

Our Ref: 2271-22-0530-Littlefair

30th May, 2022

P Littlefair Esq
BRE
Garston
Watford
WD25 9XX

Dear Paul,

Land to North of Reading Station, Station Shopping Park, Vastern Road, Reading

In view of the current situation and the delays with the Planning Enquiry, I thought it would be useful to use this period to try and reach agreement on some of the issues in debate. With this in mind, I have undertaken some additional analysis for your consideration.

17-51 Vastern Road

The Illustrative Residential Scheme (subject to removal of one floor in the northeast corner of Block B, which we have done) effectively represents the maximum scheme (in terms of height, massing and area) that can be delivered within the proposed Parameter Plans, Development Parameter Schedule and Design Code restrictions. We have run a cumulative analysis of the implications this would have on the daylight enjoyed by these properties and the associated results are attached, together with the associated impacts.

We have also run an Average Daylight Factor analysis using the default reflectance value of 0.5 and these results are also attached.

Within your Rebuttal under paragraph 3.8 you stated that a VSC of 24% for the windows on the lowest floor would be appropriate.

The results attached demonstrates that eight of the 17 principal windows on the ground floor to 17-Vastern Road will achieve a VSC of at least 24%. The remaining nine windows will achieve a VSC of at least 23.4%, with the difference I do not consider being discernible. This is supported by the ADF results, which demonstrate that all rooms achieve an ADF of at least 1.5%.

We have also updated the daylight distribution results for the principal rooms and these demonstrate that 13 of the 17 rooms will achieve the guidelines. Concerning the four that do not, looking at the results for the RSAF massing, three of these will not achieve the guidelines.



In relation to the bedrooms within No's 17-49, all of these will achieve a VSC of at least 24%, with 36 (90%) achieving a VSC of between 25% and 27% and 2 (5%) achieving a VSC of more than 27%. In addition, the daylight distribution results demonstrate that 55% of these rooms will achieve the guidelines. A further 27% will achieve either a minor or moderate impact. The only rooms that experience a major impact are at second floor level which are large rooms served by small offset windows. These same rooms, plus an additional four it is noted would experience a major impact with the RSAF massing.

With regards to 51 Vastern Road, the principal window to the ground floor will achieve a VSC of 23.6%, with the window to first floor achieving 24.9% and the window to second floor achieving 26.3% all of which are Moderate impacts. This is the same with the RSAF massing. The daylight distribution analysis demonstrates that both rooms achieve the guidelines.

In view of the above, the analysis demonstrates that a scheme within the Parameter Massing and in accordance with the associated Design Code will ensure that 17-51 Vastern Road will retain what you have indicated is an appropriate access to daylight, taking into account their location. I have drafted a clause that I propose is included in the SOCG.

Proposed Accommodation

Within the Design Code for the application, it states that at least 80% of living rooms are to achieve the recommended level of daylight. With the proposals being an Illustrative Scheme, we had not gone through a review of the individual units. However, to demonstrate that the scheme will provide 80% of its accommodation will meet the target of 1.5% we have reviewed the accommodation on the lowest three floors of Block C and made revisions where necessary to the fenestration or internal configuration.

The updated analysis results, using the previous reflectance criteria but a frame reduction factor of 0.8 as requested, are set out in the attached table and indicated on drawing numbers 2271-203A, 204A and 205A. These demonstrate that 81% of the principal rooms will achieve an ADF of 1.5%

It has been taken into account that this analysis has considered the 88 units within Block C, where the access to daylight is most restricted and that there are 150 units on the upper floors. The analysis demonstrates that the scheme achieves the criteria within the Design Code, and I have therefore drafted a paragraph which I hope you can agree can be included within the updated SOCG.

Proposed Communal Amenity Space

In relation to the access to direct sunlight to the communal areas of Block C, your comments are noted. We have reviewed the analysis that formed part of the 80 Caversham Road application, which has received consent, which demonstrated that of the three areas considered, only one would achieve the guidelines, which you acknowledged was as a consequence of high closely spaced buildings

The applicant for 80 Caversham Road undertook a further analysis for the summer solstice, which still demonstrated that one area would not have 50% of its area enjoying at least 2hrs of direct sunlight. Whilst it was acknowledged that this was not ideal, it was considered adequate, and the spaces would nevertheless fulfil their intended purpose.

We have therefore undertaken an analysis on the Summer Solstice, and this demonstrates that 57% of the courtyard and between 84% and 100% of the three other areas will enjoy at least 2 hours of direct sunlight on the 21st June and therefore also provide space that fulfils its intended purpose.

I have therefore drafted a clause to include in the SOCG.



Cumulative Analysis of 80 Caversham Road and 55 Vastern Road

In relation to 55 Vastern Road, as you will appreciate from our previous review, our analysis of the implications the massing for Vastern Court used by EB7 demonstrated that we could not achieve similar results. We have reviewed this further and undertaken additional analysis and as a result, consider that we have established the criteria EB7 used, as demonstrated by the attached results. Based on this we have undertaken an analysis for the Parameters Massing for Vastern Court and an analysis of the Illustrative Residential Scheme.

The results of this analysis demonstrate that the Parameter Massing will result in all rooms achieving the same or a greater access to daylight, than was accepted when considered as part of the Planning Decision for 55 Vastern Road. This is also the situation with regards to the Illustrative Residential Scheme.

The analysis also demonstrates that both the Parameter Massing and Illustrative Residential Scheme will result in the principal rooms having greater access to sunlight than was demonstrated was acceptable when Planning Consent was granted for 55 Vastern Road.

I have therefore drafted a clause that I propose we include within the SOCG to reflect the above.

With regard to 80 Caversham Road, we have considered a notional LKD to a 1 Bed unit on the first floor to Block E-G and a 1 Bed and 2 Bed unit on the second floor of Block A with the Illustrative Scheme in place and all will exceed an ADF of 2%, demonstrating that with careful design, the proposed accommodation within this scheme facing Vastern Court will enjoy good access to daylight.

