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INTERNAL DAYLIGHT & SUNLIGHT REPORT

Centric Close

London NW1

7th December 2016





1. Introduction

- 1.1. This practice has been instructed to provide an assessment of the daylight & sunlight amenity to the proposed new development at Centric Close, London NW1.
- 1.2. The methodology and criteria used for the assessment of daylight & sunlight is provided by the Building Research Establishments guidance 'Site layout planning for daylight and sunlight: a guide to good practice' (BRE, 2011) and the British Standard document BS8206 Pt2.
- 1.3. The BRE guide provides advice on site layout planning to achieve good sunlighting and daylighting within buildings, and in the open spaces between them. It is intended to be used in conjunction with the interior daylight recommendations in the British Standard (BS) 8206 Part 2.



2. Guidance & methodology

Daylight & sunlight for planning

Site layout planning for daylight and sunlight: a guide to good practice, BRE 2011

2.1. This document follows from previous guidance produced by Her Majesty's Stationary Office (HMSO) on daylight and sunlight in the built environment and is now the accepted methodology used by local authorities for assessing daylight and sunlight in relation to new developments. It provides methods for calculating the impact to daylight and sunlight within existing neighbouring buildings and for assessing the provision of amenity provided within new buildings.

Scope of the assessments

2.2. The BRE guidelines state that when assessing the potential effects on surrounding properties, only those windows and rooms that have a 'reasonable expectation' of daylight and sunlight need to be considered. Paragraph 2.2.2 of the guidelines clarifies what are considered sensitive receptors with a 'reasonable expectation' of daylight and sunlight as follows:-

"The guidelines given here are intended for use for rooms in adjoining dwellings where daylight is required, including living rooms, kitchens and bedrooms. Windows to bathrooms, toilets, storerooms, circulation areas and garages need not be analysed. The guidelines may also be applied to any existing non-domestic building where the occupants have a reasonable expectation of daylight; this would normally include schools, hospitals, hotels and hostels, small workshops and some offices."

2.3. Commercial properties are not treated as having a reasonable expectation of daylight or sunlight. This is because they are generally designed to rely on electric lighting to provide sufficient light by which to work, rather than natural daylight or sunlight. No further assessment has therefore been carried out in relation to commercial properties in the vicinity or within the proposed development.

Detailed technical assessments

2.4. The guidance goes on to detail three methods for calculating daylight; the Vertical Sky Component (VSC), the No-Sky Line Contour (NSC) and the Average Daylight Factor (ADF). The first two assessments are primarily used for the assessment of existing buildings, whilst the ADF test is used for the assessment of new buildings. The assessment of sunlight within both existing and new buildings is undertaken using the Annual Probable Sunlight Hours (APSH) test.



Daylight to new buildings

2.5. The ADF test calculates the average illuminance within a room as a proportion of the illuminance available to an unobstructed point outdoors, under a sky of known luminance and luminance distribution. This is the most detailed of the daylight calculations and considers the physical nature of the rooms and windows, including; window transmittance, window size, room size, angle of external obstruction and room surface reflectivity. Some of the inputs can be accurately quantified (room size, angle of obstruction, window size), but some need to be based upon assumptions. These are as follows:-

Internal reflectance of rooms Existing buildings = 0.5

Newly built & proposed dwellings = 0.6

Window transmittance Double Glazed = 0.68

Single glazed = 0.8

2.6. The guidance suggests that, for new dwellings provided with electric lighting, kitchens should attain at least 2% ADF, living and dining rooms at least 1.5% ADF and bedrooms at least 1% ADF.

Sunlight

- 2.7. For sunlight the APSH test calculates the percentage of statistically probable hours of sunlight received by each window in both the summer and winter months. March 21st through to September 21st is considered to be the summer period while September 21st to March 21st is considered the winter period. For properties surrounding a new development only those windows orientated within 90° of due south and which overlook the site of the proposal are relevant for assessment.
- 2.8. The BRE guidelines suggest that the main living rooms within new buildings should achieve at least 25% of annual sunlight hours, with 5% during the winter period. For neighbouring buildings the guide suggests that occupiers will notice the loss of sunlight if the APSH to main living rooms is both less than 25% annually (with 5% during winter) and that the amount of sunlight, following the proposed development, is reduced to less than 0.8 times its former value.

Application of the BRE quidance & criteria

2.9. The opening paragraphs of the BRE guidelines state: -

"The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and the document should not be seen as an instrument of planning policy. Its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of many factors in site layout design. In special circumstances the developer or planning authority may wish to use different target values. For example, in a historic city centre a higher degree of obstruction may be unavoidable if new developments are to



match the height and proportions of existing buildings".

2.10. It is therefore important to understand that the BRE guidance needs to be applied sensibly and flexibly, after taking account of site context. It is considered important to note that in high density areas, achieving good levels of daylight and sunlight in accordance with the BRE guidelines, can conflict with other beneficial design factors.



3. Sources of Information & Assumptions

3D modelling

- 3.1. A 3D model of context surrounding buildings, measured survey, architects drawings, site photographs and Ordnance Survey information have been used to create a 3D computer model of the proposed development in the context of the existing site and surrounding buildings.
- 3.2. It is important to note that where survey information has not been supplied, the precise position of the neighbouring properties has been derived from the Centric Close_180416 NE@00.skp model.

AHMM Architects

9-0 Topo inc Elevations.dwg
Centric Close_180416 NE@00.dwg
AHMM_16041_SK_003 Proposed basement plan.dwg
AHMM_16041_SK_004a Proposed L00 Plan.dwg
AHMM_16041_A_(P00)_102 Proposed L01 Plan.dwg
AHMM_16041_A_(P00)_103 Proposed L02 Plan.dwg
AHMM_16041_A_(P00)_104 Proposed L03 Plan.dwg
AHMM_16041_A_(P00)_105 Proposed L04 Plan.dwg
AHMM_16041_A_(P00)_106 Proposed L05 Plan.dwg
AHMM_16041_SK_010a Proposed L06 Plan.dwg
AHMM_16041_SK_028 Proposed Elevation_East.dwg
AHMM_16041_SK_029 Proposed Elevation_West.dwg
AHMM_16041_SK_030 Proposed Elevation_North.dwg
AHMM_16041_SK_031 Proposed Elevation_South.dwg
Received 05/12/2016

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Site Photographs Ordnance Survey



4. The site, proposal and surrounding properties

- 4.1. The proposed development is located adjacent to Oval Road in Camden NW1.
- 4.2. The existing site consists of low rise commercial units. To the west the site is bounded by a train line with residential properties directly to the North, East and South.
- 4.3. The proposals show a complete redevelopment, including demolition of the existing buildings on-site, to provide a mixed use development with some commercial space on the ground floor and between four and seven floors of residential apartments above.





Daylight & sunlight assessment within the proposed accommodation

Daylight

- 5.1. The daylight and sunlight amenity provided within the proposed residential apartments of has been assessed using the ADF and APSH tests following the methodology of the BRE guidance and British Standard document BS8206 pt2.
- 5.2. Full results of the daylight and sunlight assessments within these apartments, along with drawings to show the layout of rooms and windows, are attached within the appendices.
- 5.3. Many of the apartments are provided with open-plan living room/kitchen/diners. The BRE guide suggests that rooms serving multiple uses should aim to achieve the higher of the ADF targets (which in the case of L/K/Ds or Studios would be 2% for kitchens). However, because the kitchens elements of some of these rooms are located to the rear of the room, away from the main windows, the predominant use of these rooms will be as living rooms, which have an ADF target of 1.5%.
- 5.4. The results of the ADF assessment has shown that all 216 (100%) of the 216 habitable rooms surpass the BRE and British Standard guidance criteria.
- 5.5. Given the excellent level (100%) of overall compliance, the internal daylight amenity results are considered to be appropriate and in line with the overall intentions of the BRF criteria.

Sunlight

- 5.6. The BRE guide states that kitchens and bedrooms are less important for sunlight provision and where possible living rooms should aim to achieve target values as far as possible.
- 5.7. The APSH analysis shows that, of the 51 main living rooms which have windows within 90 degrees of due south, 47 (92%) achieve sunlight exceeding the BRE targets.
- 5.8. In all cases that see levels below the targets the windows are situated within internalised balcony amenity space which limits sky visibility. As noted previously the provision of an external amenity space enjoyed by these rooms means there is a direct trade-off with lower sunlight potential to the windows within. Whilst APSH levels to windows drop below the BRE targets, the benefits of the external amenity provision should be weighed against this and the balcony areas themselves will receive provide excellent amenity levels. Again such trade-offs are not uncommon for an urban development and the balance is considered appropriate given the overall quality of the proposals.
- 5.9. The BRE guidance suggests in its introduction that the numerical targets given need to be interpreted flexibly and in consideration of other site constraints and design



requirements. Clearly, attaining full compliance with sunlight targets would conflict with the overarching design constraints for the Site and needs to be viewed onbalance.



