June 2011 Revaluation of Auckland International Airport Specialised Buildings

Valuation Report

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APPENDICES

EXECUTIVE SUMMARY

Opus International Consultants Limited (Opus) has undertaken a revaluation of the specialised building assets for Auckland International Airport Limited (AIAL) as at 30th June 2011. The valuation has been undertaken in accordance with AIAL's Asset Valuation Handbook 2011.

The revaluation complies with the International Accountancy Standard (IAS) modified to New Zealand requirements (NZ IAS 16) and the relevant Property Institute of New Zealand (PINZ) Valuation Standards.

The scope of this report has been limited to specialised buildings only, including the terminal buildings, carpark buildings and other specialised building assets that support the aeronautical business. Market based valuations of land, leases, and any non-specialised buildings and infrastructure are to be undertaken by Colliers International valuers, and are addressed in a separate report.

The specialised building assets valuations have been undertaken using an optimised depreciated replacement cost methodology. Valuation results include optimised replacement cost (ORC) and optimised depreciated replacement cost (ODRC). The valuations have an effective date of 30th June 2011.

The valuations have been developed from direct survey and condition assessment of each building and reviewed against detailed information compiled as part of the 2006 AIAL Specialised Building Assets Valuations provided by Opus. The results of the valuations are subject to a number of assumptions as detailed in Section 3.9.

The June 2011 revaluations of AIAL specialised building assets are tabulated below. Also tabulated are the May 2011 book values (BV) and the 2006 valuations for comparison purpose.

Table 1: International Terminal Building (ITB) Valuation

Item	ORC	ODRC
2011 Value	$699,652,873	$424,190,869
Book Value (31 May 2011)	-	$435,910,388
Diff = 2011 Value – 2011 Book Value	-	-$11,719,519
2006 Valuation	$532,367,194	$345,953,129
Diff = 2011 Value – 2006 Value	$167,285,679	$78,237,740

The value of the International Terminal Building increased from 2006 to 2011 by $167 million. The main attributes for the increase are the 3A Expansion Project (total project cost $76.7 million), Pier B Project (total project cost $50.2 million) and First Floor Expansion project (total project cost $44.8 million).

However the depreciated replacement cost has declined in a relative sense from the 2006 valuations and is significantly lower than the 2011 book value. This reduction is largely due to the effect of applying economic useful lives to building assets, rather than the engineering useful life approach adopted in the 2006 valuation, which has resulted in a higher depreciation charge to the International Terminal Building.

Table 2: Domestic Terminal Building (DTB) Valuation

Item	ORC	ODRC
2011 Value	$89,931,131	$27,174,990
Book Value (31 May 2011)	-	$27,422,939
Diff = 2011 Value – 2011 Book Value	-	-$247,949
2006 Valuation	$65,559,017	$12,296,840
Diff = 2011 Value – 2006 Value	$24,372,114	$14,878,150

The valuation of Domestic Terminal Building increased from 2006 to 2011 by $24.4 million. The increase is largely due to the Expansion Project (total project cost $7.7 million) constructed in 2008 between Domestic Terminal Building 1 and 2, and the upgrade work (totalling $15.5 million) undertaken at the Domestic Terminal Building since 2006 to date.

The depreciated replacement cost of 2011 valuations is also lower than the 2011 Book Value reflecting a slightly higher depreciation charge to the assets than assigned in the book value. All Domestic Terminal Building assets have been assigned a 5-year remaining useful life regardless of the age and condition of the building element to coincide with an estimated cessation of use as a domestic terminal building in 2016.

Table 3: Other Specialised Buildings Valuation

Item	ORC	ODRC
2011 Value	$80,014,388	$54,374,874
Book Value (31 May 2011)	-	$48,473,519
Diff = 2011 Value – 2011 Book Value	-	$5,901,355
2006 Valuation	$59,797,167	$36,700,867
Diff = 2011 Value – 2006 Value	$20,217,221	$17,674,007

The valuation of Other Specialised Buildings increased from 2006 to 2011 by $20.2 million. The increase is mainly due to the inclusion of the four-level Domestic Carpark Building (totalling $18 million). Assets within this portfolio are also subject to the overall 6% inflation increase between 2006 and 2011. However the scope of Other Specialised Buildings has been changed since the 2006 valuations. A number of specialised buildings included as part of the 2006 valuations were excluded from this revaluation exercise and a number of specialised buildings which were excluded from the 2006 valuations have been included this time. The change in the scope of Other Specialised Buildings has a net effect of $1.8 million decrease in value.

1 Introduction

1.1 Scope

Opus International Consultants Limited (Opus) has been engaged by Auckland International Airport Limited (AIAL) to establish the fair value of its specialised building assets for financial reporting purposes at the effective valuation date of 30th June 2011.

