

**SPACE STANDARDS**

**200 Sandiefield Road**

3 types of flats

– Net floor area, volume, wall surface area, window area to be determined after (by individual flat based on amount of furniture and obstruction)

FLAT NO.: x/1 x/4	LVRM	KIT	BATH	TOILET	BED 1	BED 2	BED 3	SUNSP	HALL	STORE	TOTAL
Ceiling height (m)	2.44	2.44	2.44	nil	2.44	2.44	nil	nil	2.44	2.44	
Orientation (windows)	E	E	n/a	nil	E	E	nil	nil	n/a	n/a	
Main dimensions (lxw)(m)	4.11x4.27	3.51x2.13	1.68x2.13	nil	4.27x2.59	4.27x2.67	nil	nil			
Window dimensions (wxh)(m)	2.44x1.5	1.22x1.0	n/a	nil	1.22x1.4	1.22x1.4	nil	nil			
Gross floor area (ft <sup>2</sup> )	189.00	80.50	38.50	nil	119.00	122.50	nil	nil	92.00	66.25	
Gross floor area (m <sup>2</sup> )	17.56	7.48	3.58	nil	11.06	11.38	nil	nil	8.55	6.15	65.75
Gross volume (m <sup>3</sup> )	42.84	18.25	8.73	nil	26.98	27.77	nil	nil	18.80	13.54	156.91
Gross window area (m <sup>2</sup> )	3.66	1.22	n/a	nil	19.16	19.16	nil	nil	n/a	n/a	43.20 *Window height varies
Net window area (glass) (m <sup>2</sup> )	2.40	0.38	n/a	nil	0.83	0.83	nil	nil	n/a	n/a	4.44 * Frame width 0.16m; 0.2m
window to floor area (%)	13.67	5.08	n/a	nil	7.49	7.28	nil	nil	n/a	n/a	33.51
Gross wall surface area (m <sup>2</sup> )	41.91	28.19	19.05	nil	34.29	34.67	nil	nil			158.11 *Doors 1.672m <sup>2</sup>
Intensity of Occupancy (persons h)	0.85	2.01	4.19	nil	1.36	1.32	nil	nil	1.95	2.70	0.23 No.Occupants*Hrs/Volume (m3)
Occupancy Level (persons/m3)	0.04	0.09	0.19	nil	0.06	0.06	nil	nil	0.09	0.12	0.01

**Occupant Scenario**

Allen 2/1	LVRM	KIT	BATH	TOILET	BED 1	BED 2	BED 3	SUNSP	HALL	STORE	TOTAL
Net window area (unshaded) (m <sup>2</sup> )	2.35	0.19	n/a	nil	0.75	0.66	nil	nil	n/a	n/a	7.16 * Frame width 0.1m
window to floor area (unshaded%)	13	3	n/a	nil	7	6	nil	nil	n/a	n/a	29
Covered surface area (m <sup>2</sup> )	4.80	4.50			3.76	6.25	nil	nil			19.31
Net wall surface area (%)	88.55	84.04			89.03	81.97	nil	nil			
Furniture volume (m <sup>3</sup> )	5.35	4.09	1.45		2.54	2.70	nil	nil			
Net volume (m <sup>3</sup> )	37.50	14.16	7.28		24.44	25.07	nil	nil			
Net volume (%)	87.52	77.61	83.37		90.58	90.28	nil	nil			

**Occupant Scenario**

Johns 14/1	LVRM	KIT	BATH	TOILET	BED 1	BED 2	BED 3	SUNSP	HALL	STORE	TOTAL
Net window area (unshaded) (m <sup>2</sup> )	1.92	0.36	n/a	nil	0.74	0.74	nil	nil	n/a	n/a	7.16 * Frame width 0.1m
window to floor area (unshaded%)	11	5	n/a	nil	7	7	nil	nil	n/a	n/a	29
Covered surface area (m <sup>2</sup> )	2.16	5.46			n/a	2.75	nil	nil			10.37
Net wall surface area (%)	94.85	80.63			n/a	92.07	nil	nil			
Furniture volume (m <sup>3</sup> )	4.71	5.64	1.45		n/a	2.10	nil	nil			
Net volume (m <sup>3</sup> )	38.13	12.61	7.28		n/a	25.67	nil	nil			
Net volume (%)	89.00	69.11	83.37		n/a	92.44	nil	nil			

**Occupant Scenario**

Gemmell 16/1	LVRM	KIT	BATH	TOILET	BED 1	BED 2	BED 3	SUNSP	HALL	STORE	TOTAL
Net window area (unshaded) (m <sup>2</sup> )	2.04	0.37	n/a	nil	0.75	0.75	nil	nil	n/a	n/a	7.16 * Frame width 0.1m
window to floor area (unshaded%)	12	5	n/a	nil	7	7	nil	nil	n/a	n/a	30
Covered surface area (m <sup>2</sup> )	2.72	4.65			6.73	1.75	nil	nil			15.85
Net wall surface area (%)	93.51	83.50			80.37	94.95	nil	nil			
Furniture volume (m <sup>3</sup> )	3.55	4.45	1.45		4.59	1.90	nil	nil			
Net volume (m <sup>3</sup> )	39.29	13.80	7.28		22.39	25.87	nil	nil			
Net volume (%)	91.71	75.61	83.37		83.00	93.16	nil	nil			

