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receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this room is likely to be "imperceptible". While the BRE Guide would suggest that an impact of this extent is not likely to be noticeable, taking a conservative approach, this impact is assessed as "imperceptible" to "not significant" as the construction of the proposed development is likely to reduce the area weighted mean Vertical Sky Component to close to the threshold for adverse impact.

34 Cedarview									
Living Room	41	34.27%	24.99%	0.73	98.80%	90.69%	0.92	Imperceptible to Slight	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. While the proposed development is likely to result in a "slight" reduction in Vertical Sky Component to this window, the construction of the proposed development is unlikely to reduce the area of the working plane receiving direct skylight to a noticeable degree. The potential impact of the proposed development is assessed as "imperceptible" to "slight".
	42	34.53%	25.31%	0.73					
	Area weighted mean	34.40%	25.15%	0.73					
Bedroom 1 (Front)	43	33.64%	25.67%	0.76	95.62%	82.42%	0.86	Imperceptible to Slight	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. While the proposed development is likely to result in a "slight" reduction in Vertical Sky Component to this window, the construction of the proposed development is unlikely to reduce the area of the working plane receiving direct skylight to a noticeable degree. The potential impact of the proposed development is assessed as "imperceptible" to "slight".
Bedroom 2 (Front)	44	35.04%	27.04%	0.77	98.51%	94.66%	0.96	Imperceptible to Not Significant	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. The potential impact of the proposed development on the area weighted mean Vertical Sky Component of windows serving this room is not likely to fall within adverse ranges as described at Section 2.2.23 of the BRE Guide. Given this and given that the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this room is likely to be "imperceptible". While the BRE Guide would suggest that an impact of this extent is not likely to be noticeable, taking a conservative approach, this impact is assessed as "imperceptible" to "not significant" as the construction of the proposed development is likely to reduce the area weighted mean Vertical Sky Component to close to the threshold for an adverse impact.
33 Cedarview									
Living Room	45	34.58%	25.43%	0.74	98.84%	93.54%	0.95	Imperceptible to Slight	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. While the proposed development is likely to result in a "slight" reduction in Vertical Sky Component to windows serving this room, the construction of the proposed development is unlikely to reduce the area of the working plane receiving direct skylight to a noticeable degree. The potential impact of the proposed development is assessed as "imperceptible" to "slight".
	46	34.33%	25.20%	0.73					
	Area weighted mean	34.46%	25.32%	0.73					
Bedroom 1 (Front)	47	34.63%	26.76%	0.77	98.70%	84.67%	0.86	Imperceptible to Slight	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. While the proposed development is likely to result in a "slight" reduction in Vertical Sky Component to this window, the construction of the proposed development is unlikely to reduce the area of the working plane receiving direct skylight to a noticeable degree. The potential impact of the proposed development is assessed as "imperceptible" to "slight".
Bedroom 2 (Front)	48	32.96%	25.15%	0.76	95.32%	65.00%	0.68	Slight to Moderate	Having regard to factors outlined in Appendix H: Environmental Impact Assessment of the BRE Guide, the likely reduction in Vertical Sky Component at this window to between 0.7-0.8 times its former value and the likely reduction in the area of the working plane receiving direct skylight to between 0.5-0.7 times its former value is assessed as "slight" to "moderate" in extent.
32 Cedarview									
Living Room	49	34.49%	25.30%	0.73	99.54%	99.30%	0.998	Imperceptible to Not Significant	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. The potential impact of the proposed development on the area weighted mean Vertical Sky Component of windows serving this room is not likely to fall within adverse ranges as described at Section 2.2.23 of the BRE Guide. Given this and given that the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this room is likely to be "imperceptible". While the BRE Guide would suggest that an impact of this extent is not likely to be noticeable, taking a conservative approach, this impact is assessed as "imperceptible" to "not significant" as
	50	34.52%	25.31%	0.73					
	51	17.08%	11.69%	0.68					
	52	30.94%	30.16%	0.97					
	53	13.21%	13.21%	1.00					
	Area weighted mean	30.01%	25.93%	0.86					

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										the construction of the proposed development is likely to reduce the area weighted mean Vertical Sky Component from slightly above the recommended 27% Vertical Sky Component to just below it.
Bedroom 1 (Front)	54	34.03%	26.10%	0.77	98.67%	78.20%	0.79	Slight	Having regard to factors outlined in Appendix H: Environmental Impact Assessment of the BRE Guide, the likely reduction in Vertical Sky Component at this window to between 0.7-0.8 times its former value and the likely reduction in the area of the working plane receiving direct skylight to between 0.7-0.8 times its former value is assessed as "slight" in extent.	
Bedroom 2 (Front)	55	32.41%	24.66%	0.76	99.29%	97.63%	0.98	Imperceptible	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. The potential impact of the proposed development on the area weighted mean Vertical Sky Component of windows serving this room is not likely to fall within adverse ranges as described at Section 2.2.23 of the BRE Guide. Given this and given that the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this room is likely to be "imperceptible".	
	56	33.23%	32.90%	0.99						
	Area weighted mean	32.93%	29.91%	0.91						
31 Cedarview										
Kitchen	57	27.34%	26.77%	0.98	99.67%	96.52%	0.97	Imperceptible	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. The potential impact of the proposed development on the area weighted mean Vertical Sky Component of windows serving this room is not likely to fall within adverse ranges as described at Section 2.2.23 of the BRE Guide. Given this and given that the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this room is likely to be "imperceptible".	
	58	28.79%	27.95%	0.97						
	59	27.19%	26.39%	0.97						
	60	34.95%	27.90%	0.72						
	Area weighted mean	29.91%	27.41%	0.92						
Living Room	61	13.48%	12.95%	0.96	99.67%	99.59%	0.999	Imperceptible	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. The potential impact of the proposed development on the area weighted mean Vertical Sky Component of windows serving this room is not likely to fall within adverse ranges as described at Section 2.2.23 of the BRE Guide. Given this and given that the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this room is likely to be "imperceptible".	
	62	35.89%	29.16%	0.81						
	63	17.58%	17.58%	1.00						
	64	35.24%	35.24%	1.00						
	65	35.23%	35.23%	1.00						
Area weighted mean	32.80%	29.40%	0.90							
Bedroom 1 (Rear)	66	31.73%	31.06%	0.98%	99.20%	99.20%	1.00	Imperceptible	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. As the Vertical Sky Component at this window is likely to remain above 27% and as the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this window/room is assessed as "imperceptible".	
Bedroom 2 (Rear)	67	31.59%	30.71%	0.97	98.51%	98.51%	1.00	Imperceptible	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. The potential impact of the proposed development on the area weighted mean Vertical Sky Component of windows serving this room is not likely to fall within adverse ranges as described at Section 2.2.23 of the BRE Guide. Given this and given that the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this room is likely to be "imperceptible".	
	68	33.62%	27.45%	0.82						
	Area weighted mean	32.30%	29.57%	0.92						
Bedroom 3 (Front)	69	35.38%	29.54%	0.83	98.29%	98.29%	1.00	Imperceptible	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. The potential impact of the proposed development on the area weighted mean Vertical Sky Component of windows serving this room is not likely to fall within adverse ranges as described at Section 2.2.23 of the BRE Guide. Given this and given that the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this room is likely to be "imperceptible".	
	70	34.52%	34.52%	1.00						
	Area weighted mean	35.07%	31.35%	0.89						
Bedroom 4 (Front)	71	36.14%	36.14%	1.00	98.40%	97.85%	0.99	Imperceptible	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. As there is unlikely to be any change in the Vertical Sky Component at this and as the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this window/room is assessed as "imperceptible".	

