

BUILDING APPROVALS

WESTERN AUSTRALIA

April 1994

MAIN FEATURES

The number of houses approved in April 1994 decreased by 13.0 per cent when compared with March 1994 and increased by 16.2 per cent when compared with April 1993.

The provisional trend for all new dwelling approvals fell 0.7 per cent in April 1994, following a similar fall in March 1994. This trend will continue to fall unless there is a rise of more than 4.9 per cent in the May seasonally adjusted figure. The historical average monthly movement of this series regardless of sign is 8.3 per cent.

The number of total dwelling units approved in April 1994 decreased by 13.5 per cent when compared with March 1994 and increased by 6.2 per cent when compared with April 1993.

Comparisons with previous periods are:

Month to month

	<i>Apr. 1994</i>	<i>Mar. 1994</i>	<i>% change</i>	<i>Apr. 1993</i>	<i>% change</i>
Houses	1,507	1,732	-13.0	1,297	+16.2
Total dwelling units	2,094	2,422	-13.5	1,971	+6.2

Three month moving average

	<i>Apr. 1994</i>	<i>Mar. 1994</i>	<i>% change</i>	<i>Apr. 1993</i>	<i>% change</i>
Houses	1,588	1,453	+9.3	1,330	+19.4
Total dwelling units	2,205	2,022	+9.1	1,791	+23.1

Four months January to April

	<i>1994</i>	<i>1993</i>	<i>% change</i>	<i>1992</i>	<i>% change</i>
Houses	5,867	5,063	+15.9	4,387	+33.7
Total dwelling units	8,159	6,967	+17.1	6,136	+33.0

PHONE INQUIRIES

Contact Ms Diane Braskic on (09) 323 5129 for further information about statistics in this publication and the availability of related unpublished statistics. Other inquiries, including copies of publications, contact Information Services on (09) 323 5140.

MAIL INQUIRIES

Write to Information Services, Australian Bureau of Statistics, Hyatt Centre, 30 Terrace Road, East Perth WA 6004.

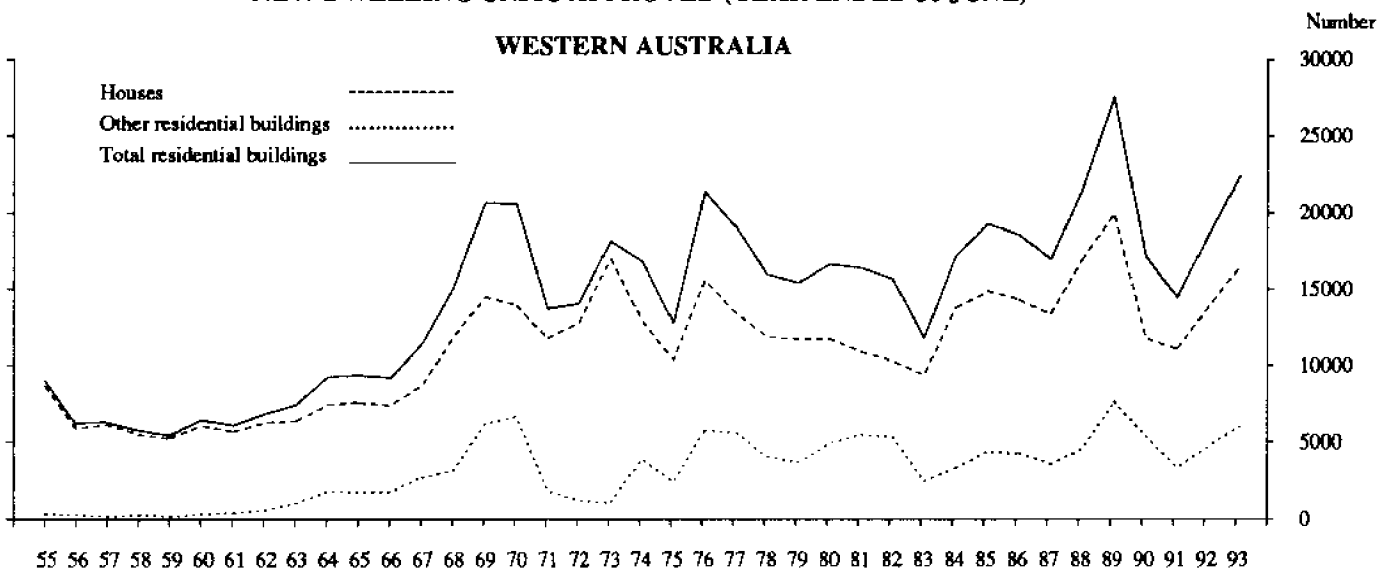
ELECTRONIC SERVICES

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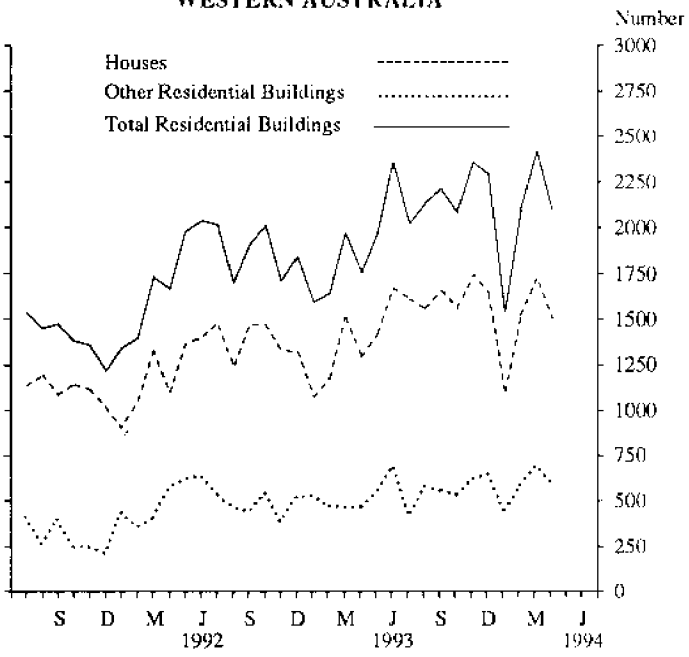
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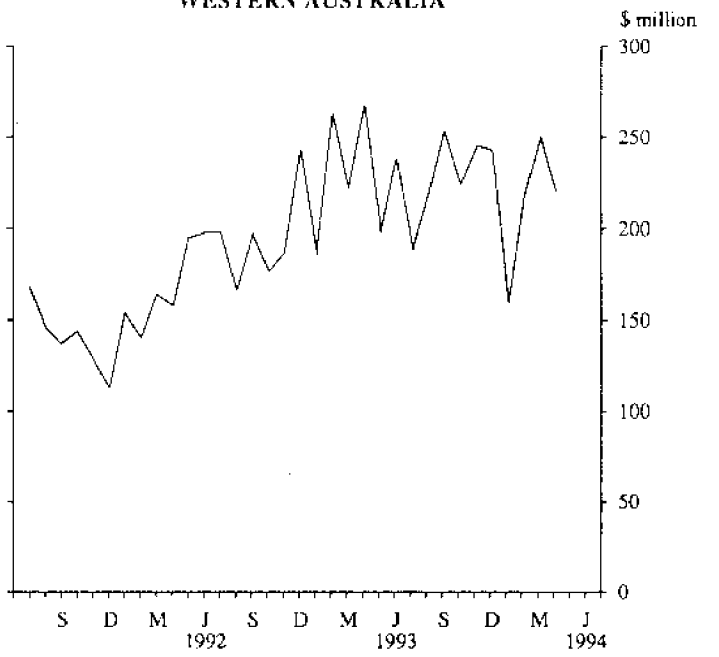
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NEW DWELLING UNITS APPROVED (YEAR ENDED 30 JUNE)**WESTERN AUSTRALIA**