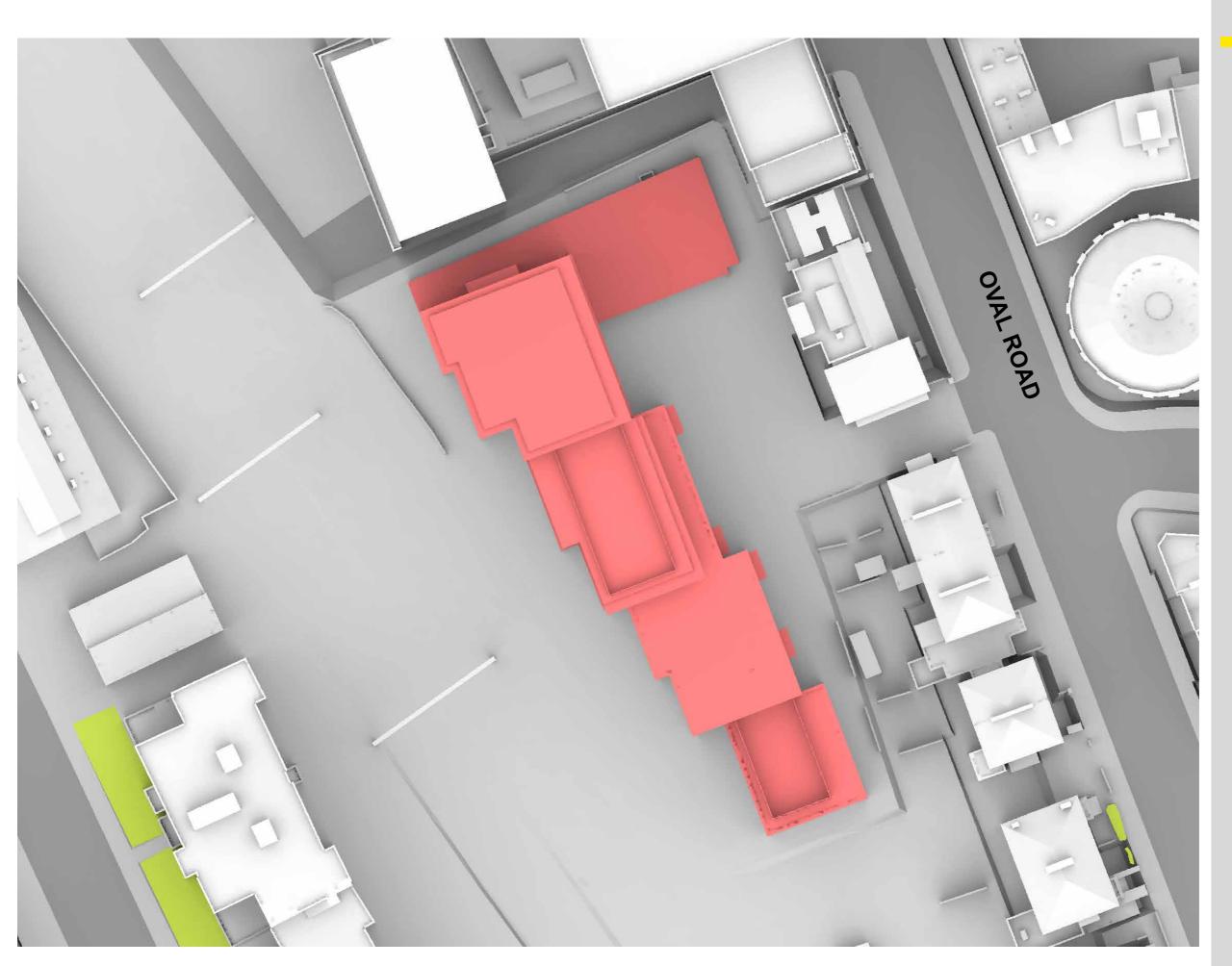
6. Conclusions

- 6.1. This report considers the daylight and sunlight amenity to the proposed new development at the Centric Close, London NW1.
- 6.2. The provision of daylight and sunlight within the proposed apartments has been assessed using the ADF and APSH tests as recommended by the BRE and British Standard guidance.
- 6.3. The results of these assessments has shown that all habitable rooms (bedrooms, living rooms, l/k/d's, studios and kitchens) will receive levels of daylight in excess of the BRE targets for their respective room uses. The sunlight assessment has shown that 92% of the main living rooms with windows within 90 degrees of south will receive levels of sunlight in excess of the BRE targets.
- 6.4. The rooms which deviate from the given targets do so because of the presence of internalised recessed balconies and building orientation. The BRE guidance suggests in its introduction that the numerical targets given need to be interpreted flexibly and in consideration of other site and design constraints. Clearly, attaining full compliance with sunlight targets would conflict with the overarching design constraints for the Site and needs to be viewed on-balance.
- 6.5. The BRE guidance gives the following passage in its introduction:-
 - "1.6. The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and the document should not be seen as an instrument of planning policy. Its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of many factors in site layout design. In special circumstances the developer or planning authority may wish to use different target values. For example, in a historic city centre a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings".
- 6.6. Overall the proposed scheme achieves an excellent level of compliance with BRE guidance targets. Given the site constraints and in light of the statement above, we feel that the current proposals are compliant with the intentions of the BRE guidance and thus with local planning policy.



Appendix 1

Drawings of the proposed, internal arrangements and surrounding buildings



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Sources of information

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Site Photographs Ordnance Survey



Project Centric Close NW17DH London

Proposed Development Plan View

Checked ME DF 30/11/2016 01

Drawing no.



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AHMM_16041_SK_010a Proposed L06 Plan.dwg
AHMM_16041_SK_029 Proposed Elevation_East.dwg
AHMM_16041_SK_029 Proposed Elevation_West.dwg
AHMM_16041_SK_030 Proposed Elevation_North.

AHMM_16041_SK_031 Proposed Elevation_South. dwg

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Site Photographs
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Centric Close NW1 7DH London

Proposed Development 3D View

Drawn ME Checked DF

Date 30/11/2016 Rel no. 01

Drawing no.

2453-02



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Sources of information

ALLFORD HALL MONAGHAN MORRIS

9-0 Topo inc Elevations.dwg
A-P-00_Presentation.dwg
A-P-01_basement.dwg
A-P-01_Presentation.dwg
A-P-04_Presentation.dwg
A-P-05_Presentation.dwg
A-P-06_Presentation.dwg
A-P-07_Presentation.dwg
Received 05/12/16

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Site Photographs Ordnance Survey

Project Centric Close NW1 7DH London

Proposed Scheme Ground Level

 Drawn
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 Date
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Sources of information

ALLFORD HALL MONAGHAN MORRIS

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A-P-06_Presentation.dwg
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Received 05/12/16

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Site Photographs Ordnance Survey

Project Centric Close NW1 7DH London

Proposed Scheme First to Third Level

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A-P-06_Presentation.dwg
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Site Photographs
Ordnance Survey

Project Centric Close NW1 7DH London

Proposed Scheme Fourth Level

Drawn ME Checked DF

Date 07/12/16 Rel no. 02

Drawing no.



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Site Photographs Ordnance Survey