The scope of this report has been limited to the specialised buildings as follows:

Table 4: List of Buildings

Business Unit	Building Number	Building Name
2000	n/a	Airside Checkpoint Charlie and Birdman's Hut
2120	108	Livestock Handling Office
2150	23	Fire Rescue Station
2200	n/a	Fire Rescue Station Training Facilities
2600	83	ITB Long Term Carpark
2610	n/a	Park and Ride Ticket Office
2810	22	Waste Disposal Facility (Honeypot)
2930	149	PSVL (Transport Licence)
2960	1, 11&65, 138	International Terminal Building
3290	155	DTB Carpark
3590	2, 500	Domestic Terminal Building
4001	107	Air Freight New Zealand (Hangar 4)
4002	137	Hangar 6 (Hart)
4003	136	Air National Hangar 5
4035	144	Air New Zealand Amenities Building
4095	6	Air Cargo Building Number 1
4105	9	Air Cargo Building Number 4
4220	86	Corporate Jetbase (Skycare)
4225	501	Air Freight New Zealand Cargo Building
4235	478	Air National Hangar 2
4265	502	Menzies Cargo Building (Air Cargo 5)
4285	100	DHL Warehouse
4320	12, 74	Waste Resources Building (Incinerator)
4400	29, 30, 46	AIAL Storage Shed
5580	14,15,16,17,18,20,45,72,92	Power Room
5640	38,51	Sanitary Sewer Pumping Station at AFCAB
6320	10	Engineering Support Services Depot

1.2 Valuation Outputs

This report describes the valuation methodology including a full explanation of the assumptions made and input parameters used in the valuation process. Key outputs from the valuation are:

- The quantity of assets included in the valuation.
- A summary of unit cost rates and service lives used in the asset valuation.
- The gross replacement cost and depreciated replacement cost, by asset type for the current valuation.
- An indication of the assessed accuracy of the valuation.
- A comparison with the 2006 valuation.

1.3 Report Structure

This report has been structured to address the key valuation issues.

Section 2	defines the basis of valuation
Section 3	outlines the valuation process, including: • development of the valuation inventory • replacement cost assessment • consideration of optimisation • depreciation assessment
Section 4	describes the International Terminal Building specialised building assets and provides details of valuations
Section 5	describes the Domestic Terminal Building specialised building assets and provides details of valuations
Section 6	describes Other Specialised Buidling assets and provides details of valuations
Section 7	presents the valuation results and assessed accuracy
Section 8	compares 2006 and 2011 revaluation, explains main attributes of the change in value and forecasts of value movement

Valuation spreadsheets and supporting documentation are included as appendices.

2 Basis of Valuation

2.1 Methodologies

The valuation has been performed in accordance with the terms of reference and specific instructions contained in AIAL's Asset Valuation Handbook 2011. Specifically the valuation complies with the International Accountancy Standard (IAS) modified to New Zealand requirements (NZ IAS 16) and the relevant Property Institute of New Zealand (PINZ) Valuation Standards.

AIAL's assets incorporate a combination of specialised and market assets and therefore different methodologies are required for individual asset classes.

AIAL's assets can be grouped into 5 main classes.

- Land
- Runway, taxiways and aprons
- Infrastructure
- Buildings
- Plant, machinery and equipment

This report covers the valuation of AIAL's specialised building assets only including terminal buildings, carpark buildings and other specialised building assets that support the aeronautical business.

The fair value of an asset is 'the amount for which an asset can be exchanged, or liability settled, between knowledgeable, willing partners, in an arms length transaction'. For many infrastructure assets the fair value of the asset is not able to be determined from market-based evidence, its fair value is measured at its market buying price. Where there is no income associated with the asset the best indicator of an assets market buying potential is optimised depreciated replacement cost (ODRC).

The optimised depreciated replacement cost is the replacement cost (RC) of an asset less deductions for accumulated depreciation, physical deterioration and all relevant forms of obsolescence and optimisation.

The replacement cost of an asset is the minimum that it would cost, in the normal course of business, to replace the asset with a technologically modern equivalent new asset, allowing for any differences in quantity and quality of output and in operating costs.

Valuation results are presented in the form of optimised replacement cost (ORC) and optimised depreciated replacement cost (ODRC).

2.2 Business Units

The first level of asset grouping used for the asset valuation was in accordance with AIAL's business units. They are:

- Airfield
- Roadways
- Utility Services (water, stormwater including airfield drainage, sewage, electricity, gas and ducts)
- International Terminal Building
- Domestic Terminal Building
- Other Buildings

A full list of business unit numbers is provided in **Appendix A**.

3 Valuation Methodology

3.1 Valuation Process

The specialised building assets have been valued on an optimised depreciated replacement cost basis. The process involves four main steps. These are:

1. Development of an asset inventory (description and quantity of assets).
2. Adjustment to reflect any relevant optimisation.
3. Estimation of the current replacement cost.
4. Depreciation to reflect remaining life expectancy.