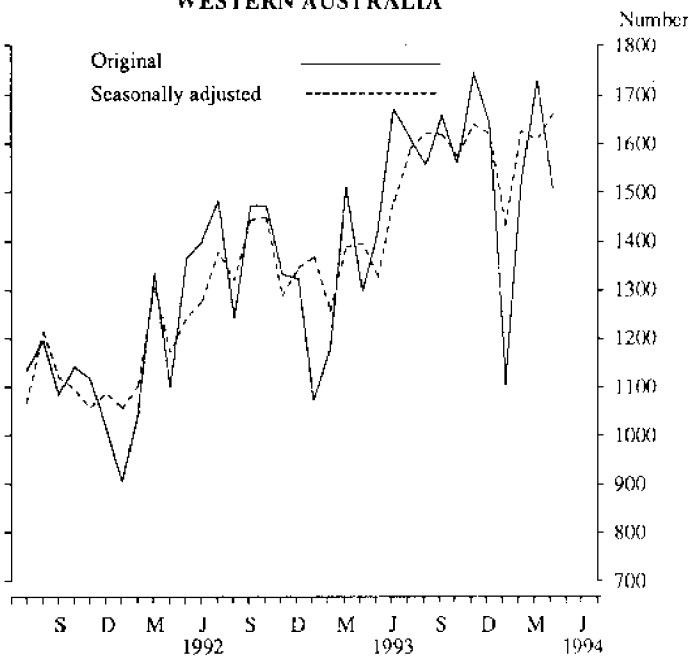
**NEW DWELLING UNITS APPROVED
WESTERN AUSTRALIA**



**TOTAL VALUE OF BUILDING APPROVED
WESTERN AUSTRALIA**



**NEW HOUSES APPROVED
WESTERN AUSTRALIA**



**NEW HOUSES APPROVED
WESTERN AUSTRALIA**

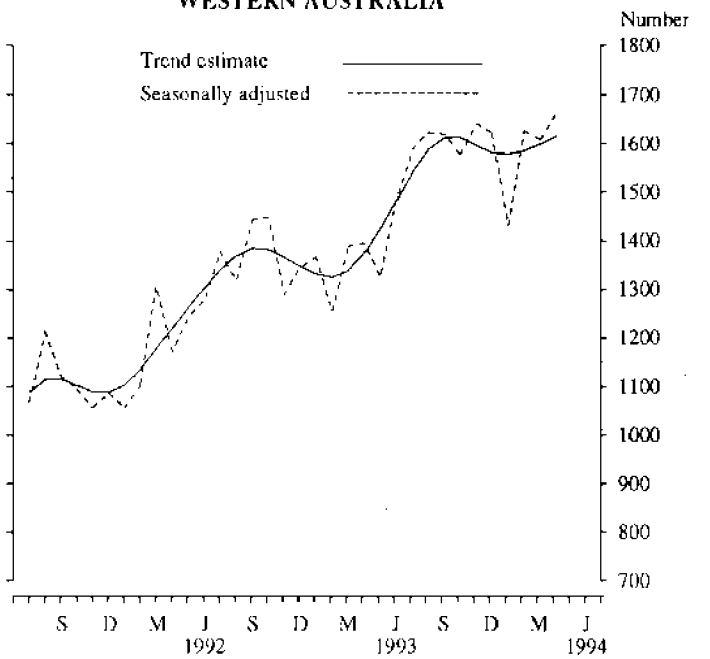


TABLE 1. NUMBER OF DWELLING UNITS APPROVED IN NEW RESIDENTIAL BUILDING

Period	Houses			Other residential buildings			Total		
	Private sector	Public sector	Total	Private sector	Public sector	Total	Private sector	Public sector	Total
PERTH STATISTICAL DIVISION									
1990-91	7,492	158	7,650	2,194	391	2,585	9,686	549	10,235
1991-92	9,969	194	10,163	2,505	1,434	3,939	12,474	1,628	14,102
1992-93	11,618	285	11,903	3,448	1,540	4,988	15,066	1,825	16,891
1992-93 July-April	9,472	205	9,677	2,873	1,231	4,104	12,345	1,436	13,781
1993-94 July-April	11,261	188	11,449	3,986	616	4,602	15,247	804	16,051
<i>1993—</i>									
February	819	23	842	253	125	378	1,072	148	1,220
March	1,046	5	1,051	339	11	350	1,385	16	1,401
April	873	19	892	277	125	402	1,150	144	1,294
May	1,040	24	1,064	306	64	370	1,346	88	1,434
June	1,106	56	1,162	269	245	514	1,375	301	1,676
July	1,166	3	1,169	326	31	357	1,492	34	1,526
August	1,101	12	1,113	371	83	454	1,472	95	1,567
September	1,199	30	1,229	437	35	472	1,636	65	1,701
October	1,125	14	1,139	412	28	440	1,537	42	1,579
November	1,194	66	1,260	409	70	479	1,603	136	1,739
December	1,196	47	1,243	429	104	533	1,625	151	1,776
<i>1994—</i>									
January	828	2	830	261	24	285	1,089	26	1,115
February	1,095	6	1,101	401	95	496	1,496	101	1,597
March	1,248	3	1,251	511	97	608	1,759	100	1,859
April	1,109	5	1,114	429	49	478	1,538	54	1,592
WESTERN AUSTRALIA									
1990-91	10,776	317	11,093	2,733	620	3,353	13,509	937	14,446
1991-92	13,474	362	13,836	3,078	1,663	4,741	16,552	2,025	18,577
1992-93	16,036	449	16,485	4,081	1,913	5,994	20,117	2,362	22,479
1992-93 July-April	13,051	338	13,389	3,331	1,432	4,763	16,382	1,770	18,152
1993-94 July-April	15,359	293	15,652	4,843	767	5,610	20,202	1,060	21,262
<i>1993—</i>									
February	1,155	25	1,180	283	182	465	1,438	207	1,645
March	1,489	24	1,513	435	23	458	1,924	47	1,971
April	1,261	36	1,297	319	140	459	1,580	176	1,756
May	1,392	34	1,426	375	170	545	1,767	204	1,971
June	1,593	77	1,670	375	311	686	1,968	388	2,356
July	1,595	18	1,613	375	34	409	1,970	52	2,022
August	1,537	21	1,558	479	98	577	2,016	119	2,135
September	1,626	36	1,662	515	35	550	2,141	71	2,212
October	1,546	15	1,561	483	42	525	2,029	57	2,086
November	1,677	69	1,746	531	82	613	2,208	151	2,359
December	1,585	60	1,645	518	126	644	2,103	186	2,289
<i>1994—</i>									
January	1,091	13	1,104	398	41	439	1,489	54	1,543
February	1,505	19	1,524	479	97	576	1,984	116	2,100
March	1,724	8	1,732	573	117	690	2,297	125	2,422
April	1,473	34	1,507	492	95	587	1,965	129	2,094

NOTE: The number of self-contained dwelling units approved as part of the construction of non-residential building and alterations and additions to existing buildings (including conversions to dwelling units) are excluded from this table. There were 11 such dwelling units approved in April 1994.

TABLE 2. VALUE OF BUILDING APPROVED
(\$ million)

