

**SPACE STANDARDS**

**Napiershall Place**

2 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	LVRM	KIT	BATH	TOILET	BED 1	BED 2	BED 3	BALCONY	HALL	STORE	TOTAL
Ceiling height (m)	2.32	2.32	2.32	nil	2.32	nil	nil	2.32	2.32	2.32	
Orientation (windows)	SE	WS	WS	nil	SE	nil	nil	nil	n/a	n/a	
Main dimensions (lxw)(m)	5.0x3.3	2.3x3.3	2.0x1.8	nil	3.2x2.3	nil	nil	nil	3.3x0.9	2.3x1.1	
Window dimensions (wxh)(m)	3.3x2.2	1.7x1.0	0.8x0.35	nil	0.9x1.0	nil	nil	nil	n/a	n/a	
Gross floor area (m <sup>2</sup> )	16.50	7.59	4.00	nil	11.20	nil	nil	4.37	2.97	4.51	51.14
Gross volume (m <sup>3</sup> )	38.28	17.61	9.28	nil	25.98	nil	nil	10.14	6.89	10.46	118.64
Gross window area (m <sup>2</sup> )	7.26	1.70	0.28	nil	0.90	nil	nil	nil	n/a	n/a	10.14 *Window height varies
Net window area (glass) (m <sup>2</sup> )	4.61	0.80	0.09	nil	0.56	nil	nil	nil	n/a	n/a	6.06 * Frame width 0.16m; 0.2m; 0.1m
window to floor area (%)	27.94	10.57	2.25	nil	5.00	nil	nil	nil	n/a	n/a	45.76
Gross wall surface area (m <sup>2</sup> )	39.25	28.00	21.50	nil	36.50	nil	nil	nil			125.25 *Doors 1.672m <sup>2</sup>
Intensity of Occupancy (persons h	0.53	1.15	2.17	nil	0.78	nil	nil	1.99	2.93	1.93	0.17 No.Occupants*Hrs/Volume (m3)
Occupancy Level (persons/m3)	0.03	0.06	0.11	nil	0.04	nil	nil	0.10	0.15	0.10	0.01

**Occupant Scenario**

McNair 34 0/1	LVRM	KIT	BATH	TOILET	BED 1	BED 2	BED 3	SUNSP	HALL	STORE	TOTAL
Net window area (unshaded) (m <sup>2</sup> )	4.15	0.72	0.09	nil	0.56	nil	nil	nil	n/a	n/a	5.52 * Frame width 0.16m; 0.2m; 0.1m
window to floor area (unshaded%)	25	9	2	nil	5	nil	nil	nil	n/a	n/a	42
Covered surface area (m <sup>2</sup> )	5.72	7.00			n/a	nil	nil	nil			12.72
Net wall surface area (%)	85.43	75.00			n/a	nil	nil	nil			
Furniture volume (m <sup>3</sup> )	4.09	4.21	1.45		n/a	nil	nil	nil			
Net volume (m <sup>3</sup> )	34.19	13.40	7.83		n/a	nil	nil	nil			
Net volume (%)	89.31	76.08	84.36		n/a	nil	nil	nil			

**Occupant Scenario**

Creighton 42 0/1	LVRM	KIT	BATH	TOILET	BED 1	BED 2	BED 3	SUNSP	HALL	STORE	TOTAL
Net window area (unshaded) (m <sup>2</sup> )	2.77	0.24	0.07	nil	0.39	nil	nil	nil	n/a	n/a	3.47 * Frame width 0.16m; 0.2m; 0.1m
window to floor area (unshaded%)	17	3	2	nil	4	nil	nil	nil	n/a	n/a	25
Covered surface area (m <sup>2</sup> )	3.18	7.30			9.00	nil	nil	nil			19.48
Net wall surface area (%)	91.90	73.93			75.34	nil	nil	nil			
Furniture volume (m <sup>3</sup> )	4.40	4.38	1.45		4.23	nil	nil	nil			
Net volume (m <sup>3</sup> )	33.88	13.23	7.83		21.76	nil	nil	nil			
Net volume (%)	88.50	75.13	84.36		83.73	nil	nil	nil			