**Occupant Scenario**

Cameron 18/1	LVRM	KIT	BATH	TOILET	BED 1	BED 2	BED 3	SUNSP	HALL	STORE	TOTAL
Net window area (unshaded) (m <sup>2</sup> )	2.28	0.37	n/a	nil	0.79	0.83	nil	nil	n/a	n/a	7.16 * Frame width 0.1m
window to floor area (unshaded%)	13	5	n/a	nil	7	7	nil	nil	n/a	n/a	32
Covered surface area (m <sup>2</sup> )	1.20	5.26			n/a	6.63	nil	nil			13.09

Net wall surface area (%)	97.14	81.34		n/a	80.88	nil	nil				
Furniture volume (m <sup>3</sup> )	2.51	4.60	1.45	n/a	5.49	nil	nil				
Net volume (m <sup>3</sup> )	40.33	13.65	7.28	n/a	22.28	nil	nil				
Net volume (%)	94.14	74.79	83.37	n/a	80.24	nil	nil				

#### Occupant Scenario

Pollock 21/4	LVRM	KIT	BATH	TOILET	BED 1	BED 2	BED 3	SUNSP	HALL	STORE	TOTAL
Net window area (unshaded) (m <sup>2</sup> )	0.96	0.34	n/a	nil	0.12	0.08	nil	nil	n/a	n/a	7.16 * Frame width 0.1m
Window to floor area (unshaded%)	5	5	n/a	nil	1	1	nil	nil	n/a	n/a	12
Covered surface area (m <sup>2</sup> )	6.04	2.82			3.75	4.45	nil	nil			17.06
Net wall surface area (%)	85.59	90.00			89.06	87.16	nil	nil			
Furniture volume (m <sup>3</sup> )	3.82	3.35	1.45		2.00	3.14	nil	nil			
Net volume (m <sup>3</sup> )	39.02	14.90	7.28		24.97	24.63	nil	nil			
Net volume (%)	91.08	81.66	83.37		92.58	88.70	nil	nil			

FLAT NO.: x/2 x/6 x/7	LVRM	KIT	BATH	TOILET	BED 1	BED 2	BED 3	SUNSP	HALL	STORE	TOTAL
Ceiling height (m)	2.44	2.44	2.44	nil	2.44	2.44	nil	nil	2.44	2.44	
Orientation (windows)	E	S	n/a	nil	E	E	nil	nil	n/a	n/a	Flat x/2
Main dimensions (lxw)(m)	5.26x3.66	2.13x3.66	2.21x1.68	nil	4.27x2.67	4.27x2.74	nil	nil			
Window dimensions (wxh)(m)	3.05x1.5	1.83x1.0	n/a	nil	1.22x1.4	1.22x1.4	nil	nil			
Gross floor area (ft <sup>2</sup> )	207.00	84.00	39.88	nil	122.50	126.00	nil	nil	107.50	46.50	
Gross floor area (m <sup>2</sup> )	19.23	7.80	3.70	nil	11.38	11.71	nil	nil	9.99	4.32	68.13
Gross volume (m <sup>3</sup> )	46.92	19.04	9.04	nil	27.77	28.56	nil	nil	24.37	10.54	166.25
Gross window area (m <sup>2</sup> )	4.58	1.83	n/a	nil	1.71	1.71	nil	nil	n/a	n/a	9.83 *Window height varies
Net window area (glass) (m <sup>2</sup> )	2.38	0.89	n/a	nil	0.81	0.81	nil	nil	n/a	n/a	4.89 * Frame width 0.16m; 0.2m
Window to floor area (%)	12.36	11.40	n/a	nil	7.11	6.92	nil	nil	n/a	n/a	37.79
Gross wall surface area (m <sup>2</sup> )	44.58	28.96	19.43	nil	34.67	35.05	nil	nil			162.69 *Doors 1.672m <sup>2</sup>
Intensity of Occupancy (persons h)	0.78	1.92	4.05	nil	1.32	1.28	nil	nil	1.50	3.47	0.22 No.Occupants*Hrs/Volume (m3)
Occupancy Level (persons/m3)	0.04	0.09	0.18	nil	0.06	0.06	nil	nil	0.07	0.16	0.01

#### Occupant Scenario

Fraser 4/7	LVRM	KIT	BATH	TOILET	BED 1	BED 2	BED 3	SUNSP	HALL	STORE	TOTAL
Net window area (unshaded) (m <sup>2</sup> )	2.38	0.62	n/a	nil	0.08	0.16	nil	nil	n/a	n/a	7.16 * Frame width 0.16m; 0.2m
Window to floor area (unshaded%)	12	8	n/a	nil	1	1	nil	nil	n/a	n/a	22
Covered surface area (m <sup>2</sup> )	n/a	3.43			4.66	6.76	nil	nil			14.85
Net wall surface area (%)	n/a	88.15			86.56	80.71	nil	nil			
Furniture volume (m <sup>3</sup> )	2.04	3.49	1.45		3.15	3.13	nil	nil			
Net volume (m <sup>3</sup> )	44.88	15.55	7.59		24.62	25.44	nil	nil			
Net volume (%)	95.65	81.66	83.94		88.65	89.05	nil	nil			