Period	New residential building									Alterations and additions to residential buildings	Non-residential building		Total building	
	Houses			Other residential buildings			Total				Private sector	Total	Private sector	Total
	Private sector	Public sector	Total	Private sector	Public sector	Total	Private sector	Public sector	Total					
PERTH STATISTICAL DIVISION														
1990-91	566.3	9.3	575.6	144.3	20.5	164.8	710.6	29.8	740.4	104.9	417.8	769.5	1,232.7	1,614.8
1991-92	689.9	10.5	700.4	133.3	81.9	215.2	823.2	92.4	915.6	104.8	245.3	398.5	1,172.4	1,418.8
1992-93	822.1	17.7	839.7	188.9	92.3	281.2	1,010.9	109.9	1,120.9	113.3	463.2	715.9	1,585.3	1,950.1
1992-93														
July-April	666.7	12.3	679.0	154.9	75.5	230.4	821.6	87.8	909.4	94.2	415.6	633.5	1,329.4	1,637.2
1993-94														
July-April	858.3	11.3	869.6	254.2	39.1	293.4	1,112.6	50.4	1,163.0	102.2	304.8	400.2	1,519.2	1,665.4
1993—														
February	60.4	1.5	61.9	13.0	11.9	24.8	73.4	13.4	86.7	8.3	108.8	130.8	190.4	225.8
March	74.5	0.3	74.8	17.9	0.6	18.5	92.4	0.9	93.3	12.6	25.4	58.2	129.6	164.0
April	65.7	1.0	66.7	13.7	7.2	20.9	79.4	8.2	87.7	8.8	62.0	88.0	150.2	184.5
May	77.3	1.5	78.8	18.1	3.5	21.6	95.4	5.0	100.4	10.0	13.9	33.3	119.3	143.7
June	78.0	3.8	81.9	15.9	13.3	29.2	93.9	17.1	111.0	9.1	33.6	49.1	136.6	169.2
July	87.3	0.2	87.5	20.4	1.4	21.8	107.7	1.5	109.3	9.1	15.4	22.1	132.2	140.5
August	80.5	0.9	81.4	20.6	6.2	26.8	101.1	7.2	108.3	9.1	28.9	39.7	139.1	157.0
September	85.5	2.2	87.7	28.1	2.4	30.5	113.6	4.6	118.2	9.7	56.6	57.9	179.9	185.9
October	85.5	0.8	86.3	27.1	1.8	28.9	112.6	2.6	115.2	11.3	47.0	50.7	170.9	177.2
November	89.7	3.5	93.2	25.2	4.2	29.4	114.9	7.7	122.6	10.4	35.4	43.1	160.8	176.2
December	91.6	2.7	94.4	24.9	6.3	31.2	116.5	9.0	125.5	9.8	20.7	56.4	147.0	191.8
1994—														
January	64.0	0.1	64.2	15.4	1.1	16.4	79.4	1.2	80.6	8.8	23.7	27.5	111.8	116.8
February	89.4	0.4	89.8	26.0	7.6	33.6	115.5	7.9	123.4	10.4	16.2	23.9	142.1	157.8
March	95.0	0.2	95.2	39.2	5.7	44.8	134.2	5.9	140.0	12.2	32.1	40.0	178.5	192.2
April	89.7	0.3	90.0	27.3	2.6	29.9	116.9	2.9	119.8	11.3	28.8	38.9	157.0	170.0
WESTERN AUSTRALIA														
1990-91	804.7	21.4	826.2	174.2	34.1	208.3	979.0	55.5	1,034.4	126.2	505.9	894.4	1,610.1	2,055.0
1991-92	931.4	23.9	955.3	166.1	96.5	262.6	1,097.5	120.4	1,217.9	124.2	306.6	504.9	1,527.0	1,847.0
1992-93	1,138.8	34.9	1,173.7	227.6	118.1	345.7	1,366.4	153.0	1,519.4	137.1	591.3	889.6	2,091.8	2,546.1
1992-93														
July-April	921.9	26.1	947.9	182.0	90.2	272.2	1,103.9	116.3	1,220.1	113.7	520.9	776.1	1,735.6	2,110.0
1993-94														
July-April	1,176.6	21.9	1,198.6	307.3	49.8	357.1	1,483.9	71.8	1,555.7	124.7	409.7	544.6	2,017.2	2,224.9
1993—														
February	84.1	1.6	85.7	14.8	16.3	31.1	98.8	17.9	116.8	10.4	112.9	135.9	222.2	263.1
March	108.1	2.4	110.5	23.4	1.5	24.9	131.5	3.9	135.4	14.7	37.2	71.9	182.6	222.1
April	93.7	2.7	96.3	16.4	8.2	24.6	110.1	10.9	121.0	10.7	104.5	136.3	225.1	268.0
May	103.3	2.5	105.8	22.6	10.3	32.9	125.8	12.8	138.6	11.6	22.3	48.0	159.7	198.3
June	113.7	6.3	120.0	23.0	17.7	40.7	136.7	24.0	160.7	11.7	48.1	65.4	196.5	237.8
July	118.6	1.6	120.2	22.9	1.6	24.5	141.5	3.2	144.7	10.5	21.9	33.6	173.9	188.7
August	113.4	2.1	115.5	27.2	7.1	34.3	140.6	9.1	149.8	11.0	47.0	58.9	198.5	219.7
September	118.4	3.0	121.4	32.3	2.4	34.7	150.6	5.4	156.1	12.7	66.7	84.8	230.1	253.7
October	116.4	0.9	117.2	31.4	2.8	34.3	147.8	3.7	151.5	14.0	53.0	58.9	214.6	224.4
November	126.5	3.7	130.3	32.6	5.0	37.5	159.1	8.7	167.8	13.0	54.0	64.9	225.6	245.7
December	121.3	3.7	125.0	31.2	8.1	39.3	152.5	11.8	164.3	11.7	25.8	67.2	190.0	243.2
1994—														
January	84.8	1.3	86.0	23.5	2.4	25.9	108.2	3.7	111.9	10.4	33.1	37.4	151.6	159.6
February	122.4	1.7	124.0	30.8	7.8	38.6	153.2	9.4	162.6	13.0	31.2	42.7	197.4	218.4
March	135.3	0.8	136.1	43.5	6.7	50.2	178.7	7.5	186.3	14.8	41.5	49.7	235.0	250.7
April	119.6	3.2	122.8	32.0	6.0	38.0	151.6	9.2	160.8	13.5	35.5	46.6	200.4	220.9

TABLE 3. NUMBER OF DWELLING UNITS APPROVED SEASONALLY ADJUSTED AND TREND ESTIMATES (a)

Period	Houses				Total			
	Private sector		Total		Private sector		Total	
	Seasonally adjusted	Trend estimate	Seasonally adjusted	Trend estimate	Seasonally adjusted	Trend estimate	Seasonally adjusted	Trend estimate
<i>1993—</i>								
February r	1,230	1,282	1,256	1,325	1,562	1,644	1,698	1,846
March	1,340	1,303	1,388	1,338	1,724	1,660	1,871	1,826
April	1,413	1,343	1,395	1,374	1,735	1,693	1,828	1,833
May	1,292	1,396	1,325	1,424	1,695	1,742	1,809	1,870
June	1,416	1,452	1,483	1,481	1,758	1,799	2,045	1,925
July	1,565	1,506	1,588	1,541	1,853	1,872	1,865	2,008
August	1,579	1,547	1,623	1,588	1,999	1,949	2,183	2,101
September	1,592	1,567	1,620	1,612	1,999	2,019	2,145	2,183
October r	1,568	1,567	1,577	1,613	2,131	2,069	2,197	2,241
November r	1,523	1,554	1,642	1,597	2,067	2,094	2,351	2,263
December r	1,574	1,545	1,622	1,582	2,171	2,100	2,551	2,257
<i>1994—</i>								
January r	1,460	1,550	1,431	1,579	2,000	2,103	1,881	2,235
February r	1,610	1,567	1,627	1,586	2,164	2,111	2,174	2,213
March r	1,563	1,588	1,608	1,599	2,044	2,122	2,334	2,197
April r	1,678	1,612	1,662	1,615	2,209	2,130	2,163	2,183

(a) Seasonally adjusted series smoothed by application of a 13-term Henderson moving average. Trend estimates for the most recent months are provisional and can be revised as data for additional months become available. See Explanatory Notes for a more detailed explanation.

TABLE 4. VALUE OF BUILDING APPROVED AT AVERAGE 1989-90 PRICES (a)
 (\$ million)

Period	New residential building				Alterations and additions to residential buildings	Non-residential building		Total building	
	Houses		Other residential buildings	Total		Private sector	Total	Private sector	Total
	Private sector	Total							
1990-91	884.2	907.7	204.4	1,112.1	138.4	495.1	875.0	1,681.3	2,125.5
1991-92	1,052.4	1,079.3	256.1	1,335.5	140.3	298.3	491.3	1,645.5	1,967.2
1992-93	1,261.4	1,300.1	341.2	1,641.4	151.7	579.6	872.0	2,207.3	2,665.1
<i>1992—</i>									
Dec. qtr.	314.7	321.8	78.0	399.8	39.5	131.7	200.0	530.8	639.3
<i>1993—</i>									
Mar. qtr.	285.9	297.1	87.0	384.2	40.0	168.5	272.2	549.7	696.4
June qtr.	340.6	353.2	97.0	450.2	37.3	171.4	244.9	608.7	732.4
Sept. qtr.	381.7	389.0	92.2	481.2	37.2	132.8	173.6	631.5	692.1
Dec. qtr.	393.7	402.7	109.6	512.3	41.8	129.9	186.8	657.2	740.9
<i>1994—</i>									
Mar. qtr.	367.4	371.3	112.9	484.3	41.0	103.4	126.9	606.4	652.1

(a) See paragraphs 20-25 of the Explanatory Notes. Constant price estimates are subject to revision each quarter as more up to date information on prices and commodity compositions becomes available.