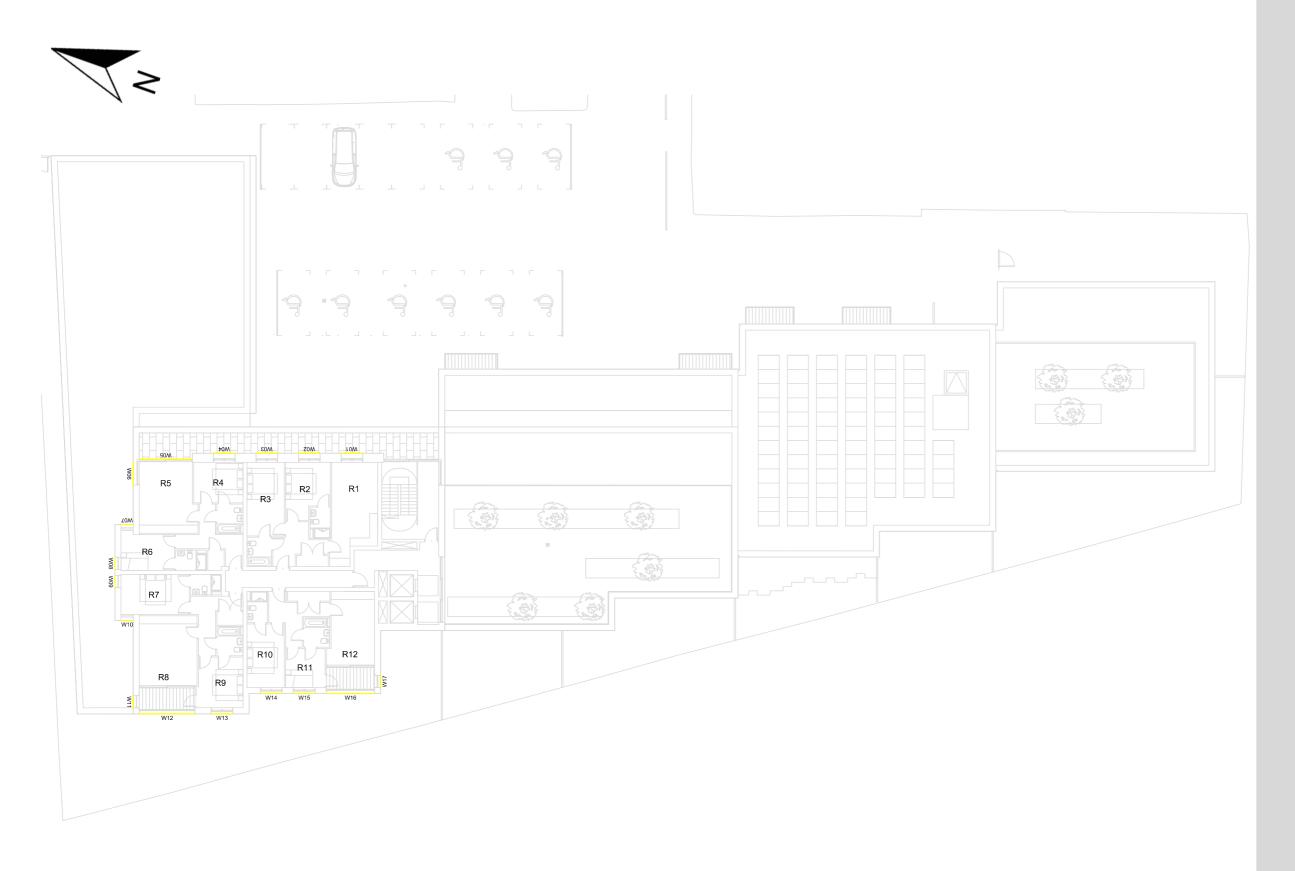
Project Centric Close NW1 7DH London

Proposed Scheme Fifth Level

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Drawing no.



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A-P-04_Presentation.dwg
A-P-05_Presentation.dwg
A-P-06_Presentation.dwg
A-P-07_Presentation.dwg
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Site Photographs
Ordnance Survey

Project Centric Close NW1 7DH London

Proposed Scheme Sixth Level

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 Date
 07/12/16
 Rel no.
 02

Drawing no.



Appendix 2

Results of the daylight & sunlight assessments within the proposed dwellings

Floor	Room ID	Window ID	Room Use	ADF	TOTAL ADF	ROOM TOTAL APSH	ROOM WINTER APSH
Cantaia Class							
Centric Close							
Ground	R1	W01-L	Living Room	0.4			
		W01-U	Living Room	4.7			
		W02-L	Living Room	0.1			
		W02-U	Living Room	1.0	6.2	69	24
Ground	R2	W03-L	Kitchen	0.2			
Ground	NZ.	W03-L	Kitchen	0.2 2.0	2.2	N/A	N/A
		***************************************	Riceren	2.0		14//	14/1
Ground	R3	W04-L	Bedroom	0.2			
		W04-U	Bedroom	1.9	2.1	N/A	N/A
Ground	R4	W05-L	Bedroom	0.2	2.4	21/2	21/2
		W05-U	Bedroom	1.9	2.1	N/A	N/A
Ground	R5	W06-L	Bedroom	0.2			
		W06-U	Bedroom	2.2	2.4	N/A	N/A
Ground	R6	W07-L	Bedroom	0.1			
		W07-U	Bedroom	1.2	1.3	N/A	N/A
Ground	R7	W08-L	Living Room	0.2			
Ground	K/	W08-L	Living Room	1.2			
		W09-L	Living Room	0.1			
		W09-U	Living Room	1.1	2.6	N/A	N/A
Ground	R8	W10-L	Living Room	0.2			
		W10-U	Living Room	2.0	2.1	43	12
Ground	R9	W11-L	Bedroom	0.2			
oround	113	W11-U	Bedroom	1.9	2.0	40	11
Ground	R10	W13-L	Studio	0.1			
		W13-U	Studio	0.8			
		W14-L	Studio	0.1			
		W14-U W12-L	Studio Studio	1.5 0.1			
		W12-U	Studio	0.8	3.4	42	12
Ground	R11	W15-L	Bedroom	0.2			
		W15-U	Bedroom	1.9	2.1	34	11
Ground	R12	W16-L	Bedroom	0.2			
Ground	KIZ	W16-L W16-U	Bedroom	1.9	2.1	40	12
		**10 0	beardonn	1.5	2.12	10	
Ground	R13	W17-L	Bedroom	0.2			
		W17-U	Bedroom	2.2	2.5	39	10
Ground	R14	W18-L W18-U	Kitchen Kitchen	0.2 2.4	2.6	39	11
		W10-U	KILCHEH	2.4	2.0	39	11
Ground	R15	W19-L	Living Room	0.1			
		W19-U	Living Room	1.2			
		W20-L	Living Room	0.5			
		W20-U	Living Room	5.2	7.1	86	23
Ground	R16	W21-L	Bedroom	0.4			
Ground	KIO	W21-L W21-U	Bedroom	3.9	4.3	43	12
		•	z]			
Ground	R17	W22-L	Living Room	0.1			
		W22-U	Living Room	1.6			
		W23-L	Living Room	0.1	2.5	43	43
		W23-U	Living Room	1.6	3.5	42	12
Ground	R18	W24-L	Living Room	0.3			
		W24-U	Living Room	3.4	3.7	41	11
			-				
Ground	R19	W25-L	Bedroom	0.1			
		W25-U	Bedroom	1.5		l	

Floor	Room II) Window ID	Room Use	ADF	TOTAL ADF	ROOM TOTAL APSH	ROOM WINTER APSH
		W26-L	Bedroom	0.1			
		W26-U	Bedroom	1.3	3.2	38	10
Ground	R20	W27-L	Bedroom	0.3			
		W27-U	Bedroom	3.4	3.7	42	11
First	R1	W01-L	Living Room	0.5			
		W01-U	Living Room	3.5			
		W02-L	Living Room	0.2			
		W02-U	Living Room	2.2	6.3	36	17
First	R2	W03-L	Kitchen	0.2			
		W03-U	Kitchen	2.2	2.4	N/A	N/A
First	R3	W04-L	Bedroom	0.2			
		W04-U	Bedroom	2.1	2.3	N/A	N/A
First	R4	W05-L	Bedroom	0.2			
11130	114	W05-U	Bedroom	2.1	2.3	N/A	N/A
		VV05-0	Dearoom	2.1	2.3	N/A	N/A
First	R5	W06-L	Bedroom	0.2			
11131	1/2	W06-L	Bedroom	2.3			
		W07-L	Bedroom	0.1			
		W07-U	Bedroom	0.9	3.5	N/A	N/A
First	R6	W08-L	Bedroom	0.2			
		W08-U	Bedroom	1.8	2.0	N/A	N/A
First	R7	W09-L	Living Room	0.3			
		W09-U	Living Room	2.0	2.2	N/A	N/A
First	R8	W10-L	Bedroom	0.2			
		W10-U	Bedroom	1.8	2.0	N/A	N/A
First	R9	W11-L	Living Room	0.2			
		W11-U	Living Room	1.8			
		W12-L	Living Room	0.1			
		W12-U	Living Room	0.6	2.7	N/A	N/A
			2.7	0.0	,	,	,
First	R10	W13-L	Living Room	0.2			
		W13-U	Living Room	1.8	2.0	N/A	N/A
First	R11	\A/1.4 I	Dodroom	0.2			
First	KII	W14-L	Bedroom	0.2	2.2	N1 / A	21/2
		W14-U	Bedroom	2.1	2.3	N/A	N/A
First	R12	W15-L	Bedroom	0.2			
		W15-U	Bedroom	1.7	1.8	N/A	N/A
First	R13	W16-L	Bedroom	0.2			
		W16-U	Bedroom	2.2	2.4	N/A	N/A
First	R14	W17-L	Bedroom	0.2			
		W17-U	Bedroom	2.2	2.4	N/A	N/A
First	R15	W18-L	Living Room	0.2			
	2	W18-U	Living Room	1.3		1	
		W18-0 W19-L	Living Room	0.1			
		W19-U	Living Room	0.6	2.2	N/A	N/A
Firet	D1C	W/20 I	Living Deem	0.0			
First	R16	W20-L	Living Room	0.0		1	
		W20-U	Living Room	0.2			
		W21-L	Living Room	0.1			
		W21-U	Living Room	1.4	1.8	13	1
First	R17	W22-L	Bedroom	0.2			
		W22-U	Bedroom	1.8	1.9	N/A	N/A
First	R18	W23-L	Bedroom	0.1			
	-	W23-U	Bedroom	1.5	1.6	N/A	N/A
First	R19	W24-L	Bedroom	0.2			
		W24-U	Bedroom	1.7			