#### Occupant Scenario

Thom 7/6	LVRM	KIT	BATH	TOILET	BED 1	BED 2	BED 3	SUNSP	HALL	STORE	TOTAL
Net window area (unshaded) (m <sup>2</sup> )	0.95	0.80	n/a	nil	0.65	0.65	nil	nil	n/a	n/a	7.16 * Frame width 0.16m; 0.2m
Window to floor area (unshaded%)	5	10	n/a	nil	6	6	nil	nil	n/a	n/a	26
Covered surface area (m <sup>2</sup> )	7.24	10.25			n/a	6.90	nil	nil			24.39
Net wall surface area (%)	83.76	64.62			n/a	80.31	nil	nil			
Furniture volume (m <sup>3</sup> )	4.50	6.64	1.45		2.40	2.93	nil	nil			
Net volume (m <sup>3</sup> )	42.42	12.41	7.59		25.37	25.64	nil	nil			
Net volume (%)	90.40	65.15	83.94		91.36	89.76	nil	nil			

#### Occupant Scenario

Mohammed 12/2	LVRM	KIT	BATH	TOILET	BED 1	BED 2	BED 3	SUNSP	HALL	STORE	TOTAL
Net window area (unshaded) (m <sup>2</sup> )	0.71	0.80	n/a	nil	0.04	0.24	nil	nil	n/a	n/a	7.16 * Frame width 0.16m; 0.2m
Window to floor area (unshaded%)	4	10	n/a	nil	0	2	nil	nil	n/a	n/a	16
Covered surface area (m <sup>2</sup> )	7.14	6.86			4.11	7.85	nil	nil			25.96
Net wall surface area (%)	83.98	76.33			88.15	77.60	nil	nil			
Furniture volume (m <sup>3</sup> )	3.82	4.53	1.45		5.00	2.18	nil	nil			
Net volume (m <sup>3</sup> )	43.10	14.51	7.59		22.77	26.39	nil	nil			

Net volume (%)	91.86	76.22	83.94		81.99	92.38	nil	nil			
<b>Occupant Scenario</b>											
<b>MacDonald 0/6</b>	<b>LVRM</b>	<b>KIT</b>	<b>BATH</b>	<b>TOILET</b>	<b>BED 1</b>	<b>BED 2</b>	<b>BED 3</b>	<b>SUNSP</b>	<b>HALL</b>	<b>STORE</b>	<b>TOTAL</b>
Net window area (unshaded) (m <sup>2</sup> )	0.24	0.76	n/a	nil	0.04	0.08	nil	nil	n/a	n/a	7.16 * Frame width 0.16m; 0.2m
Window to floor area (unshaded%)	1	10	n/a	nil	0	1	nil	nil	n/a	n/a	12
Covered surface area (m <sup>2</sup> )	7.70	5.53			6.15	9.35	nil	nil			28.73
Net wall surface area (%)	82.73	80.90			82.26	73.32	nil	nil			
Furniture volume (m <sup>3</sup> )	4.75	4.00	1.45		3.36	4.65	nil	nil			
Net volume (m <sup>3</sup> )	42.18	15.04	7.59		24.41	23.91	nil	nil			
Net volume (%)	89.89	79.00	83.94		87.91	83.72	nil	nil			
<b>Occupant Scenario</b>											
<b>Ewing 19/2</b>	<b>LVRM</b>	<b>KIT</b>	<b>BATH</b>	<b>TOILET</b>	<b>BED 1</b>	<b>BED 2</b>	<b>BED 3</b>	<b>SUNSP</b>	<b>HALL</b>	<b>STORE</b>	<b>TOTAL</b>
Net window area (unshaded) (m <sup>2</sup> )	1.43	0.53	n/a	nil	0.49	0.53	nil	nil	n/a	n/a	7.16 * Frame width 0.16m; 0.2m
Window to floor area (unshaded%)	7	7	n/a	nil	4	4	nil	nil	n/a	n/a	23
Covered surface area (m <sup>2</sup> )	6.34	9.66			9.60	8.75	nil	nil			34.35
Net wall surface area (%)	85.78	66.66			72.31	75.04	nil	nil			
Furniture volume (m <sup>3</sup> )	4.00	6.14	1.45		4.93	5.18	nil	nil			
Net volume (m <sup>3</sup> )	42.92	12.90	7.59		22.84	23.39	nil	nil			
Net volume (%)	91.47	67.77	83.94		82.26	81.87	nil	nil			
<b>Occupant Scenario</b>											
<b>McIntyre 22/6</b>	<b>LVRM</b>	<b>KIT</b>	<b>BATH</b>	<b>TOILET</b>	<b>BED 1</b>	<b>BED 2</b>	<b>BED 3</b>	<b>SUNSP</b>	<b>HALL</b>	<b>STORE</b>	<b>TOTAL</b>
Net window area (unshaded) (m <sup>2</sup> )	2.14	0.85	n/a	nil	0.57	0.00	nil	nil	n/a	n/a	7.16 * Frame width 0.16m; 0.2m
Window to floor area (unshaded%)	11	11	n/a	nil	5	0	nil	nil	n/a	n/a	27
Covered surface area (m <sup>2</sup> )	6.22	6.66			9.40	7.95	nil	nil			30.23
Net wall surface area (%)	86.05	77.00			72.89	77.32	nil	nil			
Furniture volume (m <sup>3</sup> )	5.89	6.03	1.45		3.53	5.38	nil	nil			
Net volume (m <sup>3</sup> )	41.03	13.01	7.59		24.24	23.18	nil	nil			
Net volume (%)	87.45	68.33	83.94		87.31	81.16	nil	nil			
<b>FLAT NO.: x/5 x/8</b>											
<b>LVRM</b>	<b>KIT</b>	<b>BATH</b>	<b>TOILET</b>	<b>BED 1</b>	<b>BED 2</b>	<b>BED 3</b>	<b>SUNSP</b>	<b>HALL</b>	<b>STORE</b>	<b>TOTAL</b>	
Ceiling height (m)	2.30	2.30	2.30	nil	2.30	nil	nil	nil	2.30	2.30	
Orientation (windows)	E	E	n/a	nil	E	nil	nil	nil	n/a	n/a	Flat x/8
Main dimensions (lwxm)	4.27x3.66	3.43x2.13	1.68x1.98	nil	4.27x2.59	nil	nil	nil			
Window dimensions (wxh)(m)	2.44x1.5	1.22x1.0	n/a	nil	1.22x1.4	nil	nil	nil			
Gross floor area (ft <sup>2</sup> )	168.00	78.75	35.75	nil	119.00	nil	nil	nil	39.50	31.13	
Gross floor area (m <sup>2</sup> )	15.61	7.32	3.32	nil	11.06	nil	nil	nil	3.67	2.89	43.86
Gross volume (m <sup>3</sup> )	35.90	16.83	7.64	nil	25.43	nil	nil	nil	8.44	6.65	100.88
Gross window area (m <sup>2</sup> )	3.66	1.22	n/a	nil	1.71	nil	nil	nil	n/a	n/a	6.59 *Window height varies
Net window area (glass) (m <sup>2</sup> )	1.91	0.46	n/a	nil	0.81	nil	nil	nil	n/a	n/a	3.18 * Frame width 0.16m; 0.2m
Window to floor area (%)	12.24	6.31	n/a	nil	7.33	nil	nil	nil	n/a	n/a	25.88
Gross wall surface area (m <sup>2</sup> )	39.62	27.81	18.29	nil	34.29	nil	nil	nil			120.01 *Doors 1.672m <sup>2</sup>
Intensity of Occupancy (persons h)	1.02	2.18	4.79	nil	1.44	nil	nil	nil	4.34	5.51	0.36 No.Occupants*Hrs/Volume (m3)
Occupancy Level (persons/m3)	0.05	0.10	0.22	nil	0.07	nil	nil	nil	0.20	0.25	0.02
<b>Occupant Scenario</b>											
<b>Edgar 4/5</b>	<b>LVRM</b>	<b>KIT</b>	<b>BATH</b>	<b>TOILET</b>	<b>BED 1</b>	<b>BED 2</b>	<b>BED 3</b>	<b>SUNSP</b>	<b>HALL</b>	<b>STORE</b>	<b>TOTAL</b>
Net window area (unshaded) (m <sup>2</sup> )	1.53	0.37	n/a	nil	0.41	nil	nil	nil	n/a	n/a	7.16 * Frame width 0.16m; 0.2m
Window to floor area (unshaded%)	10	5	n/a	nil	4	nil	nil	nil	n/a	n/a	18
Covered surface area (m <sup>2</sup> )	1.82	4.45			2.95	nil	nil	nil			9.22
Net wall surface area (%)	95.41	84.00			91.40	nil	nil	nil			
Furniture volume (m <sup>3</sup> )	3.63	3.57	1.45		1.78	nil	nil	nil			
Net volume (m <sup>3</sup> )	32.27	13.25	6.19		23.65	nil	nil	nil			
Net volume (%)	89.89	78.77	81.00		93.02	nil	nil	nil			