TABLE 5. VALUE OF BUILDING APPROVED, BY CLASS OF BUILDING AND OWNERSHIP
(\$ million)

Class of building	1991-92	July-April		1994			
		1992-93	1992-93	1993-94	February	March	April
PRIVATE SECTOR							
New houses	931.4	1,138.8	921.9	1,176.6	122.4	135.3	119.6
New other residential buildings	166.1	227.6	182.0	307.3	30.8	43.5	32.0
<i>Total new residential building</i>	<i>1,097.5</i>	<i>1,366.4</i>	<i>1,103.9</i>	<i>1,483.9</i>	<i>153.2</i>	<i>178.7</i>	<i>151.6</i>
Alterations and additions to residential buildings	122.9	134.1	110.7	123.6	13.0	14.8	13.4
Hotels, etc.	14.6	10.7	8.9	23.4	3.1	1.9	5.7
Shops	84.2	212.8	196.0	125.9	6.2	12.4	8.8
Factories	21.0	41.2	37.6	44.0	3.9	5.6	8.9
Offices	40.7	44.4	41.1	42.1	2.5	2.6	4.2
Other business premises	49.6	100.3	85.0	72.3	9.6	8.7	4.4
Educational	27.2	28.8	26.6	28.3	0.3	4.3	0.8
Religious	11.1	4.2	3.2	6.9	0.4	0.3	1.1
Health	22.9	79.8	65.1	27.0	0.8	2.4	0.1
Entertainment and recreational	8.7	24.4	23.8	14.8	2.3	0.9	0.5
Miscellaneous	26.6	44.7	33.5	25.0	2.3	2.4	0.9
<i>Total non-residential building</i>	<i>306.6</i>	<i>591.3</i>	<i>520.9</i>	<i>409.7</i>	<i>31.2</i>	<i>47.5</i>	<i>35.5</i>
Total	1,527.0	2,091.8	1,735.6	2,017.2	197.4	235.0	200.4
PUBLIC SECTOR							
New houses	23.9	34.9	26.1	21.9	1.7	0.8	3.2
New other residential buildings	96.5	118.1	90.2	49.8	7.8	6.7	6.0
<i>Total new residential building</i>	<i>120.4</i>	<i>153.0</i>	<i>116.3</i>	<i>71.8</i>	<i>9.4</i>	<i>7.5</i>	<i>9.2</i>
Alterations and additions to residential buildings	1.3	3.0	3.0	1.0	—	—	0.2
Hotels, etc.	0.2	0.2	0.2	—	—	—	—
Shops	2.2	2.0	2.0	1.8	—	0.1	0.1
Factories	0.1	4.6	4.6	0.9	—	—	0.1
Offices	28.7	67.6	65.8	26.6	3.5	0.2	—
Other business premises	12.6	12.2	6.6	17.4	1.9	0.7	1.9
Educational	94.5	98.6	76.4	46.3	1.8	5.7	7.9
Religious	—	—	—	—	—	—	—
Health	17.9	22.1	20.0	23.4	—	—	—
Entertainment and recreational	24.2	49.7	41.0	12.8	4.1	0.8	0.6
Miscellaneous	18.0	41.3	38.7	5.7	0.2	0.7	0.6
<i>Total non-residential building</i>	<i>198.3</i>	<i>298.3</i>	<i>255.2</i>	<i>134.9</i>	<i>11.5</i>	<i>8.2</i>	<i>11.1</i>
Total	320.0	454.3	374.5	207.7	20.9	15.7	20.5
TOTAL							
New houses	955.3	1,173.7	947.9	1,198.6	124.0	136.1	122.8
New other residential buildings	262.6	345.7	272.2	357.1	38.6	50.2	38.0
<i>Total new residential building</i>	<i>1,217.9</i>	<i>1,519.4</i>	<i>1,220.1</i>	<i>1,555.7</i>	<i>162.6</i>	<i>186.3</i>	<i>160.8</i>
Alterations and additions to residential buildings	124.2	137.1	113.7	124.7	13.0	14.8	13.5
Hotels, etc.	14.8	10.8	9.1	23.4	3.1	1.9	5.7
Shops	86.4	214.8	198.0	127.7	6.2	12.4	8.9
Factories	21.1	45.8	42.3	44.9	3.9	5.6	9.0
Offices	69.4	112.0	106.9	68.7	6.0	2.8	4.2
Other business premises	62.1	112.5	91.6	89.7	11.5	9.4	6.3
Educational	121.6	127.4	103.0	74.6	2.1	10.0	8.7
Religious	11.1	4.2	3.2	6.9	0.4	0.3	1.1
Health	40.8	101.9	85.2	50.4	0.8	2.4	0.1
Entertainment and recreational	33.0	74.0	64.8	27.7	6.3	1.8	1.1
Miscellaneous	44.6	86.0	72.2	30.6	2.5	3.1	1.5
<i>Total non-residential building</i>	<i>504.9</i>	<i>889.6</i>	<i>776.1</i>	<i>544.6</i>	<i>42.7</i>	<i>49.7</i>	<i>46.6</i>
Total	1,847.0	2,546.1	2,110.0	2,224.9	218.4	250.7	220.9

TABLE 6. NON-RESIDENTIAL BUILDING JOBS APPROVED, BY CLASS OF BUILDING AND VALUE SIZE GROUPS

Period	\$50,000 to less than \$200,000		\$200,000 to less than \$500,000		\$500,000 to less than \$1m		\$1m to less than \$5m		\$5m and over		Total	
	No.	Value (\$m)	No.	Value (\$m)	No.	Value (\$m)	No.	Value (\$m)	No.	Value (\$m)	No.	Value (\$m)
HOTELS, ETC.												
1994 February	3	0.3	2	0.6	1	0.8	1	1.4	—	—	7	3.1
March	4	0.4	2	0.5	—	—	1	1.0	—	—	7	1.9
April	2	0.2	4	1.3	1	1.0	1	3.3	—	—	8	5.7
SHOPS												
1994 February	11	1.0	9	3.0	2	1.1	1	1.0	—	—	23	6.2
March	13	1.2	4	1.2	4	2.9	3	7.2	—	—	24	12.4
April	13	1.4	12	3.8	2	1.5	2	2.2	—	—	29	8.9
FACTORIES												
1994 February	13	1.6	3	1.0	2	1.4	—	—	—	—	18	3.9
March	11	1.4	10	2.8	1	0.5	1	1.0	—	—	23	5.6
April	18	2.3	7	2.2	2	1.5	1	2.9	—	—	28	9.0
OFFICES												
1994 February	12	1.0	4	1.3	3	2.4	1	1.3	—	—	20	6.0
March	18	1.7	2	0.5	1	0.7	—	—	—	—	21	2.8
April	15	1.5	4	0.9	—	—	1	1.8	—	—	20	4.2
OTHER BUSINESS PREMISES												
1994 February	15	1.3	8	2.2	2	1.1	1	1.3	1	5.6	27	11.5
March	13	1.1	8	2.2	7	4.3	1	1.7	—	—	29	9.4
April	13	1.1	6	1.8	—	—	2	3.4	—	—	21	6.3
EDUCATIONAL												
1994 February	3	0.3	1	0.2	—	—	1	1.6	—	—	5	2.1
March	1	0.1	4	1.3	—	—	4	8.7	—	—	9	10.0
April	1	0.2	2	0.7	—	—	—	—	1	7.9	4	8.7
RELIGIOUS												
1994 February	—	—	1	0.4	—	—	—	—	—	—	1	0.4
March	—	—	1	0.3	—	—	—	—	—	—	1	0.3
April	2	0.3	—	—	1	0.9	—	—	—	—	3	1.1
HEALTH												
1994 February	1	0.1	1	0.2	1	0.5	—	—	—	—	3	0.8
March	4	0.5	—	—	1	0.7	1	1.2	—	—	6	2.4
April	1	0.1	—	—	—	—	—	—	—	—	1	0.1
ENTERTAINMENT AND RECREATIONAL												
1994 February	4	0.3	—	—	—	—	2	6.0	—	—	6	6.3
March	3	0.3	3	1.0	1	0.5	—	—	—	—	7	1.8
April	—	—	—	—	2	1.1	—	—	—	—	2	1.1
MISCELLANEOUS												
1994 February	5	0.5	—	—	—	—	1	2.0	—	—	6	2.5
March	9	0.8	2	0.7	1	0.6	1	1.0	—	—	13	3.1
April	4	0.4	3	1.1	—	—	—	—	—	—	7	1.5
TOTAL NON-RESIDENTIAL BUILDING												
1994 February	67	6.4	29	8.8	11	7.3	8	14.6	1	5.6	116	42.7
March	76	7.4	36	10.3	16	10.1	12	21.9	—	—	140	49.7
April	69	7.4	38	11.7	8	5.9	7	13.6	1	7.9	123	46.6