Yours sincerely,

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Encl.

<u>35 Vastern Road</u>							
Ground	W2	R1	37.5	24.1	13.4	35.8	Moderate
First	W2	R1	38.0	25.3	12.8	33.6	Moderate
Second	W1	R1	38.4	26.6	11.8	30.7	Moderate
<u>37 Vastern Road</u>							
Ground	W2	R1	37.5	24.1	13.4	35.8	Moderate
First	W2	R1	38.0	25.3	12.7	33.5	Moderate
Second	W1	R1	38.4	26.6	11.8	30.7	Moderate
<u>39 Vastern Road</u>							
Ground	W2	R1	37.5	23.9	13.6	36.3	Moderate
First	W2	R1	38.0	25.2	12.9	33.9	Moderate
Second	W1	R1	38.4	26.5	11.9	31.0	Moderate
<u>41 Vastern Road</u>							
Ground	W2	R1	37.5	23.8	13.7	36.5	Moderate
First	W2	R1	38.0	25.1	12.9	34.0	Moderate
Second	W1	R1	38.4	26.4	12.0	31.2	Moderate
<u>43 Vastern Road</u>							
Ground	W2	R1	37.5	23.7	13.7	36.6	Moderate
First	W2	R1	38.0	25.1	12.9	34.0	Moderate
Second	W1	R1	38.4	26.4	11.9	31.1	Moderate
<u>45 Vastern Road</u>							
Ground	W2	R1	37.4	23.6	13.8	37.0	Moderate
First	W2	R1	38.0	25.0	13.0	34.2	Moderate
Second	W1	R1	38.3	26.4	11.9	31.1	Moderate
<u>47 Vastern Road</u>							
Ground	W2	R1	37.4	23.5	13.9	37.1	Moderate
First	W2	R1	38.0	24.9	13.1	34.4	Moderate
Second	W1	R1	38.3	26.4	12.0	31.2	Moderate
<u>49 Vastern Road</u>							
Ground	W2	R1	37.3	23.4	13.9	37.2	Moderate
First	W2	R1	37.9	24.8	13.1	34.6	Moderate
Second	W1	R1	38.3	26.3	12.0	31.3	Moderate
<u>51 Vastern Road</u>							
Ground	W2	R1	37.3	23.6	13.7	36.8	Moderate
	W4		31.8	18.7	13.1	41.1	Major
	W5		31.5	18.4	13.1	41.7	Major
	W6		7.2	1.4	5.8	81.0	Major
	W7		32.4	19.4	13.0	40.2	Major
	W8		32.1	18.6	13.5	42.2	Major
First	W2	R1	37.9	24.9	13.0	34.4	Moderate
	W4		34.5	20.5	14.0	40.7	Major
Second	W12	R12	38.3	26.3	12.0	31.3	Moderate

Cumulative Average Daylight Factor Results -
Illustrative Residential Scheme

LEVEL	ROOM	ROOM USE	REQUIRED ADF	PROPOSED ADF
<u>17 Vastern Road</u>				
Ground	R1	Living Room	1.5%	1.6%
First	R1	Bedroom	1.0%	1.3%
Second	R1	Bedroom	1.0%	0.4%
<u>19 Vastern Road</u>				
Ground	R1	Living Room	1.5%	1.5%
First	R1	Bedroom	1.0%	1.2%
Second	R1	Bedroom	1.0%	0.4%
<u>21 Vastern Road</u>				
Ground	R1	Living Room	1.5%	1.5%
First	R1	Bedroom	1.0%	1.2%
Second	R1	Bedroom	1.0%	0.3%
<u>23 Vastern Road</u>				
Ground	R1	Living Room	1.5%	1.5%
First	R1	Bedroom	1.0%	1.2%
Second	R1	Bedroom	1.0%	0.3%
<u>25 Vastern Road</u>				
Ground	R1	Living Room	1.5%	1.5%
First	R1	Bedroom	1.0%	1.2%
Second	R1	Bedroom	1.0%	0.3%
<u>27 Vastern Road</u>				
Ground	R1	Living Room	1.5%	1.5%
First	R1	Bedroom	1.0%	1.2%
Second	R1	Bedroom	1.0%	0.3%
<u>29 Vastern Road</u>				
Ground	R1	Living Room	1.5%	1.5%
First	R1	Bedroom	1.0%	1.2%
<u>31 Vastern Road</u>				
Ground	R1	Living Room	1.5%	1.6%
First	R1	Bedroom	1.0%	1.5%
Second	R1	Bedroom	1.0%	1.5%
<u>33 Vastern Road</u>				
Ground	R1	Living Room	1.5%	1.6%
First	R1	Bedroom	1.0%	1.5%
Second	R1	Bedroom	1.0%	1.5%
<u>35 Vastern Road</u>				
Ground	R1	Living Room	1.5%	1.6%
First	R1	Bedroom	1.0%	1.5%
Second	R1	Bedroom	1.0%	0.5%

Cumulative Average Daylight Factor Results -
Illustrative Residential Scheme

<u>37 Vastern Road</u>				
Ground	R1	Living Room	1.5%	1.6%
First	R1	Bedroom	1.0%	1.5%
Second	R1	Bedroom	1.0%	0.5%
<u>39 Vastern Road</u>				
Ground	R1	Living Room	1.5%	1.6%
First	R1	Bedroom	1.0%	1.5%
Second	R1	Bedroom	1.0%	0.5%
<u>41 Vastern Road</u>				
Ground	R1	Living Room	1.5%	1.6%
First	R1	Bedroom	1.0%	1.5%
Second	R1	Bedroom	1.0%	0.5%
<u>43 Vastern Road</u>				
Ground	R1	Living Room	1.5%	1.6%
First	R1	Bedroom	1.0%	1.5%
Second	R1	Bedroom	1.0%	0.5%
<u>45 Vastern Road</u>				
Ground	R1	Living Room	1.5%	1.6%
First	R1	Bedroom	1.0%	1.5%
Second	R1	Bedroom	1.0%	0.5%
<u>47 Vastern Road</u>				
Ground	R1	Living Room	1.5%	1.6%
First	R1	Bedroom	1.0%	1.5%
Second	R1	Bedroom	1.0%	0.5%
<u>49 Vastern Road</u>				
Ground	R1	Living Room	1.5%	1.6%
First	R1	Bedroom	1.0%	1.5%
Second	R1	Bedroom	1.0%	0.5%
<u>51 Vastern Road</u>				
Ground	R1	Bedroom	1.0%	3.7%
First	R2	Bedroom	1.0%	1.7%

