

ESTIMATED MARKET VALUE OF STRATA TITLED PROPERTIES IN WESTERN AUSTRALIA

PREPARED FOR THE STANDING COMMITTEE ON PUBLIC ADMINISTRATION

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1 STRATA MANAGEMENT INQUIRY

1.1 INSTRUCTIONS

As requested by the committee, the strata property data contained in this report includes the following:

- Estimated capital value of all strata titled properties (Strata and Survey Strata Plans) in Western Australia.
- Estimated average value for each unit.
- Number of strata properties and units within each range.
- Periodic value estimates showing rate of change in value and number of strata titled properties from 2002 to 2010.
- Projected value estimates showing rate of change in value and number of strata titled properties from 2011 to 2020
- Each Strata unit is sorted by number of lots in each plan into categories of either 2, 3-5, 6-10 or more than 10 units in group.
- Results grouped by region, range and property use;

Note that the following definitions are used as the basis for grouping:

- Regions are based on metropolitan, country, regional centres (Albany, Bunbury, Geraldton-Greenough, Kalgoorlie-Boulder and Mandurah) and Perth City.
- Property use is categorised by Commercial, Industrial, Residential, Vacant Land or Miscellaneous use and is determined by the type of improvements on a site as classified by the Valuer General.

2 CAPITAL VALUE ESTIMATES

The Valuer General maintains sale, property and valuation records on all rateable and taxable property in Western Australia.

To estimate the capital value of all strata titled property in Western Australia, mass valuation techniques are applied to data extracted from the database. Where possible, the resultant values are tested against known sales to ensure an accurate result.

2.1 ACCURACY TESTING

Accuracy of a mass valuation can be measured by comparing resultant individual valuations to their actual sale (value to price ratios). This is known as a 'ratio study' and is supported by international standards as defined by the International Association of Assessing Officers.





Extremes of value to price ratios (outliers) can skew the data and allow a result to be produced that does not truly reflect the actual accuracy level. These are identified statistically and trimmed from the final dataset used for valuation purposes.

The median and mean value to price ratios indicate the overall accuracy of the mass valuation exercise.

The coefficient of dispersion (COD) measures the uniformity of valuation accuracy measures [the average absolute variance from the median value to price ratio].

2.2 VALUATION TYPE 1 - ESTIMATE FROM CURRENT GROSS RENTAL VALUE (RATING VALUATION)

The value of a property, particularly income producing or investment property, can be expressed as a ratio of its rental value and the anticipated return on the investment.

On this basis, the current Gross Rental Values (GRVs) were used as a base to estimate the capital value of each strata titled property. An analysed rate of return was applied to each GRV to determine its equivalent capital value.

The estimated capital value for each year using this method results in the following;

Year of Valuation	Capital Value (Estimated)	Number of Units	Number of Properties
2002	27,232,661,487	165,815	39,957
2003	31,776,317,409	171,607	41,590
2004	37,758,076,357	178,462	43,289
2005	43,666,626,374	185,449	45,054
2006	56,846,422,472	192,868	46,769
2007	75,793,446,119	201,624	48,786
2008	86,545,991,381	210,353	50,891
2009	86,023,179,637	220,858	53,220
2010	96,374,896,675	231,088	55,419





Since individual properties are valued using this method, an accuracy measure can be conducted. The Mean and Median VP Ratio Study shows an accuracy level close to 100% of the true market value, which is extremely accurate. Accordingly, confidence in this result is high.

Year of Valuation	Average Value to Price Ratio	Median Value to Price Ratio	Coefficient of Dispersion (COD)
2002	103.99%	100.00%	24.70%
2003	104.27%	100.26%	23.43%
2004	102.80%	100.05%	22.43%
2005	101.82%	100.06%	21.29%
2006	103.98%	100.13%	23.78%
2007	103.17%	99.98%	21.35%
2008	102.99%	100.01%	21.49%
2009	101.50%	100.00%	19.51%
2010	101.46%	100.13%	19.30%

The COD is consistently higher than the international standard of 15% or less. The higher result was anticipated since data was not divided into more, smaller homogenous groups where different, more accurate return rates would have been applied. For this purpose however, this is not considered to affect the overall accuracy of the result.