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42 Cedarview

Living Room	72	34.71%	32.88%	0.95	99.67%	99.67%	1.00	Imperceptible	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. The potential impact of the proposed development on the area weighted mean Vertical Sky Component of windows serving this room is not likely to fall within adverse ranges as described at Section 2.2.23 of the BRE Guide. Given this and given that the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this window/room is assessed as "imperceptible".
	73	34.74%	32.83%	0.95					
	74	17.24%	15.68%	0.91					
	75	36.31%	35.01%	0.96					
	76	14.88%	14.88%	1.00					
	Area weighted mean	32.90%	31.47%	0.96					
Kitchen	77	35.77%	34.94%	0.98	99.67%	99.67%	1.00	Imperceptible	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. The potential impact of the proposed development on the area weighted mean Vertical Sky Component of windows serving this room is not likely to fall within adverse ranges as described at Section 2.2.23 of the BRE Guide. Given this and given that the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this room is likely to be "imperceptible".
	78	34.22%	34.22%	1.00					
	79	35.59%	35.59%	1.00					
	80	34.39%	34.39%	1.00					
	Area weighted mean	35.15%	34.92%	0.99					
Bedroom 1 (Front)	81	35.73%	34.13%	0.96	99.29%	99.29%	1.00	Imperceptible	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. As the Vertical Sky Component at this window is likely to remain above 27% and as the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this window/room is assessed as "imperceptible".
Bedroom 2 (Front)	82	34.13%	32.32%	0.95	98.70%	98.70%	1.00	Imperceptible	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. The potential impact of the proposed development on the area weighted mean Vertical Sky Component of windows serving this room is not likely to fall within adverse ranges as described at Section 2.2.23 of the BRE Guide. Given this and given that the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this room is likely to be "imperceptible".
	83	35.66%	34.40%	0.96					
	Area weighted mean	35.11%	33.65%	0.96					
Bedroom 3 (Rear)	84	33.91%	32.97%	0.97	98.00%	97.62%	0.966	Imperceptible	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. The potential impact of the proposed development on the area weighted mean Vertical Sky Component of windows serving this room is not likely to fall within adverse ranges as described at Section 2.2.23 of the BRE Guide. Given this and given that the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this room is likely to be "imperceptible".
	85	34.11%	34.11%	1.00					
	Area weighted mean	34.04%	33.71%	0.99					
Bedroom 4 (Rear)	86	34.10%	34.10%	1.00	98.50%	98.50%	0.99	Imperceptible	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. As the Vertical Sky Component at this window is likely to remain above 27% and as the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this window/room is assessed as "imperceptible".

Blackwood Square

Kitchen / Living / Dining	87	15.43%	11.15%	0.72	98.51%	90.14%	0.92	Imperceptible to Slight	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. While the proposed development is likely to result in a "slight" reduction in Vertical Sky Component to this window, the construction of the proposed development is unlikely to reduce the area of the working plane receiving direct skylight to a noticeable degree. The potential impact of the proposed development is assessed as "imperceptible" to "slight".
Bedroom	88	16.26%	12.05%	0.74	97.54%	75.11%	0.77	Slight	Having regard to factors outlined in Appendix H: Environmental Impact Assessment of the BRE Guide, the likely reduction in Vertical Sky Component at this window to between 0.7-0.8 times its former value and the likely reduction in the area of the working plane receiving direct skylight to between 0.7-0.8 times its former value is assessed as "slight" in extent.
Kitchen / Living / Dining	89	13.43%	11.02%	0.82	99.09%	92.11%	0.93	Imperceptible to	