Cumulative Daylight Distribution Results - Illustrative Residential Scheme

LEVEL	ROOM	ROOM USE	WHOLE ROOM SQFT	EXISTING SQFT	PROPOSED SQFT	LOSS SQFT	% LOSS	IMPACT
<u>17 Vastern Road</u>								
Ground	R1	Living Room	13.46	13.25	9.58	3.67	28%	Minor
First	R1	Bedroom	16.26	15.96	13.46	2.5	16%	Negligible
Second	R1	Bedroom	18.21	7.04	2.2	4.84	69%	Major
<u>19 Vastern Road</u>								
Ground	R1	Living Room	13.46	13.24	8.22	5.02	38%	Moderate
First	R1	Bedroom	16.26	15.97	12.63	3.34	21%	Minor
Second	R1	Bedroom	18.21	7.25	2.35	4.9	68%	Major
<u>21 Vastern Road</u>								
Ground	R1	Living Room	13.46	13.25	8.51	4.74	36%	Moderate
First	R1	Bedroom	16.26	15.96	13.14	2.82	18%	Negligible
Second	R1	Bedroom	18.21	6.92	2.41	4.51	65%	Major
<u>23 Vastern Road</u>								
Ground	R1	Living Room	13.33	13.14	10.55	2.59	20%	Negligible
First	R1	Bedroom	16.12	15.85	14.05	1.8	11%	Negligible
Second	R1	Bedroom	18.21	7.07	2.28	4.79	68%	Major
<u>25 Vastern Road</u>								
Ground	R1	Living Room	13.33	13.15	11.39	1.76	13%	Negligible
First	R1	Bedroom	16.12	15.84	14.36	1.48	9%	Negligible
Second	R1	Bedroom	18.21	6.93	4.26	2.67	39%	Moderate
<u>27 Vastern Road</u>								
Ground	R1	Living Room	13.33	13.14	11.19	1.95	15%	Negligible
First	R1	Bedroom	16.12	15.83	14.25	1.58	10%	Negligible
Second	R1	Bedroom	18.21	7.23	3.79	3.44	48%	Major
<u>29 Vastern Road</u>								
Ground	R1	Living Room	13.33	13.15	11.76	1.39	11%	Negligible
First	R1	Bedroom	16.12	15.84	14.46	1.38	9%	Negligible
<u>31 Vastern Road</u>								
Ground	R1	Living Room	13.64	13.6	12.97	0.63	5%	Negligible
First	R1	Bedroom	14.68	14.65	13.91	0.74	5%	Negligible
Second	R1	Bedroom	4.99	4.87	4.03	0.84	17%	Negligible
<u>33 Vastern Road</u>								
Ground	R1	Living Room	13.2	13.17	13.15	0.02	0%	Negligible
First	R1	Bedroom	14.2	14.17	14.06	0.11	1%	Negligible
Second	R1	Bedroom	4.99	4.9	4.08	0.82	17%	Negligible
<u>35 Vastern Road</u>								
Ground	R1	Living Room	13.2	13.16	13.13	0.03	0%	Negligible
First	R1	Bedroom	14.2	14.17	13.98	0.19	1%	Negligible
Second	R1	Bedroom	19.78	14.64	8.26	6.38	44%	Major
<u>37 Vastern Road</u>								
Ground	R1	Living Room	13.64	13.59	13.16	0.43	3%	Negligible
First	R1	Bedroom	14.68	14.65	14.04	0.61	4%	Negligible
Second	R1	Bedroom	19.13	13.43	8.26	5.17	38%	Moderate

Cumulative Daylight Distribution Results - Illustrative Residential Scheme

<u>39 Vastern Road</u>								
Ground	R1	Living Room	13.64	13.6	12.66	0.94	7%	Negligible
First	R1	Bedroom	14.68	14.66	13.51	1.15	8%	Negligible
Second	R1	Bedroom	18.32	11.7	7.72	3.98	34%	Moderate
<u>41 Vastern Road</u>								
Ground	R1	Living Room	13.64	13.59	11.98	1.61	12%	Negligible
First	R1	Bedroom	14.68	14.65	12.74	1.91	13%	Negligible
Second	R1	Bedroom	18.49	12.06	8.4	3.66	30%	Moderate
<u>43 Vastern Road</u>								
Ground	R1	Living Room	13.64	13.59	12.05	1.54	11%	Negligible
First	R1	Bedroom	14.68	14.65	12.82	1.83	12%	Negligible
Second	R1	Bedroom	18.49	12.54	8.97	3.57	28%	Minor
<u>45 Vastern Road</u>								
Ground	R1	Living Room	13.64	13.59	11.94	1.65	12%	Negligible
First	R1	Bedroom	14.68	14.63	12.69	1.94	13%	Negligible
Second	R1	Bedroom	18.45	12.54	9.2	3.34	27%	Minor
<u>47 Vastern Road</u>								
Ground	R1	Living Room	13.64	13.59	11.81	1.78	13%	Negligible
First	R1	Bedroom	14.68	14.65	12.55	2.1	13%	Negligible
Second	R1	Bedroom	19.4	12.6	9.04	3.56	28%	Minor
<u>49 Vastern Road</u>								
Ground	R1	Living Room	13.64	13.59	11.68	1.91	14%	Negligible
First	R1	Bedroom	14.68	14.63	12.48	2.15	15%	Negligible
Second	R1	Bedroom	17.8	12.57	9.06	3.51	28%	Minor
<u>51 Vastern Road</u>								
Ground	R1	Bedsit	18.63	18.62	18.62	0	0%	Negligible
First	R1	Bedroom	19.73	19.67	18.17	1.5	8%	Negligible

