



WHOLE OF LIFE COST ANALYSIS

October 2025

For Sport New Zealand Ihi Aotearoa

INTRODUCTION AND PURPOSE

This report provides a Whole of Life indicative square metre (sqm) cost in New Zealand Dollars for the following categories of sports facilities.

- Outdoor Stadia and Arenas – Rectangular playing surface
- Outdoor Stadia and Arenas – Oval playing surface (primarily for cricket)
- Multi-use Indoor Facilities
- Specialist playing facility requirements (by sport)

It is intended as a reference in the development of feasibility assessments and to inform long term investment decisions in response to current and future anticipated demand.

A whole of life perspective accounts for the total cost of a facility over the expected functional life of the asset. An expected lifespan of 50 years is used in the case of most built assets in New Zealand, which aligns to the durability requirements contained in the NZ Building Act. This also provides consistency across assessments. It should be noted that Whole of Life Costs are typically developed and updated throughout the building lifecycle, and are heavily influenced by timing of refurbishment or upgrade.

METHODOLOGY

We have relied on the definition of Whole of Life Cost (and associated guidance) provided by The Treasury (NZ) when determining the costs to be included in this analysis.

“The present value of total cash costs of the investment over its life cycle, calculated using the relevant Public Sector Discount Rate”

The Treasury (2015)

Whole of Life Costing requires estimation of a range costs, both Capital and Operational over the life of the asset.

The table below provides a summary of cost categories as defined by The Treasury, and the typical inclusions and exclusions.

Cash Costs	
Inclusions	Exclusions
Purchase of new asset or use of existing capital resources (e.g. Land) that could otherwise be disposed of.	Depreciation
Other Resources used to develop and implement the investment proposal.	Capital Charge (Opportunity Cost of Capital)

Operating and Maintenance Costs (e.g. Lease Payments, Maintenance Contracts, Personnel)	Costs that would be incurred regardless of the asset / investment (e.g. Corporate Overheads)
Capital Renewals/Upgrades	Inflation (cash flow and discount rate is in real terms).
End of Life Costs (decommissioning)	GST

This report is not intended to replace detailed cost analysis for any specific facility or proposal. It may be used as a prompt or a benchmark along with other relevant references. The following must be considered in any use of the cost estimates provided:

Rates have been estimated for large, medium, and small facilities, across new construction, capital upgrades, and business as usual. This does not consider the variability of assets included in facilities, but is intended to give an indication of the impact of scale in estimating costs.

The scale is indicatively:

- Large: E.g. Eden Park, Sky Stadium, Forsyth Bar, One NZ Te Kaha
- Medium: E.g. Western Springs, McLean Park, Spark Arena, Basin Reserve, TSB Arena, Fly Palmy Arena
- Small: E.g. Cooks Gardens, Trafalgar Park, Specialised Training Facility

WOLC typically requires a finite period to be selected for the associated proposal. The WOLC results depend notably on the timing of capital upgrade/investment.

Land purchase costs are a key component in WOLC. Given variability of land costs across New Zealand, the estimates in this document do not include a provision for land costs.

End of Life Costs (such as demolition and make-good) are also a key component of WOLC. These are highly variable dependent on ownerships and lease arrangements, so are not included in the estimates in this document.

Inclusions and exclusions of each category of costs included in this analysis are:

Category	Inclusions	Exclusions
OPEX (BAU)	The cost per m2 to operate existing facilities under their current state (until the point of refurbishment)	- Personnel Costs other than required to manage/maintain the physical property
CAPEX Renewals	The cost per m2 to operate the facilities if it is retained in its current state and all capital replacement is on a like for like basis.	- Personnel Costs other than required to manage/maintain the physical property
CAPEX Upgrades	The cost per m2 to upgrade and	- Internal Management

	operate an existing facility to meet a future demand need.	costs for Project Management/Investment Proposals. - End of Life Costs (e.g. Lease exit, demolition and end of lifecycle)
CAPEX New Build	The cost to build and operate a new facility to meet a future need.	- Land Purchase - Internal Management costs for Project Management/Investment Proposals - End of Life Costs (e.g. Lease exit, demolition and end of lifecycle)

Key:

- **Op-cx:** Opex (bau) & capex (renewals)
- **Cu:** Significant capex upgrades
- **Cb:** Capex new build

Scenario 1 – Facility is determined as meeting current future demand requirements.