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	90	17.40%	13.71%	0.79				Not Significant	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% <u>or</u> falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development <u>or</u> where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. The potential impact of the proposed development on Vertical Sky Component of the window serving this room is not likely to fall within adverse ranges as described at Section 2.2.23 of the BRE Guide. Given this and given that the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this room is likely to be "imperceptible". While the BRE Guide would suggest that an impact of this extent is not likely to be noticeable, taking a conservative approach, this impact is assessed as "imperceptible" to "not significant" as the construction of the proposed development is likely to reduce the area weighted mean Vertical Sky Component to 0.796 times its former value (e.g. just at the edge of the threshold for an adverse impact).
	Area weighted mean	16.18%	12.89%	0.80					
Swift Square Office Block – Block 1									
Floor 00a	102	9.86%	9.86%	1.00	98.83%	98.77%	0.999	Imperceptible	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% <u>or</u> falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development <u>or</u> where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. As there is likely to be no change in Vertical Sky Component to windows serving this room and as the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this window/room is assessed as "imperceptible".
	103	33.49%	33.49%	1.00					
Floor 00b	104	10.69%	10.69%	1.00	97.99%	92.88%	0.95	Imperceptible	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% <u>or</u> falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development <u>or</u> where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. The potential impact of the proposed development on the area weighted mean Vertical Sky Component of windows serving this room is not likely to fall within adverse ranges as described at Section 2.2.23 of the BRE Guide. Given this and given that the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this room is likely to be "imperceptible".
	105	18.75%	17.81%	0.95					
	Area weighted mean	15.80%	15.20%	0.96					
Reception	106	25.01%	16.65%	0.67	100.00	100.00	1.00	Imperceptible to Moderate	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% <u>or</u> falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development <u>or</u> where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. While the proposed development is likely to result in a "moderate" reduction in Vertical Sky Component to windows serving this room (i.e. a reduction to between 0.5-0.7 times the former value of the area weighted mean Vertical Sky Component of windows serving the room), the construction of the proposed development is unlikely to reduce the area of the working plane receiving direct skylight to a noticeable degree. The potential impact of the proposed development is assessed as "imperceptible" to "moderate".
	107	33.95%	16.22%	0.48					
	Area weighted mean	27.49%	16.53%	0.60					
Floor 01	108	13.33%	13.33%	1.00	99.03%	97.29%	0.98	Imperceptible to Slight	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% <u>or</u> falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development <u>or</u> where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. While the proposed development is likely to result in a "slight" reduction in the area weighted mean Vertical Sky Component of windows serving this room, the construction of the proposed development is unlikely to reduce the area of the working plane receiving direct skylight to a noticeable degree. The potential impact of the proposed development is assessed as "imperceptible" to "slight".
	109	12.63%	12.63%	1.00					
	110	13.70%	8.45%	0.62					
	111	26.18%	25.31%	0.97					
	112	23.08%	8.86%	0.38					
	113	38.15%	38.10%	0.999					
Floor 02	Area weighted mean	23.09%	17.02%	0.74					
	114	16.29%	16.29%	1.00	99.09%	97.69%	0.99	Imperceptible	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% <u>or</u> falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development <u>or</u> where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. The potential impact of the proposed development on the area weighted mean Vertical Sky Component of windows serving this room is not likely to fall within adverse ranges as described at Section 2.2.23 of the BRE Guide. Given this and given that the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this room is likely to be "imperceptible".
	115	15.69%	15.69%	1.00					
	116	33.33%	26.56%	0.80					
	117	29.67%	28.80%	0.97					
	118	37.30%	22.47%	0.60					
	119	38.24%	38.19%	0.999					
Area weighted mean	31.69%	26.23%	0.83						
Floor 03	120	20.49%	20.49%	1.00	99.27%	97.95%	0.99	Imperceptible	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% <u>or</u> falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development <u>or</u> where the area of the working plane in a room which can
	121	20.04%	20.04%	1.00					

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	122	35.50%	29.68%	0.83						receive direct skylight is reduced to less than 0.8 times its former value. The potential impact of the proposed development on the area weighted mean Vertical Sky Component of windows serving this room is not likely to fall within adverse ranges as described at Section 2.2.23 of the BRE Guide. Given this and given that the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this room is likely to be "imperceptible".
	123	33.08%	32.24%	0.97						
	124	37.62%	24.82%	0.66						
	125	38.18%	38.13%	0.999						
	Area weighted mean	33.43%	28.71%	0.85						
Floor 04	126	27.80%	27.80%	1.00	99.24%	98.49%	0.99	Imperceptible		The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. The potential impact of the proposed development on the area weighted mean Vertical Sky Component of windows serving this room is not likely to fall within adverse ranges as described at Section 2.2.23 of the BRE Guide. Given this and given that the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this room is likely to be "imperceptible".
	127	27.47%	27.47%	1.00						
	128	19.00%	15.43%	0.81						
	129	17.05%	16.34%	0.96						
	130	20.45%	11.16%	0.54						
	131	20.41%	20.41%	1.00						
	Area weighted mean	21.12%	18.00%	0.85						
Swift Square Office Block – Block 2										
Floor 00a	132	10.71%	10.71%	1.00	90.54%	84.60%	0.93	Imperceptible		The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. The potential impact of the proposed development on the area weighted mean Vertical Sky Component of windows serving this room is not likely to fall within adverse ranges as described at Section 2.2.23 of the BRE Guide. Given this and given that the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this room is likely to be "imperceptible".
	133	18.48%	17.53%	0.95						
	Area weighted mean	15.63%	15.03%	0.96						
Floor 00b	134	9.86%	9.86%	1.00	99.13%	98.76%	0.996	Imperceptible		The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. The potential impact of the proposed development on the area weighted mean Vertical Sky Component of windows serving this room is not likely to fall within adverse ranges as described at Section 2.2.23 of the BRE Guide. Given this and given that the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this room is likely to be "imperceptible".
	135	31.24%	31.23%	0.9996						
	Area weighted mean	24.65%	24.65%	1.00						
Reception	136	34.58%	14.36%	0.42	100.00%	100.00%	1.00	Imperceptible to Moderate		The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. While the proposed development is likely to result in a "slight" to "moderate" reduction in Vertical Sky Component to windows serving this room (i.e. a reduction to between 0.5-0.7 times the former value of the area weighted mean Vertical Sky Component of windows serving the room), the construction of the proposed development is unlikely to reduce the area of the working plane receiving direct skylight to a noticeable degree. The potential impact of the proposed development is assessed as "imperceptible" to "moderate".
	137	24.41%	17.23%	0.71						
	Area weighted mean	27.23%	16.43%	0.60						
Floor 01	138	12.62%	12.61%	0.999	97.21%	96.28%	0.99	Imperceptible to Slight		The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. While the proposed development is likely to result in a "slight" reduction in Vertical Sky Component to windows serving this room (i.e. a reduction to between 0.7-0.8 times the former value of the area weighted mean Vertical Sky Component of windows serving the room), the construction of the proposed development is unlikely to reduce the area of the working plane receiving direct skylight to a noticeable degree. The potential impact of the proposed development is assessed as "imperceptible" to "slight".
	139	13.33%	13.32%	0.999						
	140	37.65%	37.63%	0.999						
	141	23.98%	8.48%	0.35						
	142	13.11%	9.08%	0.69						
	143	25.98%	25.09%	0.97						
	Area weighted mean	23.21%	16.86%	0.72						
Floor 02	144	15.69%	15.68%	0.999	98.09%	97.31%	0.99	Imperceptible to Not Significant		The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can
	145	16.30%	16.30%	1.00						