LEVEL	ROOM	ROOM USE	REQUIRED ADF	PROPOSED ADF
Block C				
First	R1	Living/Kitchen/Dining Room	1.5%	1.8%
	R2	Living/Kitchen/Dining Room	1.5%	1.9%
	R3	Bedroom	1.0%	1.7%
	R4	Bedroom	1.0%	1.6%
	R5	Bedroom	1.0%	2.1%
	R6	Living/Kitchen/Dining Room	1.5%	1.6%
	R7	Living/Kitchen/Dining Room	1.5%	1.4%
	R8	Bedroom	1.0%	2.1%
	R9	Bedroom	1.0%	1.6%
	R10	Bedroom	1.0%	1.7%
	R11	Living/Kitchen/Dining Room	1.5%	2.0%
	R12	Living/Kitchen/Dining Room	1.5%	2.9%
	R13	Bedroom	1.0%	2.5%
	R14	Bedroom	1.0%	1.3%
	R15	Bedroom	1.0%	1.3%
	R16	Living Room	1.5%	2.7%
	R17	Bedroom	1.0%	1.3%
	R18	Bedroom	1.0%	2.2%
	R19	Bedroom	1.0%	2.5%
	R20	Bedroom	1.0%	1.5%
	R21	Bedroom	1.0%	1.5%
	R22	Living/Kitchen/Dining Room	1.5%	1.7%
	R23	Bedroom	1.0%	1.5%
	R24	Bedroom	1.0%	3.0%
	R25	Living/Kitchen/Dining Room	1.5%	1.9%
	R26	Bedroom	1.0%	2.6%
	R27	Bedroom	1.0%	1.5%
	R28	Living/Kitchen/Dining Room	1.5%	2.0%
	R29	Bedroom	1.0%	1.1%
	R30	Living/Kitchen/Dining Room	1.5%	2.3%
	R31	Bedroom	1.0%	0.0%
	R32	Living/Kitchen/Dining Room	1.5%	1.4%
	R33	Bedroom	1.0%	0.9%
	R34	Bedroom	1.0%	1.0%
	R35	Living Room	1.5%	1.6%
	R36	Living/Kitchen/Dining Room	1.5%	1.3%
	R37	Living/Kitchen/Dining Room	1.5%	1.5%
	R38	Living Room	1.5%	2.2%
	R39	Bedroom	1.0%	0.7%
	R40	Bedroom	1.0%	0.9%
	R41	Living/Kitchen/Dining Room	1.5%	2.5%
	R42	Bedroom	1.0%	0.6%
	R43	Bedroom	1.0%	26.0%
	R44	Living/Kitchen/Dining Room	1.5%	1.8%
	R45	Bedroom	1.0%	0.4%
	R46	Bedroom	1.0%	1.1%
	R47	Living Room	1.5%	1.1%
	R48	Bedroom	1.0%	1.0%

Daylight Results - Illustrative Scheme (Reviewed)

	R49	Living Room	1.5%	0.7%
	R50	Living/Kitchen/Dining Room	1.5%	0.7%
	R51	Living/Kitchen/Dining Room	1.5%	1.1%
	R52	Living Room	1.5%	1.4%
	R53	Bedroom	1.0%	0.9%
	R54	Living/Kitchen/Dining Room	1.5%	2.1%
	R55	Bedroom	1.0%	0.0%
	R56	Living Room	1.5%	1.8%
	R57	Bedroom	1.0%	1.5%
	R58	Bedroom	1.0%	1.3%
	R59	Living Room	1.5%	1.9%
	R60	Living/Kitchen/Dining Room	1.5%	2.5%
	R61	Bedroom	1.0%	1.5%
	R62	Bedroom	1.0%	1.2%
	R63	Bedroom	1.0%	1.9%
	R64	Living Room	1.5%	2.4%
	R65	Bedroom	1.0%	2.4%
	R66	Bedroom	1.0%	1.2%
	R67	Bedroom	1.0%	2.2%
	R68	Bedroom	1.0%	2.0%
	R69	Bedroom	1.0%	2.1%
	R70	Bedroom	1.0%	1.4%
	R71	Living/Kitchen/Dining Room	1.5%	1.6%
	R72	Living/Kitchen/Dining Room	1.5%	1.6%
	R73	Bedroom	1.0%	1.2%
	R74	Bedroom	1.0%	1.2%
	R75	Bedroom	1.0%	1.1%
	R76	Bedroom	1.0%	1.1%
	R77	Bedroom	1.0%	1.2%
Second	R1	Living/Kitchen/Dining Room	1.5%	1.8%
	R2	Living/Kitchen/Dining Room	1.5%	2.0%
	R3	Bedroom	1.0%	1.8%
	R4	Bedroom	1.0%	1.7%
	R5	Bedroom	1.0%	2.2%
	R6	Living/Kitchen/Dining Room	1.5%	1.4%
	R7	Living/Kitchen/Dining Room	1.5%	1.4%
	R8	Bedroom	1.0%	2.2%
	R9	Bedroom	1.0%	1.7%
	R10	Bedroom	1.0%	1.8%
	R11	Living/Kitchen/Dining Room	1.5%	2.1%
	R12	Living/Kitchen/Dining Room	1.5%	3.0%
	R13	Bedroom	1.0%	2.6%
	R14	Bedroom	1.0%	1.4%
	R15	Bedroom	1.0%	1.4%
	R16	Living Room	1.5%	2.7%
	R17	Bedroom	1.0%	1.4%
	R18	Bedroom	1.0%	2.4%
	R19	Bedroom	1.0%	2.7%
	R20	Bedroom	1.0%	1.6%
	R21	Bedroom	1.0%	1.6%
	R22	Living Room	1.5%	2.3%
	R23	Bedroom	1.0%	1.6%