3.2 Asset Inventory

3.2.1 General Format

The valuation of assets has been undertaken within a series of valuation schedules. The schedules are presented in **Appendix D** and list individual assets on a location basis. Valuation schedules contain three main sections:

1. Asset identification and description
2. The valuation parameters
3. Valuation outputs

3.2.2 Asset Identification & Description

Assets detailed in the valuation schedules are classified by their location and assets type according to the following fields:

Building Name	- to identify geographical location
Asset Class	- classification text to identify component level
Component	- component/sub-component of the parent asset group
Description	- asset description

3.2.3 Valuation Parameters

The fields used to assess the value of individual assets are as follows:

Material	- material composition of the asset e.g. concrete, steel, timber.
Quantity	- measurement of the assets e.g. area, length, number of.
Units	- unit of measurement
Date	- date that the current asset was constructed/supplied
Condition	- asset condition (if known or observed)
RUL	- remaining useful life
UL	- total useful life
RV	- residual value

3.2.4 Valuation Outputs

The valuation results for each asset are given under the following headings:

ORC	- optimised replacement cost
ODRC	- optimised depreciated replacement cost

3.2.5 Data Sources

The data and information used to prepare the asset inventory was collected from:

- Liaison and discussion with AIAL officers and their engineering consultants
- Plans, drawings, reports, photographs & other available technical documents
- AIAL's Fixed Asset Register (FAR)
- AIAL's Geographic Information System (GIS)
- AIAL's Asset Information Management System (AIMS) (AIAL's previous data system now replaced by GIS)
- Field observations by the Opus team
- AIAL's capital expenditure forecasts

3.2.6 Validation

Where appropriate or possible we have verified the information and documentation provided. Data validation based on sampling was carried out along with visual assessments to verify the completeness and accuracy of information. This involved scaling areas/dimensions off plans and drawings and field inspections to ensure that location, category and description were appropriately coded and that the listed quantities are realistic. Field measurements were made where practical. Checklists were developed to facilitate the task and to improve the likelihood that the majority of assets are captured in the valuation. Adequacy of the information was reviewed including consideration of level of certainty/reliability. Data gaps were identified and substitute inputs derived for use in the valuation where information was missing or uncertain. We would stress that we cannot accept responsibility for the accuracy of any information supplied.

3.2.7 Information Management

Information management was considered to be a crucial aspect of the valuation process. The source of information and management of data used in developing the valuation was thoroughly assessed to ensure the robustness of the valuation schedules. All sources of information have been identified, documented and reviewed to ensure that assets and components have been correctly accounted for and appropriately valued.

3.3 Replacement Costs

Replacement costs were calculated by applying unit cost rates to the identified quantity of assets, with allowance for other costs such as site establishment, professional fees and financial charges.

3.3.1 Unit 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.
- Cost rates derived from recent 3A, Pier B and the First Floor development projects.
- Opus' database of costing information and experience of typical industry rates.
- Discussions with Rawlinson's quantity surveyors and cost estimators.

Assets lacking recent cost evidence have had to rely on price indexing to update historical cost information to current values.

3.3.2 Allowance for Other Costs

In addition to the construction cost, the gross replacement cost includes an allowance for other costs such as development fees and charges. These include:

a) Professional fees for planning, investigation, design and implementation.

b) AIAL costs for staff involved in asset development

c) Preliminaries and General costs including site establishment/de-establishment, contractor set-up costs for plant and equipment, offices and sheds, fences, temporary services, insurance etc.

d) Additional airside costs from security requirements and work restrictions.

e) Financial charges (costs of financing development costs through to the completion of construction).

These allowances are expressed as a percentage (%) of the construction cost. The amount can vary depending on the scale of the project and the duration of construction. Details of the allowance assumed for each asset group are included in **Appendix B**.

Where renewal of assets involves a degree of demolition of the previous asset, the costs of that demolition / removal is capitalised into the replacement cost of the asset.

3.4 Optimisation

There are three accepted requirements for the optimisation of infrastructure assets.

(a) It must represent the lowest cost of replacing the economic benefits embodied in an existing asset.

(b) All vestiges of over-design, excess capacity (over and above that necessary for expected short term growth) and redundancy must be eliminated.

(c) Optimisation is limited to the extent that it can occur in the normal course of business and uses commercially available technology.

The latter criterion is often called brownfield optimisation which recognises the incremental nature of infrastructure growth. Excess capacity and over-design are eliminated but the historic layout of the assets is retained. This reflects the normal process going forward where elements of the asset may be resized or reconfigured when they are replaced, but essentially the existing layout is retained.

In addition to the above requirements, there are 2 additional concepts that are often associated with optimisation:

i. The hypothetical new entrant test

ii. Prudence

The first infers that an optimised asset must reflect what a hypothetical new entrant would construct if replicating the existing service (assuming the existing facility did not already exist). The second requires that the optimised arrangement should reflect the actions of a prudent asset owner.

Current value of an asset should reflect the price a prudent market operator would be prepared to pay to purchase the assets. The prudent investors would not pay for any inherent inefficiency and would accordingly base their price on an optimised arrangement which replicates equivalent services at least cost. The optimised value modern equivalent assets, adjusted to eliminate over-design, surplus capacity and in other words it measures the minimum cost of replacing the services embodied in the assets in the most efficient way given the particular service requirements, and the age and condition of the existing assets.

A key element of the process is in deciding an appropriate level of optimisation. Greenfield optimisation is often considered to reflect the least cost to design and build an entirely new facility regardless of the historical constraints that may have applied. In practice, a greenfield replacement cannot occur in the normal course of business. Consequently optimisation of infrastructure, such as airport terminal facilities, is generally considered in the context of incremental brownfield development, which assumes progressive development that matches the incremental growth that would occur in normal circumstances. Under-utilised assets are replaced by assets of lower capacity and redundant assets are removed, but the historical configuration of the assets is retained. This 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 these assets and the replacement of components in the normal course of business. As the facility expands and changes, a degree of sub-optimality at any point of time is inevitable and part of the cost of total output.