10.3.6 Mitigation Measures

10.3.6.1 Construction Phase

The subject application proposes the development of a large zoned and serviced site. In these circumstances, scope for mitigation measures during the construction phase, which would preserve a sustainable level of density, is limited.

10.3.6.2 Operational Phase

The subject application proposes the development of a large zoned and serviced site. In these circumstances, scope for mitigation measures during the operational phase, which would preserve a sustainable level of density, is limited.

10.3.7 Cumulative Impact

A review of the Fingal County Council online planning register did not identify any developments for which permission has been granted, which, in combination with the development now proposed, would have the potential to result in material cumulative impacts on the daylight environment surrounding the application site.

However, it is noted that the Applicant has recently been granted planning permission for a residential development in eight and nine storey blocks on the adjoining site to the east at Whitehaven (ABP Ref. TA06F.313317). As part of this assessment, ARC has assessed the potential for the proposed development, in combination with that envisaged development to result in cumulative impacts on daylight access within existing buildings surrounding the application site.

10.3.7.1 Construction Phase

The potential cumulative impact of the construction phase of the proposed development, in combination with the permitted Whitehaven development (ABP Ref. TA06F.313317) on the adjoining site to the east, on daylight access within existing buildings is likely to be, initially, lesser than the cumulative impact of the completed developments. As the proposed and envisaged developments near completion, the potential impact of the emerging developments is likely to be similar in all material respects to that of the completed developments. It is noted that temporary structures and machinery (e.g., hoarding, scaffolding, cranes, etc.) have the potential to result in changes in daylight access, although any additional impacts arising from temporary structures or machinery are likely to be temporary and minor.

10.3.7.2 Operational Phase

Overview of the potential cumulative impact of the proposed development, in combination with the permitted Whitehaven development (ABP Ref. TA06F.313317), on daylight access to existing buildings outside the application site

ARC's analysis indicates that there is a potential for the proposed development, in combination with the permitted Whitehaven development (ABP Ref. TA06F.313317) on the adjoining site to the east, to result in cumulative impacts on daylight access within existing buildings additional to those already described in **Section 10.3.5** above.

The proposed development, in combination with the permitted Whitehaven development (ABP Ref. TA06F.313317) on the adjoining site to the east, has the potential to result in some additional impacts on daylight access to neighbouring residential buildings at Cedarview and non-residential buildings at Swift Square. In most cases, while ARC's analysis indicated that the proposed development, in combination with the permitted Whitehaven development (ABP Ref. TA06F.313317) on the adjoining site to the east, would result in a greater reduction in Vertical Sky Component to some windows in existing buildings, the further reduction is likely to be so minor that it would not change the way the impact to that building was assessed and categorised in **Section 10.3.5.3** above. ARC's analysis indicated that the greatest potential for cumulative impacts on daylight access within residences arises in relation to a small number of houses at Cedarview closest to the application site and the adjoining site to the east, although any impacts identified are likely to fall within the range of minor impacts. Specifically, there is a potential for the proposed development, in combination with the permitted Whitehaven development, to result in an "imperceptible" to

“not significant” impact on the kitchen at No. 31 Cedarview and “imperceptible” to “slight” impact on a first floor bedroom at No. 40 Cedarview and on a first floor bedroom at No. 44 Cedarview.

There is also a potential for cumulative impacts on daylight access within Block 2 of the offices at Swift Square. The potential cumulative impact of the proposed development, in combination with the permitted Whitehaven development on the adjoining site is assessed as ranging from “imperceptible” to “moderate”.

Given that the potential for development to result in impacts on daylight access diminishes with distance, it is the finding of ARC’s analysis the cumulative impacts of proposed and envisaged developments will have no undue adverse impact on daylight access within buildings in the wider area surrounding the application site.

Detailed analysis of the potential cumulative impact of the proposed development, in combination with the permitted Whitehaven development (ABP Ref. TA06F.313317), on daylight access within existing buildings outside the application site

This analysis assesses the potential for the proposed development, in combination with the permitted Whitehaven development (ABP Ref. TA06F.313317) on the adjoining site to the east, to result in cumulative impacts on all potential receptors surrounding the application site - these impacts are described in the section above. However, by way of example in order to illustrate briefly the findings outlined in the overview section, ARC conducted detailed analysis of the potential for the proposed development, in combination with the permitted Whitehaven development (ABP Ref. TA06F.313317) on the adjoining site to the east, to result in impacts on daylight access to the representative sample of sensitive receptors identified with reference to sections 2.2.4 and 2.2.5 of the BRE Guide (please see **Figures 10-1, 10-2 and 10-3** above). The representative sample of buildings includes worst case scenario examples, such as rooms at close proximity to the proposed development and rooms at low levels of accommodation.

The results of ARC’s analysis are set out in **Table 10.2** below.

