each component of the programme works are developed by the engineers.
The extent to which the project is reflected in pricing	The forecast cost of the programme was $25.1m ($19.7m in 2007 dollars) for the 10 years commencing from 2008 with the runway overlay component of this amounting to $5.8m ($5.0m in 2007 dollars). These amounts were included in the asset

Disclosure Requirement	WIAL Comment
	base used to determine pricing.
Any constraints or other factors on which successful completion of the project is contingent	No

Appendix E

Wellington International Airport Limited Schedule of Landing and Terminal Charges Effective 1 July 2007 to 31 March 2012

NOTE: All charges are exclusive of GST unless noted otherwise.

1. Charges for Operators of Passenger Services

Passengers on:						
	Current Charge	1 July 2007	1 April 2008	1 April 2009	1 April 2010	1 April 2011
International	10.24	10.53	10.83	11.14	11.46	11.78
Domestic jet	9.32	9.59	9.86	10.14	10.43	10.73
Domestic Prop	5.24	5.39	5.54	5.70	5.86	6.03

NOTE 1: Includes charge per passenger for aerobridge use.

2. Calculation of and Administrative Arrangements for Passenger Services Charges

(a) Passengers are defined for the purposes of paragraph 1 as total passengers carried on board less infants, positioning crews, domestic transit passengers and diverted international passengers returned to destination (being only those diverted passengers not processed through Customs).

(b) Airlines will advise WIAL of passenger numbers carried into and out of Wellington International Airport for the previous calendar month by close of business on the fifth business day of the new month. Passenger information will be provided in the form attached, or suitable equivalent approved by WIAL.

If WIAL has concerns over the accuracy of the passenger information:

- ✈ WIAL will convey its concerns to the relevant airline and that airline will respond within five business days.
- ✈ If after receipt of the airline response WIAL retains its concerns WIAL may arrange for the data to be audited. If the audited result varies from the airline data by more than 2% the costs of the audit will be met by the airline.

NOTE: Charges in relation to international diverts to Wellington will be applied as follows:

- Where any passenger remains in the international facilities and return to the original destination – Landed MCTOW, as for Operators of Non Passenger Services, charge only.
- Where passengers leave the aircraft and are processed through customs – full passenger services charge.

(c) If an airline does not provide passenger numbers WIAL may make its own assessment of an airline's passengers for the relevant month and issue an invoice accordingly. WIAL will issue an adjusted invoice when the airline subsequently advises its actual passenger numbers. The invoices will be payable in accordance with WIAL's Terms of Trade.

(d) In addition to the audit referred to in paragraph 2(c) above WIAL may arrange an annual audit of passenger numbers. If the audited result varies from the airline data by more than 2% the costs of the audit will be met by the airline.

3. Charges for Operators of Non Passenger Services

Operators of these aircraft will continue to pay a charge based on an aircraft Maximum Certified Take Off Weight. The charges to apply are*:*

Aircraft with MCTOW:	**$ per Tonne**
30 tonne and over	$18.00
Above 2 tonne and less than 30 tonne	$8.70

4. Aircraft Parking Charges

Applies to itinerant aircraft with MCTOW greater than 6 tonne (as per current practice).

Parking for durations of:	**Charge per 24 Hour Period of Part Thereof**
Up to six hours	Nil
From six hours to five days	$82.50
From 6 days to 10 days	$110.00
In excess of 11 days	$165.00

5. International Departure Fees Payable by Passengers

Fee per:	**$ including GST**
Adult	$25.00
Child 2-11 years of age	$10.00
Child under 2 years of age	$0.00

6. General Aviation

Operators of general aviation aircraft will continue to pay a charge per landing subject to a minimum monthly charge. The charges to apply are:

- Charge per landing $17.50
- Minimum charge per month $35.00

7. WIAL Terms of Trade for Payment of Invoices

(a) Time for Payment

WIAL will as soon as practicable after the end of each month calculate each airline's charges for that month, and will send each airline an invoice for their charges. Each airline must pay the amount of the invoice by the later of:

- The 20th day of the next month after the month to which the invoice relates.
- 14 days after the date it receives the invoice.

The airlines must tell WIAL within 7 days of when they receive it, if they disagree with any invoice. The airlines will pay the correct amount due as soon as the correct amount is agreed or determined.

(b) Interest on Overdue Amounts

The airlines will pay interest on the amount of any charge which is properly owed, but not paid on time, if the charge is a then current and prevailing charge which is not in dispute. The airlines will also pay interest on unpaid amounts that relate to charges which are in dispute, but only if any of the following apply:

- The airlines who have failed to pay, agree to pay the charge in dispute.
- The airlines who have failed to pay, agree that the charge in dispute is properly payable.
- The charge in dispute is determined to be properly payable.

The interest is payable on the unpaid amounts from the day they should have been paid, until they are paid. 'The day they should have been paid', is the later of the 2 days for payment listed under the bullet points in the previous clause, after WIAL first issues an invoice for the correct amount.

(c) Rate of Interest

The rate of interest payable under the previous clause is the rate WIAL's principal banker charges, or would charge, WIAL for overdraft money during the time for which interest is being charged.

Airline:_____

Advice of Passenger Numbers

for the Month of: _____

	Domestic Propeller Passengers		Domestic Jet Passengers		International Passengers	
	Arrivals	**Departures**	**Arrivals**	**Departures**	**Arrivals**	**Departures**
Total passengers carried						
Less Exemptions:						
Infants						
Positioning Crews						
Transit Passengers						
Less Diverted Passengers Returned to Destination (NOTE 1)						
Passengers Carried for Billing Purposes						

NOTE 1: Passengers not processed through customs only.

Aircraft diverted to Wellington during the Month:

Date: **Flight Number:**

Date: **Flight Number:**

Date: **Flight Number:**

Date: **Flight Number:**

Signed by: _____ Title:_____

Date: _____