An incremental brownfield optimisation process has been assumed for this valuation. This optimisation process minimises the cost of replacing the services offered by AIAL, given the age and condition of the existing assets and recognising the incremental process (brownfield) associated with aeronautical terminal facility redevelopment. Costs have been assessed to reflect the replacement of current assets with modern equivalents, an optimised construction sequence and adjustment to allow for the difficulties associated with a “brownfield” environment. Where appropriate, adjustments have been made to eliminate surplus assets, obsolescence and over design.

The question of optimality of location or the impacts of site reconfiguration were considered to be outside the scope of this study, and have been assumed optimal for the purpose of this valuation.

3.5 Depreciation

3.5.1 Depreciation Profile

Depreciation is an accounting mechanism for the return of capital invested in depreciable assets. The depreciation profile is generally set to reflect the wearing out of the asset and match the pattern of benefits generated by its use. The key variables that determine the depreciation amount are the initial capital cost, the total useful life of the asset, its residual value at the end of that life and the number of years of remaining useful life expected for that asset.

Straight-line depreciation is generally accepted as suitable for the valuation of building and infrastructure assets. Its profile reflects that of a uniform (constant) level of benefits is derived from the assets as they wear out. A straight-line approach has been adopted for this valuation.

3.5.2 Asset Age

Where possible, information was obtained on the construction dates for the assets or asset components. Sources included AIAL's asset inventory, the capital expenditure programme of AIAL, and discussion with AIAL staff. Judgement was used during site inspections to reconcile the recorded age information with that apparent from observation.

3.5.3 Asset Life

The economic life of an asset is the period of time beyond which it is economically rational to replace rather than to continue to repair, maintain or deploy the asset. The economic life varies for each asset. These lives have been cross referenced against best practice guidance from various sources including the International Infrastructure Management Manual and the Royal Institute of Chartered Surveyors. Assets with a typical useful life (TUL) of 60 years effectively have a long engineering life (i.e. typically 90 years plus), however the rate of change and obsolescence in the environment results in an effective useful life (ERUL) of 60 years or less. An initial assessment of remaining useful life (IRUL) was then calculated as the difference between typical useful life and age of the asset (ie. IRUL = TUL – age). All assets were inspected and assigned condition ratings. Using deterioration relationship information, the condition based remaining useful life (CRUL) was determined to reflect the observed asset condition. Where the IRUL was equal to or less than zero the CRUL was applied. In all other cases the more prudent of either the IRUL or CRUL was carried forward as the effective remaining useful life (ERUL). The effective remaining useful life was then further adjusted to take into account any other overriding factors that are likely to influence a particular assets life expectancy. Examples could include known changes in technology or regulations that may prematurely make an asset obsolete. The expected total useful life is then given by the sum of the effective remaining useful life and asset age (ETUL = ERUL + age).

3.5.4 Residual Value

Where appropriate, assets are assigned residual values to reflect their reuse value at the end of their useful lives. Where an existing asset must be demolished and removed to enable the replacement asset to be constructed, its current book value is reduced to zero (it is important that AIAL's accounting ledger is adjusted accordingly).

3.5.5 Capital Works vs. Operating Expense

Consideration has also been given to whether asset replacements are funded as capital works or as an operating expense. Capital funded assets are subject to a depreciation charge while work funded from an operating budget is not. This distinction is important to avoid double counting. For example, components replaced as part of a regular maintenance plan and consumables such as filters in air conditioning units are treated as operating expenses rather than CAPEX.

3.6 Cost Rate Assumptions

Project cost information from recent works undertaken at both domestic and internal terminal buildings has provided a good basis for establishing unit costs. Despite the fact that 2008 to 2010 have witnessed a noticeable decline in the property construction market in New Zealand, the growth of construction costs in infrastructure assets remained strong. Capital Goods Price Index (CGPI) recorded a considerable increase of 19.85% for Civil Constructions and a moderate increase of 5.59% for Non-Residential Buildings from June 2006 to March 2011. In addition, the continued investment in infrastructure assets by the New Zealand government will continue to ensure a shortage of supply of materials and contractors, and consequently put an upward pressure on construction costs. An overall cost inflation of 6% has been assessed for AIAL's specialised building assets valuations from the previous valuations of June 2006 to the current valuation date of June 2011.

3.7 Valuation Confidence Rating

Confidence ratings have been assigned to the source data with respect to quantities, unit cost rates, remaining lives and total life expectancies. These ratings were confirmed as part of the asset inspection process. The grading system used to rate confidence levels is summarised in the table below.

Table 5: Confidence Rating System

Grade	Label	Description	Accuracy
A	Accurate	Data based on reliable documents	± 10%
B	Minor inaccuracies	Data based on some supporting Documentation	± 20%
C	Significant data estimated	Data based on local knowledge	± 30%
D	All data estimated	Data based on best guess of experienced person	± 40%

Although asset types vary in construction complexity, their accuracy levels have all been assessed on the same basis. The approach taken is illustrated in the following table.