Table 10.2: Results of ARC’s analysis of the potential cumulative impact of the proposed development on daylight access to windows within neighboring existing buildings outside the application site

Room	Window	Vertical Sky Component					Area of the working plane in a room which can receive direct skylight					Potential Impact	Comment
		Existing (% VSC)	Existing Cumulative* (% VSC)	Proposed (% VSC)	Cumulative Proposed** (% VSC)	Change Change under "Cumulative" scenario expressed as "times existing value"	Existing (% of area receiving direct skylight)	Existing Cumulative* (% of area receiving direct skylight)	Proposed (% of area receiving direct skylight)	Cumulative Proposed** (% of area receiving direct skylight)	Change Change under "Cumulative" scenario expressed as "times existing value"	"Cumulative" Scenario on "Existing" Scenario ONLY	Impact of "Cumulative" Scenario on "Existing" Scenario ONLY
41 Cedarview													
Living Room	01	14.82%	14.80%	14.80%	14.80%	0.999	99.59%	99.59%	99.52%	99.52%	0.999	Imperceptible to Not Significant	ARC’s analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to windows serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as “imperceptible” to “not significant”.
	02	29.31%	29.29%	29.28%	29.28%	0.999							
	03	17.72%	17.69%	15.00%	15.00%	0.85							
	04	34.12%	33.96%	27.61%	27.60%	0.81							
	05	34.15%	34.00%	27.52%	27.50%	0.81							
	Area weighted mean		29.22%	29.15%	26.65%	26.64%	0.91						
Bedroom 1 (Front)	06	29.54%	29.54%	29.54%	29.54%	1.00	96.11%	96.11%	94.40%	94.40%	0.98	Imperceptible	ARC’s analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to windows serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as “imperceptible”.
	07	33.39%	33.31%	28.18%	28.16%	0.84							
	Area weighted mean		30.94%	30.91%	29.05%	29.04%	0.94						
Bedroom 2 (Front)	08	34.90%	34.72%	29.18%	29.16%	0.84	98.51%	98.51%	95.03%	95.03%	0.96	Imperceptible	ARC’s analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to the window serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as “imperceptible”.
40 Cedarview													
Living Room	09	34.32%	34.16%	27.41%	27.40%	0.80	98.84%	96.84%	98.84%	96.84%	1.00	Imperceptible	ARC’s analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to windows serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as “imperceptible”.
	10	34.12%	33.94%	27.13%	27.10%	0.79							
	Area weighted mean		34.22%	34.22%	27.27%	27.25%	0.80						
Bedroom 1 (Front)	11	35.01%	34.80%	28.94%	28.93%	0.83	98.70%	98.70%	94.88%	94.88%	0.96	Imperceptible	ARC’s analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to the window serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as “imperceptible”.
Bedroom 2 (Front)	12	33.58%	33.48%	27.56%	27.54%	0.82	95.32%	95.32%	80.69%	80.69%	0.85	Imperceptible	ARC’s analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to windows serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as “imperceptible”.

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39 Cedarview												
Living Room	13	34.42%	34.26%	26.78%	26.76%	0.78	98.84%	98.84%	98.84%	98.84%	1.00	Imperceptible to Slight ARC's analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to windows serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "imperceptible" to "slight".
	14	34.18%	34.04%	26.45%	26.39%	0.77						
	Area weighted mean	34.30%	34.15%	26.62%	26.58%	0.77						
Bedroom 1 (Front)	15	35.09%	34.96%	28.34%	28.31%	0.81	98.70%	98.70%	96.39%	96.39%	0.98	Imperceptible ARC's analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to the window serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "imperceptible".
Bedroom 2 (Front)	16	33.65%	33.54%	26.86%	26.84%	0.80	95.32%	95.32%	83.97%	83.97%	0.88	Imperceptible to Not Significant ARC's analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to the window serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "imperceptible" to "not significant".
38 Cedarview												
Living Room	17	34.17%	33.99%	25.70%	25.69%	0.75	98.80%	98.80%	94.77%	94.77%	0.96	Imperceptible to Slight ARC's analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to windows serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "imperceptible" to "slight".
	18	34.42%	34.22%	25.76%	25.72%	0.75						
	Area weighted mean	34.30%	34.11%	25.73%	25.71%	0.75						
Bedroom 1 (Front)	19	33.63%	33.55%	26.64%	26.61%	0.79	95.62%	95.62%	79.59%	79.59%	0.83	Imperceptible to Slight ARC's analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to the window serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "imperceptible" to "slight".
Bedroom 2 (Front)	20	35.11%	34.94%	27.55%	27.54%	0.78	98.51%	98.51%	92.31%	92.31%	0.94	Imperceptible ARC's analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to the window serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "imperceptible".
37 Cedarview												
Living Room	21	34.39%	34.16%	25.22%	25.19%	0.73	98.84%	98.84%	97.36%	97.36%	0.99	Imperceptible to Slight ARC's analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to windows serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "imperceptible" to "slight".
	22	34.11%	33.89%	24.74%	24.70%	0.72						
	Area weighted mean	34.25%	34.03%	24.98%	24.95%	0.73						
Bedroom 1 (Front)	23	35.11%	34.84%	26.93%	26.92%	0.77	98.70%	98.70%	91.19%	91.19%	0.92	Imperceptible to Slight ARC's analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to the window serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "imperceptible" to "slight".
Bedroom 2 (Front)	24	33.57%	33.44%	25.21%	25.18%	0.75	95.32%	95.32%	74.54%	74.54%	0.78	Slight ARC's analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to the window serving this room

when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "slight".