2.3 VALUATION TYPE 2 - EXTRAPOLATION OF AVERAGE SALE PRICES

An extensive list of strata titled properties sold between 1/7/2001 and 1/7/2010 within each local government area was extracted and sorted into property type.

The table below shows the number of sales and percentage turnover of all strata units occurring during this period. The sales are shown against the number of existing units (or stock).

Year of Valuation	Number of Sales (Strata Only)	Number of Units (Stock)	Turnover (Sales/Stock)
2002	21,393	165,815	12.90%
2003	22,303	171,607	13.00%
2004	19,698	178,462	11.04%
2005	23,191	185,449	12.51%
2006	26,413	192,868	13.69%
2007	20,598	201,624	10.22%
2008	17,547	210,353	8.34%
2009	16,837	220,858	7.62%
2010	19,620	231,088	8.49%





An average value was calculated for each local government and property type and utilised to arrive at the value on this basis.

Not all divisions had sales occurring and some extrapolation was required to complete the exercise.

The estimated capital value for each year using this method results in the following;

Year of Valuation	Capital Value (Estimated)	Number of Units	Number of Properties
2002	29,617,573,074	165,815	.39,957
2003	34,727,865,824	171,607	41,590
2004	40,710,759,326	178,462	43,289
2005	46,962,935,351	185,449	45,054
2006	67,497,419,716	192,868	46,769
2007	80,736,122,376	201,624	48,786
2008	91,679,245,484	210,353	50,891
2009	91,001,038,463	220,858	53,220
2010	103,832,448,486	231,088	55,419

The accuracy of this result can be measured however as the values are applied to groups and not to individual properties this valuation type was expected to less accurate than Valuation Type 1, as shown below.

Year of Valuation	Average Value to Price Ratio	Median Value to Price Ratio	Coefficient of Dispersion (COD)
2002	117.99%	107.96%	45.01%
2003	117.40%	107.59%	45.55%
2004	114.79%	107.69%	45.45%
2005	112.39%	106.25%	44.05%
2006	127.42%	106.62%	59.01%
2007	112.14%	107.44%	43.48%
2008	110.21%	107.36%	43.65%
2009	104.91%	104.83%	43.74%
2010	105.29%	105.20%	44.08%





3 PROJECTED CAPITAL VALUES

Valuation Type 1 projection figures shown below are calculated on the basis that the annual change in Number of Units, Properties and Capital Values from 2002 to 2010 will continue to 2020.

Year of Valuation	Capital Value (Estimated)	Number of Units	Number of Properties
2002	27,232,661,487	165,815	39,957
2003	31,776,317,409	171,607	41,590
2004	37,758,076,357	178,462	43,289
2005	43,666,626,374	185,449	45,054
2006	56,846,422,472	192,868	46,769
2007	75,793,446,119	201,624	48,786
2008	86,545,991,381	210,353	50,891
2009	86,023,179,637	220,858	53,220
2010	96,374,896,675	231,088	55,419
Annual change over the 8 Year Period	17.11%	4.24%	4.17%

Year of Valuation	Projected Capital Value (Estimated)	Projected Number of Units	Projected Number of Properties
2011	112,868,604,417	240,878	57,732
2012	132,185,063,773	251,082	60,142
2013	154,807,363,615	261,719	62,652
2014	181,301,269,185	272,806	65,267
2015	212,329,371,424	284,363	67,991
2016	248,667,657,827	296,410	70,828
2017	291,224,919,258	308,967	73,785
2018	341,065,478,068	322,056	76,864
2019	399,435,805,926	335,699	80,072
2020	467,795,697,061	349,920	83,414





4 APPENDICIES

APPENDIX 1 – SUMMARY DATA FOR VALUATION TYPE 1

SUMMARY TABLES BY NUMBER OF UNITS IN PLAN (RANGE)