Daylight Results - Illustrative Scheme (Reviewed)

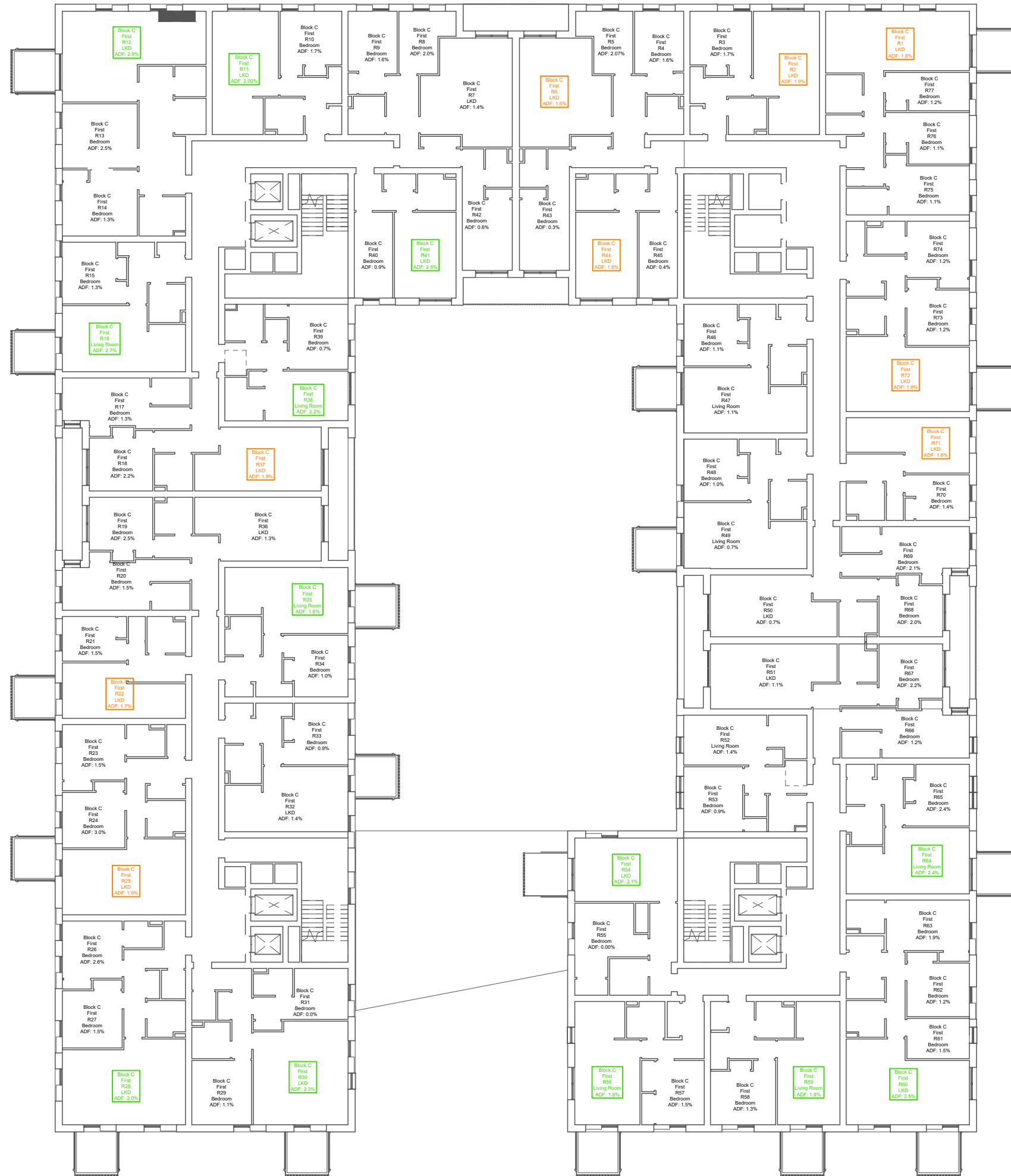
R24	Bedroom	1.0%	3.2%
R25	Living/Kitchen/Dining Room	1.5%	2.1%
R26	Bedroom	1.0%	2.8%
R27	Bedroom	1.0%	1.5%
R28	Living/Kitchen/Dining Room	1.5%	2.1%
R29	Bedroom	1.0%	1.1%
R30	Living/Kitchen/Dining Room	1.5%	1.8%
R31	Bedroom	1.0%	0.7%
R32	Living Room	1.5%	1.4%
R33	Bedroom	1.0%	1.1%
R34	Bedroom	1.0%	1.1%
R35	Living Room	1.5%	1.7%
R36	Living/Kitchen/Dining Room	1.5%	1.2%
R37	Living/Kitchen/Dining Room	1.5%	1.4%
R38	Living Room	1.5%	3.0%
R39	Bedroom	1.0%	0.7%
R40	Bedroom	1.0%	0.9%
R41	Living/Kitchen/Dining Room	1.5%	2.5%
R42	Bedroom	1.0%	0.7%
R43	Bedroom	1.0%	0.4%
R44	Living/Kitchen/Dining Room	1.5%	2.0%
R45	Bedroom	1.0%	0.5%
R46	Bedroom	1.0%	1.4%
R47	Living Room	1.5%	1.7%
R48	Bedroom	1.0%	1.3%
R49	Living Room	1.5%	0.5%
R50	Living/Kitchen/Dining Room	1.5%	1.0%
R51	Living/Kitchen/Dining Room	1.5%	1.6%
R52	Living Room	1.5%	1.6%
R53	Bedroom	1.0%	1.0%
R54	Living/Kitchen/Dining Room	1.5%	1.6%
R55	Bedroom	1.0%	0.3%
R56	Living Room	1.5%	1.9%
R57	Bedroom	1.0%	1.5%
R58	Bedroom	1.0%	1.3%
R59	Living Room	1.5%	1.9%
R60	Living/Kitchen/Dining Room	1.5%	2.5%
R61	Bedroom	1.0%	1.5%
R62	Bedroom	1.0%	1.2%
R63	Bedroom	1.0%	2.0%
R64	Living Room	1.5%	2.7%
R65	Bedroom	1.0%	2.5%
R66	Bedroom	1.0%	1.3%
R67	Bedroom	1.0%	2.3%
R68	Bedroom	1.0%	2.1%
R69	Bedroom	1.0%	2.4%
R70	Bedroom	1.0%	1.5%
R71	Living/Kitchen/Dining Room	1.5%	1.6%
R72	Living/Kitchen/Dining Room	1.5%	1.7%
R73	Bedroom	1.0%	1.2%
R74	Bedroom	1.0%	1.2%
R75	Bedroom	1.0%	1.1%