36 Cedarview													
Living Room	25	34.21%	33.97%	23.67%	23.67%	0.69	99.67%	99.67%	98.55%	98.55%	0.99	Imperceptible to Slight	ARC's analysis indicates no potential for the proposed development, in combination with the permitted Whitehaven development on the adjoining site, to result in additional cumulative effects.
	26	34.18%	33.95%	23.31%	23.31%	0.68							
	27	16.11%	16.11%	9.38%	9.38%	0.58							
	28	33.42%	31.89%	27.13%	27.13%	0.81							
	29	10.46%	10.46%	10.46%	10.46%	1.00							
	Area weighted mean	30.88%	30.03%	23.41%	23.41%	0.76							
Bedroom 1 (Front)	30	35.08%	34.08%	25.67%	25.67%	0.73	98.70%	98.70%	82.29%	82.29%	0.83	Imperceptible to Slight	ARC's analysis indicates no potential for the proposed development, in combination with the permitted Whitehaven development on the adjoining site, to result in additional cumulative effects.
Bedroom 2 (Front)	31	33.53%	33.36%	23.84%	23.80%	0.71	99.27%	99.27%	92.73%	92.73%	0.93	Imperceptible to Not Significant	ARC's analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to windows serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "imperceptible" to "not significant".
	32	34.75%	33.43%	29.54%	29.52%	0.85							
	Area weighted mean	34.31%	33.40%	27.47%	27.45%	0.80							
35 Cedarview													
Living Room	33	13.64%	13.64%	13.64%	13.64%	1.00	99.59%	99.59%	99.27%	99.27%	0.997	Imperceptible	ARC's analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to windows serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "imperceptible".
	34	23.00%	22.96%	20.51%	20.51%	0.89							
	35	16.43%	16.43%	12.37%	12.37%	0.75							
	36	34.37%	33.13%	24.86%	24.64%	0.72							
	37	34.36%	33.11%	24.93%	24.69%	0.72							
	Area weighted mean	25.98%	25.51%	21.04%	20.96%	0.81							
Bedroom 1 (Front)	38	29.98%	29.98%	27.61%	27.61%	0.92	99.23%	99.23%	99.23%	99.23%	1.00	Imperceptible to Not Significant	ARC's analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to windows serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "imperceptible".
	39	33.63%	32.56%	25.33%	25.21%	0.75							
	Area weighted mean	31.30%	30.92%	26.78%	26.74%	0.85							
Bedroom 2 (Front)	40	35.28%	34.13%	27.07%	26.93%	0.76	98.51%	98.51%	95.69%	95.69%	0.97	Imperceptible to Slight	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. While the proposed development, in combination with the permitted Whitehaven development, is likely to result in a "slight" reduction in Vertical Sky Component to windows serving this room, the construction of the proposed development is unlikely to reduce the area of the working plane receiving direct skylight to a noticeable degree. The potential impact of the proposed development is assessed as "imperceptible" to "slight".
34 Cedarview													
Living Room	41	34.27%	32.79%	24.99%	24.66%	0.72	98.80%	98.80%	90.69%	90.69%	0.92	Imperceptible to Slight	ARC's analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to windows serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on
	42	34.53%	33.09%	25.31%	24.93%	0.72							

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	Area weighted mean	34.40%	32.94%	25.15%	24.80%	0.72									the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "imperceptible" to "slight".
Bedroom 1 (Front)	43	33.64%	32.24%	25.67%	25.40%	0.76	95.62%	95.62%	82.42%	82.42%	0.86	Imperceptible to Slight	ARC's analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to the window serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "imperceptible" to "slight".		
Bedroom 2 (Front)	44	35.04%	33.78%	27.04%	26.73%	0.76	98.51%	98.51%	94.66%	94.66%	0.96	Imperceptible to Slight	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. While the proposed development is likely to result in a "slight" reduction in Vertical Sky Component to this window, the construction of the proposed development is unlikely to reduce the area of the working plane receiving direct skylight to a noticeable degree. The potential impact of the proposed development is assessed as "imperceptible" to "slight".		
33 Cedarview															
Living Room	45	34.58%	33.05%	25.43%	24.96%	0.72	98.84%	98.84%	93.54%	93.54%	0.95	Imperceptible to Slight	ARC's analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to windows serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "imperceptible" to "slight".		
	46	34.33%	32.71%	25.20%	24.60%	0.72									
	Area weighted mean	34.46%	32.88%	25.32%	24.78%	0.72									
Bedroom 1 (Front)	47	34.63%	33.29%	26.76%	26.28%	0.76	98.70%	98.70%	84.67%	84.67%	0.86	Imperceptible to Slight	ARC's analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to the window serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "imperceptible" to "slight".		
Bedroom 2 (Front)	48	32.96%	31.54%	25.15%	24.57%	0.75	95.32%	95.32%	65.00%	65.00%	0.68	Slight to Moderate	ARC's analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to the window serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "slight" to "moderate".		
32 Cedarview															
Living Room	49	34.49%	32.84%	25.30%	24.43%	0.71	99.54%	99.54%	99.30%	99.30%	0.998	Imperceptible to Not Significant	ARC's analysis indicates that, under a cumulative scenario, there is a potential for a small increase in the impact on Vertical Sky Component to windows serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "imperceptible" to "not significant".		
	50	34.52%	32.81%	25.31%	24.30%	0.70									
	51	17.08%	15.38%	11.69%	10.45%	0.61									
	52	30.94%	29.75%	30.16%	29.17%	0.94									
	53	13.21%	13.21%	13.21%	13.21%	1.00									
Area weighted mean	30.01%	28.69%	25.93%	25.01%	0.83										
Bedroom 1 (Front)	54	34.03%	32.54%	26.10%	25.25%	0.74	98.67%	98.67%	78.20%	78.20%	0.79	Slight	ARC's analysis indicates that, under a cumulative scenario, there is a potential for a small increase in the impact on Vertical Sky Component to the window serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "slight".		
Bedroom 2 (Front)	55	32.41%	30.77%	24.66%	23.54%	0.73	99.29%	99.29%	97.63%	97.63%	0.98	Imperceptible	ARC's analysis indicates that, under a cumulative scenario, there is a potential for small increase in the impact on Vertical Sky Component to windows serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the		
	56	33.23%	32.02%	32.90%	31.74%	0.96									

