

25th August 2021

Richard Phillips
London Borough of Hillingdon
2W08 Civic Centre High Street
Uxbridge
Middlesex
UB8 1UW

Dear Mr Phillips

Northwood and Pinner Hospital and Health Centre, London, HA6 1BT**Introduction**

1. Avison Young ("AY") have been instructed to undertake a non-technical desk-top review in consideration of light amenity and proposed planning amendments with regards the Allies and Morrison scheme ("Scheme") for Northwood and Pinner HA6 1BT ("Site") (planning application ref: 23658/APP/2021/1296).
2. AY's daylight and sunlight report dated 5th March 2021 ("March 2021 Report") was submitted in support of the Proposed Development as part of the planning application.
3. This note provides a summary of the proposed scheme amendments and a comment on the potential implications with regards daylight and sunlight following a technical review and is to be read in conjunction with the March 2021 Report.
4. Annotated plans detailing the proposed scheme amendments were issued to AY on the 26th June 2021 and 24th August 2021. It is understood that the proposed amendments have been made following comments received from the London Borough of Hillingdon with regards proximity and overlooking of neighbouring properties.
5. In summary the scheme amendments, which are limited to the north east wing of Block B are as follows:
 - at Ground Floor:
 - Corner unit: has windows to second bedroom (no oriel window), LKD has full height patio doors
 - Outer unit: LKD window/patio doors facing north, second bedroom has window (no oriel window)
 - at First floor:
 - Corner unit: has oriel window to second bedroom and LKD has window with Juliette balcony facing north.

- Outer unit: second bedroom has oriel window, LKD windows moved to the east. Balcony moved to the east as assessed and 1.6m solid screen to the north short side.
 - At Roof terrace: has 1.6m screen as assessed along northern edge.
- 6. In order to understand daylight and sunlight amenity within and surrounding the scheme following the above amendments AY have undertaken detailed technical analysis with reference to The Building Research Establishment (BRE) guidelines – ‘Site Layout Planning for Daylight and Sunlight: a guide to good practice (2011)’ “BRE Guidelines” is the document referred to by most Local Planning Authorities (LPAs) when considering daylight and sunlight amenity matters.
- 7. In the first instance, the only changes to the height and massing of the Proposed Development as part of the scheme amendments relates to the 1.6m screen at roof level. It is important to note that this screen is being proposed in relation to only a small proportion of roof top at the scheme. The height and massing will therefore remain the same for the vast majority of the proposal and represents a small increase in obstruction when considered overall. In order to confirm the 1.6m addition is unlikely to result in additional daylight and sunlight effects, AY have undertaken an updated daylight (Vertical Sky Component “VSC” and No Sky-line “NSL”) and sunlight assessments (Annual Probable Sunlight Hours “APSH”) considering 10-15 Neals Close which is located to the north of the development and the only foreseeable neighbouring sensitive receptor that the proposed 1.6m screen may be relevant to.
- 8. The technical analysis (Appendix 01) with the 1.6m screen in place demonstrates that all windows and rooms at 10-15 Neals Close meet the BRE guideline for daylight and sunlight. All rooms retain a view of the sky to more than 98% of the room area and retain sunlight levels in excess of the recommendations provided within the BRE guidelines.
- 9. With regards to overshadowing, the 1.6m screen is not anticipated to result in any significant overshadowing effect. As per the March 2021 report, the outdoor amenity area at Neal Close retains 2hrs direct sunlight on 21st March to 97% of the area in the proposed condition and is considered a well-lit space with the Proposed Development in situ. With the high level of amenity enjoyed by the amenity space in mind, the proposed 1.6m screen does not raise overshadowing concerns.
- 10. Overall, the inclusion of the 1.6m screen is not considered to result in any significant daylight, sunlight or overshadowing effects when compared to the original submission scheme and considered reasonable with regard to daylight, sunlight and overshadowing amenity of neighbouring properties.
- 11. In relation to the amendments which relate to the internals of the scheme, AY have undertaken an updated internal amenity assessment for the relevant parts of the scheme. This assessment has focused on Average Daylight Factor (ADF) analysis and APSH analyses.

12. Importantly, the proposed changes relate to 4 of 70 units at the Proposed Scheme which is a small proportion of the overall residential area. It is therefore clear that any alterations in amenity would relate to only an isolated part of the Proposed Development, with the vast majority of proposed units remaining unaffected by the proposed scheme amendments.
13. When considering the two ground floor units, all four bedrooms meet the BRE guidelines (ADF) achieving over 1% ADF with the amendments in place, compared to three of four bedrooms under the original submission scheme. On this basis adherence to the BRE guidelines (ADF) with regards ground floor bedrooms improves.
14. When considering the two LKDs at the ground floor, these achieve 1.76% ADF and 1.95% ADF with the proposed amendments compared to 1.79%ADF and 1.65%ADF under the original scheme. Whilst the values of 1.76% and 1.95% are marginally short of the BRE guideline for a Kitchen at 2%, the values are in excess of the BRE guideline for a living room at 1.5% and considered reasonable.
15. Both LKDs at ground floor benefit from generous window openings with access to outdoor amenity space where amenity is more readily available in any event. In addition the technical analysis shows both LKDs benefit from NSL values above 70% meaning the sky can be seen from the majority of the room area.
16. Overall, amenity at the ground floor following the proposed amendments is considered reasonable particularly in consideration of the relevant contextual factors and good levels of amenity demonstrated across the scheme.
17. In terms of the two first floor units, when considering the two LKDs, these achieve 1.92% ADF and 3.82% ADF compared to 3.45%ADF and 3.95%ADF under the original scheme. On this basis the two 1st floor LKDs experience a reduction in ADF however both achieve values either in excess of, or reasonably close to the BRE Guideline of 2% ADF. Whilst one LKD at first floor is marginally below the BRE Guideline (ADF) of 2% for a kitchen, this value is reasonably close to the BRE guideline and in excess of the BRE guideline for a living room of 1.5%. In addition, the room has an NSL area above 91% meaning the sky can be seen from the vast majority of the room area.
18. The two first floor bedrooms adhere to the BRE guideline for daylight (ADF) with the proposed amendments in place. An assumed glazing transmittance value has been applied in the absence of glazing specifications for the two proposed translucent oriel windows. The assumed transmittance value has been based upon an AY review of available translucent glazing which identified a range of transmittance values typically between 0.5-0.78. In that context, AY's standard assumption for glazing transmittance of 0.68 is considered to be reasonable and has been applied for the assessment of the two translucent windows.
19. Overall amenity at ground floor following the proposed amendments is considered reasonable particularly in consideration of the relevant contextual factors and generally good levels of amenity demonstrated across the scheme.