200 SANDIEFIELD ROAD

Temperature (°C), Relative Humidity (%), CO<sub>2</sub> Levels (ppm)

30-11-2005: cloudy, wet, slightly windy 6°C 95%RH / 01-12-2005: cloudy, wet, slightly windy 3-4°C 87%RH

No.	Name	Flat	Living Room			Kitchen			Bathroom		Bedroom 1		Bedroom 2 (nearest front door)		
			Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)	Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)	Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)	Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)	
1	Mohamme	12/2	21	35		22	33		23	32	22	31	22	31	
2	Thom	7/6	20	34		20	34		21	33	20	31	21	33	
3	Gemmell	16/1	19	44		20	46		21	39	20	41	21	38	
4	Allen	2/1	17	36		17	36		18	33	18	32	18	31	
5	Johns	14/1	22	33		22	33		22	34	22	31	22	32	
6	Pollock	21/4	21	37		21	38		21	36	21	35	21	36	
7	Fraser	4/7	20	32		20	30		21	30	20	28	21	28	
8	McIntyre	22/6	20	39		19	39		20	42	19	39	20	39	
9	Edgar	4/5	21	31		22	29		21	29	22	28			
10	Ewing	19/1	18	41		17	39		19	34	18	34	19	34	
11	Cameron	18/1	22	36		20	37		22	41	22	36	nil	nil	
12	MacDonalc	0/6	20	39		20	44		20	40	20	42	20	38	
			<b>20.1</b>	<b>36.4</b>		<b>20.0</b>	<b>36.5</b>		<b>20.8</b>	<b>35.3</b>	<b>20.3</b>	<b>34.0</b>	<b>20.5</b>	<b>34.0</b>	

Temperature (°C), Relative Humidity (%), CO<sub>2</sub> Levels (ppm)