**Occupant Scenario**

MacDonald 46 0/1	LVRM	KIT	BATH	TOILET	BED 1	BED 2	BED 3	SUNSP	HALL	STORE	TOTAL
Net window area (unshaded) (m <sup>2</sup> )	1.38	0.08	0.09	nil	0.03	nil	nil	nil	n/a	n/a	1.58 * Frame width 0.16m; 0.2m; 0.1m
window to floor area (unshaded%)	8	1	2	nil	0	nil	nil	nil	n/a	n/a	12
Covered surface area (m <sup>2</sup> )	7.22	6.70			6.40	nil	nil	nil			20.32
Net wall surface area (%)	81.61	76.07			82.47	nil	nil	nil			
Furniture volume (m <sup>3</sup> )	4.84	4.02	3.19		3.99	nil	nil	nil			
Net volume (m <sup>3</sup> )	33.44	13.59	6.09		21.99	nil	nil	nil			
Net volume (%)	87.35	77.17	65.63		84.64	nil	nil	nil			

**Occupant Scenario**

<b>Wilson 38 1/2</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> )	3.23	0.72	0.02	nil	0.25	nil	nil	nil	n/a	n/a	4.22 * Frame width 0.16m; 0.2m; 0.1m
window to floor area (unshaded%)	20	9	0	nil	2	nil	nil	nil	n/a	n/a	32
Covered surface area (m <sup>2</sup> )	2.52	9.80			6.00	nil	nil	nil			18.32
Net wall surface area (%)	93.58	65.00			83.56	nil	nil	nil			
Furniture volume (m <sup>3</sup> )	2.83	6.37	1.45		2.47	nil	nil	nil			
Net volume (m <sup>3</sup> )	35.45	11.24	7.83		23.52	nil	nil	nil			
Net volume (%)	92.61	63.85	84.36		90.51	nil	nil	nil			

**Occupant Scenario**

<b>Jenkins 34 0/1</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> )	4.15	0.72	n/a	nil	0.31	nil	nil	nil	n/a	n/a	5.18 * Frame width 0.16m; 0.2m; 0.1m
window to floor area (unshaded%)	25	9	n/a	nil	3	nil	nil	nil	n/a	n/a	37
Covered surface area (m <sup>2</sup> )	7.02	7.95			5.64	nil	nil	nil			20.61
Net wall surface area (%)	82.11	71.61			84.55	nil	nil	nil			
Furniture volume (m <sup>3</sup> )	5.14	4.87	1.45		2.80	nil	nil	nil			
Net volume (m <sup>3</sup> )	33.14	12.74	7.83		23.18	nil	nil	nil			
Net volume (%)	86.56	72.34	84.36		89.22	nil	nil	nil			

**Occupant Scenario**

<b>McLean 46 1/2</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> )	4.15	0.72	n/a	nil	0.50	nil	nil	nil	n/a	n/a	5.37 * Frame width 0.16m; 0.2m; 0.1m
window to floor area (unshaded%)	25	9	n/a	nil	5	nil	nil	nil	n/a	n/a	39
Covered surface area (m <sup>2</sup> )	5.22	7.30			5.70	nil	nil	nil			18.22
Net wall surface area (%)	86.70	73.93			84.38	nil	nil	nil			
Furniture volume (m <sup>3</sup> )	3.01	4.38	1.45		3.00	nil	nil	nil			
Net volume (m <sup>3</sup> )	35.27	13.23	7.83		22.98	nil	nil	nil			
Net volume (%)	92.13	75.13	84.36		88.45	nil	nil	nil			