20. In summary, the daylight and sunlight conditions for internal and external residents are considered to be reasonable as per the proposed amendments on the basis of AY's technical assessment; and would not alter the overall conclusions regards internal daylight and sunlight as set out in the March 2021 Report.

Please do get in contact if you have any queries or require further information.

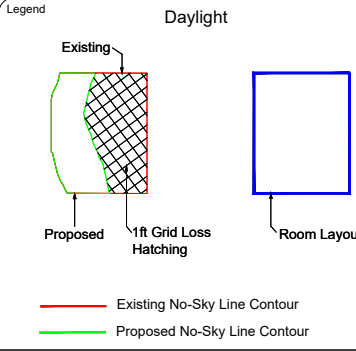
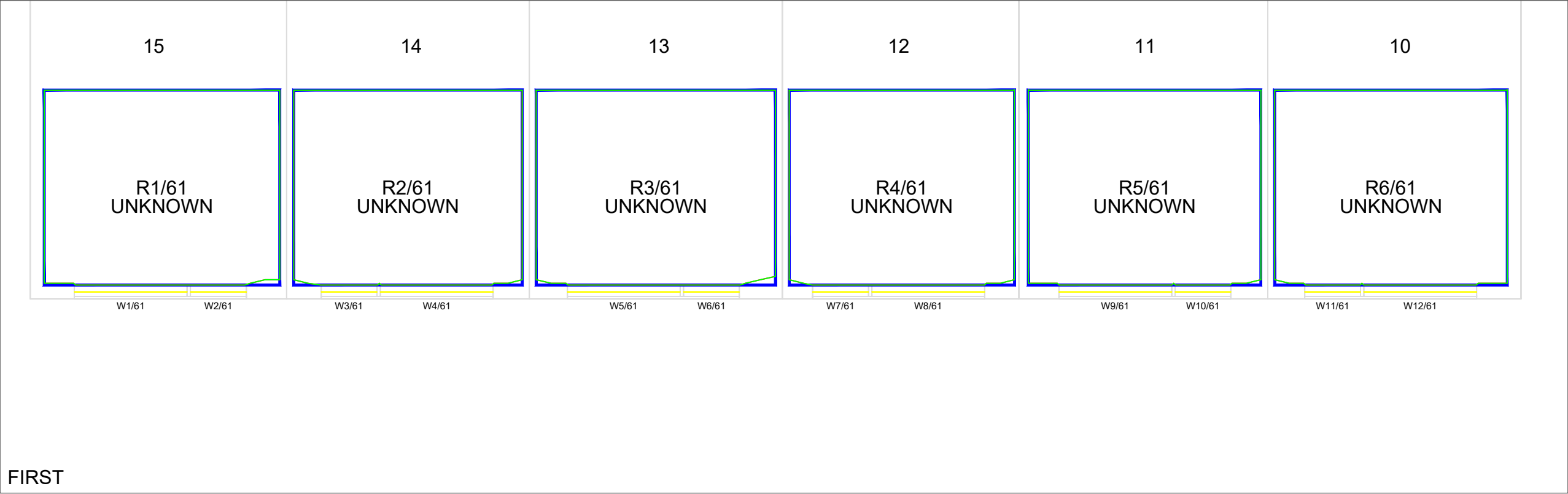
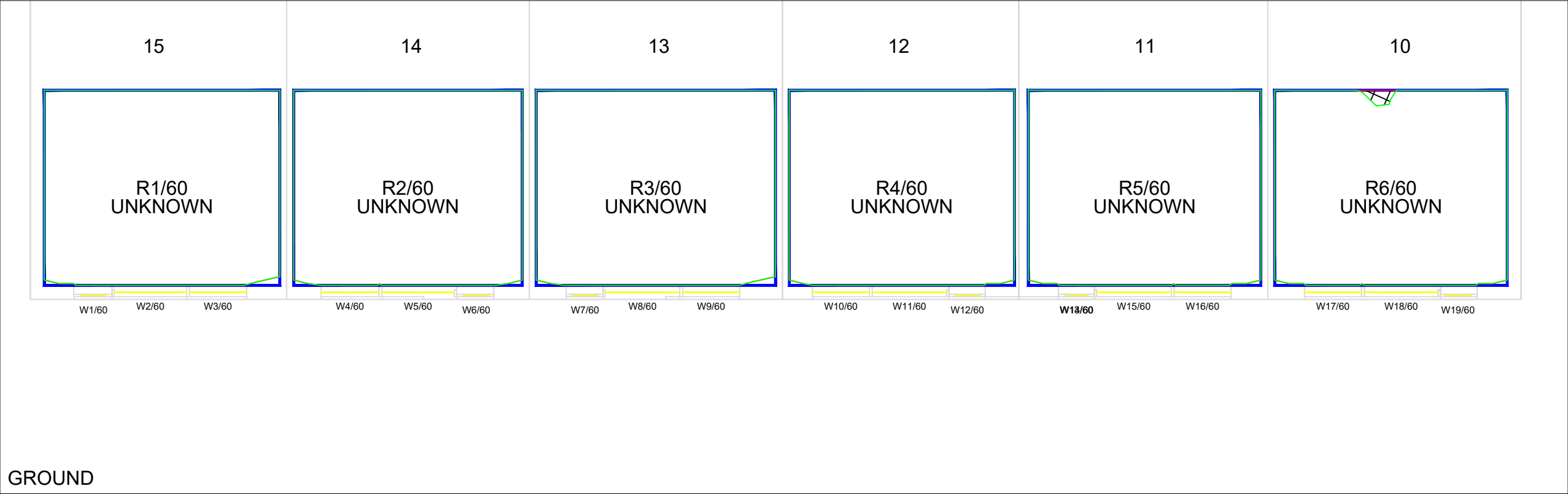
Yours sincerely

A handwritten signature in dark ink, appearing to read 'M Redding', written over a faint, light grey circular background.