Year of Valuation: 2002

Range	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
2 Units in Group	\$8,678,758,621	\$170,359	25,472	50,944	2
3- 5 Units in Group	\$5,353,042,758	\$175,096	8,575	30,572	4
6- 10 Units in Group	\$4,321,376,879	\$160,294	3,515	26,959	8
More than 10 Units in Group	\$8,879,483,228	\$154,857	2,395	57,340	24
Total	\$27,232,661,487	\$164,235	39,957	165,815	4

Year of Valuation: 2003

Range	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
2 Units in Group	\$10,219,893,151	\$192,588	26,533	53,066	2
3- 5 Units in Group	\$6,308,267,975	\$196,519	9,012	32,100	4
6- 10 Units in Group	\$4,918,075,212	\$178,437	3,597	27,562	8
More than 10 Units in Group	\$10,330,081,070	\$175,446	2,448	58,879	24
Total	\$31,776,317,409	\$185,169	41,590	171,607	4

Range	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
2 Units in Group	\$12,180,090,399	\$220,766	27,586	55,172	2
3- 5 Units in Group	\$7,547,406,408	\$224,285	9,463	33,651	4
6- 10 Units in Group	\$5,726,497,349	\$201,986	3,702	28,351	8
More than 10 Units in Group	\$12,304,082,202	\$200,758	2,538	61,288	24
Total	\$37,758,076,357	\$211,575	43,289	178,462	4





Range	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
2 Units in Group	\$14,036,641,515	\$244,566	28,697	57,394	2
3- 5 Units in Group	\$8,695,274,123	\$246,871	9,923	35,222	4
6- 10 Units in Group	\$6,545,876,440	\$224,343	3,815	29,178	8
More than 10 Units in Group	\$14,388,834,296	\$226,044	2,619	63,655	24
Total	\$43,666,626,374	\$235,464	45,054	185,449	4

Year of Valuation: 2006

Range	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
2 Units in Group	\$18,199,166,019	\$305,827	29,754	59,508	2
3- 5 Units in Group	\$11,283,482,814	\$306,059	10,396	36,867	4
6- 10 Units in Group	\$8,339,056,181	\$279,590	3,901	29,826	8
More than 10 Units in Group	\$19,024,717,458	\$285,369	2,718	66,667	25
Total	\$56,846,422,472	\$294,743	46,769	192,868	4

Range	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
2 Units in Group	\$24,074,189,504	\$389,424	30,910	61,820	2
3- 5 Units in Group	\$15,129,322,251	\$388,859	10,993	38,907	4
6- 10 Units in Group	\$10,991,681,578	\$355,591	4,052	30,911	8
More than 10 Units in					
Group	\$25,598,252,787	\$365,762	2,831	69,986	25
Total	\$75,793,446,119	\$375,915	48,786	201,624	4





Range	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
2 Units in Group	\$26,537,654,825	\$414,004	32,050	64,100	2
3- 5 Units in Group	\$17,353,252,443	\$419,171	11,725	41,399	4
6- 10 Units in Group	\$12,685,051,633	\$397,825	4,183	31,886	8
More than 10 Units in Group	\$29,970,032,481	\$410,728	2,933	72,968	25
Total	\$86,545,991,381	\$411,432	50,891	210,353	4

Year of Valuation: 2009

Range	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
2 Units in Group	\$25,882,284,660	\$388,145	33,341	66,682	2
3- 5 Units in Group	\$17,363,243,830	\$395,023	12,465	43,955	4
6- 10 Units in Group	\$12,522,080,487	\$379,929	4,328	32,959	8
More than 10 Units in Group	\$30,255,570,661	\$391,597	3,086	77,262	25
Total	\$86,023,179,637	\$389,495	53,220	220,858	4

Range	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
2 Units in Group	\$28,935,066,384	\$418,706	34,553	69,106	2
3- 5 Units in Group	\$19,280,581,446	\$414,886	13,196	46,472	4
6- 10 Units in Group	\$13,535,120,985	\$398,866	4,458	33,934	8
More than 10 Units in Group	\$34,624,127,859	\$424,440	3,212	81,576	25
Total	\$96,374,896,675	\$417,048	55,419	231,088	4