Floor	Room II	O Window ID	Room Use	ADF	TOTAL ADF	ROOM TOTAL APSH	ROOM WINTER APSH
		W25-L	Bedroom	0.0	אסו	Arsii	AFSII
		W25-U	Bedroom	0.0	2.1	N/A	N/A
First	R20	W26-L	Living Room	0.2			
11130	N20	W26-U	Living Room	1.3	1.5	N/A	N/A
First	R21	W27-L	Bedroom	0.1			
11130	1121	W27-U	Bedroom	0.6			
		W27-0	Bedroom	0.0			
		W28-U	Bedroom	0.4	1.0	N/A	N/A
.	500		B 1	0.0			
First	R22	W29-L	Bedroom	0.0			
		W29-U	Bedroom	0.4			
		W30-L	Bedroom	0.1			
		W30-U	Bedroom	0.7	1.1	14	1
First	R23	W31-L	Living Room	0.4			
		W31-U	Living Room	4.2			
		W32-L	Living Room	0.1			
		W32-U	Living Room	0.5	5.2	46	15
First	R24	W33-L	Bedroom	0.2			
11130	112-7	W33-U	Bedroom	2.2	2.4	44	13
			Bearoom	2.2		7.7	13
First	R25	W34-L	Bedroom	0.2			
		W34-U	Bedroom	1.7	1.8	43	13
First	R26	W35-L	Bedroom	0.2			
11130	N20	W35-U	Bedroom	2.2	2.4	43	12
.	B07		6	0.0			
First	R27	W37-L	Living Room	0.3			
		W37-U	Living Room	3.2			
		W36-L	Living Room	0.1			
		W36-U	Living Room	0.6	4.2	65	22
First	R28	W38-L	Living Room	0.2			
		W38-U	Living Room	2.6	2.9	45	13
Fire	D20	W20- I	D - du	0.2			
First	R29	W38a-L	Bedroom	0.2		40	4.4
		W38a-U	Bedroom	2.1	2.3	42	11
First	R30	W39-L	Bedroom	0.2			
		W39-U	Bedroom	2.3	2.5	43	12
First	R31	W41-L	Living Room	0.0			
FIISL	K2I	W41-L W41-U	-				
			Living Room	0.5			
		W40-L	Living Room	0.3			
		W40-U	Living Room	3.1	3.9	63	21
First	R32	W42-L	Bedroom	0.2			
		W42-U	Bedroom	1.9	2.0	39	10
First	R33	W43-L	Living Room	0.2			
FIISL	кээ	W43-L W43-U	Living Room	1.7	1.9	41	10
First	R34	W45-L	Bedroom	0.1			
		W45-U	Bedroom	0.6			
		W44-L	Bedroom	0.2			
		W44-U	Bedroom	2.4	3.3	62	19
First	חסר	MAC I	Podroc==	0.3			
First	R35	W46-L	Bedroom	0.2		40	42
		W46-U	Bedroom	2.2	2.4	40	12
First	R36	W46a-L	Bedroom	0.2			
		W46a-U	Bedroom	1.8	2.0	42	11
First	בכם	14/47	Living Dages	0.3			
First	R37	W47-L	Living Room	0.3			
		W47-U	Living Room	3.2			
		W48-L	Living Room	0.0			
		W48-U	Living Room	0.5	4.0	60	19
First	R38	W50-L	Studio	0.2			

Floor	Room I	D Window ID	Room Use	ADF	TOTAL ADF	ROOM TOTAL APSH	ROOM WINTER APSH
		W50-U	Studio	1.9	7151	711 511	7.1.511
		W51-L	Studio	0.0			
		W51-U	Studio	0.4			
		W49-L	Studio	0.1			
		W49-U	Studio	0.9	3.6	65	20
First	R39	W52-L	Bedroom	0.2			
11130	1133	W52-U	Bedroom	1.8	1.9	34	11
First	R40	W53-L W53-U	Bedroom	0.2	2.2	42	13
		W55-U	Bedroom	2.1	2.2	42	15
First	R41	W54-L	Bedroom	0.2			
		W54-U	Bedroom	2.2	2.4	43	13
First	R42	W55-L	Kitchen	0.2			
11130	1142	W55-L	Kitchen	2.4	2.6	42	12
First	R43	W56-L	Living Room	0.2			
		W56-U	Living Room	2.3			
		W57-L	Living Room	0.4			
		W57-U	Living Room	3.4	6.5	59	24
Second	R1	W01-L	Living Room	0.5			
		W01-U	Living Room	3.6			
		W02-L	Living Room	0.2			
		W02-U	Living Room	2.4	6.6	43	19
Carand	D 2	W02 I	Whale an	0.2			
Second	R2	W03-L W03-U	Kitchen Kitchen	0.2 2.4	2.7	N/A	N/A
		W03 0	Riterien	2.7	2.,	IN/A	NA
Second	R3	W04-L	Bedroom	0.2			
		W04-U	Bedroom	2.4	2.6	N/A	N/A
Second	R4	W05-L	Bedroom	0.2			
Second	114	W05-L	Bedroom	2.4	2.6	N/A	N/A
						,	•
Second	R5	W06-L	Bedroom	0.2			
		W06-U	Bedroom	2.5			
		W07-L	Bedroom	0.1			
		W07-U	Bedroom	1.0	3.8	N/A	N/A
Second	R6	W08-L	Bedroom	0.2			
		W08-U	Bedroom	2.0	2.2	N/A	N/A
Caracad	D.7	W00 I	Linda - Danes	0.2			
Second	R7	W09-L W09-U	Living Room Living Room	0.3 2.5	2.8	N/A	N/A
			2.7	2.5		,	,/
Second	R8	W10-L	Bedroom	0.2			
		W10-U	Bedroom	2.0	2.2	N/A	N/A
Second	R9	W11-L	Living Room	0.3			
5555114		W11-U	Living Room	2.3			
		W12-L	Living Room	0.1			
		W12-U	Living Room	0.6	3.3	N/A	N/A
Second	R10	W13-L W13-U	Living Room Living Room	0.3 2.3	2.5	N/A	N/A
		W13-U	LIVING ROOM	2.5	2.5	N/A	N/A
Second	R11	W14-L	Bedroom	0.2			
		W14-U	Bedroom	2.3	2.5	N/A	N/A
Coccad	D42	\A/4 F I	Podro	0.3			
Second	R12	W15-L W15-U	Bedroom Bedroom	0.2 1.8	2.0	N/A	N/A
		**15 0	Deartoin	1.0	2.0	IN/ A	N/A
Second	R13	W16-L	Bedroom	0.2			
		W16-U	Bedroom	2.3	2.6	N/A	N/A
Const. I	F.4.4	14/47 /	D. due				
Second	R14	W17-L W17-U	Bedroom Bedroom	0.2 2.4	2.6	N/A	N/A
		** I / = U	Beardon	2.4	2.0	14/74	N/A
Second	R15	W18-L	Living Room	0.3			