Mason Redding
Senior Surveyor
Daylight & Sunlight
For and on behalf of Avison Young (UK) Limited

Appendix 1

Technical Analysis



Sources of Information

EXISTING BUILDING

MBS 3D SURVEY 21 JANUARY 2020
MBS20_1073 Northwood Health Centre, Pinner.dwg

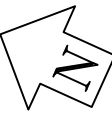
SURROUNDING BUILDINGS

MBS 3D SURVEY 21 JANUARY 2020
MBS20_1073 Northwood Health Centre, Pinner.dwg

PROPOSED BUILDING

200427 Allies and Morrison - Updated Block A Gas
200430 Allies and Morrison - Block B Gas

INFO 06 AUGUST 2021 INTERNAL AMENDEMENTS
17115_05_SK_046_D-S study screens.dwg



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Project Name
NORTHWOOD PINNER
NHS CENTRE

Client
NHS PROPERTY SERVICE LIMITED

Drawing Title
NO SKYLINE CONTOURS
10-15 NEALS CLOSE

Drawn By
CC

Chk'd By

Scale @ A3
1/100

Date
17 AUG 2020

Project No.
NO70_10

Drawing No.
BRE_10

Revision
-

NORTHWOOD AND PINNER NHS CENTRE

17-Aug-21

JOB 10 - DAYLIGHT RESULTS

1.6M SCREEN ADDED TO BLOCK B

Room/Floor	Room Use	Window	%VSC			% Daylight Factor			Daylight Distribution					
			Exist	Prop	% Loss	Exist	Prop	% Loss	Room Area sq ft	Existing Area sq ft	Existing % of Room Area	Proposed Area sq ft	Proposed % of Room Area	% Loss of Existing
15 Neal Court														
Gnd Floor														
R1/60	UNKNOWN	W1/60	36.66	34.05	>27	2.41	2.26	6.38%	229.5	228.3	99.48%	228.3	99.48%	0.00%
		W2/60	37.16	34.53	>27									
		W3/60	36.81	34.36	>27									
1st Floor														
R1/61	UNKNOWN	W1/61	38.45	36.22	>27	2.74	2.59	5.61%	229.5	228.5	99.56%	228.5	99.56%	0.00%
		W2/61	38.50	36.02	>27									
14 Neal Court														
Gnd Floor														
R2/60	UNKNOWN	W4/60	36.74	33.25	>27	2.47	2.26	8.66%	222.7	222.1	99.73%	222.1	99.73%	0.00%
		W5/60	37.24	33.68	>27									
		W6/60	36.77	33.32	>27									
1st Floor														
R2/61	UNKNOWN	W3/61	38.56	35.72	>27	2.82	2.61	7.32%	222.7	222	99.69%	222	99.69%	0.00%
		W4/61	38.60	35.52	>27									
13 Neal Court														
Gnd Floor														
R3/60	UNKNOWN	W7/60	36.76	32.33	>27	2.40	2.14	10.99%	232.9	231.8	99.53%	231.8	99.53%	0.00%
		W8/60	37.36	32.73	>27									
		W9/60	36.88	32.44	>27									
1st Floor														
R3/61	UNKNOWN	W5/61	38.67	35.00	>27	2.72	2.48	8.99%	232.9	231.7	99.48%	231.7	99.48%	0.00%
		W6/61	38.70	34.70	>27									
12 Neal Court														
Gnd Floor														
R4/60	UNKNOWN	W10/60	36.84	31.14	>27	2.52	2.18	13.64%	219.3	218.6	99.68%	218.6	99.68%	0.00%
		W11/60	37.32	31.58	>27									
		W12/60	36.65	31.30	>27									
1st Floor														
R4/61	UNKNOWN	W7/61	38.74	34.27	>27	2.86	2.55	10.95%	219.3	218.6	99.68%	218.6	99.68%	0.00%
		W8/61	38.77	34.06	>27									
11 Neal Court														
Gnd Floor														
R5/60	UNKNOWN	W13/60	30.78	24.17	21.47%	2.55	2.16	15.41%	226.4	225.6	99.65%	225.6	99.65%	0.00%
		W14/60	36.89	30.37	>27									
		W15/60	37.45	30.89	>27									
		W16/60	36.80	30.60	>27									
1st Floor														
R5/61	UNKNOWN	W9/61	38.81	33.52	>27	2.79	2.44	12.54%	226.4	225.7	99.69%	225.7	99.69%	0.00%
		W10/61	38.82	33.38	>27									
10 Neal Court														
Gnd Floor														
R6/60	UNKNOWN	W17/60	37.01	29.77	>27	2.45	2.04	16.84%	226.4	225.6	99.65%	223.8	98.85%	0.80%
		W18/60	37.35	30.19	>27									
		W19/60	36.45	29.71	>27									
1st Floor														
R6/61	UNKNOWN	W11/61	38.84	33.23	>27	2.79	2.42	13.35%	226.4	225.7	99.69%	225.7	99.69%	0.00%
		W12/61	38.85	33.18	>27									