Table 6: Application of Confidence Ratings

Asset	Quantity	Unit Costs	Life/Rem Life	ODRC
XXXXXXX	A, B, C or D	A, B, C or D	A, B, C or D	A, B, C or D

3.8 Work In Progress (WIP)

The valuation is based on a download of AIAL's assets register at 31st March 11. It is understood that at 31st May 2011 the specialised buildings related WIP at cost, net of any disposals was $3,881,934.

3.9 Key Assumptions

This revaluation is subject to a number of assumptions. For the purposes of clarity these assumptions are detailed below:

- All assets falling into the scope of this revaluation exercise are valued based on information developed from direct survey and condition assessment of each building and reviewed against detailed information compiled as part of the 2006 AIAL Specialised Building Assets Valuations provided by Opus.
- Where terminal buildings or other specialised buildings include a tenanted area for retail or commercial purposes, the tenant owns the fit out of this area, with AIAL providing just a basic shell space for occupation.
- The net value of demolition or removal of redundant assets is deemed to be zero, i.e. that the cost of removal is equivalent to the value of reclamation of the materials; hence there is neither a liability nor value associated with assets to be demolished or removed.
- Unit costs have been derived from Opus' cost library and actual recent construction cost information. Unit costs are based on the most recent information provided either by similar projects or available in the industry.
- Terminal building elements with unlimited engineering lives have been adjusted to have a Default Useful Life of 60 years or less reflecting the rate of change and obsolescence in the airport terminal building environment.
- It is understood that the existing Domestic Terminal Building will be vacated in 2016. A Remaining Useful Life of 5 years has therefore been assigned to all building elements of the domestic terminal building.
- Unit area quantity information for buildings has been obtained via off-plan measurements and hence the accuracy of this information is linked to the accuracy of these plans.

4 International Terminal Building

4.1 General Description

The assets located at the International Terminal Building (ITB) can be related to a number of clearly identifiable phases of development. Those phases include the original terminal building establishment phase (1977), Pier A extension phase (1993), ground floor check-in and baggage extension phase (1995 – 1997), Pier A segregation phase (2005), 3A arrivals expansion and Pier B development phase (2008), and the current first floor development phase (2010).

The valuation of the International Terminal Building and its associated assets takes into account the timing of different phases of construction and each asset is valued according to its age, structural element, fit out, and fixtures and fittings. We understand that the level of refurbishment of the basic 1977 structure, services and fit-out is such that little or nothing of this phase of development is believed to survive. The base life of the terminal building has therefore been set at 1988, which reflects an average of the earliest development and redevelopment phases.

Building 11 and 65, together with Building 138 have also been included in the International Terminal Building (BU 2960) Valuation.

4.2 Optimisation

The International Terminal Building is valued based on its existing layout. This layout is, in the main, considered to be fully optimal, accepting that a certain level of sub-optimality is a factor of long lived infrastructure assets. However, optimisation has been applied to the former arrival area on the first floor which is currently vacant and has been annexed from terminal activities and as a result fulfils no useful purpose. The full value of the services and fit-out of this area has been assigned a 0% optimisation rate and hence has been assigned a zero dollar replacement cost.

However, in all other aspects, with an anticipated 24 million passengers a year by 2025, reflecting New Zealand's growing popularity as one of the world's leading tourism destinations, it is unlikely that the International Terminal Building is overdesigned.

4.3 Quantities

The floor area information of the International Terminal Building has been calculated by analysis of AIAL's Geographic Information System (GIS) plan data. Direct survey has also been used to verify layout and floor area information.

4.4 Allowance for Other Costs

The unit costs used for valuing the International Terminal Building assets have been reviewed against construction costs from the recent AIAL terminal building projects including the 3A arrivals expansion, Pier B development and the first floor development projects. Allowance has been made for other costs such as:

- On costs
- Brownfield factors comprising
    - Brownfields
    - Landside and airside factors; and
    - Enabling works

On costs relate to the professional fees for investigation, design and construction supervision (15%), preliminary and general costs (15%) and financial costs (7%). The total on-cost allowance for the International Terminal Building assets is 39.1% for Terminal and Commercial zones.

Brownfields factors relate to the additional costs of development activities in the airport terminal environment due to the constraints of existing infrastructure and the network associations of functional areas of the airport with other proximal functional use areas. The brownfield factors include a base factor (20%), a terminal landside factor (16.8%) or airside factor (29%), and an enabling works factor (12.2%). The total allowance for the International Terminal Building is between 49% and 61.2% for Terminal and Commercial zones.

4.5 Depreciation

International Terminal Building assets with a long engineering life (i.e. typically sub-structure and structural walls, floor and frame elements with an engineering life of 90 years plus) have been assigned an economic life of 60 years or less to reflect the rate of change and obsolescence in the airport terminal environment. This treatment of depreciation is an important change from the 2006 valuation, in which engineering lives were used to determine the depreciation amount. The application of the economic lives approach is consistent with the advice provided by Opus to NZAA (NZ Airports Association) in their recent application to the IRD for a provisional tax rate for terminals. It has the effect of markedly increasing the depreciation charged against the airport building, and effectively lowering the ODRC value relative to the 2006 value. However, this level of depreciation is considered to be a more accurate reflection of the actual depreciation experienced in the airport terminal environment, and more appropriate in the determination of 'fair value'.