Daylight Results - Illustrative Scheme (Reviewed)

Third	R76	Bedroom	1.0%	1.2%
	R77	Bedroom	1.0%	1.2%
	R1	Living/Kitchen/Dining Room	1.5%	1.9%
	R2	Living/Kitchen/Dining Room	1.5%	2.1%
	R3	Bedroom	1.0%	1.8%
	R4	Bedroom	1.0%	1.7%
	R5	Bedroom	1.0%	2.3%
	R6	Living/Kitchen/Dining Room	1.5%	1.7%
	R7	Living/Kitchen/Dining Room	1.5%	1.7%
	R8	Bedroom	1.0%	2.3%
	R9	Bedroom	1.0%	1.8%
	R10	Bedroom	1.0%	1.9%
	R11	Living/Kitchen/Dining Room	1.5%	2.2%
	R12	Living/Kitchen/Dining Room	1.5%	3.1%
	R13	Bedroom	1.0%	2.7%
	R14	Bedroom	1.0%	1.4%
	R15	Bedroom	1.0%	1.5%
	R16	Living Room	1.5%	3.0%
	R17	Bedroom	1.0%	1.5%
	R18	Bedroom	1.0%	2.6%
	R19	Bedroom	1.0%	2.8%
	R20	Bedroom	1.0%	1.6%
	R21	Bedroom	1.0%	1.7%
	R22	Living Room	1.5%	2.4%
	R23	Bedroom	1.0%	1.7%
	R24	Bedroom	1.0%	3.8%
	R25	Living/Kitchen/Dining Room	1.5%	2.3%
	R26	Bedroom	1.0%	3.0%
	R27	Bedroom	1.0%	1.6%
	R28	Living/Kitchen/Dining Room	1.5%	2.2%
	R29	Bedroom	1.0%	1.2%
	R30	Living/Kitchen/Dining Room	1.5%	1.9%
	R31	Bedroom	1.0%	1.3%
	R32	Living Room	1.5%	1.8%
	R33	Bedroom	1.0%	1.2%
	R34	Bedroom	1.0%	1.2%
	R35	Living Room	1.5%	1.9%
	R36	Living/Kitchen/Dining Room	1.5%	1.4%
	R37	Living/Kitchen/Dining Room	1.5%	1.5%
	R38	Living Room	1.5%	3.4%
	R39	Bedroom	1.0%	0.8%
	R40	Bedroom	1.0%	1.7%
	R41	Living/Kitchen/Dining Room	1.5%	1.3%
	R42	Bedroom	1.0%	0.8%
	R43	Bedroom	1.0%	0.8%
	R44	Living/Kitchen/Dining Room	1.5%	2.2%
	R45	Bedroom	1.0%	1.0%
	R46	Bedroom	1.0%	1.7%
	R47	Living Room	1.5%	2.2%
	R48	Bedroom	1.0%	1.4%
R49	Living Room	1.5%	0.6%	
R50	Living/Kitchen/Dining Room	1.5%	1.1%	

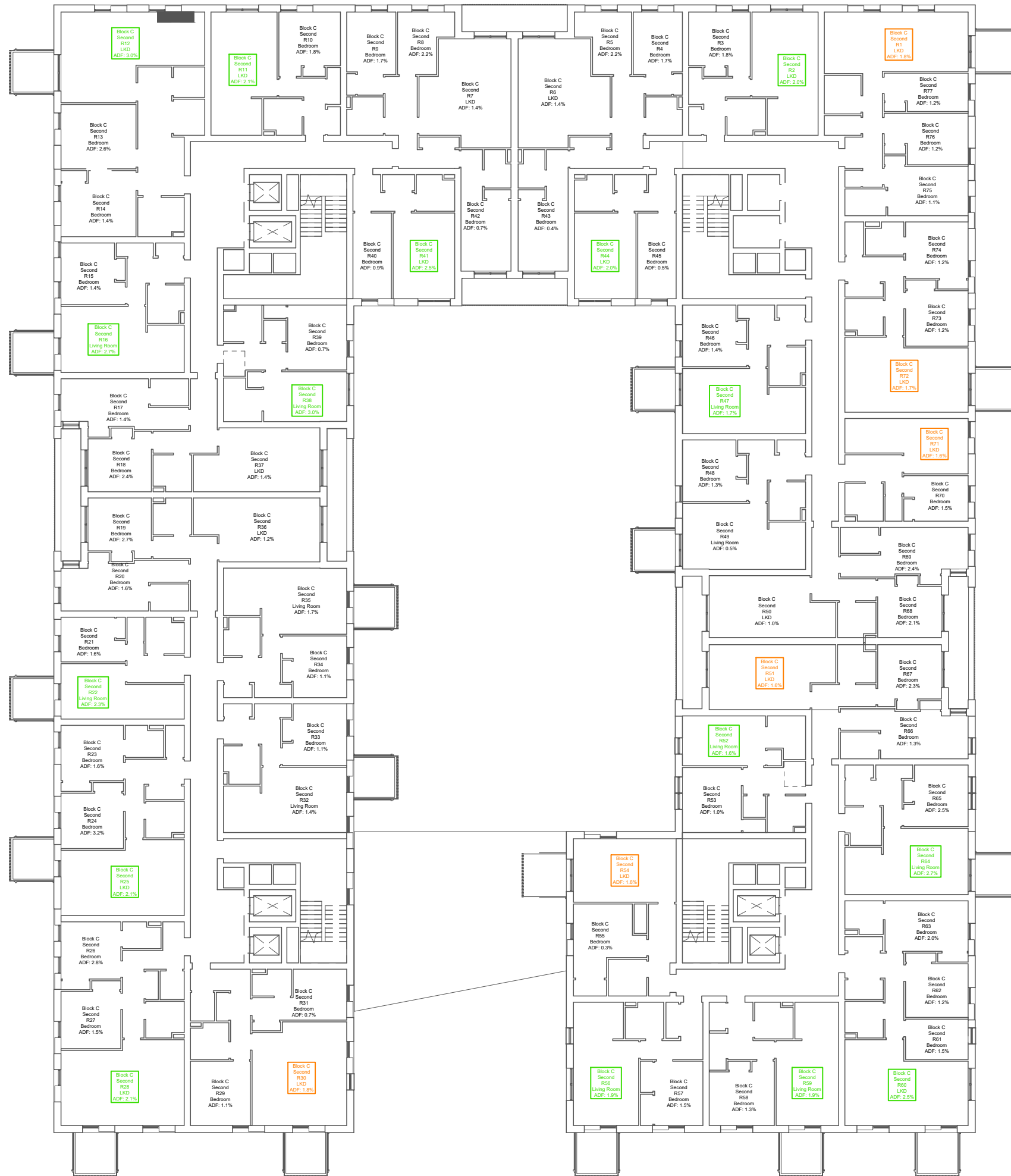
Daylight Results - Illustrative Scheme (Reviewed)

