



TECHNICAL REPORT

Part 3: Cost of land for different regions in Victoria

Key findings and methodology

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Infrastructure Victoria
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CANBERRA

Centre for International Economics
Ground Floor, 11 Lancaster Place
Canberra Airport ACT 2609

Telephone +61 2 6245 7800
Facsimile +61 2 6245 7888
Email cie@TheCIE.com.au
Website www.TheCIE.com.au

SYDNEY

Centre for International Economics
Level 7, 8 Spring Street
Sydney NSW 2000

Telephone +61 2 9250 0800
Email ciesyd@TheCIE.com.au
Website www.TheCIE.com.au

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Contents

The Task	1
1 Key results	2
2 Methodology	4
BOXES, CHARTS AND TABLES	
1.1 Land cost of ovals	2
1.2 Land cost of courts	3
1.3 Total area of school ovals and courts	3
2.1 Land uses included for calculations	4

The Task

The CIE has been commissioned to provide data on the cost of land for different regions of Victoria to inform the assessment on the value of school outdoor sports facilities at an SA3 level for Infrastructure Victoria. This was to understand the land value of these public assets, and the potential cost to government of purchasing the same amount of land to provide open space for the community. This cost could be avoided by opening government school grounds for community use outside of school hours.

The following technical report summarises the key results of the analysis and methodology applied. This report accompanies an excel workbook which provides:

- an estimate of the cost of land per square metre by SA3 based on Valuer-General-Victoria's Annual property sales dataset.
 - The workbook allows the users to make choices on regarding the land use or zoning that underpins the cost of land, as well as whether the value is calculated using the median or average.
- an estimate of the total cost of purchasing the land used by school ovals and/or courts by SA3 based on geocoded data on sport court and oval area by school provided by Infrastructure Victoria.

1 Key results

The land cost of school ovals across urban Victoria including selected growth areas, when valued at the rate of vacant residential land, is \$5.3b.

The land cost for sport courts is lower, with a total of \$2.1b, due to courts having generally smaller total area than the total area of ovals.

These results do not reflect the value of school ovals and courts. Capturing the current value to society of these spaces would involve estimating direct and indirect use values of green space and specific sport facilities.¹ These results instead reflect the cost of land required for school green space facilities, assuming it were to be valued at the rate of vacant residential land in the school's SA3.

1.1 Land cost of ovals

Functional Urban Area	Area of ovals	Total value	Average value per school	Average value per m2
	Hectares	\$m	\$m/school	\$/m2
Inner Melbourne	14	326	3	3 091
Melbourne New Growth Area	93	953	5	935
Middle Melbourne	126	2 429	7	1 891
Outer Melbourne	90	1 018	3	1 092
Regional City ^a	47	319	3	639
Rest of Regional Victoria ^b	29	262	3	693
Total	399	5 308	5	1 428

^a Only includes 71 per cent of all government schools across the Regional City FUA. Only government schools in metropolitan Melbourne and the fastest growing regional cities were included in the analysis.

^b Only includes 17 per cent of all government schools across the Rest of Regional Victoria FUA.

^c Only the number of ovals is not identified in the available data, only the area of ovals.

Note: Land values are drawn from vacant residential land excluding vacant rural land.

Source: The CIE

¹ For example, community willingness to pay, amenity value uplifts and identifying substitute courts and ovals.

1.2 Land cost of courts

Functional Urban Area	Number of courts	Area of courts	Total value	Average value per school	Average value per m ²
	No.	Hectares	\$m	\$m/school	\$/m ²
Inner Melbourne	131	12	347	3	3 091
Melbourne New Growth Area	375	33	335	2	935
Middle Melbourne	556	46	905	3	1 891
Outer Melbourne	347	30	332	2	1 092
Regional City ^a	170	14	102	1	639
Rest of Regional Victoria ^b	118	10	72	1	693
Total	1697	146	2 092	2	1 428

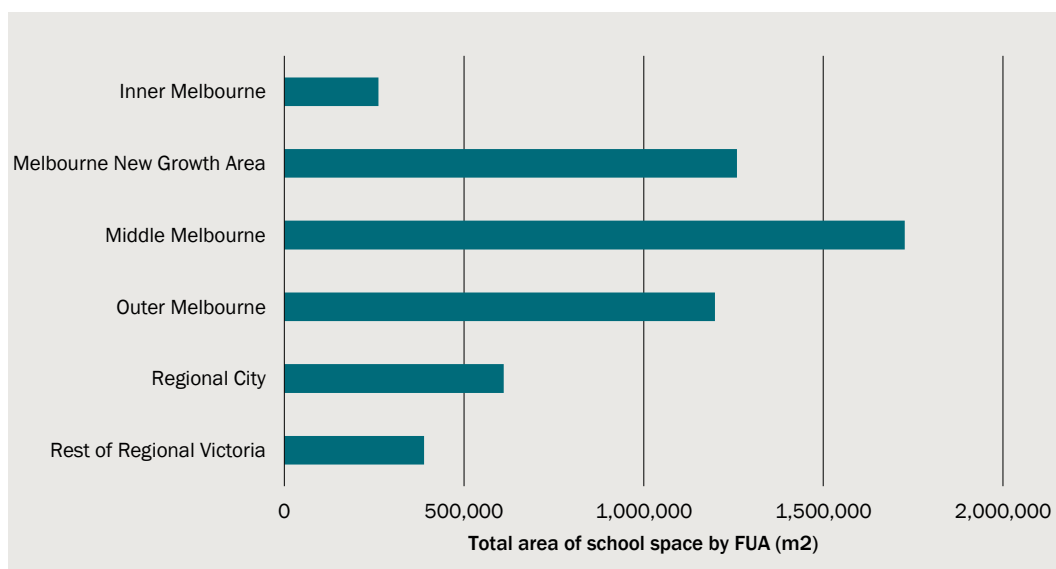
^a Only includes 71 per cent of all government schools across the Regional City FUA. Only government schools in metropolitan Melbourne and the fastest growing regional cities were included in the analysis.