**Occupant Scenario**

<b>Morton 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>
Net window area (unshaded) (m <sup>2</sup> )	1.15	0.20	0.02	nil	0.50	nil	nil	nil	n/a	n/a	1.88 * Frame width 0.16m; 0.2m; 0.1m
window to floor area (unshaded%)	7	3	1	nil	5	nil	nil	nil	n/a	n/a	15
Covered surface area (m <sup>2</sup> )	9.63	6.90			11.92	nil	nil	nil			28.45
Net wall surface area (%)	75.46	75.36			67.34	nil	nil	nil			
Furniture volume (m <sup>3</sup> )	4.37	4.14	1.45		5.40	nil	nil	nil			
Net volume (m <sup>3</sup> )	33.91	13.47	7.83		20.58	nil	nil	nil			
Net volume (%)	88.59	76.49	84.36		79.22	nil	nil	nil			

**Occupant Scenario**

<b>Malloy 50 1/1</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> )	2.31	0.08	0.08	nil	0.28	nil	nil	nil	n/a	n/a	2.75 * Frame width 0.16m; 0.2m; 0.1m
window to floor area (unshaded%)	14	1	2	nil	3	nil	nil	nil	n/a	n/a	20
Covered surface area (m <sup>2</sup> )	6.72	8.30			1.80	nil	nil	nil			16.82
Net wall surface area (%)	82.88	70.36			95.07	nil	nil	nil			
Furniture volume (m <sup>3</sup> )	4.97	4.98	1.45		1.50	nil	nil	nil			

Net volume (m <sup>3</sup> )	33.31	12.63	7.83		24.48	nil	nil	nil			
Net volume (%)	87.02	71.72	84.36		94.23	nil	nil	nil			

**Occupant Scenario**

Humphreys 34 2/2	LVRM	KIT	BATH	TOILET	BED 1	BED 2	BED 3	SUNSP	HALL	STORE	TOTAL
Net window area (unshaded) (m <sup>2</sup> )	2.77	0.72	n/a	nil	0.28	nil	nil	nil	n/a	n/a	3.77 * Frame width 0.16m; 0.2m; 0.1m
Window to floor area (unshaded%)	17	9	n/a	nil	3	nil	nil	nil	n/a	n/a	29
Covered surface area (m <sup>2</sup> )	4.02	7.30			6.20	nil	nil	nil			17.52
Net wall surface area (%)	89.76	73.93			83.01	nil	nil	nil			
Furniture volume (m <sup>3</sup> )	3.67	4.88	1.45		3.90	nil	nil	nil			
Net volume (m <sup>3</sup> )	34.61	12.73	7.83		22.08	nil	nil	nil			
Net volume (%)	90.42	72.29	84.36		84.99	nil	nil	nil			

FLAT NO.: x/2	LVRM	KIT	BATH	TOILET	BED 1	BED 2	BED 3	BALCONY	HALL	STORE	TOTAL
Ceiling height (m)	2.32	2.32	2.32	nil	2.32	nil	nil	nil	2.32	2.32	
Orientation (windows)	NW	NW	NW	nil	SE	nil	nil	nil	n/a	n/a	
Main dimensions (lwx)(m)	4.2x3.1	3.0x3.3	1.75x2.3	nil	3.2x3.4	nil	nil	nil	4.7x1.1	1.3x1.2	
Window dimensions (wxh)(m)	2.3x1.1	1.7x1.0	0.8x1.0	nil	0.8x1.0	nil	nil	nil	n/a	n/a	
Gross floor area (m <sup>2</sup> )	13.02	9.90	4.03	nil	11.36	nil	nil	nil	6.34	4.04	48.69
Gross volume (m <sup>3</sup> )	30.21	22.97	9.34	nil	26.36	nil	nil	nil	14.71	9.37	112.95
Gross window area (m <sup>2</sup> )	2.53	1.70	0.80	nil	0.80	nil	nil	nil	n/a	n/a	5.83 *Window height varies
Net window area (glass) (m <sup>2</sup> )	1.39	0.80	0.48	nil	0.48	nil	nil	nil	n/a	n/a	3.15 * Frame width 0.16m; 0.2m; 0.1m
Window to floor area (%)	10.66	8.11	11.93	nil	4.23	nil	nil	nil	n/a	n/a	34.92
Gross wall surface area (m <sup>2</sup> )	36.50	31.50	20.25	nil	35.75	nil	nil	nil			124.00 *Doors 1.672m <sup>2</sup>
Intensity of Occupancy (persons h)	0.67	0.88	2.16	nil	0.77	nil	nil	nil	1.37	2.15	0.18 No.Occupants*Hrs/Volume (m3)
Occupancy Level (persons/m3)	0.03	0.04	0.11	nil	0.04	nil	nil	nil	0.07	0.11	0.01