SCENARIO 1				
YEARS 0-10	YEARS 10-20	YEARS 20-30	YEARS 30-40	YEARS 40-50
OP-CX				

Scenario 2 – Current facility broadly meets requirements but requires substantial upgrade to meet future demand.

SCENARIO 2				
YEARS 0-10	YEARS 10-20	YEARS 20-30	YEARS 30-40	YEARS 40-50
OP-CX		X	OP-CX	
		CU		

Scenario 3 – Current Facility is no longer fit for purpose and either needs demolition to allow for a new facility (or an exit and purchase/construction of a dedicated site).

SCENARIO 3				
YEARS 0-10	YEARS 10-20	YEARS 20-30	YEARS 30-40	YEARS 40-50
OP-CX		X	OP-CX	
		CB		

Whole of Life Cost Rates

Our analysis (at July 2025) indicates the following WOLC as a benchmark when considering investment and development options:

Rate / m2	Description	Large	Medium	Small
OPEX - CAPEX	Operate and renew assets in a BAU setting (no major upgrades)	\$7,400	\$6,160	\$4,460
CAPEX Upgrade	Capital cost of major upgrade in response to future demand	\$13,200	\$12,471	\$8,920
CAPEX New Build	Capital cost of building a new facility to meet future demand.	\$16,500	\$15,589	\$11,151

Scenario Example (rate application)

The following table demonstrates how rates could be applied to determine benchmark WOLC for a **large** facility, for each of three investment scenarios.

	Investment scenario		
Rate	Operate BAU	Upgrade and operate	Build new and operate
OPEX-CAPEX	\$7,400	\$7,400	\$7,400
CAPEX Upgrade	\$0	\$13,200	\$0
Capex New Build	\$0	\$0	\$16,500
Total Rate (before additions)	\$7,400	\$20,600	\$23,900
Asset m2	28,800m2	28,800m2	28,800m2
WOLC (rate * m2)	\$213,120,000	\$593,280,000	\$688,320,000
Land Purchase	NA	NA	\$2,000,000
End of Life Cost (e.g. demolition, lease make good, lease early exit costs)	\$800,000 (make good)	\$5,000,000 (demolition)	\$13,000,000

Insurance, rates (1 – 3% of rebuild value)	\$4,752,000	\$4,752,000	\$4,752,000
Total Estimate WOLC*	\$218,672,000*	\$603,032,000*	\$708,072,000*

*Rates are in Nominal Terms

*The Present Value of the investment should be calculated using the applicable Treasury discount rate where being used for investment case purposes.

*Figures are not adjusted for inflation (which is accounted for in the discount rate used), where PV is not used, adjustment using an applicable long term average inflation rate may be used to determine likely real costs.

*Figures do not take into account the timing of major upgrades, detailed analysis of investment options should take into account the timing of cash costs incurred to ensure accurate PV estimates.

Assumptions & Limitations

- Comprehensive data on scale, cost, and other critical metrics for sporting venues within New Zealand is currently limited, making it challenging to accurately determine the square meter build cost.
- Cost inflation is addressed via The Treasury Discount Rate used in calculating the Present Value of the initial WOLC output.
- All rates provided are in real terms.
- The whole of life estimate is based on a 50-year lifecycle period.
- Build cost data is limited and based solely on desktop research using the best available information.
- Allowance for Capital Renewals includes only those asset types and systems expected to be replaced during the lifecycle of the built environment. Elements considered permanent such as structural components and foundations are excluded as are typically replaced during redevelopment (and are therefore end of life costs).
- OPEX costs represent the costs typically required to keep building asset systems operational and fit for purposes. OPEX rates include management of the property assets only.
- An additional 10% per annum has been included in OPEX rates account for reactive maintenance being the expected average expenditure over the life of the asset in the NZ context.
- Insurance and rates costs should be calculated as between 1 – 3 % of new construction cost. Note that areas with high natural disaster potential should utilise a % closer to 3%.