20-12-2005: drizzle, light rain, cloudy, wet (sunny breaks) 8°C 88%RH

No.	Name	Flat	Living Room			Kitchen			Bathroom		Bedroom 1		Bedroom 2 (nearest front door)				
			Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)	Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)	Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)	Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)			
1	Mohamme	12/2	19	39	1010	18	38	590	19	37	690	19	38	710	19	38	690
2	Thom	7/6	21	40	1670	21	38	1380	21	36	1220	21	36	1190	20	34	500
3	Gemmell	16/1	22	45	1660	21	47	1740	21	44	1080	21	41	1110	21	39	900
4	Allen	2/1	21	32	730	21	34	840	21	35	760	21	37	1700	21	36	770
5	Johns	14/1	22	35	1070	22	37	730	22	37	670	22	34	680	22	34	510
6	Pollock	21/4	22	38	840	22	40	830	21	40	770	21	38	650	21	39	740
7	Fraser	4/7	22	31	790	22	32	730	22	32	590	22	31	610	22	32	610
8	McIntyre	22/6	20	37	760	20	39	760	20	38	760	20	38	800	20	39	930
			<b>21.1</b>	<b>37.1</b>	<b>1066.3</b>	<b>20.9</b>	<b>38.1</b>	<b>950.0</b>	<b>20.9</b>	<b>37.4</b>	<b>817.5</b>	<b>20.9</b>	<b>36.6</b>	<b>931.3</b>	<b>20.8</b>	<b>36.4</b>	<b>706.3</b>

Home Habits

No.	Name	Flat	# Occpts	At home/out (hrs)	
				weekday	weekend
1	Mohamme	12/2	3.5	21/3	24/0
2	Thom	7/6	2	21/3	21/3
3	Gemmell	16/1	1	24/0	24/0
4	Allen	2/1	1	24/0	24/0
5	Johns	14/1	2	23/1	24/0
6	Pollock	21/4	3.5	22/2	24/0
7	Fraser	4/7	1	24/0	24/0
8	McIntyre	22/6	2	19/5	24/0
9	Edgar	4/5	1	22/2	22/2
10	Ewing	19/1	1	19/5	24/0
11	Cameron	18/1	1	22/2	24/0
12	MacDonalc	0/6	1	22/2	24/0

Heating

No.	Name	Flat	# Occpts	# Rooms	Rooms/spaces with heating (#on[1]-off[0]-broken[n])						Time of year (ON)	Time of day (ON)	Level of heating in each room/space						Thermostat (°C/adjust °C)	
					Lvrm	Kitchen	Bathroom	Bedrm 1	Bedrm 2	Hallway			Sunspace	Lvrm	Kitchen	Bathroom	Bedrm 1	Bedrm 2		Hallway
1	Mohamme	12/2	3.5	5	ES (2/1-1)	nil	nil	ES (1/1)	ES (1/1)	ES (1/1)	All year	Night	level 3-5	nil	nil	level 3-5	level 3-5	level 3-5		
2	Thom	7/6	2	5	ES (2/1-1)	nil	nil	ES (1/0)	ES (1/1)	ES (1/1)	Sep - Apr	Night	level 1-2	nil	nil	level 0	level 1-2	level 1-2		
3	Gemmell	16/1	1	5	ES (2/0-0)	nil	nil	ES (1/0)	ES (1/0)	ES (1/0)	Off	Off	level 0	nil	nil	level 0	level 0	level 0		
4	Allen	2/1	1	5	ES (2/1-n)	nil	nil	ES (1/1)	ES (1/1)	ES (1/1)	Sep - Apr	Night	max 5-6	nil	nil	max 5-6	max 5-6	max 5-6		
5	Johns	14/1	2	5	ES (2/1-1)	nil	nil	ES (1/0)	ES (1/0)	ES (1/1)	Sep - Apr	Night	level 4-6	nil	nil	level 0	level 0	level 4		
6	Pollock	21/4	3.5	5	ES (2/1-1)	nil	nil	ES (1/1)	ES (1/1)	ES (1/1)	Sep - Apr	Night	max 5-6	nil	nil	max 5-6	max 5-6	max 5-6		
7	Fraser	4/7	1	5	ES (2/1-1)	nil	nil	ES (1/1)	ES (1/1)	ES (1/1)	All year	Night	max 5-6	nil	nil	max 5-6	max 5-6	max 5-6		
8	McIntyre	22/6	2	5	ES (2/1-1)	nil	nil	ES (1/1)	ES (1/0)	ES (1/1)	Nov - Apr	Night	max 5-6	nil	nil	max 5-6	level 0	max 5-6		
9	Edgar	4/5	1	4	ES (2/1-1)	nil	nil	ES (1/1)	ES (1/1)	ES (1/1)	Sep - Apr	Night	max 5-6	nil	nil	max 5-6	max 5-6	max 5-6		
10	Ewing	19/1	1	5	ES (2/1-1)	nil	nil	ES (1/1)	ES (1/1)	ES (1/1)	All year	Night	max 5-6	nil	nil	max 5-6	max 5-6	max 5-6		
11	Cameron	18/1	1	5	ES (2/1-1)	nil	nil	ES (1/1)	ES (1/1)	ES (1/1)	Sep - Apr	Night	max 5-6	nil	nil	max 5-6	max 5-6	max 5-6		
12	MacDonalc	0/6	1	5	ES (2/1-1)	nil	nil	ES (1/1)	ES (1/1)	ES (1/n)	Sep - Apr	Night	max 5-6	nil	nil	max 5-6	max 5-6	max 5-6		