	R51	Living/Kitchen/Dining Room	1.5%	1.8%
	R52	Living Room	1.5%	1.8%
	R53	Bedroom	1.0%	1.2%
	R54	Living/Kitchen/Dining Room	1.5%	2.2%
	R55	Bedroom	1.0%	0.3%
	R56	Living Room	1.5%	2.0%
	R57	Bedroom	1.0%	1.5%
	R58	Bedroom	1.0%	1.3%
	R59	Living Room	1.5%	1.8%
	R60	Living/Kitchen/Dining Room	1.5%	2.6%
	R61	Bedroom	1.0%	1.8%
	R62	Bedroom	1.0%	1.4%
	R63	Bedroom	1.0%	2.2%
	R64	Living Room	1.5%	2.8%
	R65	Bedroom	1.0%	2.8%
	R66	Bedroom	1.0%	1.4%
	R67	Bedroom	1.0%	2.5%
	R68	Bedroom	1.0%	2.2%
	R69	Bedroom	1.0%	2.4%
	R70	Bedroom	1.0%	1.7%
	R71	Living/Kitchen/Dining Room	1.5%	1.8%
	R72	Living/Kitchen/Dining Room	1.5%	1.8%
	R73	Bedroom	1.0%	1.3%
	R74	Bedroom	1.0%	1.4%
	R75	Bedroom	1.0%	1.3%
	R76	Bedroom	1.0%	1.3%
	R77	Bedroom	1.0%	1.3%