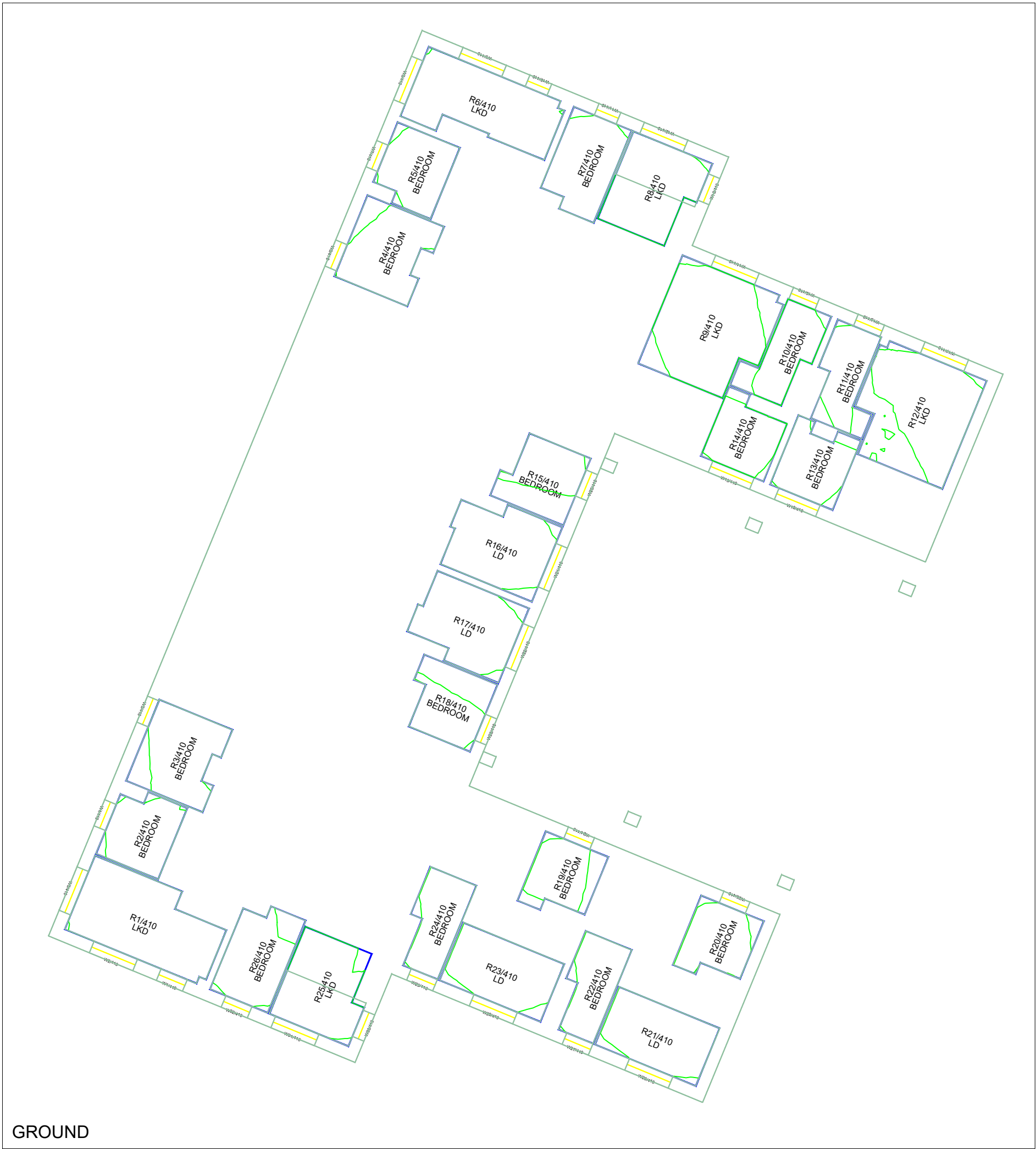
ADF	Pass Value	No Rooms	No Passes	% Passes
BEDROOM	1	0	0	0.00%
DINING	1.5	0	0	0.00%
KITCHEN	2	0	0	0.00%
LD	1.5	0	0	0.00%
KD	2	0	0	0.00%
STUDY	1.5	0	0	0.00%
STUDIO	1.5	0	0	0.00%
LKD	2	0	0	0.00%
Livingroom	1.5	0	0	0.00%
TOTALS		0	0	0.00%

NORTHWOOD AND PINNER NHS CENTRE
17-Aug-21
JOB 10 - SUNLIGHT RESULTS
1.6M SCREEN ADDED TO BLOCK B

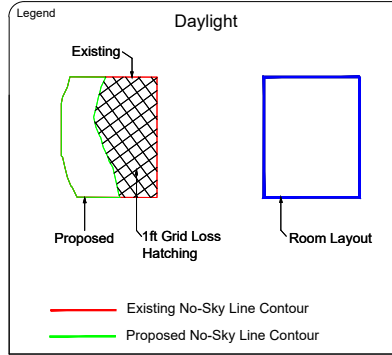
Available sunlight as a percentage of
annual unobstructed total (1486.0 Hrs)

unlabeled unobstructed total 1466.6 hrs)