SUMMARY TABLES BY PROPERTY USE

Year of Valuation: 2002

Property Use	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
Commercial	\$2,255,010,349	\$230,857	997	9,768	10
Farming	\$411,987	\$205,994	1	2	2
Industrial	\$1,483,743,934	\$198,654	1,389	7,469	5
Miscellaneous	\$130,355,253	\$14,295	2,816	9,119	3
Residential	\$23,192,539,216	\$167,695	34,527	138,302	4
Vacant Land	\$170,600,748	\$147,706	227	1,155	5
Total	\$27,232,661,487	\$164,235	39,957	165,815	4

Year of Valuation: 2003

Property Use	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
Commercial	\$2,399,830,380	\$240,368	1,015	9,984	10
Industrial	\$1,586,640,958	\$209,956	1,412	7,557	5
Miscellaneous	\$143,282,801	\$13,527	3,319	10,592	3
Residential	\$27,398,222,542	\$192,885	35,553	142,044	4
Vacant Land	\$248,340,728	\$173,665	291	1,430	5
Total	\$31,776,317,409	\$185,169	41,590	171,607	4

Property Use	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
Commercial	\$2,806,052,603	\$263,232	1,040	10,660	10
Industrial	\$1,739,902,482	\$226,343	1,443	7,687	5
Miscellaneous	\$201,198,938	\$15,874	3,971	12,675	3
Residential	\$32,643,195,994	\$224,050	36,483	145,696	4
Vacant Land	\$367,726,340	\$210,852	352	1,744	5
Total	\$37,758,076,357	\$211,575	43,289	178,462	4





Property Use	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
Commercial	\$3,018,265,003	\$281,765	1,048	10,712	10
Industrial	\$1,997,433,060	\$253,836	1,490	7,869	5
Miscellaneous	\$207,445,858	\$14,423	4,534	14,383	3
Residential	\$37,902,163,988	\$252,395	37,544	150,170	4
Vacant Land	\$541,318,465	\$233,831	438	2,315	5
Total	\$43,666,626,374	\$235,464	45,054	185,449	4

Year of Valuation: 2006

Property Use	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
Commercial	\$3,597,402,684	\$343,657	1,050	10,468	10
Industrial	\$2,523,963,438	\$314,787	1,523	8,018	5
Miscellaneous	\$307,562,650	\$18,857	5,138	16,310	3
Residential	\$49,664,291,681	\$319,565	38,516	155,412	4
Vacant Land	\$753,202,019	\$283,159	542	2,660	5
Total	\$56,846,422,472	\$294,743	46,769	192,868	4

Property Use	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
Commercial	\$4,331,511,099	\$402,183	1,067	10,770	10
Industrial	\$3,795,123,328	\$461,077	1,574	8,231	5
Miscellaneous	\$392,672,451	\$21,048	5,803	18,656	3
Residential	\$66,207,637,040	\$412,259	39,693	160,597	4
Vacant Land	\$1,066,502,201	\$316,469	649	3,370	5
Total	\$75,793,446,119	\$375,915	48,786	201,624	4





Property Use	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
Commercial	\$6,607,885,781	\$600,881	1,083	10,997	10
Industrial	\$5,157,957,045	\$597,124	1,642	8,638	5
Miscellaneous	\$451,370,057	\$21,951	6,397	20,563	3
Residential	\$72,797,143,395	\$438,204	40,932	166,126	4
Vacant Land	\$1,531,635,104	\$380,153	837	4,029	5
Total	\$86,545,991,381	\$411,432	50,891	210,353	4

Year of Valuation: 2009

Property Use	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
Commercial	\$6,554,089,654	\$562,824	1,105	11,645	11
Industrial	\$5,937,559,869	\$653,700	1,716	9,083	5
Miscellaneous	\$419,138,058	\$17,759	7,248	23,601	3
Residential	\$71,812,237,920	\$417,193	42,277	172,132	4
Vacant Land	\$1,300,154,137	\$295,691	874	4,397	5
Total	\$86,023,179,637	\$389,495	53,220	220,858	4