**Occupant Scenario**

Curren 42 1/2	LVRM	KIT	BATH	TOILET	BED 1	BED 2	BED 3	SUNSP	HALL	STORE	TOTAL
Net window area (unshaded) (m <sup>2</sup> )	1.39	0.64	0.48	nil	0.24	nil	nil	nil	n/a	n/a	2.75 * Frame width 0.16m; 0.2m; 0.1m
Window to floor area (unshaded%)	11	6	12	nil	2	nil	nil	nil	n/a	n/a	31
Covered surface area (m <sup>2</sup> )	8.66	9.80			5.79	nil	nil	nil			24.25
Net wall surface area (%)	76.27	68.89			83.80	nil	nil	nil			
Furniture volume (m <sup>3</sup> )	5.26	5.88	1.45		1.99	nil	nil	nil			
Net volume (m <sup>3</sup> )	24.95	17.09	7.89		24.36	nil	nil	nil			
Net volume (%)	82.60	74.40	84.46		92.45	nil	nil	nil			

**Occupant Scenario**

Flemming 4 0/1	LVRM	KIT	BATH	TOILET	BED 1	BED 2	BED 3	SUNSP	HALL	STORE	TOTAL
Net window area (unshaded) (m <sup>2</sup> )	0.56	0.32	0.07	nil	0.24	nil	nil	nil	n/a	n/a	1.19 * Frame width 0.16m; 0.2m; 0.1m
Window to floor area (unshaded%)	4	3	2	nil	2	nil	nil	nil	n/a	n/a	11
Covered surface area (m <sup>2</sup> )	6.42	11.20			4.50	nil	nil	nil			22.12
Net wall surface area (%)	82.41	64.44			87.41	nil	nil	nil			
Furniture volume (m <sup>3</sup> )	3.93	6.72	1.45		2.10	nil	nil	nil			
Net volume (m <sup>3</sup> )	26.27	16.25	7.89		24.26	nil	nil	nil			
Net volume (%)	86.98	70.74	84.46		92.03	nil	nil	nil			

NAPIERSHALL PLACE, NAPIERSHALL STREET

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

12-12-2005: sunny, crisp/dry 4°C 92%RH / 13-12-2005: cloudy, windy, damp 5°C 90%RH / 14-12-2005: cool, crisp, clear skies, dry 10°C 93%RH

No.	Name	Unit/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	MacDonalc	46 0/1	18	53	1330	18	53	1390	16	44	1260	18	45	1230			
2	McNair	34 0/1	17	44	1260	17	39	1320	17	44	1250	17	37	1040			
3	Wilson	38 1/2	20	32	930	20	30	990	20	29	990	20	27	690			
4	Creighton	42 0/1	20	37	1400	20	36	1300	20	35	1150	20	36	1200			
5	Curran	42 1/2	19	40	1700	19	38	980	19	38	930	19	38	920			
6	Flemming	4 0/1	18	37	800	18	36	790	18	36	710	18	37	710			
7	Jenkins	34 0/1	21	36	1020	21	35	700	21	34	740	21	35	730			
8	McLean	46 1/2	18	39	1250	18	38	810	19	37	820	19	36	890			
9	Morton	8	18	45	1110	18	38	990	19	35	760	19	37	860			
10	Malloy	50 1/1	17	40	1260	17	39	1250	17	40	1280	18	40	1260			
11	Humphreys	34 2/2	21	38	1230	22	37	1250	22	37	1280	22	37	1260			
			<b>18.8</b>	<b>40.1</b>	<b>1208.2</b>	<b>18.9</b>	<b>38.1</b>	<b>1070.0</b>	<b>18.9</b>	<b>37.2</b>	<b>1015.5</b>	<b>19.2</b>	<b>36.8</b>	<b>980.9</b>			