CH - central gas heating  
 EF - electric fire  
 ES - electric storage

E - electric (plug-in)  
GF - gas fire

**Access to sunlight**

No.	Name	Flat	# Occpts	# Rooms	Orientation of windows (N/S/E/W)					Scale Rating (1-5)					
					Lvrm	Kitchen	Bathroom	Bedrm 1	Bedrm 2	Hallway	Sunspace	access to sunlight	outdoor/good light	private outdoor	communal outdoor
1	Mohammer	12/2	3.5	5	E	N	nil	E	E			3	5	5	1
2	Thom	7/6	2	5	W	W	nil	W	W			1	5	5	1
3	Gemmell	16/1	1	5	E	N	nil	E	E			5	4	4	1
4	Allen	2/1	1	5	E	E	nil	E	E			5	1	1	1
5	Johns	14/1	2	5	E	E	nil	E	E			1	5	5	3
6	Pollock	21/4	3.5	5	W	W	nil	W	W			3	5	5	3
7	Fraser	4/7	1	5	E	E	nil	E	E			5	5	5	1
8	McIntyre	22/6	2	5	W	N	nil	W	W			3	1	1	5
9	Edgar	4/5	1	4	W	W	nil	W				5	5	5	1
10	Ewing	19/1	1	5	S	E	nil	E	E			5	1	1	1
11	Cameron	18/1	1	5	W	W	nil	W	W			3	5	5	4
12	MacDonalc	0/6	1	5	W	N	nil	W	W			1	5	5	1

**Windows and Ventilation**

No.	Name	Flat	# Occpts	# Rooms	Windows open (#/open[1]-closed[0]/trickle vent [o][c][n])					Wall Vents (Y)(B-boarded up)					Trickle Vents (unused)			Extract Fans [1][0]		Passive Stack	Dehumidifier		
					Lvrm	Kitchen	Bathroom	Bedrm 1	Bedrm 2	Sunspace	Lvrm	Kitchen	Bathroom	Bedrm 1	Bedrm 2	Sunspace	unsure	unaware	access			Kitchen	Bathrm
1	Mohammer	12/2	3.5	5	3/1/c	2/1/c	nil	1/1/c	1/1/c				B					1	0	0	0	0	
2	Thom	7/6	2	5	3/1/c	2/0/c	nil	1/0/c	1/0/c				Y						1	0	0	0	0
3	Gemmell	16/1	1	5	2/0/o	2/0/o	nil	1/0/o	1/0/o				Y						MS/1	0	0	0	0
4	Allen	2/1	1	5	2/1/c	2/0/c	nil	1/0/c	1/0/c				Y					1	1	0	0	0	0
5	Johns	14/1	2	5	2/1/c	2/1/c	nil	1/1/c	1/1/c				Y						1 MS/1	0	0	0	0
6	Pollock	21/4	3.5	5	2/1/o	2/1/o	nil	1/1/o	1/1/o				Y						MS/0	0	0	0	0
7	Fraser	4/7	1	5	2/1/o	2/0/o	nil	1/1/o	1/1/o				Y						0	0	0	0	0
8	McIntyre	22/6	2	5	3/1/o	2/1/o	nil	1/1/o	1/1/o				Y						0	0	0	0	0
9	Edgar	4/5	1	4	2/1/o	2/0/o	nil	1/1/o					Y						P/0	0	0	0	0
10	Ewing	19/1	1	5	3/1/c	2/0/c	nil	1/1/c	1/1/c				Y					1	0	0	0	0	0
11	Cameron	18/1	1	5	2/1/o	2/1/o	nil	1/1/o	1/1/o				Y						MS/0	0	0	0	0
12	MacDonalc	0/6	1	5	3/1/o	2/1/o	nil	1/1/o	1/1/o				Y						0	0	0	0	0

**Extract fans**

AH - Auto-humidistat control extract  
AT - Auto-timer extract  
MS - manual switch extract  
P - pull chord extract

**Humidity**

No.	Name	Flat	# Occpts	Laundry Method [1][B]			loads/time (per week)	Location	Drying Method			loads/time (per week)	Surface Condensation		
				Washer	Hand	Lauderette			W-D [1][0]	TD-[p][f][n]/[1][0][B]	hang dry-[o][i][ch][cl]radiators-[0][hh]		windows	walls	clothes
1	Mohammer	12/2	3.5	1			4/1 day	Y		i/cs	r/hh	4/1 day	Y-k	Y-l	
2	Thom	7/6	2	1			3/2 days	Y	f/0*	i/cs		3/2 days	Y-k	Y-b	
3	Gemmell	16/1	1	1			1/1 day	Y		i/hg		1/1 day	Y-k		
4	Allen	2/1	1	1			varies (1/1)	Y	f/B		r/0	varies			
5	Johns	14/1	2	1			2/7 days	Y		i/ch	r/hh	2/7 days		Y-k	
6	Pollock	21/4	3.5	1			2/7 days	Y	f/0	i/ch		2/7 days		Y-k	Y-b1
7	Fraser	4/7	1	1			varies (1/1)	Y		i/cs	r/0	varies			
8	McIntyre	22/6	2	1			1/7 days	Y	f/0*	i/ch		1/7 days	Y-k	Y-k	
9	Edgar	4/5	1	1			1/2 days	Y		i/ch	r/0	1/2 days			
10	Ewing	19/1	1	1			1/1 day	Y		i/ch	r/0	1/1 day			
11	Cameron	18/1	1	1			2/1 day	Y	0	i/ch		2/1 day	Y-k		
12	MacDonalc	0/6	1	1			1/7 days	Y	f/1*			1/7 days			