		Existing %			Proposed %					
Room use	Window Ref	Summer	Winter	Total	Summer	Winter	Total	% Loss of Summer	% Loss of Winter	% Loss of Total
15 Neal Court										
Gnd Floor										
UNKNOWN	W1/60	37.00	20.00	57.00	37.00	16.00	53.00	0.00%	20.00%	7.02%
UNKNOWN	W2/60	39.00	20.00	59.00	39.00	16.00	55.00	0.00%	20.00%	6.78%
UNKNOWN	W3/60	39.00	20.00	59.00	39.00	15.00	54.00	0.00%	25.00%	8.47%
1st Floor										
UNKNOWN	W1/61	38.00	21.00	59.00	38.00	19.00	57.00	0.00%	9.52%	3.39%
UNKNOWN	W2/61	38.00	21.00	59.00	38.00	19.00	57.00	0.00%	9.52%	3.39%
14 Neal Court										
Gnd Floor										
UNKNOWN	W4/60	38.00	21.00	59.00	38.00	17.00	55.00	0.00%	19.05%	6.78%
UNKNOWN	W5/60	39.00	21.00	60.00	39.00	16.00	55.00	0.00%	23.81%	8.33%
UNKNOWN	W6/60	38.00	20.00	58.00	38.00	15.00	53.00	0.00%	25.00%	8.62%
1st Floor										
UNKNOWN	W3/61	38.00	21.00	59.00	38.00	17.00	55.00	0.00%	19.05%	6.78%
UNKNOWN	W4/61	38.00	21.00	59.00	38.00	18.00	56.00	0.00%	14.29%	5.08%
13 Neal Court										
Gnd Floor										
UNKNOWN	W7/60	37.00	21.00	58.00	37.00	15.00	52.00	0.00%	28.57%	10.34%
UNKNOWN	W8/60	39.00	21.00	60.00	39.00	16.00	55.00	0.00%	23.81%	8.33%
UNKNOWN	W9/60	39.00	21.00	60.00	39.00	16.00	55.00	0.00%	23.81%	8.33%
1st Floor										
UNKNOWN	W5/61	38.00	21.00	59.00	38.00	17.00	55.00	0.00%	19.05%	6.78%
UNKNOWN	W6/61	38.00	21.00	59.00	38.00	16.00	54.00	0.00%	23.81%	8.47%
12 Neal Court										
Gnd Floor										
UNKNOWN	W10/60	38.00	21.00	59.00	37.00	15.00	52.00	2.63%	28.57%	11.86%
UNKNOWN	W11/60	39.00	21.00	60.00	37.00	14.00	51.00	5.13%	33.33%	15.00%
UNKNOWN	W12/60	38.00	21.00	59.00	35.00	14.00	49.00	7.89%	33.33%	16.95%
1st Floor										
UNKNOWN	W7/61	38.00	21.00	59.00	38.00	16.00	54.00	0.00%	23.81%	8.47%
UNKNOWN	W8/61	38.00	21.00	59.00	38.00	15.00	53.00	0.00%	28.57%	10.17%
11 Neal Court										
Gnd Floor										
UNKNOWN	W13/60	33.00	18.00	51.00	30.00	12.00	42.00	9.09%	33.33%	17.65%
UNKNOWN	W14/60	37.00	21.00	58.00	35.00	15.00	50.00	5.41%	28.57%	13.79%
UNKNOWN	W15/60	39.00	21.00	60.00	37.00	17.00	54.00	5.13%	19.05%	10.00%
UNKNOWN	W16/60	39.00	21.00	60.00	36.00	17.00	53.00	7.69%	19.05%	11.67%
1st Floor										
UNKNOWN	W9/61	38.00	21.00	59.00	36.00	17.00	53.00	5.26%	19.05%	10.17%
UNKNOWN	W10/61	38.00	21.00	59.00	37.00	18.00	55.00	2.63%	14.29%	6.78%
10 Neal Court										
Gnd Floor										
UNKNOWN	W17/60	38.00	21.00	59.00	34.00	17.00	51.00	10.53%	19.05%	13.56%
UNKNOWN	W18/60	41.00	21.00	62.00	38.00	17.00	55.00	7.32%	19.05%	11.29%
UNKNOWN	W19/60	38.00	20.00	58.00	34.00	16.00	50.00	10.53%	20.00%	13.79%
1st Floor										
UNKNOWN	W11/61	38.00	21.00	59.00	36.00	18.00	54.00	5.26%	14.29%	8.47%
UNKNOWN	W12/61	38.00	21.00	59.00	36.00	18.00	54.00	5.26%	14.29%	8.47%



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All dimensions to be checked on site. Drawing to be read in conjunction with any specifications, schedules and Consultants drawings and details.



Sources of Information

EXISTING BUILDING
MBS 3D SURVEY 21 JANUARY 2020
MBS20_1073 Northwood Health Centre, Pinner.dwg

SURROUNDING BUILDINGS
MBS 3D SURVEY 21 JANUARY 2020
MBS20_1073 Northwood Health Centre, Pinner.dwg

PROPOSED BUILDING
200427 Allies and Morrison - Updated Block A Gas
200430 Allies and Morrison - Block B Gas