TABLE 7. BUILDING APPROVALS BY STATISTICAL LOCAL AREAS (a), APRIL 1994

Statistical local area, statistical subdivision and statistical division	New residential building						Alterations and additions to residential buildings (\$'000)	Non-residential building		
	Houses			Other residential buildings				Private sector (\$'000)	Total (\$'000)	Total building (\$'000)
	Private sector (number)	Public sector (number)	Total value (\$'000)	Private sector (number)	Public sector (number)	Total value (\$'000)				
PERTH STATISTICAL DIVISION										
Claremont (T)	2	—	1,750	2	—	250	412	—	—	2,412
Cottesloe (T)	6	—	1,606	—	—	—	325	—	—	1,931
Mosman Park (T)	—	—	—	—	—	—	84	—	—	84
Nedlands (C)	15	—	2,450	—	—	—	839	—	—	3,289
Peppermint Grove (S)	—	—	—	—	—	—	199	150	150	349
Perth (C) — Inner	—	—	—	—	—	—	—	5,253	5,253	5,253
Perth (C) — North	2	—	214	14	—	1,105	710	77	77	2,106
Perth (C) — Outer	—	—	—	27	—	1,584	262	1,417	1,417	3,263
Perth (C) — South	9	—	721	29	—	1,620	90	300	300	2,730
Perth (C) — Wembley-Coastal	6	—	648	—	—	—	428	96	96	1,172
Subiaco (C)	2	—	359	—	—	—	460	—	—	819
Central Metropolitan (SSD)	42	—	7,748	72	—	4,539	3,809	7,293	7,293	23,409
Bassendean (T)	5	—	376	12	—	650	64	560	560	1,650
Bayswater (C)	7	—	428	—	—	—	212	1,592	3,442	4,082
Kalamunda (S)	33	—	2,817	—	—	—	513	—	—	3,330
Mundaring (S)	25	—	2,529	—	5	250	334	247	247	3,360
Swan (S)	106	—	6,800	26	—	1,043	231	932	8,932	17,006
East Metropolitan (SSD)	176	—	12,950	38	5	1,943	1,355	3,331	13,181	29,428
Stirling (C) — Central	39	—	3,755	76	4	4,708	333	1,053	1,053	9,849
Stirling (C) — West	7	—	881	54	—	3,180	585	—	—	4,647
Stirling (C) — South-Eastern	5	—	332	27	—	1,931	153	—	—	2,416
Wanneroo (C)	370	—	27,346	26	—	1,963	846	2,590	2,700	32,855
North Metropolitan (SSD)	421	—	32,314	183	4	11,783	1,918	3,643	3,753	49,767
Cockburn (C)	68	—	6,068	18	—	1,163	113	854	854	8,199
East Fremantle (T)	—	—	—	—	—	—	35	—	—	35
Fremantle (C) — Inner	—	—	—	—	—	—	—	3,350	3,350	3,350
Fremantle (C) — Remainder	19	—	1,612	10	—	535	579	55	55	2,780
Kwinana (T)	32	—	1,944	—	—	—	33	400	400	2,377
Melville (C)	44	—	5,952	31	18	3,009	1,205	424	424	10,590
Rockingham (C)	117	3	8,124	16	—	1,042	323	1,786	1,786	11,273
South West Metropolitan (SSD)	280	3	23,700	75	18	5,748	2,288	6,868	6,868	38,604
Armadale (C)	30	—	2,060	—	—	—	195	—	—	2,255
Belmont (C)	17	—	1,158	17	10	1,216	89	2,928	2,928	5,390
Canning (C)	46	—	3,511	8	12	1,134	871	3,055	3,055	8,570
Gosnells (C)	74	2	4,363	4	—	200	168	1,410	1,490	6,221
Serpentine-Jarrahdale (S)	11	—	935	—	—	—	220	—	—	1,155
South Perth (C)	12	—	1,214	32	—	3,282	403	314	314	5,213
South East Metropolitan (SSD)	190	2	13,241	61	22	5,831	1,946	7,707	7,787	28,805
Total	1,109	5	89,952	429	49	29,864	11,316	28,842	38,881	170,013
SOUTH WEST STATISTICAL DIVISION										
Boddington (S)	1	—	77	—	—	—	24	—	—	101
Mandurah (C)	70	—	4,694	16	—	833	135	400	400	6,062
Murray (S)	10	—	804	—	—	—	17	—	—	821
Waroona (S)	4	—	415	—	—	—	—	—	—	415
Dale (SSD)	85	—	5,989	16	—	833	176	400	400	7,398
Bunbury (C)	18	1	1,602	9	5	1,717	217	857	857	4,393
Capel (S)	7	—	645	—	—	—	—	323	323	967
Collie (S)	3	—	165	—	—	—	15	—	—	180
Dardanup (S)	8	—	680	—	—	—	74	—	—	754
Donnybrook-Balingup (S)	2	—	140	—	—	—	14	—	—	154
Harvey (S)	12	—	1,067	—	—	—	34	529	1,105	2,206
Preston (SSD)	50	1	4,298	9	5	1,717	354	1,709	2,285	8,654

For footnote, see end of table.