Floor	Room	ID Window II	O Room Use	ADF	TOTAL ADF	ROOM TOTAL APSH	ROOM WINTER APSH
		W18-U	Living Room	1.8		J J	7 011
		W19-L	Living Room	0.1			
		W19-U	Living Room	0.6	2.6	N/A	N/A
Second	R16	W20-L	Living Room	0.0			
		W20-U	Living Room	0.2			
		W21-L	Living Room	0.1			
		W21-U	Living Room	1.5	1.9	18	2
Second	R17	W22-L	Bedroom	0.2			
Second	N17	W22-U	Bedroom	1.9	2.1	N/A	N/A
Second	R18	W23-L	Bedroom	0.1			
Sccond	1110	W23-U	Bedroom	1.6	1.7	N/A	N/A
Second	R19	W24-L	Bedroom	0.2			
Second	1113	W24-U	Bedroom	1.9			
		W25-L	Bedroom	0.0	2.2	21/2	N1 / A
		W25-U	Bedroom	0.2	2.3	N/A	N/A
Second	R20	W26-L	Living Room	0.2			
		W26-U	Living Room	1.6	1.9	N/A	N/A
Second	R21	W27-L	Bedroom	0.1			
		W27-U	Bedroom	0.6			
		W28-L	Bedroom	0.0			
		W28-L W28-U	Bedroom	0.4	1.1	N/A	N/A
		W28-0	Beuroom	0.4	1.1	N/A	N/A
Second	R22	W29-L	Bedroom	0.0			
		W29-U	Bedroom	0.4			
		W30-L	Bedroom	0.1			
		W30-U	Bedroom	0.7	1.2	15	2
Second	R23	W31-L	Living Room	0.4			
		W31-U	Living Room	4.3			
		W32-L	Living Room	0.1			
		W32-U	Living Room	0.5	5.4	47	15
Second	R24	W33-L	Bedroom	0.2			
		W33-U	Bedroom	2.3	2.5	44	13
Second	R25	W34-L	Bedroom	0.2			
Sccond	NZS	W34-U	Bedroom	1.7	1.9	43	13
Second	R26	W35-L	Bedroom	0.2			
		W35-U	Bedroom	2.3	2.5	45	14
Second	R27	W37-L	Living Room	0.3			
5000114		W37-U	Living Room	3.4			
		W37-0 W36-L	Living Room	0.1			
		W36-L	Living Room	0.1	4.4	68	23
		W30-0	LIVING ROOM	0.0	4.4	08	23
Second	R28	W38-L	Living Room	0.3			
		W38-U	Living Room	2.7	3.0	46	14
Second	R29	W38a-L	Bedroom	0.2			
Sccond	1123	W38a-U	Bedroom	2.1	2.3	44	13
Coocied	D 20	W20 :	Dodus	0.0			
Second	R30	W39-L	Bedroom	0.2			4.5
		W39-U	Bedroom	2.3	2.6	44	13
Second	R31	W41-L	Living Room	0.0			
	- -	W41-U	Living Room	0.5			
		W40-L	Living Room	0.3			
		W40-L W40-U	Living Room	3.2	4.1	65	22
Second	R32	W42-L	Bedroom	0.2			
		W42-U	Bedroom	1.9	2.1	41	12
Second	R33	W43-L	Living Room	0.2			
Jecona	11.53	W43-L W43-U	Living Room	1.8	2.0	43	12
		VV43~U	LIVING NOOTH	1.0	2.0	43	12
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Floor	Room I	D Window ID	Room Use	ADF	TOTAL ADF	ROOM TOTAL APSH	ROOM WINTER APSH
Second	R34	W45-L	Bedroom	0.1			
		W45-U	Bedroom	0.6			
		W44-L	Bedroom	0.2			
		W44-U	Bedroom	2.5	3.4	64	20
Second	R35	W46-L	Bedroom	0.2			
		W46-U	Bedroom	2.3	2.5	41	13
Second	R36	W46a-L	Bedroom	0.2			
		W46a-U	Bedroom	1.9	2.1	43	12
Second	R37	W47-L	Living Room	0.3			
Second	1137	W47-L	Living Room	3.3			
		W48-L	Living Room	0.0			
		W48-U	Living Room	0.5	4.1	61	20
		W-10 0	Living Noom	0.5		01	20
Second	R38	W50-L W50-U	Studio Studio	0.2 2.0			
		W51-L	Studio	0.0			
		W51-L W51-U	Studio	0.5			
		W49-L	Studio	0.3			
		W49-L W49-U	Studio	1.0	3.7	71	21
Second	R39	W52-L	Bedroom	0.2	2.0	26	42
		W52-U	Bedroom	1.8	2.0	36	13
Second	R40	W53-L	Bedroom	0.2			
		W53-U	Bedroom	2.1	2.3	42	13
Casand	D41	NA/E 4 I	Daduaan	0.2			
Second	R41	W54-L W54-U	Bedroom Bedroom	0.2 2.3	2.5	43	13
		W34-0	bearoom	2.5	2.3	43	13
Second	R42	W55-L	Kitchen	0.2			
		W55-U	Kitchen	2.5	2.7	43	13
Second	R43	W56-L	Living Room	0.2			
		W56-U	Living Room	2.4			
		W57-L	Living Room	0.5			
		W57-U	Living Room	3.5	6.6	62	27
Third	R1	W01-L	Living Room	0.5			
		W01-U	Living Room	3.7			
		W02-L	Living Room	0.2			
		W02-U	Living Room	2.5	7.0	46	21
Third	R2	W03-L	Kitchen	0.2			
		W03-U	Kitchen	2.6	2.8	N/A	N/A
Third	R3	W04-L	Bedroom	0.2			
		W04-U	Bedroom	2.5	2.7	N/A	N/A
Third	R4	W05-L	Bedroom	0.2			
u	114	W05-L	Bedroom	2.5	2.7	N/A	N/A
						,	,
Third	R5	W06-L	Bedroom	0.3			
		W06-U	Bedroom	2.7			
		W07-L	Bedroom	0.1			21/2
		W07-U	Bedroom	1.0	4.1	N/A	N/A
Third	R6	W08-L	Bedroom	0.2			
		W08-U	Bedroom	2.2	2.4	N/A	N/A
Third	R7	W09-L	Living Room	0.3			
-	•	W09-U	Living Room	3.1	3.5	N/A	N/A
Third	R8	W10-L	Bedroom	0.2			
· · · · · •		W10-U	Bedroom	2.1	2.3	N/A	N/A
Third	R9	W11-L	Living Room	0.3			
u	11.5	W11-L W11-U	Living Room	2.9			
		W12-L	Living Room	0.1			
		W12-U	Living Room	0.7	4.0	N/A	N/A
			-	•		•	•

Floor	Room I	D Window IE	D Room Use	ADF	TOTAL ADF	ROOM TOTAL APSH	ROOM WINTER APSH
Third	R10	W13-L W13-U	Living Room Living Room	0.3 2.8	3.1	N/A	N/A
Third	R11	W14-L W14-U	Bedroom Bedroom	0.2 2.4	2.6	N/A	N/A
Third	R12	W15-L W15-U	Bedroom Bedroom	0.2 1.9	2.1	N/A	N/A
Third	R13	W16-L W16-U	Bedroom Bedroom	0.2 2.5	2.7	N/A	N/A
Third	R14	W17-L W17-U	Bedroom Bedroom	0.2 2.6	2.8	N/A	N/A
Third	R15	W18-L W18-U W19-L W19-U	Living Room Living Room Living Room Living Room	0.3 2.4 0.1 0.6	3.4	N/A	N/A
Third	R16	W20-L W20-U W21-L W21-U	Living Room Living Room Living Room Living Room	0.0 0.2 0.2 1.7	2.1	23	2
Third	R17	W22-L W22-U	Bedroom Bedroom	0.2	2.2	N/A	N/A
Third	R18	W23-L W23-U	Bedroom Bedroom	0.2 1.7	1.9	N/A	N/A
Third	R19	W24-L W24-U W25-L W25-U	Bedroom Bedroom Bedroom Bedroom	0.2 2.0 0.0 0.3	2.5	N/A	N/A
Third	R20	W26-L W26-U	Living Room Living Room	0.3	2.2	N/A	N/A
Third	R21	W27-L W27-U W28-L W28-U	Bedroom Bedroom Bedroom Bedroom	0.1 0.6 0.0 0.5	1.2	N/A	N/A
Third	R22	W29-L W29-U W30-L W30-U	Bedroom Bedroom Bedroom Bedroom	0.0 0.4 0.1 0.7	1.2	15	2
Third	R23	W31-L W31-U W32-L W32-U	Living Room Living Room Living Room Living Room	0.4 4.5 0.1 0.6	5.5	49	17
Third	R24	W33-L W33-U	Bedroom Bedroom	0.2	2.6	45	14
Third	R25	W34-L W34-U	Bedroom Bedroom	0.2 1.8	1.9	44	14
Third	R26	W35-L W35-U	Bedroom Bedroom	0.2 2.4	2.6	45	14
Third	R27	W37-L W37-U W36-L	Living Room Living Room Living Room	0.3 3.5 0.1			
Third	R28	W36-U W38-L W38-U	Living Room Living Room Living Room	0.6 0.2 2.5	2.7	69 47	23 15

Floor	Room I	D Window II	D Room Use	ADF	TOTAL ADF	ROOM TOTAL APSH	ROOM WINTER APSH
Third	R29	W38a-L	Bedroom	0.2			
		W38a-U	Bedroom	2.2	2.4	45	14
Third	R30	W39-L	Bedroom	0.2			
Tilliu	1130	W39-U	Bedroom	2.4	2.6	45	14
Third	R31	W41-L	Living Room	0.0			
		W41-U	Living Room	0.5			
		W40-L	Living Room	0.3			
		W40-U	Living Room	3.3	4.2	65	22
Third	R32	W42-L	Bedroom	0.2			
Tilliu	11.32	W42-U	Bedroom	2.0	2.2	42	13
Thind	D22	14/42 1	Lister Brown	0.2			
Third	R33	W43-L	Living Room	0.2			40
		W43-U	Living Room	1.8	2.0	44	13
Third	R34	W45-L	Bedroom	0.1			
		W45-U	Bedroom	0.7			
		W44-L	Bedroom	0.7			
		W44-L W44-U	Bedroom	2.6	3.5	68	22
		VV44-0	Bedroom	2.0	3.3	08	22
Third	R35	W46-L	Bedroom	0.2			
		W46-U	Bedroom	2.4	2.6	42	14
Third	R36	W46a-L	Bedroom	0.2			
		W46a-U	Bedroom	2.0	2.2	44	13
Third	R37	W47-L	Living Room	0.3			
		W47-U	Living Room	3.4			
		W48-L	Living Room	0.0			
		W48-U	Living Room	0.5	4.3	64	21
Third	R38	W50-L	Studio	0.2			
		W50-U	Studio	2.1			
		W51-L	Studio	0.0			
		W51-U	Studio	0.5			
		W49-L W49-U	Studio Studio	0.1	3.9	81	25
		VV49-U	Studio	1.0	3.9	01	25
Third	R39	W52-L	Bedroom	0.2			
		W52-U	Bedroom	1.9	2.1	36	13
Third	R40	W53-L	Bedroom	0.2			
		W53-U	Bedroom	2.2	2.4	43	13
Third	R41	W54-L	Bedroom	0.2			
		W54-U	Bedroom	2.4	2.6	44	13
Third	R42	W55-L	Kitchen	0.2			
		W55-U	Kitchen	2.6	2.8	44	13
Third	R43	W56-L	Living Room	0.2			
Tilliu	N43	W56-U	Living Room	2.5			
		W57-L	Living Room	0.5			
		W57-U	Living Room	3.7	6.8	64	28
			•				
Fourth	R1	W01-L	Bedroom	0.2			
		W01-U	Bedroom	2.4	2.6	N/A	N/A
Equrth.	רם	W/02 !	Living Boom	0.4			
Fourth	R2	W02-L	Living Room	0.4	4.0	NI/A	NI/A
		W02-U	Living Room	3.6	4.0	N/A	N/A
Fourth	R3	W03-L	Bedroom	0.2			
-	-	W03-U	Bedroom	2.3	2.5	N/A	N/A
Fourth	R4	W04-L	Living Room	0.4			
		W04-U	Living Room	4.2			
		W05-L	Living Room	0.1			
		W05-U	Living Room	0.8	5.5	N/A	N/A
Fourth	R5	W06-L	Living Room	0.3			
	11.5	**************************************	LIVING NOOTH	1 0.5			