Home Habits

No.	Name	Flat	# Occpts	At home/out (hrs)	
				weekday	weekend
1	MacDonalc	46 0/1	1	18/6	18/6
2	McNair	34 0/1	1	22/2	22/2
3	Wilson	38 1/2	1	16/8	16/8
4	Creighton	42 0/1	1	24/0	24/0
5	Curran	42 1/2	1	17/7	17/7
6	Flemming	4 0/1	1	22/2	22/2
7	Jenkins	34 0/1	1	17/7	17/7
8	McLean	46 1/2	1	18/6	18/6
9	Morton	8	1	24/0	24/0
10	Malloy	50 1/1	1	21/3	21/3
11	Humphreys	34 2/2	1	21/3	21/3

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	
1	MacDonalc	46 0/1	1	4	CH (1/0)	EI CH (1/0)	CH (1/0)	CH (1/0)		CH (1/1)	Off	Night	level 4	level 4	level 4	level 5		auto	23
2	McNair	34 0/1	1	4	CH (1/1)	CH (1/0)	CH (1/1)	CH (1/0)		CH (1/1)	Sep - Apr	Night	level 5	level 5	level 5	level 0		auto	25
3	Wilson	38 1/2	1	4	CH (1/1)	CH (1/1)	CH (1/1)	CH (1/1)		CH (1/1)	Sep - May	Morning/Night	level 4	level 4	level 4	level 4		auto	35/20
4	Creighton	42 0/1	1	4	CH (1/1)	EI CH (1/1)	CH (1/1)	CH (1/1)		CH (1/1)	Sep - May	Morning/Night	level 4	level 4	level 4	level 4		auto	25
5	Curran	42 1/2	1	4	CH (1/1)	EI CH (1/1)	CH (1/1)	CH (1/1)		CH (1/1)	Oct - Apr	Night	level 5	level 5	level 5	level 5		auto	20
6	Flemming	4 0/1	1	4	CH (1/1)	EI CH (1/1)	CH (1/0)	CH (1/1)		CH (1/1)	Oct - Apr	Morning/Night	level 5	level 2	level 0	level 4		auto	28
7	Jenkins	34 0/1	1	4	CH (1/1)	EI CH (1/1)	CH (1/1)	CH (1/1)		CH (1/1)	Sep - Apr	Morning/Night	level 5	level 2-3	level 2-3	level 2-3		auto	20-25/25+
8	McLean	46 1/2	1	4	CH (1/1)	CH (1/0)	CH (1/1)	CH (1/1)		CH (1/1)	Sept - ? (just moved)	All day	level 5	level 0	level 4	level 4		auto	20/15
9	Morton	8	1	4	CH (1/1)	CH (1/1)	CH (1/1)	CH (1/1)		CH (1/1)	Varies	All day	level 5	level 4	level 5	level 5		auto	25/20
10	Malloy	50 1/1	1	4	CH (1/1)	CH (1/1)	CH (1/1)	CH (1/1)		CH (1/1)	Sep - May	Afternoon/Night	level 3	level 3	level 3	level 3		auto	33
11	Humphreys	34 2/2	1	4	CH (1/1)	EI CH (1/0)	CH (1/0)	CH (1/0)		CH (1/1)	Nov - Mar	Morning/Night	level 3	level 0	level 0	level 0		auto	30/20