Taking into account all structural, internal and external building fabric, building services and infrastructure assets the annual depreciation for the ITB is calculated as $25.2m p.a., which produces a weighted average useful life for the facility as whole of 28.2 yrs.

5 Domestic Terminal Building

5.1 General Description

The Domestic Terminal Building is made up of Domestic Terminal Building 1 Air NZ Domestic Terminal Building, Domestic Terminal Building 2 Ansett Building, and the area linking the two building areas constructed in 2008.

The fittings and fitouts within the Air New Zealand lease boundary are not owned by AIAL and are therefore excluded from the valuation. Basic office fitout has been allowed in the valuation however. The new covered walkway and office alterations adjoining the Koru Car Valet have also been included in the valuation.

The valuation of the Domestic Terminal Building also takes into account the timing of the different phases of construction of this facility.

5.2 Optimisation

The Domestic Terminal Building is at the limit of its capacity to service the present needs of passengers. With the projected passenger number growth, the current facility will soon cease to provide the necessary passenger throughput capacity. As a result a new domestic terminal building is planned to be available from 2016.

For the purpose of the valuation, there are no areas of the Domestic Terminal Building considered to be sub-optimal.

5.3 Allowance for Other Costs

The unit costs used for valuing the Domestic Terminal Building assets have been reviewed against construction costs from the recent expansion project undertaken between DTB 1 and 2 in particular. Allowance has been made for other costs such as:

- On costs
- Brownfield factors comprising
    - Brownfields
    - Landside and airside factors; and
    - Enabling works

On costs relate to the professional fees for investigation, design and construction supervision (12%), preliminary and general costs (12%) and financial costs (7%). The total on-cost allowance for the International Terminal Building assets is 28.4% for Terminal and Commercial zones.

Brownfields factors relate to the additional costs of development activities in the airport terminal environment due to the constraints of existing infrastructure and the network associations of functional areas of the airport with other proximal functional use areas. The brownfield factors include a base factor (20%), a terminal landside factor (16.8%) or airside factor (29%), and an enabling works factor (10.1%). The total allowance for the Domestic Terminal Building is between 47% and 59.2% for Terminal and Commercial zones.

5.4 Depreciation

Domestic Terminal Building assets have been assigned an Effective Remaining Useful Life of 5 years regardless of condition and age to reflect the planned demolition of this facility by 2016. Depreciation of building assets has been calculated based on this effective remaining useful life taking into account the age of the building element.

6 Other Specialised Buildings

6.1 General Description

Other Specialised Buildings include carpark buildings and other building assets that support the aeronautical business of the airport.

The valuation of other specialised buildings also takes into account the timing of different phases of construction. Each building is valued according to age, structural elements, fit outs and services of the building.

6.2 Optimisation

All other specialised buildings are valued based on their existing layout.

With the growing passenger numbers and increasing airport aeronautical business, it is unlikely that any of these buildings is overdesigned. Therefore, there are no areas to which optimisation has been applied.

6.3 Allowance for Other Costs

The unit costs used for valuing the Other Specialised Buildings includes allowance for other costs such as:

- On costs
- Brownfield factors comprising

- Brownfields
- Landside and airside factors; and
- Enabling works

On costs relate to the professional fees for investigation, design and construction supervision (12%), preliminary and general costs (7%) and financial costs (7%). The total on-cost allowance for the Other Specialised Buildings assets is 22.7%.

Brownfields factors relate to the additional costs of development activities in the airport terminal environment due to the constraints of existing infrastructure and the network associations of functional areas of the airport with other proximal functional use areas. The brownfield factors include a base landside factor (1.3%) or airside factor (16.5%), and an enabling works factor (5.1%). The total allowance for the Other Specialised Buildings assets is between 6.4% and 21.6% for Commercial and Office zones.

6.4 Depreciation

Buildings depreciation is calculated from the engineering life of the building element, taking into account the condition and age of that particular building element.

The economic life of these assets is considered to be less of an influence on effective life than for the terminal building facilities, where the rate of environmental change is much higher. Hence the different approach applied.

7 Results

The June 2011 valuations of AIAL specialised building assets are tabulated below. The valuation excludes the valuation of the land, leases and any non-specialised buildings and infrastructure components, which is the subject of the valuers report prepared by Colliers International valuers.

International Terminal Building Value

Table 7: Valuation of AIAL International Terminal Building ($) as at 30th June 2011.