INFO 06 AUGUST 2021 INTERNAL AMEUREMENTS
17115_05_SK_045_D-S study option B.dwg

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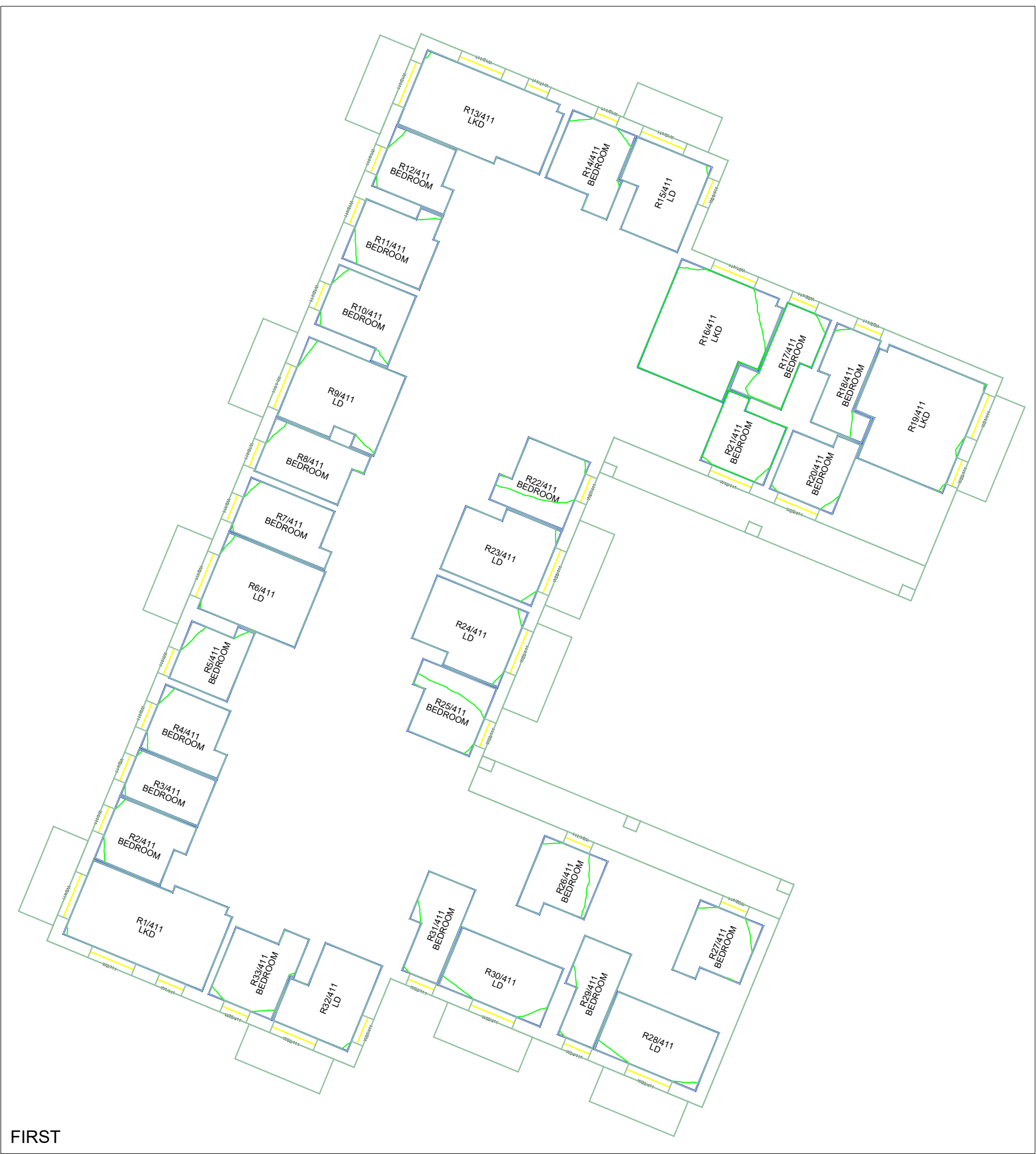
Project Name
NORTHWOOD PINNER
NHS CENTRE

Client
NHS PROPERTY SERVICE LIMITED

Drawing Title
NO SKYLINE CONTOURS
BLOCK B - OPTION A

Drawn By CC	Chk'd By	Scale @ A3 1/150	Date 16 AUG 2021
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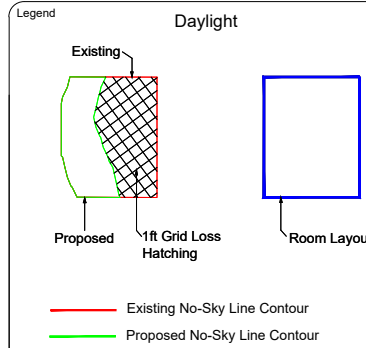
Project No. NO70_09	Drawing No. BRE_20	Revision -
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FIRST

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Sources of Information

EXISTING BUILDING
MBS 3D SURVEY 21 JANUARY 2020
MBS20_1073 Northwood Health Centre, Pinner.dwg

SURROUNDING BUILDINGS
MBS 3D SURVEY 21 JANUARY 2020
MBS20_1073 Northwood Health Centre, Pinner.dwg

PROPOSED BUILDING
200427 Allies and Morrison - Updated Block A GAS
200430 Allies and Morrison - Block B GAS

INFO 06 AUGUST 2021 INTERNAL AMEDEMMENTS
17115_05_SK_045_D-S study option B.dwg

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Project Name
NORTHWOOD PINNER
NHS CENTRE

Client
NHS PROPERTY SERVICE LIMITED

Drawing Title
NO SKYLINE CONTOURS
BLOCK B - OPTION A

Drawn By CC	Chk'd By	Scale @ A3 1/150	Date 16 AUG 2021
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Project No. NO70_09	Drawing No. BRE_21	Revision -
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NORTHWOOD AND PINNER NHS CENTRE
16-Aug-21
JOB 09 - AMENITY RESULTS
BLOCK B - OPTION B