^b Only includes 17 per cent of all government schools across the Rest of Regional Victoria FUA.

Note: Land values are drawn from vacant residential land excluding vacant rural land.

Source: The CIE

1.3 Total area of school ovals and courts



Note: Only includes 71 per cent of government schools in the Regional City FUA, and 17 per cent of government schools in the Rest of Regional Victoria FUA. Only government schools in metropolitan Melbourne and the fastest growing regional cities were included in the analysis.

Data source: The CIE

2 Methodology

The general strategy was to find a land cost per square metre by SA3, which could then be applied to the total area of ovals and sport courts. This provides an estimate of the cost to purchase the amount of land used for ovals and courts across schools in Melbourne and new growth areas across the state.

Land value is taken from Valuer-General-Victoria's Annual property sales dataset from 2022.² This dataset contains a number of relevant pieces of information about property sales in Victoria, including:

- Number of sales
- Mean and median sales price
- Median block size, and
- Median price per unit area.

These statistics are disaggregated by LGA, and by detailed land use types. Given that schools are generally built as close to residential areas as possible, we focused on residential land uses. Four key options were developed which used different subsets of residential land uses. See the table below for these assumptions.

2.1 Land uses included for calculations

Land use	Vacant residential land	Vacant residential land (excl. rural)	All residential land	All residential land excl. units
Detached Home (Ind)	No	No	Yes	Yes
Detached Home (New)	No	No	Yes	Yes
Detached Home Unsp	No	No	Yes	Yes
Detached Home(Comm)	No	No	Yes	Yes
Detached Home(exist)	No	No	Yes	Yes
OYO Cluster Unit	No	No	Yes	No
OYO Co Share Flat	No	No	Yes	No
OYO Strata Flat	No	No	Yes	No
OYO Stratum Flat	No	No	Yes	No
OYO Sub Dwelling	No	No	Yes	No
OYO Sub Unit	No	No	Yes	No

² Valuer-General Victoria 2024, Year Summary 2022, <https://www.land.vic.gov.au/valuations/resources-and-reports/property-sales-statistics>

Land use	Vacant residential land	Vacant residential land (excl. rural)	All residential land	All residential land excl. units
OYO Subdivided Flat	No	No	Yes	No
OYO Unit	No	No	Yes	No
Res/Rural Lstyle	No	No	Yes	Yes
Semi-detached	No	No	Yes	Yes
Semi-detached Unspec	No	No	Yes	Yes
Single Strata Unit	No	No	Yes	No
Single Strata Unsp	No	No	Yes	No
Strata Unit/Flat Uns	No	No	Yes	No
Terrace House	No	No	Yes	Yes
Vac Res A	Yes	Yes	Yes	Yes
Vac Res B	Yes	Yes	Yes	Yes
Vac Res C	Yes	Yes	Yes	Yes
Vac Res Englobo Oth	Yes	Yes	Yes	Yes
Vac Res Rural Lstyle	Yes	No	Yes	Yes

Source: Victoria Valuer General, The CIE

Land cost per square metre is calculated as median sales price divided by median block size. However, the data quality for median block size is often poor, with extreme values in both directions. For instance, some residential property sales are recorded as having block size of 3 square metres. To deal with this:

- If the median block size was below the 10th percentile of block sizes across LGAs, the chosen value for land cost per square metre was the **minimum** of median sales price divided by median block size, and the recorded median price per unit area.³
- If the median block size was above the 90th percentile of block sizes across LGAs, the chosen value for land cost per square metre was the **maximum** of median sales price divided by median block size, and the recorded median price per unit area.

Land values per square metre across all the relevant land uses were averaged, weighted by number of sales, to arrive at an overall land value per square metre for each LGA. These were then converted into an SA3 form using a correspondence between LGAs and SA3s which included the percentages of each SA3 in each LGA.

For example, 51 per cent of the Whittlesea – Wallan SA3 is made up of the Mitchell LGA, with the other 49 per cent coming from the Whittlesea LGA. The land value per square metre for Whittlesea – Wallan is therefore the average of the Mitchell and Whittlesea land values, weighted by the proportion of area taken up.

³ Occasionally the median block size was recorded as 0 square metres. In this case, the recorded median price per unit area was always 0. Data points of this type were excluded from any further analysis.

Note that in some cases, a particular LGA had no sales in 2022 of a particular land use. Most importantly, Melbourne City had no sales of vacant land blocks. For any SA3 with at least 20 per cent of its area comprising LGAs with no values, the chosen land value per square metre is the average of residential land and residential land excl. units' land value per square metre.

Geocoded data on sport court and oval area by school was provided to the CIE by Infrastructure Victoria, including latitude and longitude, which was used to identify the SA3 of each school. Only schools in metropolitan Melbourne and the fastest growing regional cities were included as these were most relevant for the analysis of opening school grounds. The final values were obtained by multiplying the oval/court area by the value per square metre for its LGA.