B-broken

W-D - washer and tumble dryer

TD - separate tumble dryer [plumbed-in][flexible hose][no ventilation system]/heat benefit [0-no][1-yes][B-broken]

hang dry - [outdoors][indoors]/[close horse][closet space][drying room][hang][pulley]

radiators - [0 heat change][heat higher]

\* Purpose duct but used as flexible hose system

**Acoustic Insulation**

No.	Name	Flat	# Occpts	Noise (Y)	Scale Rating	
					Frequency	Disturbance
1	Mohammer	12/2	3.5	Y	5	5
2	Thom	7/6	2		1	1

3 Gemmell	16/1	1	1	1
4 Allen	2/1	1 Y	3	3
5 Johns	14/1	2 Y	5	5
6 Pollock	21/4	3.5 Y	5	3
7 Fraser	4/7	1 Y	5	5
8 McIntyre	22/6	2	1	1
9 Edgar	4/5	1 Y	5	5
10 Ewing	19/1	1	1	1
11 Cameron	18/1	1 Y	2	2
12 MacDonal	0/6	1 Y	1	3

**Stress-Positive/Negative Scale-Well-being**

No.	Name	Flat	# Occpts	Smokers	Cigarettes (per day)	Alcohol (units/wee)	Pets (#)	Level of control in house (scale rating)		Perception and Emotions (scale rating)							Ailments (avg scale rating)					
								unexpected	lack control (sum/avg)	stress level (sum/avg)	Enthusias	Proud	Irritable	Ashamed	Alert/Atter	Upset	Nervous	Scared/Afr	Average	1 Cause	ho Regular	di P Drugs
1	Mohammer	12/2	3.5			0	0	4	13 (3.25)	16 (4)	2	3	4	2	4	4	5	5	29 (1.7)	Y	Y	Y
2	Thom	7/6	2 Y		30	0	0	1	4 (1)	3 (1)	4	3	1	1	3	1	1	1	17 (1)		Y	Y
3	Gemmell	16/1	1 Y		4 (5)	4	0	5	15 (3.75)	11 (3.7)	5	5	5	1	3	5	1	1	19 (1.1)		Y	Y
4	Allen	2/1	1 Y		10	96	0	5	6 (1.5)	7 (2.3)	3	3	1	3	3	1	1	1	23 (1.4)			
5	Johns	14/1	2 Y		20 (30)	0.5	0	1	5 (1.25)	3 (1)	3	3	3	3	1	3	4	4	58 (3.4)	Y		Y
6	Pollock	21/4	3.5 Y		20 (+)	0.5	0	1	5 (1.25)	3 (1)	1	1	5	1	5	5	4	4	25 (1.5)	Y	Y	Y
7	Fraser	4/7	1 Y		20 (30)	0.5	0	1	6 (1.5)	9 (3)	1	1	5	5	1	5	1	1	44 (2.6)	Y		Y
8	McIntyre	22/6	2 Y		5	0	0	1	4 (1)	3 (1)	5	5	1	1	5	1	1	1	25 (1.5)		Y	Y
9	Edgar	4/5	1			0.5	5	1	6 (1.5)	3 (1)	1	1	1	1	4	1	1	1	51 (3)	Y	Y	Y
10	Ewing	19/1	1 Y		30	0	0	5	13 (3.25)	9 (3)	1	2	1	1	1	3	1	1	45 (2.6)	Y		Y
11	Cameron	18/1	1 Y		18 (20)	2	0	1	4 (1)	3 (1)	5	2	1	1	3	3	1	1	21 (1.2)		Y	Y
12	MacDonal	0/6	1			2	0	1	4 (1)	3 (1)	5	5	1	1	3	1	3	1	37 (2.2)		Y	Y

200 SANDIEFIELD ROAD

Temperature (°C), Relative Humidity (%), CO<sub>2</sub> Levels (ppm)

02-03-2006: Sunny/Clear 4°C 66%RH

No.	Name	Flat	Living Room			Kitchen			Bathroom			Bedroom 1			Bedroom 2 (nearest front door)		
			Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)	Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)	Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)	Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)	Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)
1	Mohammed	12/2	20.1	17.3	580	20.4	16.3	590	21.2	26.5	580	22.3	18.8	650	22.1	19.3	620
2	Thom	7/6	21.3	28.7	1280	21.4	31.5	1230	21.6	29.3	1160	21.8	29.5	1130	21.5	30	1140
4	Allen	2/1	17.3	21.4	630	17.6	21.3	680	18.1	22.5	690	18.6	36.1	1250	18.4	17.8	560
7	Fraser	4/7	21.7	21.7	780	22.2	22.8	760	24	19.8	650	23.4	20.1	640	23.9	19.2	640
8	McIntyre	22/6	17.8	43.8	1380	17.7	45.5	1400	20.4	44.8	1390	18.5	41.7	1320	20.3	40	1430
10	Ewing	19/1	23.5	14	1140	25.7	20.9	850	25.4	20.9	830	24.8	29.2	1280	25.1	21.8	880
11	Cameron	18/1	23.3	24.9	950	23.5	25.1	1060	23.4	28.1	1010	23.5	27.7	980	23.4	30.5	950
9	Edgar	4/5	21.6	20.5	680	21.3	21.8	640	21.6	20.3	630	21.8	21.1	620			
12	MacDonald	0/6	20	22.3	720	18.9	23.4	630	19.1	31.9	960	18.8	32.3	1300	18.5	24.2	670
3	Gemmell	16/1															
5	Johns	14/1															
6	Pollock	21/4															
			<b>20.7</b>	<b>23.8</b>	<b>904.4</b>	<b>21.0</b>	<b>25.4</b>	<b>871.1</b>	<b>21.6</b>	<b>27.1</b>	<b>877.8</b>	<b>21.5</b>	<b>28.5</b>	<b>1018.9</b>	<b>21.7</b>	<b>25.4</b>	<b>861.3</b>