Fourth	Floor	Room ID	Window ID	Room Use	ADF	TOTAL ADF	ROOM TOTAL I	ROOM WINTER APSH
Fourth Ref			W06-U		3.2			
Fourth				Ü				,
Fourth R7 W08-1 Bedroom	Fourth	R6						
Fourth R8 W09-1 Bedroom 2.0 2.2 N/A N/A N/A Fourth R8 W09-1 Bedroom 2.7 3.0 N/A N/A Fourth R10 W11-1 Living Room W12-1 Living Room W14-1 Living Room 0.3 N/A N/A Fourth R11 W13-1 Living Room 0.3 N/A N/A Fourth R12 W15-1 Bedroom 2.7 N/A N/A Fourth R13 W16-1 Bedroom 0.0 N/A N/A N/A Fourth R14 W17-1 Bedroom 0.2 N/A N/A N/A Fourth R15 W19-1 Living Room 0.2 N/A N/A N/A Fourth R16 W19-1 Living Room 0.0 N/A N/A N/A Fourth R17 W19-1 Living Room 0.0 N/A N/A N/A Fourth R18 W19-1 Living Room 0.0 N/A N/A N/A Fourth R19 W19-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.1 N/A N/A N/A Fourth R19 W29-1 Living Room 0.5 N/A N/A N/A Fourth R19 W29-1 Living Room 0.5 N/A N/A N/A Fourth R20 W29-1 Bedroom 0.5 N/A N/A N/A Fourth R21 W29-1 Living Room 0.5 N/A N/A N/A Fourth R22 W39-1 Living Room 0.5 N/A N/A N/A Fourth R22 W39-1 Living Room 0.5 N/A N/A N/A N/A Fourth R21 W29-1 Living Room 0.5 N/A			W07-U	Bedroom	2.6	2.8	N/A	N/A
Fourth R8 W09-1 Bedroom 2.0 2.2 N/A N/A N/A Fourth R8 W09-1 Bedroom 2.7 3.0 N/A N/A Fourth R10 W11-1 Living Room W12-1 Living Room W14-1 Living Room 0.3 N/A N/A Fourth R11 W13-1 Living Room 0.3 N/A N/A Fourth R12 W15-1 Bedroom 2.7 N/A N/A Fourth R13 W16-1 Bedroom 0.0 N/A N/A N/A Fourth R14 W17-1 Bedroom 0.2 N/A N/A N/A Fourth R15 W19-1 Living Room 0.2 N/A N/A N/A Fourth R16 W19-1 Living Room 0.0 N/A N/A N/A Fourth R17 W19-1 Living Room 0.0 N/A N/A N/A Fourth R18 W19-1 Living Room 0.0 N/A N/A N/A Fourth R19 W19-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.0 N/A N/A N/A Fourth R19 W29-1 Living Room 0.1 N/A N/A N/A Fourth R19 W29-1 Living Room 0.5 N/A N/A N/A Fourth R19 W29-1 Living Room 0.5 N/A N/A N/A Fourth R20 W29-1 Bedroom 0.5 N/A N/A N/A Fourth R21 W29-1 Living Room 0.5 N/A N/A N/A Fourth R22 W39-1 Living Room 0.5 N/A N/A N/A Fourth R22 W39-1 Living Room 0.5 N/A N/A N/A N/A Fourth R21 W29-1 Living Room 0.5 N/A	Fourth	R7	W08-L	Bedroom	0.2			
Fourth R12 W15-1 Bedroom						2.2	N/A	N/A
Fourth R12 W15-1 Bedroom								
Fourth R9 W10-L Bedroom	Fourth	R8						
Fourth R12 W15-U Bedroom 0.4 W14-U Living Room 0.1 W13-U Living Room 0.1 W13-U Living Room 0.2 W13-U Living Room 0.3 W13-U Living Room 0.3 W13-U Living Room 0.2 W13-U Living Room 0.2 W14-U Living Room 0.2 W15-U Bedroom 0.2 W15-U Bedroom 0.4 W15-U Bedroom 0.4 W16-U Bedroom 0.4 W17-U Bedroom 0.4 W17-U Bedroom 0.5 W18-U Bedroom 0.7 N/A			W09-U	Bedroom	2.6	2.8	N/A	N/A
Fourth R10 W17-U Bedroom 0.4 N/A	Fourth	R9	W10-L	Bedroom	0.3			
W11-U Living Room 0.1 0.7 4.2 N/A			W10-U	Bedroom		3.0	N/A	N/A
W11-U Living Room 0.1 0.7 4.2 N/A								
W12-L	Fourth	R10		-				
Fourth R11 W13-L Living Room 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.				-				
Fourth R11 W13-L Living Room W13-U Living Room W13-U Living Room 0.3 W14-U Living Room 0.2 W14-U Living Room 0.2 W14-U Living Room 0.2 W15-U Bedroom 0.2 Z.2 Z.4 N/A N/A N/A Fourth R13 W16-L Bedroom 0.2 W16-U Bedroom 0.2 W17-U Bedroom 0.1 N/A				-		4.2	N/A	N/A
Wils-U Living Room 0.3 Wils-U Living Room 0.2 Wils-U Living Room 1.8 2.3 25 3				Ü				,
W14-L	Fourth	R11		-				
Fourth R12 W15-L Bedroom 0.2				-				
Fourth R12 W15-1 Bedroom				-		2 2	25	2
Fourth R13 W16-L Bedroom 0.2 2.4 N/A N/A N/A Fourth R14 W17-L Bedroom 0.2 1.8 2.0 N/A N/A Fourth R14 W17-L Bedroom 0.2 1.1 N/A N/A Fourth R15 W19-L Living Room 0.3 1.1 2.4 N/A N/A Fourth R16 W20-L Bedroom 0.7 N/A N/A Fourth R17 W22-L Bedroom 0.5 1.3 N/A N/A Fourth R18 W24-L Living Room 0.1 N/A N/A Fourth R19 W24-U Living Room 0.5 N/A N/A Fourth R19 W25-U Living Room 0.1 N/A N/A Fourth R19 W26-L Bedroom 0.7 N/A N/A Fourth R20 W27-U Bedroom 0.5 N/A N/A Fourth R19 W26-L Bedroom 0.1 N/A N/A Fourth R20 W27-U Bedroom 0.1 N/A N/A Fourth R20 W27-U Bedroom 0.1 N/A N/A Fourth R21 W28-L Bedroom 0.1 N/A N/A Fourth R20 W27-U Bedroom 0.1 N/A N/A Fourth R21 W28-L Bedroom 0.1 N/A N/A Fourth R22 W30-L Living Room 0.1 N/A N/A Fourth R21 W28-L Bedroom 0.1 N/A N/A Fourth R22 W30-L Living Room 0.1 N/A N/A Fourth R23 W31-L Living Room 0.3 N/A N/A N/A Fourth R23 W31-L Living Room 0.1 N/A N/A N/A Fourth R24 W31a-L Bedroom 0.3 N/A			VV 14-U	LIVING NOOM	1.0	2.3	23	J
Fourth R13 W16-L Bedroom	Fourth	R12	W15-L	Bedroom	0.2			
Fourth R14 W17-L Bedroom 0.2			W15-U	Bedroom	2.2	2.4	N/A	N/A
Fourth R14 W17-L Bedroom 0.2								
Fourth R14 W17-L Bedroom 2.1 W18-L Bedroom 2.1 W18-L Bedroom 2.1 W18-L Bedroom 0.0 W19-U Living Room 0.1 Living Room 0.7 W20-U Bedroom 0.7 W21-L Bedroom 0.0 W21-U Bedroom 0.5 M21-L Bedroom 0.5 M23-L Bedroom 0.7 M23-L Bedroom 0.1 W23-L Living Room 0.1 W25-L Bedroom 0.6 M25-L Bedroom 0.6 M25-L Bedroom 0.6 M25-L Bedroom 0.7 M25-L Bedroom 0.7 M25-L Bedroom 0.2 M26-L Bedroom 0.2 M27-U Bedroom 0.2 M28-L Bedroom 0.3 M29-L Living Room 0.1 M29-U Living Room 0.2 M29-L M29-L Living Room 0.2 M29-L M29-L Living Room 0.3 M29-U M29-L Living Room 0.3 M29-U M29-L Living Room 0.2 M29-U M29-L Living Room 0.2 M29-U M29-L Living Room 0.2 M29-U M29-L Living Room 0.3 M29-U M29-L M29-L M29-L M29-L M29-L M	Fourth	R13			-	2.0	NI/A	NI/A
W17-U Bedroom W18-L Bedroom W18-L Bedroom W18-U Bedroom W18-U Bedroom W18-U Bedroom W18-U Living Room W19-U Bedroom W19-U Living Room W1			W10-0	beuroom	1.0	2.0	N/A	N/A
W18-L Bedroom 0.0 0.4 2.7 N/A N/A	Fourth	R14	W17-L	Bedroom	0.2			
W18-U Bedroom 0.4 2.7 N/A N/A			W17-U	Bedroom	2.1			
Fourth R15 W19-L Living Room								21/2
Fourth R16 W20-L Bedroom			W18-U	Bearoom	0.4	2.7	N/A	N/A
W19-U Living Room 2.1 2.4 N/A N/A N/A	Fourth	R15	W19-L	Living Room	0.3			
W20-U Bedroom 0.7 0.0 W21-L Bedroom 0.0 0.5 1.3 N/A N/A			W19-U	-	2.1	2.4	N/A	N/A
W20-U Bedroom 0.7 0.0 W21-L Bedroom 0.0 0.5 1.3 N/A N/A								
W21-L Bedroom 0.0 0.5 1.3 N/A N/A	Fourth	R16						
Fourth R17 W22-L Bedroom 0.5 1.3 N/A N/A Fourth R17 W22-L Bedroom 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5								
W22-U Bedroom 0.5 0.1 0.7 1.3 15 2						1.3	N/A	N/A
W22-U Bedroom 0.5 0.1 0.7 1.3 15 2								
W23-L Bedroom 0.1 0.7 1.3 15 2	Fourth	R17						
Fourth R18 W24-L Living Room 0.7 1.3 15 2 Fourth R18 W24-L Living Room 0.4 4.6 W25-L Living Room 0.1 W25-L Living Room 0.6 5.7 49 17 Fourth R19 W26-L Bedroom 0.2 2.4 2.6 46 15 Fourth R20 W27-L Bedroom 0.2 W27-U Bedroom 1.8 2.0 45 15 Fourth R21 W28-L Bedroom 0.2 W28-U Bedroom 0.3 W30-U Living Room 0.1 W29-L Living Room 0.1 W29-L Living Room 0.1 W29-L Living Room 0.1 W29-L Living Room 0.1 W29-U Living Room 0.2 W31-U Living Room 0.3 W31-U Bedroom 0.2 W31-U Bedroom 0.2 W31-U Bedroom 0.2 W31-U Bedroom 0.2 W31-U Bedroom 0.3 W31-								
Fourth R18 W24-L Living Room						1.3	15	2
W24-U Living Room 4.6 W25-L Living Room 0.1 W25-U Living Room 0.6 5.7 49 17 Fourth R19 W26-L Bedroom 0.2 2.4 2.6 46 15 Fourth R20 W27-L Bedroom 0.2 2.4 2.6 46 15 Fourth R21 W28-L Bedroom 0.2 2.4 2.6 46 15 Fourth R22 W30-L Living Room 0.3 3.6 46 15 Fourth R22 W30-L Living Room 0.1 75 24 Fourth R23 W31-L Living Room 0.3 2.9 3.1 47 15 Fourth R24 W31-L Living Room 0.2 3.1 47 15								=
W25-L W25-U Living Room 0.1 0.6 5.7 49 17 Fourth R19 W26-L W26-U Bedroom 0.2 2.4 2.6 46 15 Fourth R20 W27-L Bedroom W27-U Bedroom 0.2 2.4 2.6 45 15 Fourth R21 W28-L Bedroom W28-U Bedroom 0.2 2.4 2.6 46 15 Fourth R21 W28-L Bedroom W28-U Bedroom 0.2 2.4 2.6 46 15 Fourth R22 W30-L Living Room W30-U Living Room U101 W29-L Living Room W29-L Living Room U101 W29-U Living Room U107 4.7 75 24 Fourth R23 W31-L Living Room W31-U Living Room U107 2.9 3.1 47 15 Fourth R24 W31-U Bedroom U208 U109 Room U209 U109 U109 Room U209 U109 U109 Room U209 U109 U109 Room U209 U109 U109 U109 U109 U109 U109 U109 U1	Fourth	R18	W24-L	Living Room	0.4			
Fourth R19 W26-L Bedroom 0.2 2.4 2.6 46 15 Fourth R20 W27-L Bedroom 0.2 W27-U Bedroom 1.8 2.0 45 15 Fourth R21 W28-L Bedroom 0.2 W28-U Bedroom 0.2 W28-U Bedroom 0.2 W28-U Bedroom 0.2 W28-U Bedroom 0.3 W29-L Living Room 0.1 W29-L Living Room 0.1 W29-U Living Room 0.1 W29-U Living Room 0.7 4.7 75 24 Fourth R23 W31-L Living Room 0.3 W31-U Bedroom 0.3 W31-U Living Room 0.3 W31-U Living Room 0.3 W31-U Bedroom 0.2 W31-U Bedroom 0.3 W31-U Bedroom 0.3 Bedroom 0				-				
Fourth R19 W26-L Bedroom 0.2 2.4 2.6 46 15 Fourth R20 W27-L Bedroom 0.2 1.8 2.0 45 15 Fourth R21 W28-L Bedroom 0.2 2.4 2.6 46 15 Fourth R22 W30-L Living Room 0.3 3.6 W29-L Living Room 0.1 W29-U Living Room 0.1 W29-U Living Room 0.1 W29-U Living Room 0.7 4.7 75 24 Fourth R23 W31-L Living Room 0.3 3.1 47 15 Fourth R24 W31a-L Bedroom 0.2 2.9 3.1 47 15				-		5 7	40	17
Fourth R20 W27-L Bedroom 0.2			vv∠3-U	FIAILIR KOOIII	0.0	5./	49	1/
Fourth R20 W27-L Bedroom 0.2 1.8 2.0 45 15 Fourth R21 W28-L Bedroom 0.2 2.4 2.6 46 15 Fourth R22 W30-L Living Room 0.3 W30-U Living Room 0.1 W29-L Living Room 0.1 W29-U Living Room 0.7 4.7 75 24 Fourth R23 W31-L Living Room 0.3 W31-U Living Room 0.3 Fourth R24 W31a-L Bedroom 0.2	Fourth	R19	W26-L	Bedroom	0.2			
Fourth R21 W28-L Bedroom 0.2 2.4 2.6 46 15 Fourth R22 W30-L Living Room 0.3 3.6 W29-L Living Room 0.1 W29-U Living Room 0.1 W29-U Living Room 0.1 W31-U Living Room 0.7 4.7 75 24 Fourth R23 W31-L Living Room 0.3 3.1 47 15 Fourth R24 W31a-L Bedroom 0.2			W26-U	Bedroom	2.4	2.6	46	15
Fourth R21 W28-L Bedroom 0.2 2.4 2.6 46 15 Fourth R22 W30-L Living Room 0.3 3.6 W29-L Living Room 0.1 W29-U Living Room 0.1 W29-U Living Room 0.1 W31-U Living Room 0.7 4.7 75 24 Fourth R23 W31-L Living Room 0.3 3.1 47 15 Fourth R24 W31a-L Bedroom 0.2	- ··	222			0.0			
Fourth R21 W28-L Bedroom 0.2 2.4 2.6 46 15 Fourth R22 W30-L Living Room 0.3 3.6 W29-L Living Room 0.1 W29-L Living Room 0.7 4.7 75 24 Fourth R23 W31-L Living Room 0.3 W31-U Living Room 0.2 September 0.2	Fourth	R20				2.0	45	15
Fourth R22 W30-L Living Room 0.3 3.6 W29-L Living Room 0.1 W29-U Living Room 0.7 4.7 75 24 Fourth R23 W31-L Living Room 0.3 W31-U Living Room 0.3 W31-U Living Room 0.3 W31-U Living Room 0.3 W31-U Living Room 0.2 September 2.9 3.1 47 15			VV27-0	Deuroom	1.0	2.0	43	13
Fourth R22 W30-L Living Room 0.3 3.6 W30-U Living Room 0.1 W29-L Living Room 0.1 W29-U Living Room 0.7 4.7 75 24 Fourth R23 W31-L Living Room 0.3 W31-U Living Room 2.9 3.1 47 15 Fourth R24 W31a-L Bedroom 0.2	Fourth	R21	W28-L	Bedroom	0.2			
W30-U W29-L Living Room 3.6 W29-L Living Room 0.1 W29-U Living Room 0.7 Fourth R23 W31-L Living Room 0.3 W31-U Living Room 2.9 Fourth R24 W31a-L Bedroom 0.2			W28-U	Bedroom	2.4	2.6	46	15
W30-U W29-L Living Room 3.6 W29-L Living Room 0.1 W29-U Living Room 0.7 Fourth R23 W31-L Living Room 0.3 W31-U Living Room 2.9 Fourth R24 W31a-L Bedroom 0.2	Farmely	D22	14/20 :	Linda - Day	0.3			
W29-L W29-L W29-U Living Room 0.1 0.7 4.7 75 24 Fourth R23 W31-L Living Room W31-U Living Room 2.9 3.1 0.3 47 15 Fourth R24 W31a-L Bedroom 0.2	rourth	K22		-				
W29-U Living Room 0.7 4.7 75 24 Fourth R23 W31-L Living Room W31-U Living Room 0.3 47 15 Fourth R24 W31a-L Bedroom 0.2				-				
W31-U Living Room 2.9 3.1 47 15 Fourth R24 W31a-L Bedroom 0.2				-		4.7	75	24
W31-U Living Room 2.9 3.1 47 15 Fourth R24 W31a-L Bedroom 0.2								
Fourth R24 W31a-L Bedroom 0.2	Fourth	R23		-		2.4	47	15
			VV31-U	LIVING KOOM	2.9	3.1	4/	15
	Fourth	R24	W31a-L	Bedroom	0.2			
						2.4	44	13