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)						access to sunlight	Scale Rating (1-5)			
					Lvrm	Kitchen	Bathroom	Bedrm 1	Bedrm 2	Hallway		Balcony	outdoor/good light	private outdoor	communal outdoor
1	MacDonalc	46 0/1	1	4	SE	NW	NW	SE			E	3	1	1	1
2	McNair	34 0/1	1	4	SE	NW	SE	SE			E	5	5	5	4
3	Wilson	38 1/2	1	4	SE	NW	SE	SE			E	4	5	5	3

4 Creighton	42 0/1	1	4 SE	NW	SE	SE	E	5	1	1	3
5 Curran	42 1/2	1	4 SW	NE	NE	SE	nil	4	1	1	3
6 Flemming	4 0/1	1	4 SW	NE	NE	SE	SE	2	5	5	1
7 Jenkins	34 0/1	1	4 SE	NW	nil	SE	SE	4	5	5	3
8 McLean	46 1/2	1	4 SE	NW	SE	SE	E	5	5	5	5
9 Morton	8	1	4 SE	NW	SE	SE	E	5	5	5	2
10 Malloy	50 1/1	1	4 SW	NE	SE	W	W	5	5	5	1
11 Humphreys	34 2/2	1	4 SE	NW	nil	SE	E	2	5	5	2

### 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 (2+d Kitchen	Bathroom	Bedrm 1	Bedrm 2	Sunspace	Lvrm	Kitchen	Bathroom	Bedrm 1	Bedrm 2	Sunspace	unaware	access	Kitchen	Bathrm		
1	MacDonalc	46 0/1	1	4	2/1/o	1/1/c	1/1/c	1/1/c	Y									MS/1	AT/1	0	0
2	McNair	34 0/1	1	4	2/1/c	1/1/c	1/0/c	1/1/c	Y									1 MS/1	AT/1	0	0
3	Wilson	38 1/2	1	4	2/1/c	1/1/c	1/1/c	1/1/c	Y							1	1	MS/1	AT/0	0	0
4	Creighton	42 0/1	1	4	2/1/c	1/0/c	1/0/c	1/1/c	Y							1	1	MS/1	AT/1	0	0
5	Curran	42 1/2	1	4	2/0/c	1/0/c	1/0/c	1/1/c	Y									1 MS/1	AT/1	0	0
6	Flemming	4 0/1	1	4	2/1/c	1/1/c	1/0/c	1/1/c	Y								1	MS/1	AT/1	0	0
7	Jenkins	34 1/1	1	4	2/1/c	1/0/o	nil	1/1/o	Y									MS/1	AT/1	0	0
8	McLean	46 1/2	1	4	2/1/c	1/1/c	1/0/c	1/1/c	Y								1	1 MS/1	AT/1	0	0
9	Morton	8	1	4	2/1/o	1/1/o	1/0/o	1/1/o	Y								1	MS/1	AT/1	0	0
10	Malloy	50 1/1	1	4	2/0/o	1/0/o	1/0/c	1/0/o	Y							1	1	MS/1	AT/1	0	0
11	Humphreys	34 2/2	1	4	2/1/c	1/0/c	nil	1/0/c	Y							1		1 MS/1	AT/1	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 Kitchen	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	MacDonalc	46 0/1	1	1			1/1 day	Y			i/ch	1/1 day			
2	McNair	34 0/1	1	1			1/3 days	Y			o/hg	1/3 days	Y-k		
3	Wilson	38 1/2	1	1			1/1 day	Y			o/hg + i/cs	1/1 day			
4	Creighton	42 0/1	1	1			1/1 day	Y			r/0	1/1 day			
5	Curran	42 1/2	1	1			1/1 day (in 3 weeks)	Y			o/hg + i/ch	1/1 day (in 3 weeks)			
6	Flemming	4 0/1	1	1			1/1 day	Y	f/0		o/hg	1/1 day			
7	Jenkins	34 0/1	1	1			1/2 days	Y			o/hg + i/ch	1/2 days			
8	McLean	46 1/2	1	1	1		1/2 days + daily	Y			o/hg + i/ch	1/2 days + daily			
9	Morton	8	1	1			1/2 days	Y	p/0		o/hg + i/cs	1/2 days			
10	Malloy	50 1/1	1	1			1/2 days	Y			o/hg + i/cs	1/2 days			
11	Humphreys	34 2/2	1	1			1/2 days	Y	p/0		o/hg + i/p	1/2 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	MacDonalc	46 0/1	1		1	1
2	McNair	34 0/1	1		1	1
3	Wilson	38 1/2	1		1	1
4	Creighton	42 0/1	1	Y	3	2
5	Curran	42 1/2	1		1	1
6	Flemming	4 0/1	1	Y	3	2
7	Jenkins	34 0/1	1		1	1