SANDIEFIELD ROAD RESULTS (Energy Efficiency & Air Quality)

Users's habits vs. Energy Efficiency / User's habits vs. Air Quality  
200 Sandiefield Road

Temperature (°C), Relative Humidity (%), CO<sub>2</sub> Levels (ppm)

30-11-2005: cloudy, wet, slightly windy 6°C 95%RH / 01-12-2005: cloudy, wet, slightly windy 3-4°C 87%RH

# Flats	# Occp (avg/flat)	# Rooms (per apt)	Living Room			Kitchen			Bathroom			Bedroom 1			Bedroom 2 (nearest front door)		
			Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)	Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)	Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)	Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)	Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)
12	1.67	4.92	21	35		22	33		23	32		22	31		22	31	
		1	20	34		20	34		21	33		20	31		21	33	
		5	19	44		20	46		21	39		20	41		21	38	
			17	36		17	36		18	33		18	32		18	31	
			22	33		22	33		22	34		22	31		22	32	
			21	37		21	38		21	36		21	35		21	36	
			20	32		20	30		21	30		20	28		21	28	
			20	39		19	39		20	42		19	39		20	39	
			21	31		22	29		21	29		22	28				
			18	41		17	39		19	34		18	34		19	34	
			22	36		20	37		22	41		22	36	nil	nil		
			20	39		20	44		20	40		20	42		20	38	
			<b>20.1</b>	<b>36.4</b>		<b>20.0</b>	<b>36.5</b>		<b>20.8</b>	<b>35.3</b>		<b>20.3</b>	<b>34.0</b>		<b>20.5</b>	<b>34.0</b>	

20-12-2005: drizzle, light rain, cloudy, wet (sunny breaks) 8°C 88%RH

# Flats	# Occp (avg/flat)	# Rooms (per apt)	Living Room			Kitchen			Bathroom			Bedroom 1			Bedroom 2 (nearest front door)		
			Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)	Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)	Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)	Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)	Temp (°C)	RH (%)	CO <sub>2</sub> (ppm)
8	2	5	19	39	1010	18	38	590	19	37	690	19	38	710	19	38	690
	2	5	21	40	1670	21	38	1380	21	36	1220	21	36	1190	20	34	500
			22	45	1660	21	47	1740	21	44	1080	21	41	1110	21	39	900
			21	32	730	21	34	840	21	35	760	21	37	1700	21	36	770
			22	35	1070	22	37	730	22	37	670	22	34	680	22	34	510
			22	38	840	22	40	830	21	40	770	21	38	650	21	39	740
			22	31	790	22	32	730	22	32	590	22	31	610	22	32	610
			20	37	760	20	39	760	20	38	760	20	38	800	20	39	930
			<b>21.1</b>	<b>37.1</b>	<b>1066.3</b>	<b>20.9</b>	<b>38.1</b>	<b>950.0</b>	<b>20.9</b>	<b>37.4</b>	<b>817.5</b>	<b>20.9</b>	<b>36.6</b>	<b>931.3</b>	<b>20.8</b>	<b>36.4</b>	<b>706.3</b>

Home Habits

# Flats	At home/out (hrs)	
	weekday	weekend
12	21.92	23.58
22	22	24

Heating

# Flats	# Occp (avg/flat)	# Rooms (per apt)	Rooms/spaces with heating (#/on[1]-off[0]-broken[n])						Time of year (ON)	Time of day (ON)	Level of heating in each room/space						Thermostat (°C/adjust °C)		
			Lvrm	Kitchen	Bathroom	Bedrm 1	Bedrm 2	Hallway			Sunspace	Lvrm	Kitchen	Bathroom	Bedrm 1	Bedrm 2		Hallway	Sunspace
12	1.67	4.92	ES (2/1-1)	10						max 5-6									
	1	5	ES (2/0-0)	1						8									8
			ES (2/1-n)	1						level 4-6									level 4
			ES (1/1)			9	8	9	Sep-Apr	7 Night	11	1							1
			ES (1/0)			3	3	1	Nov-Apr	1 Off	1								
			ES (1/n)					1	All year	3		level 3-5		level 3-5	level 3-5	level 3-5			
			nil				1		Off	1		1		1	1	1			
												level 1-2			level 1-2	level 1-2			
												1			1				1
												level 0		level 0	level 0	level 0			
												1		3	3	1			
															nil				
																			1

CH - central gas heating  
EF - electric fire  
ES - electric storage  
E - electric (plug-in)  
GF - gas fire

Access to sunlight

# Flats	# Occp (avg/flat)	# Rooms (per apt)	Orientation of windows (N/S/E/W)						Scale Rating (1-5)				
			Lvrm	Kitchen	Bathroom	Bedrm 1	Bedrm 2	Hallway	Sunspace	access to sunlight	outdoor/good light	private outdoor	communal outdoor
12	1.67	4.92	N							3.33	3.92	3.92	1.92
	1	5	S	1	4					3	5	5	1





min (only)  
17.44  
20

max (only)  
20  
20