TABLE 7. BUILDING APPROVALS BY STATISTICAL LOCAL AREAS (a), APRIL 1994—continued

Statistical local area, statistical subdivision and statistical division	New residential building						Alterations and additions to residential buildings (\$'000)	Non-residential building		Total building (\$'000)
	Houses			Other residential buildings				Private sector (\$'000)	Total (\$'000)	
	Private sector (number)	Public sector (number)	Total value (\$'000)	Private sector (number)	Public sector (number)	Total value (\$'000)				
SOUTH WEST STATISTICAL DIVISION (continued)										
Augusta-Margaret River (S)	9	1	828	2	—	120	90	525	525	1,563
Busselton (S)	26	2	2,358	11	14	1,569	68	614	614	4,609
Vasse (SSD)	35	3	3,186	13	14	1,689	158	1,139	1,139	6,172
Boyup Brook (S)	1	—	350	—	—	—	—	—	—	350
Bridgetown-Greenbushes (S)	3	—	132	—	—	—	50	64	164	346
Manjimup (S)	3	—	234	—	—	—	—	168	168	403
Nannup (S)	1	—	30	—	—	—	—	—	—	30
Blackwood (SSD)	8	—	746	—	—	—	50	232	332	1,129
Total	178	4	14,220	38	19	4,239	738	3,480	4,156	23,353
LOWER GREAT SOUTHERN STATISTICAL DIVISION										
Broomehill (S)	—	—	—	—	—	—	—	—	—	—
Gnowangerup (S)	—	—	—	—	—	—	—	—	—	—
Jerramungup (S)	—	—	—	—	—	—	—	—	—	—
Katanning (S)	—	—	—	—	—	—	17	—	—	17
Kent (S)	—	—	—	—	—	—	—	—	—	—
Kojoonup (S)	1	—	158	—	—	—	—	—	—	158
Tambellup (S)	—	—	—	—	—	—	—	—	—	—
Woodanilling (S)	—	—	—	—	—	—	—	—	—	—
Pallinup (SSD)	1	—	158	—	—	—	17	—	—	175
Albany (T)	10	—	979	—	7	481	60	1,380	1,380	2,900
Albany (S)	9	—	666	—	—	—	108	—	—	773
Cranbrook (S)	—	—	—	—	—	—	—	—	—	—
Denmark (S)	5	—	454	—	—	—	52	—	—	506
Plantagenet (S)	3	—	185	—	—	—	—	—	—	185
King (SSD)	27	—	2,284	—	7	481	220	1,380	1,380	4,364
Total	28	—	2,442	—	7	481	237	1,380	1,380	4,539
UPPER GREAT SOUTHERN STATISTICAL DIVISION										
Brookton (S)	1	—	45	—	—	—	—	93	93	138
Cubelling (S)	1	—	124	—	—	—	—	—	—	124
Dumbleyung (S)	—	—	—	—	—	—	—	—	—	—
Narrogin (T)	1	—	90	—	—	—	40	—	—	130
Narrogin (S)	1	—	170	—	—	—	14	—	—	184
Pingelly (S)	—	—	—	—	—	—	—	—	—	—
Wagin (S)	—	—	—	—	—	—	—	—	—	—
Wandering (S)	—	—	—	—	—	—	—	—	—	—
West Arthur (S)	1	—	99	—	—	—	—	—	—	99
Wickepin (S)	—	—	—	—	—	—	18	—	—	18
Williams (S)	—	—	—	—	—	—	16	—	—	16
Hotham (SSD)	5	—	527	—	—	—	89	93	93	709
Corrigin (S)	1	—	83	—	—	—	—	—	—	83
Kondinin (S)	—	—	—	—	—	—	—	—	—	—
Kulin (S)	—	—	—	—	—	—	—	—	—	—
Lake Grace (S)	—	—	—	—	—	—	53	—	—	53
Lakes (SSD)	1	—	83	—	—	—	53	—	—	136
Total	6	—	610	—	—	—	142	93	93	845

For footnote, see end of table.

TABLE 7. BUILDING APPROVALS BY STATISTICAL LOCAL AREAS (S), APRIL 1994—continued

Statistical local area, statistical subdivision and statistical division	New residential building						Alterations and additions to residential buildings (\$'000)	Non-residential building		Total building (\$'000)
	Houses			Other residential buildings				Private sector (\$'000)	Total (\$'000)	
	Private sector (number)	Public sector (number)	Total value (\$'000)	Private sector (number)	Public sector (number)	Total value (\$'000)				
MIDLANDS STATISTICAL DIVISION										
Chittering (S)	3	—	186	—	—	—	—	—	—	186
Dandaragan (S)	—	—	—	—	—	—	12	—	—	12
Gingin (S)	9	—	608	—	—	—	52	120	120	780
Moora (S)	—	—	—	—	—	—	—	—	—	—
Victoria Plains (S)	—	—	—	—	—	—	—	—	—	—
Moore (SSD)	12	—	794	—	—	—	64	120	120	978
Beverley (S)	—	—	—	—	—	—	—	—	—	—
Cunderdin (S)	—	—	—	—	—	—	—	—	—	—
Dalwallinu (S)	—	—	—	—	—	—	—	—	—	—
Dowerin (S)	—	—	—	—	—	—	—	—	—	—
Goomalling (S)	—	—	—	—	—	—	—	—	—	—
Koorda (S)	—	—	—	—	—	—	—	—	—	—
Northam (T)	7	—	598	—	—	—	10	—	—	608
Northam (S)	8	—	499	—	—	—	19	—	—	518
Quairading (S)	1	—	64	—	—	—	—	—	60	124
Tammin (S)	—	—	—	—	—	—	—	—	—	—
Toodyay (S)	6	—	413	—	—	—	60	—	—	473
Wongan-Ballidu (S)	—	—	—	—	—	—	—	—	—	—
Wyalkatchem (S)	—	—	—	—	—	—	—	—	—	—
York (S)	4	—	221	—	—	—	—	—	—	221
Avon (SSD)	26	—	1,795	—	—	—	89	—	60	1,944
Bruce Rock (S)	—	—	—	—	—	—	—	—	—	—
Kellerberrin (S)	—	—	—	—	—	—	20	—	—	20
Merredin (S)	—	—	—	—	—	—	25	—	—	25
Mount Marshall (S)	—	—	—	—	—	—	—	—	—	—
Mukinbudin (S)	—	—	—	—	—	—	—	—	—	—
Narembeen (S)	—	—	—	—	—	—	—	—	—	—
Nungarin (S)	—	—	—	—	—	—	53	—	—	53
Trayning (S)	—	—	—	—	—	—	—	—	—	—
Westonia (S)	—	—	—	—	—	—	—	—	—	—
Yilgarn (S)	—	—	—	—	—	—	—	—	—	—
Campion (SSD)	—	—	—	—	—	—	98	—	—	98
Total	38	—	2,589	—	—	—	251	120	180	3,020
SOUTH EASTERN STATISTICAL DIVISION										
Coolgardie (S)	11	—	1,000	—	—	—	—	—	—	1,000
Kalgoorlie/Boulder (C)	36	—	3,223	25	—	1,547	266	225	225	5,261
Laverton (S)	—	—	—	—	—	—	—	—	—	—
Leonora (S)	—	—	—	—	—	—	—	—	—	—
Meuzies (S)	—	—	—	—	—	—	—	—	—	—
Lefroy (SSD)	47	—	4,223	25	—	1,547	266	225	225	6,261
Dundas (S)	—	—	—	—	—	—	—	—	—	—
Esperance (S)	11	—	1,038	—	—	—	—	441	441	1,479
Ravensthorpe (S)	4	—	268	—	—	—	—	—	—	268
Johnston (SSD)	15	—	1,306	—	—	—	—	441	441	1,747
Total	62	—	5,529	25	—	1,547	266	666	666	8,008

For footnote, see end of table.

TABLE 7. BUILDING APPROVALS BY STATISTICAL LOCAL AREAS (a), APRIL 1994—continued

Statistical local area, statistical subdivision and statistical division	New residential building						Alterations and additions to residential buildings (\$'000)	Non-residential building		
	Houses			Other residential buildings				Private sector (\$'000)	Total (\$'000)	Total building (\$'000)
	Private sector (number)	Public sector (number)	Total value (\$'000)	Private sector (number)	Public sector (number)	Total value (\$'000)				
CENTRAL STATISTICAL DIVISION										
Carnarvon (S)	4	—	294	—	—	—	75	—	—	369
Exmouth (S)	1	1	267	—	—	—	15	163	163	445
Shark Bay (S)	1	—	73	—	—	—	—	—	—	73
Upper Gascoyne (S)	—	—	—	—	—	—	—	—	—	—
Gascoyne (SSD)	6	1	634	—	—	—	90	163	163	887
Cue (S)	—	—	—	—	—	—	—	—	—	—
Meekatharra (S)	—	—	—	—	—	—	—	—	—	—
Mount Magnet (S)	—	—	—	—	—	—	—	443	443	443
Murchison (S)	—	—	—	—	—	—	—	—	—	—
Ngaanyatjarraku (S)	—	—	—	—	—	—	—	—	—	—
Sandstone (S)	—	—	—	—	—	—	—	—	—	—
Wiluna (S)	—	—	—	—	—	—	—	—	—	—
Yalgoo (S)	—	—	—	—	—	—	—	—	—	—
Carnegie (SSD)	—	—	—	—	—	—	—	443	443	443
Camamah (S)	—	—	—	—	—	—	—	—	—	—
Chapman Valley (S)	—	—	—	—	—	—	—	—	—	—
Coorow (S)	—	—	—	—	—	—	—	—	—	—
Geraldton (C)	8	—	752	—	—	—	75	—	—	827
Greenough (S)	20	—	1,790	—	—	—	63	—	—	1,852
Irwin (S)	3	—	164	—	—	—	—	—	—	164
Mingenew (S)	—	—	—	—	—	—	—	—	—	—
Morawa (S)	—	—	—	—	—	—	—	—	—	—
Mullewa (S)	—	—	—	—	—	—	—	—	—	—
Northampton (S)	1	—	85	—	—	—	76	—	—	161
Petarjori (S)	—	—	—	—	—	—	—	—	—	—
Three Springs (S)	—	—	—	—	—	—	—	—	—	—
Greenough River (SSD)	32	—	2,791	—	—	—	214	—	—	3,005
Total	38	1	3,425	—	—	—	304	606	606	4,335
PILBARA STATISTICAL DIVISION										
East Pilbara (S)	—	—	—	—	—	—	12	—	—	12
Port Hedland (T)	2	—	180	—	—	—	76	—	—	256
De Grey (SSD)	2	—	180	—	—	—	88	—	—	268
Ashburton (S)	1	—	65	—	—	—	21	75	375	461
Roebourne (S)	—	—	—	—	—	—	25	—	—	25
Fortescue (SSD)	1	—	65	—	—	—	46	75	375	466
Total	3	—	245	—	—	—	134	75	375	754
KIMBERLEY STATISTICAL DIVISION										
Halls Creek (S)	—	—	—	—	—	—	—	130	130	130
Wyndham-East Kimberley (S)	3	—	395	—	—	—	140	50	50	585
Ord (SSD)	3	—	395	—	—	—	140	180	180	715
Broome (S)	8	18	2,727	—	10	870	20	50	50	3,667
Derby-West Kimberley (S)	—	6	690	—	10	973	—	—	—	1,663
Fitzroy (SSD)	8	24	3,417	—	20	1,843	20	50	50	5,331
Total	11	24	3,812	—	20	1,843	160	230	230	6,046
WESTERN AUSTRALIA										
Western Australia	1,473	34	122,824	492	95	37,974	13,548	35,491	46,567	220,913