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		Area weighted mean	32.93%	31.57%	29.91%	28.77%	0.87								
31 Cedarview															
Kitchen	57		27.34%	27.34%	26.77%	26.77%	0.98	99.67%	99.67%	96.52%	96.52%	0.97	Imperceptible to Not Significant	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. The potential impact of the proposed development, in combination with the permitted Whitehaven development, on the area weighted mean Vertical Sky Component of windows serving this room is not likely to fall within adverse ranges as described at Section 2.2.23 of the BRE Guide. Given this and given that the area of the working plane in this room, which can receive direct skylight, is not likely to fall to less than 0.8 times its former value, the potential impact of the proposed development on this room is likely to be "imperceptible". While the BRE Guide would suggest that an impact of this extent is not likely to be noticeable, taking a conservative approach, this impact is assessed as "imperceptible" to "not significant" as the construction of the cumulative scenario is likely to reduce the area weighted mean Vertical Sky Component from slightly above the recommended 27% Vertical Sky Component to just below it.	
	58		28.79%	28.79%	27.95%	27.95%	0.97								
	59		27.19%	27.19%	26.39%	26.39%	0.97								
	60		34.95%	33.51%	27.90%	26.15%	0.75								
	Area weighted mean		29.91%	29.51%	27.41%	26.93%	0.90								
Living Room	61		13.48%	13.48%	12.95%	12.95%	0.96	99.67%	99.67%	99.59%	99.59%	0.999	Imperceptible	ARC's analysis indicates that, under a cumulative scenario, there is a potential for small increase in the impact on Vertical Sky Component to windows serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "imperceptible".	
	62		35.89%	34.05%	29.16%	26.97%	0.75								
	63		17.58%	14.94%	17.58%	14.91%	0.85								
	64		35.24%	32.52%	35.24%	32.52%	0.92								
	65		35.23%	32.60%	35.23%	32.58%	0.92								
Area weighted mean		32.80%	30.74%	29.40%	27.15%	0.83									
Bedroom 1 (Rear)	66		31.73%	31.73%	31.06%	31.06%	0.98%	99.20%	99.20%	99.20%	99.20%	1.00	Imperceptible	ARC's analysis indicates no potential for the proposed development, in combination with the permitted Whitehaven development on the adjoining site, to result in additional cumulative effects.	
Bedroom 2 (Rear)	67		31.59%	31.59%	30.71%	30.71%	0.97	98.51%	98.51%	98.51%	98.51%	1.00	Imperceptible	ARC's analysis indicates that, under a cumulative scenario, there is a potential for small increase in the impact on Vertical Sky Component to windows serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "imperceptible".	
	68		33.62%	32.46%	27.45%	26.07%	0.78								
Area weighted mean		32.30%	31.89%	29.57%	29.09%	0.90									
Bedroom 3 (Front)	69		35.38%	33.77%	29.54%	27.70%	0.78	98.29%	98.13%	98.29%	98.13%	0.998	Imperceptible	ARC's analysis indicates that, under a cumulative scenario, there is a potential for small increase in the impact on Vertical Sky Component to windows serving this room and to the proportion of the area that can receive direct skylight when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. The cumulative impact on daylight access is assessed as "imperceptible".	
	70		34.52%	32.08%	34.52%	32.08%	0.93								
Area weighted mean		35.07%	33.16%	31.35%	29.29%	0.84									
Bedroom 4 (Front)	71		36.14%	33.87%	36.14%	33.87%	0.94	98.40%	98.40%	97.85%	97.85%	0.99	Imperceptible	ARC's analysis indicates that, under a cumulative scenario, there is a potential for small increase in the impact on Vertical Sky Component to the window serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "imperceptible".	
42 Cedarview															
Living Room	72		34.71%	34.71%	32.88%	32.88%	0.95	99.67%	99.54%	99.67%	99.54%	0.999	Imperceptible	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value.	
	73		34.74%	34.74%	32.83%	32.83%	0.94								
	74		17.24%	17.24%	15.68%	15.68%	0.91								