8 McLean	46 1/2	1 Y	3	2
9 Morton	8	1	1	1
10 Malloy	50 1/1	1	1	1
11 Humphreys	34 2/2	1	1	1

**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/Afi	Average	[1 Cause	[ho Regular
1	MacDonalc	46 0/1	1	Y	80	60	0	1	4 (1)	5 (1.7)	5	5	1	1	5	1	1	1	29 (1.7)		Y
2	McNair	34 0/1	1			0	0	2	5 (1.25)	4 (1.3)	5	5	1	1	5	1	1	1	32 (1.9)		Y
3	Wilson	38 1/2	1			1	0	1	4 (1)	3 (1)	3	3	2	1	5	2	1	1	34 (2)		Y
4	Creighton	42 0/1	1				1	1	4 (1)	3 (1)	2	2	4	1	5	4	4	4	73 (4.3)	Y	Y
5	Curran	42 1/2	1	Y	8	0	0	4	11 (2.75)	6 (2)	4	4	5	1	5	5	1	1	19 (1.1)	Y	Y
6	Flemming	4 0/1	1			0	0	1	4 (1)	3 (1)	5	5	1	1	5	1	1	1	25 (1.5)	Y	Y
7	Jenkins	34 0/1	1	Y	15 (20)	0.5	0	1	4 (1)	3 (1)	5	5	1	1	5	1	1	1	25 (1.5)	Y	Y
8	McLean	46 1/2	1			1	0	1	4 (1)	3 (1)	5	5	2	1	5	2	1	1	46 (2.7)	Y	Y
9	Morton	8	1	Y	?	0	0	1	4 (1)	3 (1)	5	5	1	1	5	1	4	4	40 (2.4)	Y	Y
10	Malloy	50 1/1	1	Y	20	0	0	1	4 (1)	3 (1)	5	5	1	1	5	1	1	1	27 (1.6)		Y
11	Humphreys	34 2/2	1			0	0	1	4 (1)	3 (1)	5	5	3	1	5	3	1	1	33 (1.9)	Y	Y

NAPIERSHALL PLACE, NAPIERSHALL STREET

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

06-03-2006: sunny/clouds/moderate winds 2-5°C 64%RH / 07-03-2006: moderate winds, cloudy, drizzle/rain 8°C 93%RH / 10-03-2006: drizzle/rain, overcast 5°C 93%RH

No.	Name	Unit/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)
6	Flemming	4 0/1	18.7	28.2	780	18.6	29.5	880	16.7	32	770	17.7	30.1	780			
4	Creighton	42 0/1	18.5	22	600	19.8	22.5	640	19.9	24.9	710	20.1	24.8	670			
3	Wilson	38 1/2	20.6	29.5	760	20.2	30.1	860	19.7	32.3	830	19.6	29.3	730			
9	Morton	8	21.6	31.5	1070	21.8	30.7	1140	19.8	33.3	990	20.1	32.3	1110			
2	McNair	34 0/1	18.4	38.7	790	18.7	39.6	790	18.6	39.4	850	18.4	38.8	840			
1	MacDonal	46 0/1	22.6	34.1	900	22.5	33.1	920	20.6	35.3	920	20.6	35	930			
7	Jenkins	34 1/1	21.6	32.9	830	22.3	35.9	850	22	32	840	21.6	30.3	740			
5	Curran	42 1/2	16.1	42.2	690	15.9	42.3	650	16.1	46.5	690	16.2	41.1	610			
10	Malloy	50 1/1	18.3	37.9	670	18.5	39.5	750	18.5	37.5	720	18.5	38.3	730			
11	Humphreys	34 2/2	20.4	44	830	21	42.8	810	21.5	41.5	880	21.5	42.5	940			
8	McLean	46 1/2															
			<b>19.7</b>	<b>34.1</b>	<b>792.0</b>	<b>19.9</b>	<b>34.6</b>	<b>829.0</b>	<b>19.3</b>	<b>35.5</b>	<b>820.0</b>	<b>19.4</b>	<b>34.3</b>	<b>808.0</b>			