(a) City councils are marked (C), Town councils (T), Shire councils (S), and Statistical Subdivisions (SSD).

**TABLE 8. NUMBER OF NEW HOUSES APPROVED BY MATERIAL OF OUTER WALLS, FLOOR AREA AND VALUE PER SQUARE METRE BY STATISTICAL DIVISION
APRIL 1994**

Statistical division	Material of outer walls					Total	Floor area (sq m)	Average floor area (sq m)	Average value per square metre (\$)
	Double brick(a)	Brick veneer	Fibre cement	Timber	Other and not stated				
Perth	1,091	5	1	10	7	1,114	246,534	221	365
South-West	159	9	5	4	5	182	38,032	209	374
Lower Great Southern	8	12	2	3	3	28	7,407	265	330
Upper Great Southern	4	1	1	—	—	6	1,537	256	397
Midlands	13	4	12	9	—	38	7,514	198	345
South-Eastern	5	41	16	—	—	62	11,752	190	470
Central	29	5	3	—	2	39	7,476	192	458
Pilbara	2	—	—	—	1	3	739	246	332
Kimberley	—	—	3	—	32	35	4,883	140	781
Western Australia	1,311	77	43	26	50	1,507	325,874	216	377

(a) Includes houses constructed with outer walls of stone and concrete.

**TABLE 9. NEW DWELLING UNITS APPROVED, BY TYPE AND STATISTICAL DIVISION
APRIL 1994**

Statistical division	Houses	Other residential building							Total residential building	
		Semi-detached, row or terrace houses, townhouses, etc. of			Flats, units or apartments in a building of					
		1 storey	2 or more storeys	Total	1-2 storeys	3 storeys	4 or more storeys	Total		
NUMBER OF DWELLING UNITS										
Perth	1,114	387	71	458	—	—	20	20	478	1,592
South West	182	57	—	57	—	—	—	—	57	239
Lower Great Southern	28	7	—	7	—	—	—	—	7	35
Upper Great Southern	6	—	—	—	—	—	—	—	—	6
Midlands	38	—	—	—	—	—	—	—	—	38
South Eastern	62	25	—	25	—	—	—	—	25	87
Central	39	—	—	—	—	—	—	—	—	39
Pilbara	3	—	—	—	—	—	—	—	—	3
Kimberley	35	20	—	20	—	—	—	—	20	55
Western Australia	1,507	496	71	567	—	—	20	20	587	2,094
VALUE (\$'000)										
Perth	89,952	22,570	6,244	28,814	—	—	1,050	1,050	29,864	119,816
South West	14,220	4,239	—	4,239	—	—	—	—	4,239	18,459
Lower Great Southern	2,442	481	—	481	—	—	—	—	481	2,923
Upper Great Southern	610	—	—	—	—	—	—	—	—	610
Midlands	2,589	—	—	—	—	—	—	—	—	2,589
South Eastern	5,529	1,547	—	1,547	—	—	—	—	1,547	7,076
Central	3,425	—	—	—	—	—	—	—	—	3,425
Pilbara	245	—	—	—	—	—	—	—	—	245
Kimberley	3,812	1,843	—	1,843	—	—	—	—	1,843	5,656
Western Australia	122,824	30,680	6,244	36,924	—	—	1,050	1,050	37,974	160,798

EXPLANATORY NOTES

Introduction

This publication contains monthly details of building work approved. Statistics of building work approved are compiled from:

- (a) permits issued by local government authorities in areas subject to building control by those authorities;
- (b) approvals issued by the Rural Housing Authority in areas not subject to building control by local government authorities;
- (c) contracts let or day labour work authorised by Commonwealth, State, semi-government and local government authorities.

Major building activity which takes place in areas not subject to the normal administrative approval processes (e.g. buildings on remote mine sites) is also included.

Factors affecting comparability

2. For purposes of comparison, it should be borne in mind that statistics of building approvals are affected from month to month by the number of large projects (such as blocks of flats and multi storey office buildings), approved in particular months and also by the administrative arrangements of government authorities.

Scope and coverage

3. The statistics relate to building activity which includes construction of new buildings and alterations and additions to existing buildings. Construction activity not defined as building (e.g. construction of roads, bridges, railways, earthworks, etc.) is excluded.

4. In relation to work carried out on existing buildings, the statistics include details of non-structural renovation and refurbishment work and the installation of integral building fixtures, for which building approval was obtained.

5. From July 1990, the statistics cover:

- (b) all approved new residential building jobs valued at \$10,000 or more;
- (b) approved alterations and additions to residential buildings valued at \$10,000 or more;
- (c) all approved non-residential building jobs valued at \$50,000 or more.

From July 1988 to June 1990, the statistics covered:

- (d) all approved new residential building jobs valued at \$5,000 or more (previously all new residential building jobs were included regardless of value);
- (e) approved alterations and additions to residential buildings valued at \$10,000 or more;
- (f) all approved non-residential building jobs valued at \$30,000 or more (previously \$10,000 or more).

These changes in scope mainly affect non-residential building data and do not have a statistically significant effect on broad building approvals aggregate data.

However, care should be taken in interpreting data for specific classes of non-residential building.

Definitions

6. A *building* is defined as a rigid, fixed and permanent structure which has a roof. Its intended purpose is primarily to house people, plant, machinery, vehicles, goods or livestock. An integral feature of a building's design, to satisfy its intended use, is the provision for regular access by humans.

7. A *dwelling unit* is defined as a self contained suite of rooms, including cooking and bathing facilities and intended for *long term* residential use. Units (whether self contained or not) within buildings offering institutional care, such as hospitals, or temporary accommodation, such as motels, hostels and holiday apartments, are not defined as dwelling units. The value of units of this type is included in the appropriate category of *non-residential building* approved.

8. A *residential building* is defined as a building predominantly consisting of one or more dwelling units. Residential buildings can be either *houses* or *other residential buildings* as follows:

- (a) A *house* is defined as a detached building predominantly used for long term residential purposes and consisting of only one dwelling unit. Thus detached 'granny flats' and detached dwelling units (such as caretaker's residences) associated with non-residential buildings are defined as houses for the purpose of these statistics.
- (b) An *other residential building* is defined as a building which is predominantly used for long term residential purposes and which contains (or has attached to it) more than one dwelling unit (e.g. includes flats, home units, townhouses, duplexes, apartment buildings, etc.).