Business Unit	Building Name	ORC	ODRC
2960	International Terminal Building and Building 11, 65 and 138	$706,474,347	$427,408,341

Domestic Terminal Building Value

Table 8: Valuation of AIAL Domestic Terminal Building ($) as at 30th June 2011

Business Unit	Building Name	ORC	ODRC
3590	Domestic Terminal Building	$89,931,131	$27,174,990

Other Specialised Buildings Value

Table 9: Valuation of AIAL Other Specialised Buildings ($) as at 30th June 2011

Business Unit	Building Name	ORC	ODRC
2000	Checkpoint Charlie & Birdman's Hut	$128,283	$88,465
2120	Livestock Handling Office	$288,672	$206,891
2150	Fire Rescue Station	$1,900,676	$1,041,439
2200	Fire Rescue Station Training Facilities	$497,835	$396,781
2600	ITB Long Term Carpark	$3,321,595	$2,238,331
2610	Park and Ride Ticket Office	$187,082	$174,137
2810	Waste Disposal Facility (Honeypot)	$397,732	$199,212
2930	PSVL (Transport Licence)	$246,355	$189,900
3290	DTB Carpark	$26,933,840	$22,745,783
4001	Air Freight New Zealand (Hangar 4)	$1,957,956	$1,377,336
4002	Hangar 6 (Hart)	$1,745,234	$1,429,935
4003	Air National Hangar 5	$2,814,736	$2,556,645
4035	Air New Zealand Amenities Building	$1,357,906	$1,083,139
4095	Air Cargo Building Number 1	$11,424,642	$6,111,241
4105	Air Cargo Building Number 4	$6,010,299	$4,387,516
4220	Corporate Jetbase (Skycare)	$712,596	$565,152
4225	Air Freight New Zealand Cargo Building	$422,470	$164,148

4235	Air National Hangar 2	$1,963,076	$1,184,393
4265	Menzies Cargo Building (Air Cargo 5)	$2,883,075	$1,753,314
4285	DHL Warehouse	$3,574,878	$2,572,479
4320	Waste Resources Building (Incinerator)	$2,160,727	$1,220,278
4400	AIAL Storage Shed	$157,820	$79,628
5580	Power Room	$5,361,771	$1,218,936
5640	Sanitary Sewer Pumping Station at AFCAB	$60,862	$21,969
6320	Engineering Support Services Depot	$3,504,270	$1,367,827
	Total	$80,014,388	$54,374,874

7.1 Confidence Rating Specialised Building Valuation

The confidence ratings are tabulated below for AIAL specialised building valuations.

Table 10: Confidence Ratings for Specialised Building Assets

Item	Quantity	Unit Cost	Life/Rem Life	ODRC
International Terminal Building	A	B	B	B
Domestic Terminal Building	A	B	B	B
Other Specialised Buildings	A	B	B	B

The average accuracy rating for the specialised building asset valuations is B i.e. around ± 20%.

8 Change in Valuation

Comparison between revaluations of AIAL specialised buildings as at 2006 and June 2011 are summarised below. The main aspects of the change in value are also explained in detail below.

8.1 International Terminal Building

Table 11: Revaluation Comparisons for International Terminal Building: June 2006 vs. June 2011

Item	ORC	ODRC
Revaluation as at 30th June 2011	$699,652,873	$424,190,869
Revaluation as at 30th June 2006	$532,367,194	$345,953,129
Valuation Difference	**$167,285,679**	**$78,237,740**

The increase in the 2011 valuation of International Terminal Building is principally due to the capital projects of 3A Arrivals Expansion (total project cost $76.7 million), Pier B Expansion (total project cost $50.2 million) and the First Floor Developments (total project cost $44.8 million), and an overall 6% construction cost inflation increase between 2006 and 2011.

The ODRC value of the ITB facility has increased in an absolute sense from the 2006 valuation as a result of the capital developments noted above. However in a relative sense ODRC value of this facility has reduced, and is lower than the May 2011 book value. This is for reasons of ongoing depreciation, but also notably due to the effect of applying economic useful lives to building assets, rather than the engineering useful life approach adopted in the 2006 valuation. This has resulted in a higher depreciation charge to the International Terminal Building and a proportionately lower ODRC valuation.

8.2 Domestic Terminal Building

Table 12: Revaluation Comparisons for Domestic Terminal Building: June 2006 vs. June 2011

Item	ORC	ODRC
Revaluation as at 30th June 2011	$89,931,131	$27,174,990
Revaluation as at 30th June 2006	$65,559,017	$12,296,840
Valuation Difference	**$24,372,114**	**$14,878,150**

The development of the area between DTB 1 and 2 (total project cost $7.7 million), the upgrade work (totalling $15.5 million) undertaken since 2006 and an overall 6% construction cost inflation increase between 2006 and 2011 are the major aspects that have led to the increase in the Domestic Terminal Building valuation.

It is understood that a new Domestic Terminal Building will be in operation in 2016. A 5-year remaining useful life has therefore been applied to the existing terminal building regardless of the age and condition of the building element.

8.3 Other Specialised Buildings

Table 13: Revaluation Comparisons for Other Specialised Buildings: June 2006 vs. June 2011

Item	ORC	ODRC
Revaluation as at 30th June 2011	$80,014,388	$54,374,874
Revaluation as at 30th June 2006	$59,797,167	$36,700,867
Valuation Difference	**$20,217,221**	**$17,674,007**

The increase in the replacement cost of other specialised building assets is mainly due to the inclusion of the four-level Domestic Carpark Building (totalling $18 million). Assets within this portfolio are also subject to the overall 6% inflation increase between 2006 and 2011. However a number of buildings which were included in the 2006 valuation were removed from this revaluation exercise including the Medical Centre (BU4010), Air Cargo 2 (BU4100), New Zealand Couriers Building (BU4115), Flying Fit Health Club (BU4130), Panelbeater (4190), Quality Cabs Building (BU4200) and Engineering Information Centre (BU6330) as they have either been disposed or transferred to a non-specialised building portfolio. A number of buildings which were excluded from the 2006 valuations have been added to this revaluation, they are Airside Checkpoint Charlie and Birdman's Hut (BU2000), Park and Ride Ticket Office (BU2610), Air National Hangar 5 (BU4003) and DHL Warehouse (BU4285). The change in the scope of Other Specialised Buildings has a net effect of $1.8 million decrease in value.