Room/Floor	Room Use	Window			Daylight Distribution			%Sun		
			%VSC	%ADF	Room Area sq ft	Proposed Area sq ft	Proposed % of Room Area	Summer	Winter	Total
Block B										
Gnd Floor										
R1/410	LKD	W1/410	31.26	4.61	269.60	269.00	99.78%	44	21	65
		W2/410	30.83					45	21	66
		W3/410	18.29					13	5	18
R2/410	BEDROOM	W4/410	30.18	2.49	121.00	114.10	94.30%	N/A	N/A	N/A
R3/410	BEDROOM	W5/410	34.07	2.01	168.40	147.60	87.65%	N/A	N/A	N/A
R4/410	BEDROOM	W6/410	34.42	1.79	168.20	150.90	89.71%	N/A	N/A	N/A
R5/410	BEDROOM	W7/410	30.68	2.23	121.00	114.80	94.88%	N/A	N/A	N/A
R6/410	LKD	W8/410	16.67	4.95	234.80	234.00	99.66%	N/A	N/A	N/A
		W9/410	33.87					N/A	N/A	N/A
		W10/410	33.37					N/A	N/A	N/A
R7/410	BEDROOM	W11/410	27.10	1.37	147.40	142.10	96.40%	N/A	N/A	N/A
R8/410	LKD	W12/410	16.79	3.47	182.80	180.70	98.85%	10	0	10
		W13/410	21.56					20	2	22
R9/410	LKD	W14/410	22.55	1.76	302.60	262.70	86.81%	N/A	N/A	N/A
R10/410	BEDROOM	W15/410	25.43	2.09	116.00	99.30	85.60%	N/A	N/A	N/A
R11/410	BEDROOM	W16/410	28.48	2.22	116.00	96.40	83.10%	N/A	N/A	N/A
R12/410	LKD	W17/410	28.00	1.95	302.60	220.70	72.93%	N/A	N/A	N/A
R13/410	BEDROOM	W18/410	10.82	1.94	118.10	107.00	90.60%	0	11	11
R14/410	BEDROOM	W19/410	7.61	1.54	111.90	102.40	91.51%	0	7	7
R15/410	BEDROOM	W20/410	16.18	1.77	128.10	78.60	61.36%	21	9	30
R16/410	LD	W21/410	12.48	1.75	189.10	179.30	94.82%	15	7	22
R17/410	LD	W22/410	12.61	1.77	189.10	179.50	94.92%	16	3	19
R18/410	BEDROOM	W23/410	16.66	1.81	128.10	78.80	61.51%	16	2	18
R19/410	BEDROOM	W24/410	7.46	0.90	112.60	84.20	74.78%	N/A	N/A	N/A
R20/410	BEDROOM	W25/410	11.30	1.17	112.70	101.50	90.06%	N/A	N/A	N/A
R21/410	LD	W26/410	19.24	2.46	169.70	160.80	94.76%	13	27	40
R22/410	BEDROOM	W27/410	31.01	2.31	110.40	105.60	95.65%	35	23	58
R23/410	LD	W28/410	17.28	2.28	169.70	157.10	92.58%	10	23	33
R24/410	BEDROOM	W29/410	21.18	1.88	110.40	105.50	95.56%	21	17	38
R25/410	LKD	W30/410	25.34	3.69	182.80	173.70	95.02%	32	20	52
		W31/410	17.50					16	25	41
R26/410	BEDROOM	W32/410	26.83	1.69	147.40	127.40	86.43%	33	17	50
1st Floor										
R1/411	LKD	W1/411	33.35	4.72	307.90	307.30	99.81%	45	25	70
		W2/411	32.66					49	26	75
		W3/411	22.48					19	5	24
R2/411	BEDROOM	W4/411	32.74	2.52	126.00	121.40	96.35%	N/A	N/A	N/A
R3/411	BEDROOM	W5/411	35.73	3.16	101.30	100.30	99.01%	N/A	N/A	N/A
R4/411	BEDROOM	W6/411	36.04	2.67	125.70	121.20	96.42%	N/A	N/A	N/A
R5/411	BEDROOM	W7/411	34.62	3.11	100.40	92.60	92.23%	N/A	N/A	N/A
R6/411	LD	W8/411	23.69	2.45	211.70	209.30	98.87%	N/A	N/A	N/A
R7/411	BEDROOM	W9/411	34.62	2.51	133.50	130.50	97.75%	N/A	N/A	N/A
R8/411	BEDROOM	W10/411	34.70	2.51	133.50	129.00	96.63%	N/A	N/A	N/A
R9/411	LD	W11/411	23.95	2.38	214.20	205.90	96.13%	N/A	N/A	N/A
R10/411	BEDROOM	W12/411	35.42	2.51	137.20	130.20	94.90%	N/A	N/A	N/A
R11/411	BEDROOM	W13/411	36.61	2.54	137.20	126.50	92.20%	N/A	N/A	N/A
R12/411	BEDROOM	W14/411	33.84	2.86	111.80	107.50	96.15%	N/A	N/A	N/A
R13/411	LKD	W15/411	24.11	5.08	287.70	287.10	99.79%	N/A	N/A	N/A
		W16/411	34.70					N/A	N/A	N/A
		W17/411	34.59					N/A	N/A	N/A
R14/411	BEDROOM	W18/411	29.90	1.57	135.10	128.30	94.97%	N/A	N/A	N/A
R15/411	LD	W19/411	21.85	4.67	161.10	160.40	99.57%	14	0	14
		W20/411	27.45					35	3	38
R16/411	LKD	W21/411	25.32	1.92	302.60	278.00	91.87%	N/A	N/A	N/A