NAPIERSHALL PLACE RESULTS (Energy Efficiency & Air Quality)

Users's habits vs. Energy Efficiency / User's habits vs. Air Quality  
Napiershall Place, Napiershall Street

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

12-12-2005: sunny, crisp/dry 4°C 92%RH / 13-12-2005: cloudy, windy, damp 5°C 90%RH / 14-12-2005: cool, crisp, clear skies, dry 10°C 93%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)
11	1	4	18	53	1330	18	53	1390	16	44	1260	18	45	1230			
			17	44	1260	17	39	1320	17	44	1250	17	37	1040			
	20	32	930	20	30	990	20	29	990	20	27	690					
	20	37	1400	20	36	1300	20	35	1150	20	36	1200					
	19	40	1700	19	38	980	19	38	930	19	38	920					
	18	37	800	18	36	790	18	36	710	18	37	710					
	21	36	1020	21	35	700	21	34	740	21	35	730					
	18	39	1250	18	38	810	19	37	820	19	36	890					
	18	45	1110	18	38	990	19	35	760	19	37	860					
	17	40	1260	17	39	1250	17	40	1280	18	40	1260					
	21	38	1230	22	37	1250	22	37	1280	22	37	1260					
		<b>18.8</b>	<b>40.1</b>	<b>1208.2</b>	<b>18.9</b>	<b>38.1</b>	<b>1070.0</b>	<b>18.9</b>	<b>37.2</b>	<b>1015.5</b>	<b>19.2</b>	<b>36.8</b>	<b>980.9</b>				

Home Habits

# Flats	At home/out (hrs)	
	weekday	weekend
11	20	20
	21	21

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	
11	1	4	CH (1/1)	10	7	8	8	11	Sep-Apr	2 Night	3 level 5	level 5	level 5	level 5	level 5	auto	min	
			w/ EF(1/1)	5					Sep-May	3 Morn/Night	5	6	2	3	3	11	22.64	
	1	4	w/ EF(1/0)	1					Oct-Apr	1 Aft/Night	1					20		
				1					Nov-Mar	1 All day	2 level 4	level 4	level 4	level 4				
				1					Sep-?	1	3	4	4	4		max		
			CH (1/0)	1	4	3	3		Off	1						26.27		
									Varies	1	level 3	level 3	level 3	level 3		25		
											2	1	1	1				
											level 2-3	level 2-3	level 2-3					
											1	1	1					
											level 2							
											1							
											level 0	level 0	level 0					
											2	2	2	2				

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)						access to sunlight	Scale Rating (1-5)			
			Lvrm	Kitchen	Bathroom	Bedrm 1	Bedrm 2	Hallway		Balcony	outdoor/good light	private outdoor	communal outdoor
11	1	4	N	1	2	2			4	3.91	3.91	2.55	
			S	1					4	5	5	3	
	1	4	W	1	8	1	1						
			E	8	1	6	10						
			SE										
			nil			2							

Windows and Ventilation

# Flats	# Occp (avg/flat)	# Rooms (per apt)	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
11	1	4	2/1/c	1/1/c	1/1/c	1/1/c		11						4	6	4	MS/1	AT/1	0	0
			1	4	7	5	2	7										11	10	