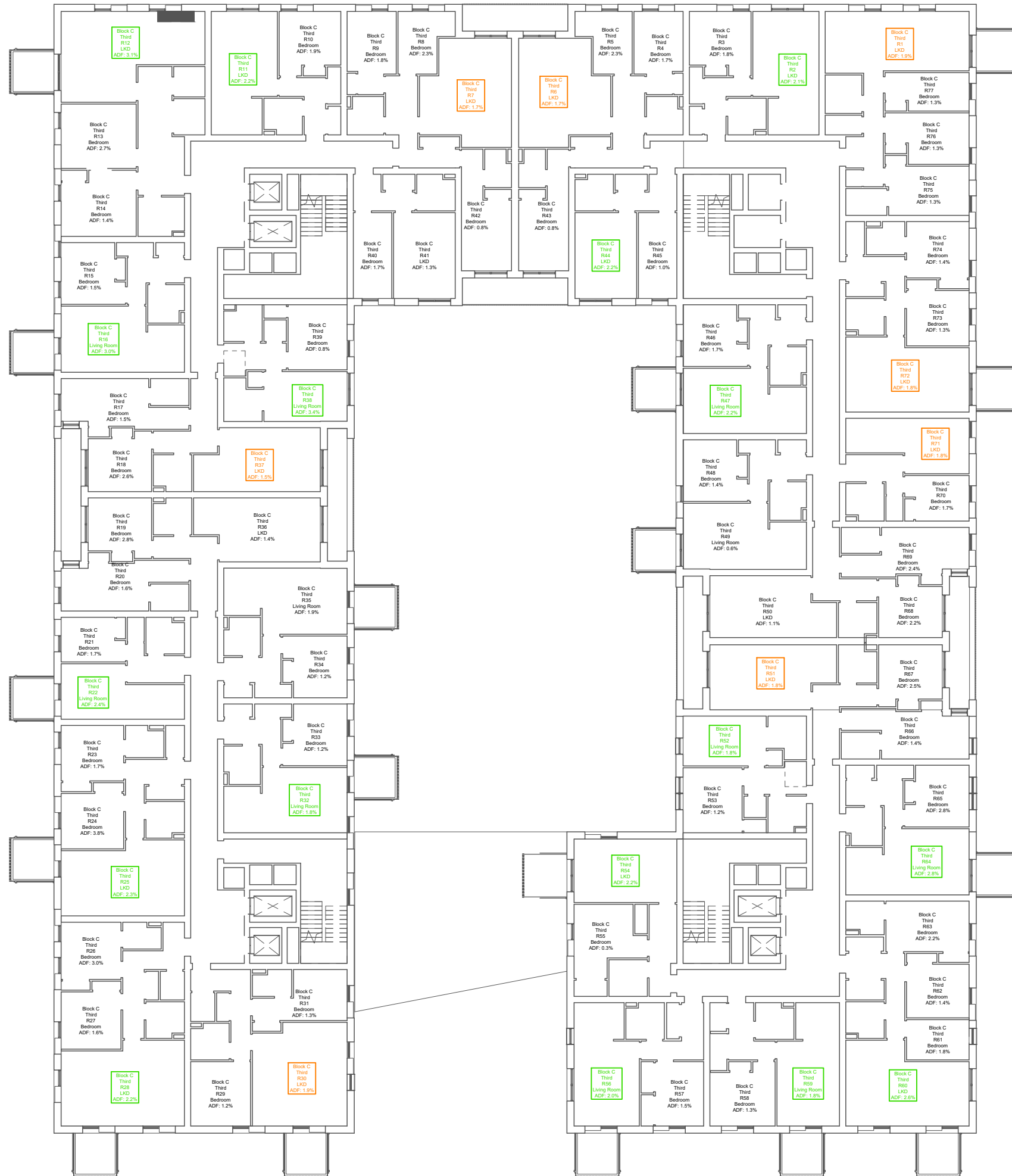
KEY

- LKD's that achieve 1.5-2%
- LKD's that achieve >2%
- Living rooms that achieve 1.5%



KEY

- LKD's that achieve 1.5-2%
- LKD's that achieve >2%
- Living rooms that achieve 1.5%



KEY

- LKD's that achieve 1.5-2%
- LKD's that achieve >2%
- Living rooms that achieve 1.5%

BLOCK	UNIT	USE	CHP EXISTING	CHP CUMULATIVE (PARAMETER MASSING)	CHP CUMULATIVE (IRS)	CHP ANALYSIS OF EB7	EB7 RESULTS	
AG1	A-05	LKD	2.2	2.3	2.3	1.7	1.8	
	A-06	BED	3.7	3.2	3.4	3.0	3.0	
	A-07	BED	2.8	2.3	2.6	2.1	1.9	
	A-08	LKD	1.4	1.1	1.2	0.5	1.1	
	A-09	BED	3.6	2.9	3.3	2.5	2.8	
	A-10	BED	2.7	2.1	2.5	2.0	1.8	
	A-11	BED	2.8	2.1	2.5	2.1	1.8	
	A-12	BED	3.6	2.7	3.3	2.7	2.7	
	A-13	LKD	1.7	1.5	1.6	1.0	1.0	
	A15	A-21	LKD	2.7	2.9	2.8	2.5	2.0
		A-22	BED	3.7	3.3	3.6	2.6	3.1
		A-23	BED	2.8	2.4	2.7	1.9	2.0
		A-24	LKD	1.9	1.5	1.7	1.3	1.1
A-25		BED	3.7	3.1	3.5	2.5	2.9	
A-26		BED	2.8	2.2	2.6	1.8	1.9	
A-27		BED	2.8	2.2	2.6	1.9	1.9	
BCG1	A-28	BED	3.7	2.8	3.4	2.4	2.8	
	A-29	LKD	2.1	1.9	1.8	1.7	1.1	
	BC-10	LKD	1.9	1.7	2.4	1.2	0.9	
	BC-11	BED	2.7	2.2	2.0	2.1	1.5	
	BC-12	BED	2.2	1.8	1.1	1.7	1.1	
	BC-13	LKD	1.3	1.0	2.5	0.6	0.4	
	BC-14	BED	2.7	2.3	1.9	2.1	1.5	
	BC-15	BED	2.1	1.7	1.5	1.7	1.2	
	BC-16	BED	1.6	1.4	1.7	1.3	1.0	
	BC-17	BED	1.8	1.6	1.7	1.5	1.1	
	BC-18	LKD	1.7	1.7	2.1	1.5	1.2	
BCP	BC-36	LKD	2.2	2.0	2.1	1.4	1.0	
	BC-37	BED	2.8	2.2	2.5	2.2	1.5	
	BC-38	BED	2.3	1.9	2.1	1.7	1.2	
	BC-39	LKD	1.6	1.3	1.4	0.7	0.5	
	BC-40	BED	2.8	2.4	2.6	2.1	1.5	
	BC-41	BED	2.2	1.8	2.0	1.7	1.3	
	BC-42	BED	1.6	1.4	1.5	1.3	1.0	
	BC-43	BED	1.8	1.7	1.7	1.5	1.1	
	BC-44	LKD	2.1	2.2	2.2	1.8	1.4	

BLOCK	UNIT	EXISTING		CHP CUMULATIVE (PARAMETER MASSING)		CHP CUMULATIVE (IRS)		CHP ANALYSIS OF EB7		EB7	
		APSH	WINTER	APSH	WINTER	APSH	WINTER	APSH	WINTER	APSH	WINTER
AG	A-05	75%	24%	47%	5%	58%	10%	46%	3%	42%	3%
	A-08	72%	22%	42%	5%	54%	8%	20%	3%	35%	1%
	A-13	75%	24%	39%	4%	53%	7%	41%	4%	35%	4%
AB	A-21	75%	24%	49%	5%	60%	12%	46%	3%	42%	3%
	A-24	72%	22%	44%	5%	56%	10%	35%	1%	35%	1%
	A-29	75%	24%	41%	4%	56%	9%	46%	4%	38%	4%
BC	BC-10	76%	23%	41%	6%	57%	9%	45%	6%	35%	5%
	BC-13	75%	22%	43%	10%	56%	10%	25%	10%	39%	8%
	BC-18	89%	23%	64%	15%	73%	16%	66%	14%	66%	13%
BCP	BC-36	76%	23%	45%	6%	58%	9%	46%	6%	35%	5%
	BC-39	76%	23%	44%	10%	57%	10%	37%	10%	40%	8%
	BC-44	92%	25%	70%	16%	78%	17%	66%	16%	60%	16%