Floor	Room I	D Window ID	Room	ADF	TOTAL	ROOM TOTAL	ROOM WINTER
			Use		ADF	APSH	APSH
Coeth	DOF	W/22 I	Daduaan	0.3			
Fourth	R25	W32-L W32-U	Bedroom Bedroom	0.2 2.4	2.7	45	14
		W32 0	bearoom	2.4	2.,,	45	14
Fourth	R26	W34-L	Living Room	0.1			
		W34-U	Living Room	0.6			
		W33-L	Living Room	0.3			
		W33-U	Living Room	3.4	4.3	67	23
- ·	227		5.1	0.0			
Fourth	R27	W35-L W35-U	Bedroom Bedroom	0.2 2.0	2.2	42	13
		W33-0	Beardoni	2.0	2.2	42	13
Fourth	R28	W36-L	Living Room	0.2			
		W36-U	Living Room	1.9	2.1	44	13
Fourth	R29	W38-L	Bedroom	0.1			
		W38-U	Bedroom	0.8			
		W37-L	Bedroom	0.3		7.6	22
		W37-U	Bedroom	2.7	3.8	76	23
Fourth	R30	W39-L	Bedroom	0.2			
Tourth	1130	W39-U	Bedroom	2.5	2.7	42	14
Fourth	R31	W39a-L	Bedroom	0.2			
		W39a-U	Bedroom	2.0	2.2	44	13
Fourth	R32	W40-L	Living Room	0.3			
		W40-U	Living Room	3.5			
		W41-L W41-U	Living Room	0.1	4.5	69	23
		VV41-0	Living Room	0.6	4.5	09	23
Fourth	R33	W43-L	Studio	0.2			
		W43-U	Studio	2.1			
		W44-L	Studio	0.1			
		W44-U	Studio	0.6			
		W42-L	Studio	0.1			
		W42-U	Studio	1.1	4.2	85	29
Fifth	R1	W01-L	LKD	0.1			
riidi	ΝI	W01-L	LKD	0.1			
		W01-U	LKD	0.1			
		W02-U	LKD	1.6			
		W03-L	LKD	0.3			
		W03-U	LKD	3.0	5.8	74	25
Fifth	R2	W04-L	Bedroom	0.2	2.2	21/2	N1 / A
		W04-U	Bedroom	2.1	2.3	N/A	N/A
Fifth	R3	W05-L	Bedroom	0.2			
11101	N.S	W05-U	Bedroom	2.3	2.5	N/A	N/A
						,	•
Fifth	R4	W06-L	Bedroom	0.2			
		W06-U	Bedroom	2.0	2.2	N/A	N/A
F: ()	n-	14407 :					
Fifth	R5	W07-L	LKD	0.1			
		W07-U	LKD	1.1			
		W08-L W08-U	LKD LKD	0.2 2.3	3.7	N/A	N/A
				2.0	•	,	,
Fifth	R6	W09-L	Living Room	0.1			
		W09-U	Living Room	0.6			
		W10-L	Living Room	0.2			
		W10-U	Living Room	1.9	2.7	39	9
Fifth	R7	\\/11	Bedroom	0.3			
riiul	K/	W11-L W11-U	Bedroom Bedroom	0.2 2.2	2.4	N/A	N/A
		***********	Scaroom	2.2	2.7	14/74	N/A
Fifth	R8	W12-L	Bedroom	0.2			
		W12-U	Bedroom	1.9	2.0	N/A	N/A
Fifth	R9	W13-L	Bedroom	0.2			
		W13-U	Bedroom	2.2		l	