Room/Floor	Room Use	Window			Daylight Distribution			%Sun		
			%VSC	%ADF	Room Area sq ft	Proposed Area sq ft	Proposed % of Room Area	Summer	Winter	Total
R17/411	BEDROOM	W22/411	31.23	2.50	116.00	101.10	87.16%	N/A	N/A	N/A
R18/411	BEDROOM	W23/411	32.61	2.47	116.00	104.00	89.66%	N/A	N/A	N/A
R19/411	LKD	W24/411	36.26	3.82	302.60	300.50	99.31%	29	14	43
		W25/411	36.90					28	10	38
R20/411	BEDROOM	W26/411	12.10	2.30	112.60	109.00	96.80%	0	12	12
R21/411	BEDROOM	W40/411	9.12	1.88	111.90	108.40	96.87%	0	6	6
R22/411	BEDROOM	W27/411	20.40	1.97	128.10	87.70	68.46%	21	13	34
R23/411	LD	W28/411	18.45	2.37	183.60	180.00	98.04%	21	12	33
R24/411	LD	W29/411	18.47	2.37	183.60	180.00	98.04%	23	7	30
R25/411	BEDROOM	W30/411	20.54	1.97	128.40	88.00	68.54%	19	2	21
R26/411	BEDROOM	W31/411	9.00	1.14	112.60	95.70	84.99%	N/A	N/A	N/A
R27/411	BEDROOM	W32/411	12.12	1.30	112.70	104.10	92.37%	N/A	N/A	N/A
R28/411	LD	W33/411	36.82	3.97	169.70	162.00	95.46%	48	28	76
R29/411	BEDROOM	W34/411	36.21	2.52	110.40	106.70	96.65%	46	28	74
R30/411	LD	W35/411	33.31	3.71	169.70	158.50	93.40%	42	27	69
R31/411	BEDROOM	W36/411	25.13	2.04	110.40	106.70	96.65%	30	23	53
R32/411	LD	W37/411	30.25	4.85	161.10	160.40	99.57%	37	20	57
		W38/411	22.34					21	27	48
R33/411	BEDROOM	W39/411	29.92	1.96	135.10	130.10	96.30%	34	24	58
2nd Floor										
R1/412	LKD	W1/412	32.31	4.98	307.90	307.30	99.81%	38	27	65
		W2/412	23.83					22	27	49
		W3/412	37.15					26	8	34
R2/412	BEDROOM	W4/412	37.44	2.74	126.00	121.40	96.35%	N/A	N/A	N/A
R3/412	BEDROOM	W5/412	37.63	3.27	101.30	100.30	99.01%	N/A	N/A	N/A
R4/412	BEDROOM	W6/412	37.79	2.76	125.70	121.20	96.42%	N/A	N/A	N/A
R5/412	BEDROOM	W7/412	37.94	3.27	100.40	92.60	92.23%	N/A	N/A	N/A
R6/412	LD	W8/412	38.13	3.43	211.70	209.30	98.87%	N/A	N/A	N/A
R7/412	BEDROOM	W9/412	38.25	2.64	133.50	130.50	97.75%	N/A	N/A	N/A
R8/412	BEDROOM	W10/412	38.33	2.65	133.50	129.00	96.63%	N/A	N/A	N/A
R9/412	LD	W11/412	38.41	3.33	214.20	205.90	96.13%	N/A	N/A	N/A
R10/412	BEDROOM	W12/412	38.49	2.62	137.20	130.20	94.90%	N/A	N/A	N/A
R11/412	BEDROOM	W13/412	38.53	2.63	137.20	126.50	92.20%	N/A	N/A	N/A
R12/412	BEDROOM	W14/412	38.54	3.10	111.80	107.50	96.15%	N/A	N/A	N/A
R13/412	LKD	W15/412	38.56	5.25	287.70	287.10	99.79%	N/A	N/A	N/A
		W16/412	24.82					N/A	N/A	N/A
		W17/412	32.29					N/A	N/A	N/A
R14/412	BEDROOM	W18/412	32.49	1.65	135.10	128.30	94.97%	N/A	N/A	N/A
R15/412	LKD	W19/412	24.23	5.30	161.10	160.50	99.63%	13	0	13
		W20/412	37.97					39	20	59
R16/412	BEDROOM	W21/412	38.82	2.75	128.10	121.20	94.61%	40	20	60
R17/412	LD	W22/412	38.97	3.87	183.60	181.90	99.07%	40	20	60
R18/412	LD	W23/412	39.07	3.88	183.60	181.90	99.07%	40	20	60
R19/412	BEDROOM	W24/412	39.16	2.76	128.40	121.50	94.63%	40	20	60
R20/412	LD	W25/412	39.34	5.40	161.10	160.50	99.63%	40	20	60
		W26/412	24.48					21	29	50
R21/412	BEDROOM	W27/412	32.79	2.07	135.10	130.10	96.30%	32	26	58
3rd Floor										
R1/413	LKD	W1/413	39.16	6.14	307.90	307.30	99.81%	53	30	83
		W2/413	38.97					53	30	83
		W3/413	38.74					27	8	35
R2/413	BEDROOM	W4/413	81.31	4.62	126.00	126.00	100.00%	N/A	N/A	N/A
R3/413	BEDROOM	W5/413	81.78	5.50	101.30	101.30	100.00%	N/A	N/A	N/A
R4/413	BEDROOM	W6/413	81.78	4.62	125.70	125.70	100.00%	N/A	N/A	N/A
R5/413	BEDROOM	W7/413	79.74	5.06	97.90	95.00	97.04%	N/A	N/A	N/A
R6/413	LD	W8/413	24.16	3.20	221.90	216.70	97.66%	N/A	N/A	N/A
R7/413	BEDROOM	W9/413	0.00	4.00	143.10	143.10	100.00%	N/A	N/A	N/A
R8/413	BEDROOM	W10/413	80.75	4.67	114.70	112.20	97.82%	N/A	N/A	N/A
		W11/413	79.99					N/A	N/A	N/A
R9/413	LD	W12/413	24.37	3.68	188.20	187.10	99.42%	N/A	N/A	N/A

Room/Floor	Room Use	Window			Daylight Distribution			%Sun		
			%VSC	%ADF	Room Area sq ft	Proposed Area sq ft	Proposed % of Room Area	Summer	Winter	Total
R10/413	BEDROOM	W13/413	9.25	4.56	144.30	141.90	98.34%	16	6	22
		W14/413	81.26					48	12	60
R11/413	BEDROOM	W15/413	82.01	4.32	137.20	134.50	98.03%	N/A	N/A	N/A
R12/413	BEDROOM	W16/413	81.20	5.04	111.80	111.80	100.00%	N/A	N/A	N/A
R13/413	LKD	W17/413	39.46		287.70	287.10	99.79%	N/A	N/A	N/A
		W18/413	39.45	6.38				N/A	N/A	N/A
		W19/413	39.54					N/A	N/A	N/A
R14/413	BEDROOM	W20/413	39.50	1.76	135.10	128.30	94.97%	N/A	N/A	N/A
R15/413	LD	W21/413	39.42	7.95	161.10	161.10	100.00%	15	0	15
		W22/413	82.19					58	26	84
R16/413	BEDROOM	W23/413	79.61	3.67	162.30	160.90	99.14%	58	16	74
		W24/413	9.51					13	15	28
R17/413	LD	W25/413	24.48	3.62	184.20	179.10	97.23%	27	10	37
R18/413	LD	W26/413	24.50	3.62	184.20	179.10	97.23%	27	10	37
R19/413	BEDROOM	W27/413	9.44	3.67	162.20	161.00	99.26%	16	0	16
		W28/413	79.65					58	25	83
		W29/413	82.19					58	26	84
R20/413	LD	W30/413	39.20	7.93	161.10	161.10	100.00%	53	30	83
		W31/413	39.18	2.21				53	30	83

ADF	Target Value	No. Rooms	No. meeting Target	% meeting Target
BEDROOM	1	63	62	98.41%
DINING	1.5	0	0	0.00%
KITCHEN	2	0	0	0.00%
LD	1.5	23	23	100.00%
KD	2	0	0	0.00%
STUDY	1.5	0	0	0.00%
STUDIO	1.5	0	0	0.00%
LKD	2	15	12	80.00%
Livingroom	1.5	0	0	0.00%
TOTALS		101	97	96.04%