Property Use	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
Commercial	\$7,017,122,875	\$576,213	1,131	12,178	11
Industrial	\$5,638,053,505	\$600,816	1,760	9,384	5
Miscellaneous	\$492,980,066	\$18,543	8,077	26,586	3
Residential	\$81,926,433,319	\$459,755	43,526	178,196	4
Vacant Land	\$1,300,306,909	\$274,095	925	4,744	. 5
Total	\$96,374,896,675	\$417,048	55,419	231,088	4





SUMMARY TABLES BY REGION

Year of Valuation: 2002

Region	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
City	\$1,729,359,690	\$247,369	349	6,991	20
Country	\$1,654,463,221	\$122,417	2,677	13,515	5
Metropolitan	\$22,361,742,530	\$166,950	33,750	133,943	4
Regional Centre	\$1,487,096,046	\$130,837	3,181	11,366	4
Total	\$27,232,661,487	\$164,235	39,957	165,815	4

Year of Valuation: 2003

Region	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
City	\$2,170,734,112	\$281,292	376	7,717	21
Country	\$1,797,725,713	\$129,417	2,773	13,891	5
Metropolitan	\$26,180,078,614	\$189,388	35,137	138,235	4
Regional Centre	\$1,627,778,969	\$138,370	3,304	11,764	4
Total	\$31,776,317,409	\$185,169	41,590	171,607	4

Region	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
City	\$2,620,252,946	\$313,315	397	8,363	21
Country	\$2,052,888,309	\$143,820	2,872	14,274	5
Metropolitan	\$31,121,466,540	\$217,165	36,555	143,308	4
Regional Centre	\$1,963,468,562	\$156,864	3,465	12,517	4
Total	\$37,758,076,357	\$211,575	43,289	178,462	4





Region	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
City	\$3,103,634,077	\$352,726	419	8,799	21
Country	\$2,416,912,103	\$160,646	2,977	15,045	5
Metropolitan	\$35,698,474,615	\$240,817	38,009	148,239	4
Regional Centre	\$2,447,605,578	\$183,122	3,649	13,366	4
Total	\$43,666,626,374	\$235,464	45,054	185,449	4

Year of Valuation: 2006

Region	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
City	\$3,956,590,124	\$425,486	437	9,299	21
Country	\$3,320,292,871	\$212,567	3,087	15,620	5
Metropolitan	\$46,205,244,505	\$300,430	39,434	153,797	4
Regional Centre	\$3,364,294,971	\$237,726	3,811	14,152	4
Total	\$56,846,422,472	\$294,743	46,769	192,868	4

Region	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
City	\$5,368,935,510	\$539,429	456	9,953	22
Country	\$4,326,617,851	\$262,060	3,241	16,510	5
Metropolitan	\$61,747,807,391	\$385,960	41,068	159,985	4
Regional Centre	\$4,350,085,368	\$286,642	4,021	15,176	4
Total	\$75,793,446,119	\$375,915	48,786	201,624	4





Region	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
City	\$6,703,168,839	\$638,458	457	10,499	23
Country	\$5,155,997,490	\$296,220	3,458	17,406	5
Metropolitan	\$69,672,620,438	\$419,942	42,657	165,910	4
Regional Centre	\$5,014,204,614	\$303,193	4,319	16,538	4
Total	\$86,545,991,381	\$411,432	50,891	210,353	4

Year of Valuation: 2009

Region	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
City	\$6,596,499,498	\$600,501	468	10,985	23
Country	\$5,380,380,192	\$281,695	3,715	19,100	5
Metropolitan	\$68,702,382,495	\$397,558	44,415	172,811	4
Regional Centre	\$5,343,917,453	\$297,512	4,622	17,962	4
Total	\$86,023,179,637	\$389,495	53,220	220,858	4

Region	Capital Value (Estimated)	Average Value per Unit	Number of Properties	Number of Units	Average Number of Units per Property
City	\$7,854,474,830	\$638,887	493	12,294	25
Country	\$6,083,059,856	\$295,941	3,962	20,555	5
Metropolitan	\$76,626,245,854	\$427,275	46,106	179,337	4
Regional Centre	\$5,811,116,134	\$307,434	4,858	18,902	4
Total	\$96,374,896,675	\$417,048	55,419	231,088	4