9. The number of dwelling units created by alterations and additions to existing buildings and through the construction of new *non-residential buildings* is not included in the tables but is shown as a footnote to Table 1.

10. *Values* data are derived by aggregation of the estimated value (when completed) of building work (excluding value of land and landscaping but including site preparation) as reported on approval documents. For *houses*, these estimates are usually a reliable indicator of the completed value of the building. However, for *other residential buildings* and *non-residential buildings* these estimates can, and often do, differ significantly from the completed value of the building.

Building classification

11. *Ownership*. The ownership of a building is classified as either *public sector* or *private sector* according to the sector of the intended owner of the completed building as evident at the time of approval. Residential buildings being constructed by private sector builders under government housing authority schemes whereby the authority has contracted, or intends to contract, to purchase

the buildings on or before completion, are classified as public sector.

12. *Functional classification of buildings.* A building is classified according to its intended major function. Hence a building which is ancillary to other buildings or forms a part of a group of related buildings is classified to the function of the building and not to the function of the group as a whole. An example of this can be seen in the treatment of building work approved for a factory complex. In this case a detached administration building would be classified to *offices*, a detached cafeteria building to *shops*, while factory buildings would be classified to *factories*. An exception to this rule is in the treatment of group accommodation buildings where, for example, a student accommodation building on a university campus would be classified to Educational.

13. From July 1992, an expanded functional classification of buildings based on the *Dwelling Structure Classification (DSC)* has been introduced by the ABS to provide more detailed information on residential building approvals.

14. The DSC has been developed by the ABS to provide a standard classification of the different types of dwelling structures (houses, flats, townhouses, etc.). The DSC will be implemented across all major collections of housing data in the ABS. The DSC has the same overall scope as the classification used in previous collections but provides more detail than previously available to reflect the current interest in medium to high density housing.

15. In particular, for Building Approvals, DSC allows new *other residential building* to be classified as follows:

- (a) *Semi-detached, row or terrace houses, townhouses, etc.* (dwellings having their own private grounds and no other dwellings above or below) with
 - one storey;
 - two or more storeys.
- (b) *Flats, units or apartments, etc.* (dwellings not having their own private grounds and usually sharing a common entrance, foyer or stairwell) in a building of:
 - one or two storeys;
 - three storeys;
 - four or more storeys.

16. More details on the DSC are contained in the ABS Information Paper, *Dwelling Structure Classification (DSC)* (1296.0).

Seasonal adjustment

17. Seasonally adjusted dwelling unit statistics are shown in Table 3. In these series, account has been taken of normal seasonal factors and 'trading day' effects (arising from the varying numbers of Sundays, Mondays, Tuesdays etc. in the month) and the effect of movement in the date of Easter which may, in successive years, affect figures for different months. Revision of figures results from annual re-analysis, details of which, together with information regarding the methods used in seasonally adjusting the series, are available on request.

18. Each of the component series shown has been seasonally adjusted independently. As a consequence, while the unadjusted components in the original series

shown add to the totals, the adjusted components may not add to the adjusted totals. Further, the difference between independently seasonally adjusted series does not necessarily produce series which are optimal or even adequate adjustments of the similarly derived original series. Thus the figures which can be derived by subtracting seasonally adjusted private sector dwelling units from the seasonally adjusted total should not be used to represent seasonally adjusted public sector dwelling units.

19. Seasonal adjustment may be carried out by various methods and the results may vary slightly according to the procedure adopted. Accordingly, seasonally adjusted statistics should not be regarded as in any way definitive. In interpreting particular seasonally adjusted statistics it is important to bear in mind the methods by which they have been derived and the limitations to which the methods used are subject.

20. Seasonal adjustment is a means of removing the estimated effects of normal seasonal variation from the series so that the effects of other influences on the series may be more clearly recognised. Seasonal adjustment procedures do not aim to remove the irregular or non-seasonal influences which may be present in any particular month, such as the effect of the approval of large projects or as a consequence of the administrative arrangements of approving authorities. Irregular influences that are highly volatile can make it difficult to interpret the movement of the series even after adjustment for seasonal variation.

21. The seasonally adjusted series can, however, be smoothed to reduce the impact of the irregular component in the adjusted series. This smoothed seasonally adjusted series is called a trend estimate. There are a number of ways of accomplishing this, depending on the intended uses of the trend estimate. If importance is attached to measuring the underlying change in the most recent periods, moving averages employing appropriate weighting patterns should be adopted; the choice of averaging technique will determine in part the degree of smoothness of the derived series. For example, a 23-term moving average will generally even out more of the short term fluctuation in a series (and therefore appear 'smoother') than will a 13-term moving average. However, the longer the term of the moving average the longer the time series affected by revisions resulting from more recent data. In order to ensure that the underlying trend-cycle of a series is reflected in the trend estimate, the degree of smoothness alone cannot always be used as the sole criterion in determining which moving average is appropriate.

22. Trend estimates of dwelling unit statistics are shown in Table 3. The trend estimates (often referred to as trend-cycle estimates) have been derived by applying a 13-term Henderson-weighted moving average to the series.

23. While this technique enables trend estimates for the latest period to be produced, it does result in revisions to the trend estimates for the most recent months as additional observations become available. There may also be revisions as a result of changes in the original data, and as a result of the re-estimation of the seasonal factors. Details of other trend-cycle weighting patterns can be

found in *A Guide to Smoothing Time Series - Estimates of 'Trend'* (1316.0).

Estimates at constant prices

24. The base year of constant price estimates of building approvals, contained in this issue, has been changed to 1989-90.

25. Periodic rebasing of constant price estimates is necessary to take account of changed price relativities and structural relationships in the economy. The choice of the base year influences the movement in the constant price series and the usefulness of such series is diminished if the relative price weights of the base year differ significantly from the price relationships in the other periods included in the series. The more remote a base year is from the current period, the less likely that its relative prices will reflect the current situation.

26. A more detailed discussion of the need for rebasing constant price estimates and factors affecting the choice of base year is contained in the information paper *Change in Base Year of Constant Price Estimates from 1984-85 to 1989-90* (5227.0) released on 10 December 1992.

27. Estimates of the quarterly value of building approvals at average 1989-90 prices are presented in Table 4. (Note: monthly value data at constant prices are not available).

28. Constant price estimates measure changes in value after the direct effects of price changes have been eliminated. The deflators used to revalue the current price estimates in this publication are derived from the same price data underlying the deflators compiled for the dwellings and non-dwelling construction components of the national accounts aggregate 'Gross fixed capital expenditure'.

29. Estimates at constant prices are subject to a number of approximations and assumptions. Further information on the nature and concepts of constant price estimates is contained in Chapter 4 of *Australian National Accounts: Concepts, Sources and Methods* (5216.0).

Australian Standard Geographical Classification

30. Area statistics are classified according to the Australian Standard Geographical Classification. Figures previously published for local government areas and statistical divisions are directly comparable with this classification except for the cities of Perth, Fremantle and Stirling which are obtained by aggregating the component statistical local areas.

Unpublished data and related publications

31. The ABS also makes available certain building approvals data which are not published. Where it is not practicable to provide the required information by telephone, data can be provided in the following forms: microfiche, photocopy, computer printout and clerically extracted tabulation. A charge may be made for providing unpublished information in these forms.

32. Users may also wish to refer to the following related publications which are available on request:

WESTERN AUSTRALIA	Catalogue No.
Building Approvals - Private Sector, Perth Statistical Division (monthly)	8732.5
Building Activity (quarterly)	8752.5
Dwelling Unit Commencements (monthly)	8741.5
AUSTRALIA	
Building Approvals (monthly)	8731.0
Building Activity (quarterly)	8752.0
Engineering Construction Survey (quarterly)	8762.0
Housing Finance for Owner Occupation: Australia	5609.0

33. All publications produced by the ABS are listed in *Catalogue of Publications and Products* (1101.0) which is available from any ABS Office.

Symbols and other usages

34. The following symbols, where shown in columns of figures or elsewhere in tables, mean:

- nil, or rounded to zero
- r figure or series revised since previous issue.

35. Where figures have been rounded, discrepancies may occur between sums of the component items and totals.

P.C.KELLY
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