Floor	Room I	D Window ID	Room Use	ADF	TOTAL ADF	ROOM TOTAL APSH	ROOM WINTER APSH
		W14-L	Bedroom	0.0	ADI	AFSIT	Arsii
		W14-U	Bedroom	0.4	2.8	N/A	N/A
Fifth	R10	W15-L	Living Room	0.3			
		W15-U	Living Room	2.4	2.7	N/A	N/A
Fifth	R11	W16-L	Bedroom	0.1			
		W16-U	Bedroom	0.8			
		W17-L	Bedroom	0.1			
		W17-U	Bedroom	0.6	1.5	N/A	N/A
Fifth	R12	W18-L	Bedroom	0.1			
		W18-U	Bedroom	0.6			
		W19-L	Bedroom	0.1			
		W19-U	Bedroom	0.8	1.4	15	2
Fifth	R13	W21-L	Living Room	0.4			
11101	1123	W21-U	Living Room	3.8			
		W20-L	Living Room	0.1			
		W20-U	Living Room	0.6	4.9	43	16
Fifth	R14	W22-L	Bedroom	0.2			
111011	1124	W22-U	Bedroom	2.4	2.7	46	15
Fifth	R15	W23-L	Bedroom	0.2	2.0	45	15
		W23-U	Bedroom	1.8	2.0	45	15
Fifth	R16	W24-L	Bedroom	0.2			
		W24-U	Bedroom	2.4	2.7	46	15
Fifth	R17	W25-L	Living Room	0.3			
		W25-U	Living Room	3.6			
		W26-L	Living Room	0.1			
		W26-U	Living Room	0.8	4.8	80	27
Fifth	R18	W27-L	Bedroom	0.4			
		W27-U	Bedroom	4.2	4.6	48	16
Fifth	D10	W/20 I	Dodroom	0.2			
FIIUI	R19	W28-L W28-U	Bedroom Bedroom	0.3 2.7	3.0	46	15
		20 0	200.00		5.5		
Fifth	R20	W31-L	LKD	0.0			
		W31-U	LKD	0.5			
		W30-L	LKD	0.3			
		W30-U	LKD	2.7			
		W29-L	LKD	0.0	4.0	74	24
		W29-U	LKD	0.5	4.0	74	24
Fifth	R21	W32-L	Bedroom	0.2			
		W32-U	Bedroom	2.5	2.8	44	15
Fifth	R22	W33-L	Bedroom	0.3			
		W33-U	Bedroom	3.3			
		W34-L	Bedroom	0.1			
		W34-U	Bedroom	1.1			
		W35-L	Bedroom	0.1			
		W35-U	Bedroom	1.1	6.0	86	30
Sixth	R1	W01-L	Living Room	0.2			
		W01-U	Living Room	1.4	1.5	N/A	N/A
			-			·	•
Sixth	R2	W02-L	Bedroom	0.2			
		W02-U	Bedroom	1.3	1.5	N/A	N/A
Sixth	R3	W03-L	Bedroom	0.1			
		W03-U	Bedroom	1.2	1.3	N/A	N/A
Sixth	R4	W04-L	Bedroom	0.2			
		W04-U	Bedroom	1.5	1.7	N/A	N/A
Sixth	R5	W05-L	Living Room	0.4			
		W05-U	Living Room	3.1			

06/12/16

Floor	Room ID	Window ID	Room Use	ADF	TOTAL ADF	ROOM TOTAL APSH	ROOM WINTER APSH
		W06-L	Living Room	0.2			
		W06-U	Living Room	2.0	5.7	N/A	N/A
Sixth	R6	W08-L	Bedroom	0.1			
		W08-U	Bedroom	0.8			
		W07-L	Bedroom	0.1			
		W07-U	Bedroom	1.0	2.0	N/A	N/A
Sixth	R7	W09-L	Bedroom	0.1			
		W09-U	Bedroom	0.6			
		W10-L	Bedroom	0.1			
		W10-U	Bedroom	0.8	1.6	17	2
Sixth	R8	W12-L	Living Room	0.4			
		W12-U	Living Room	4.4			
		W11-L	Living Room	0.1			
		W11-U	Living Room	0.6	5.5	49	17
Sixth	R9	W13-L	Bedroom	0.2			
		W13-U	Bedroom	2.5	2.8	46	15
Sixth	R10	W14-L	Bedroom	0.2			
		W14-U	Bedroom	2.3	2.5	45	15
Sixth	R11	W15-L	Bedroom	0.3			
		W15-U	Bedroom	3.4	3.7	46	15
Sixth	R12	W16-L	Living Room	0.4			
J		W16-U	Living Room	4.2			
		W17-L	Living Room	0.1			
		W17-U	Living Room	1.0	5.6	84	28
		W17-U	Living Room	1.0	5.6	84	28