8.4 Reasons for Shift in Value

There has been a significant change in the value of AIAL specialised building assets since the 2006 valuations. The components of the variation in valuation include:

- Capital expenditure (CAPEX)
- Construction cost inflation
- Application of the economic life to assets
- Depreciation
- Additions, disposals, demolition and adjustments
- Change in quantity and condition of assets

8.4.1 CAPEX

AIAL has spent approximately $206 million of capital expenditure on the specialised building assets since the 2006 valuation. The breakdown of CAPEX is summarised below:

Table 10: CAPEX Summaries since June 2006

	CAPEX
International Terminal Building	$163,920,594
Domestic Terminal Building	$23,199,831
Other Specialised Buildings	$18,705,276
Total	**$205,825,702**

8.4.2 Construction Cost Inflation

The Capital Goods Price Index provides an official measure of cost movements in the construction sector.

Other Non-Residential Buildings cost moved 7.9% upwards from June 2006 to year ending December 2008. It then fell by 2% in year 2009 and flattened in year 2010 with an annual inflation rate of 0%. Global recession impacts on New Zealand economy, falling material prices and low domestic demand were mainly responsible for the decrease. However the sector remained stable starting the year 2011. An overall cost inflation of 5.59% has been witnessed from June 2006 to March 2011.

Other building constructions in the Non-Residential Building sector had different performance over the same period. Farm Buildings had an overall inflation rate of $10.3% while Shops and Offices increased by 2% and Warehouse and Factories inflated 3.8% respectively. The overall inflation of the Non-residential Building sector is 3.1% from June 2006 to March 2011.

Costs of Civil Constructions had a strong growth of 15.4% from June 2006 to year ending December 2009. A slowdown in the cost inflation rate was then witnessed in year 2010 with an annual inflation rate of 1.6%. The sector picked up again in the first quarter of 2011 with an increase of 1.2%. Overall, the sector inflated 19.85% from June 2006 to March 2011.

Taking into account the above factors, the price escalation of AIAL specialised buildings is estimated at 6% for period from June 2006 to June 2011.

8.4.3 Economic Life Application

Assets with a long engineering life (i.e. typically 90 years plus) within the terminal buildings have been assigned an economic life of 60 years or less to reflect the rate of change and obsolescence in the typical airport environment. While this application does not affect the replacement cost of the specialised building assets, it has a notable impact on the depreciated replacement cost of the assets.

8.4.4 Depreciation

Depreciation of terminal building assets is calculated based on the economic useful life of the asset. Increased values of AIAL specialised building assets have been partially offset by the application of the shortened useful life and the depreciation over the past five years from 2006 to 2011.

8.4.5 Additions, disposals, demolition and adjustments

The following buildings have been demolished or vacated since the 2006 valuations:

Business Unit	Building Name
4010	Medical Centre
4100	Air Cargo 2
4115	NZ Couriers Building
6330	Engineering Information Centre

The following buildings which were included in Opus 2006 valuations are valued as investment properties and therefore have been excluded from this valuation:

Business Unit	Building Name
4130	Flying Fit Health Club
4190	Panelbeater
4200	Quality Cabs Building

The following buildings which were excluded from the 2006 valuations have been included in this revaluation:

Business Unit	Building Name
2000	Check Point Charlie & Birdman's Hut
2610	Park and Ride Ticket Office
4003	Air National Hangar 5
4285	DHL Warehouse

8.4.6 Quantity and Condition Variations

Direct survey has been undertaken at each building. Quantity and condition assessment have been reviewed against detailed information compiled as part of the 2006 AIAL Specialised Building Assets Valuations provided by Opus. Changes have been incorporated in the 2011 valuations.

8.5 Forward Forecast

The New Zealand economy is showing tentative signs of recovery from the recession of 2008 and 2009. It is expected that the New Zealand economy will continue to build momentum into 2010 and through to 2013. According to Rider Levett Bucknall's March 2011 Forecast report, the economic growth is expected to have a rate of only 0.3% in 2011 but rebound to 3.4% and 3.0% in the 2012 and 2013 calendar years. A return of more buoyant economic conditions through 2011 to 2013 should support a revival in non-residential construction.

The increasing investment in infrastructure assets by the New Zealand government will continue to ensure a shortage of supply of materials and labours, and consequently put an upward pressure on the construction costs.

The above indicators suggest that the current asset values for AIAL specialised buildings are realistically sustainable and can be expected to continue their upward trend.

Appendix A
Lists of Business Units

Appendix B
Allowance for Other Costs

Appendix C
Memo regarding Changes from Engineering to Economic Useful Lives

Appendix D
Valuation Schedules