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	Area weighted mean	21.12%	21.09%	18.22%	17.96%	0.85								
Swift Square Office Block – Block 2														
Floor 00a	132	10.71%	10.71%	10.71%	10.71%	1.00	90.54%	90.54%	84.60%	84.60%	0.93	Imperceptible	ARC's analysis indicates no potential for the proposed development, in combination with the permitted Whitehaven development on the adjoining site, to result in additional cumulative effects.	
	133	18.48%	18.48%	17.53%	17.53%	0.95								
	Area weighted mean	15.63%	15.63%	15.03%	15.03%	0.96								
Floor 00b	134	9.86%	9.86%	9.86%	9.86%	1.00	99.13%	96.89%	98.76%	96.44%	0.97	Imperceptible to Moderate	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. While the proposed development, in combination with the permitted Whitehaven development on the adjoining site, is likely to result in a "moderate" reduction in Vertical Sky Component to windows serving this room (i.e. a reduction to between 0.5-0.7 times the former value of the area weighted mean Vertical Sky Component of windows serving the room), the construction of the cumulative scenario is unlikely to reduce the area of the working plane receiving direct skylight to a noticeable degree. The potential cumulative impact is assessed as "imperceptible" to "moderate".	
	135	31.24%	19.25%	31.23%	19.22%	0.62								
	Area weighted mean	24.65%	16.36%	24.65%	16.34%	0.66								
Reception	136	34.58%	34.26%	14.36%	14.18%	0.41	100.00%	100.00%	100.00%	100.00%	1.00	Imperceptible to Moderate	ARC's analysis indicates that, under a cumulative scenario, there is a potential for a very minimal increase in the impact on Vertical Sky Component to windows serving this room when compared to the proposed scenario – this change is so minor that it will not affect how the impact is categorised. Analysis indicated no potential for an increase in impact on the proportion of the area within the room that can receive direct skylight. The cumulative impact on daylight access is assessed as "imperceptible" to "moderate".	
	137	24.41%	24.41%	17.23%	17.23%	0.71								
	Area weighted mean	27.23%	27.14%	16.43%	16.38%	0.60								
Floor 01	138	12.62%	12.62%	12.62%	12.62%	1.00	97.21%	96.72%	96.28%	95.21%	0.98	Imperceptible to Moderate	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. While the proposed development, in combination with the permitted Whitehaven development, is likely to result in a "moderate" reduction in Vertical Sky Component to windows serving this room (i.e. a reduction to between 0.5-0.7 times the former value of the area weighted mean Vertical Sky Component of windows serving the room), the construction of the cumulative scenario is unlikely to reduce the area of the working plane receiving direct skylight to a noticeable degree. The potential cumulative impact is assessed as "imperceptible" to "moderate".	
	139	13.33%	13.33%	13.33%	13.33%	1.00								
	140	37.65%	25.42%	37.63%	25.39%	0.67								
	141	23.98%	23.66%	8.48%	8.19%	0.34								
	142	13.11%	13.11%	9.08%	9.08%	0.69								
	143	25.98%	25.98%	25.09%	25.09%	0.97								
	Area weighted mean	23.21%	20.90%	16.86%	14.56%	0.63								
Floor 02	144	15.69%	15.69%	15.69%	15.69%	1.00	98.09%	97.71%	97.31%	96.65%	0.99	Imperceptible to Slight	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value. While the proposed development, in combination with the permitted Whitehaven development, is likely to result in a "slight" reduction in Vertical Sky Component to windows serving this room (i.e. a reduction to between 0.7-0.8 times the former value of the area weighted mean Vertical Sky Component of windows serving the room), the construction of the cumulative scenario is unlikely to reduce the area of the working plane receiving direct skylight to a noticeable degree. The potential cumulative impact is assessed as "imperceptible" to "slight".	
	145	16.30%	16.30%	16.30%	16.30%	1.00								
	146	38.02%	27.34%	38.01%	27.32%	0.72								
	147	38.05%	37.76%	20.56%	20.34%	0.53								
	148	32.80%	32.80%	27.01%	27.01%	0.82								
	149	29.51%	29.51%	28.65%	28.65%	0.97								
	Area weighted mean	31.77%	29.38%	25.66%	23.29%	0.73								
Floor 03	150	20.02%	20.02%	20.02%	20.02%	1.00	98.50%	98.23%	97.19%	96.80%	0.98	Imperceptible to Slight	The BRE Guide suggests that occupants of an existing building are not likely to notice an adverse reduction in daylight access where Vertical Sky Component remains above 27% or falls below 27% Vertical Sky Component but decreases to not less than 0.8 times its former value after the construction of a development or where the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value.	
	151	20.50%	20.50%	20.48%	20.48%	0.999								
	152	38.31%	29.25%	38.30%	29.25%	0.76								

10.3.8 Residual Impact

Construction Phase

As no mitigation measures are now proposed, the residual impact of the proposed development on daylight access is likely to be as described under **Section 1.3.5** above.

Operational Phase

As no mitigation measures are now proposed, the residual impact of the proposed development on daylight access is likely to be as described under **Section 1.3.5** above.

Cumulative Impact

As no mitigation measures are now proposed, the residual cumulative impact of the proposed development, in combination with development envisaged for the neighbouring site, on daylight access is likely to be as described under **Section 1.7.5** above.

10.3.9 Risks to Human Health

The Institute of Public Health in Ireland in *Health Impacts of the Built Environment: a review* (July 2006) highlights the implications of daylight access for human health as follows: “Levels of illumination, particularly the amount of daylight exposure, can impact on psychological well-being. An association has been found between depression and lack of adequate daylight. Furthermore, there may be an association between the amount of natural light in schools and pupil motivation and effective learning time.”

Site layout planning for daylight and sunlight: a guide to good practice (the BRE Guide) does not suggest levels of daylight required to ensure human health or discuss the implications of a reduction in daylight access on human health. However, while the following documents are not relevant to the assessment of the impact of development on daylight access, the below comments on the importance of daylight to human health are considered instructive. Section 3.2: Daylight and health of the *British Standard, BS 8206-2:2008: Lighting for buildings - Part 2: Code of practice for daylighting* (the British Standard; withdrawn in May 2019) acknowledged “the role of the circadian system (which controls daily and seasonal body rhythms)” in linking functions of the body with the cycle of day and night. It went on to state that “it is important that occupants of buildings ... are given access to high levels of daylight, particularly in the mornings, to assist the entrainment of circadian rhythms.” The British Standard also noted that “mood can be modified by lighting” and that exposure to daylight can reduce symptoms in those suffering from seasonal affective disorder (SAD). European Document *EN 17037: 2018 Daylight in Buildings* (adopted in Ireland as *I.S. EN 17037:2018*) does not make reference to the health implications of daylight access in buildings other than stating: “Daylight openings provide views and connection to outside and contribute to the psychological well-being of occupants”.

10.3.10 Interactions

As is always the case where a development will result in a change to the daylight environment within existing buildings, the impacts of the development on daylight access will result in interactions with population and human health.

10.4 Sunlight Access Impact Analysis

10.4.1 Assessment Methodology

Sunlight is not defined in *Site layout planning for daylight and sunlight: a guide to good practice* for the Building Research Establishment (the BRE Guide). The Commission Internationale de L'Éclairage / International Commission on Illumination defines sunlight as meaning the “part of direct solar radiation capable of causing a visual sensation” (Source: 17-29-103, CIE S 017:2020 ILV: International Lighting Vocabulary, 2nd edition).

For the purpose of this analysis, **Section 10.4** assesses the impact of the construction of the proposed development on the rays of the sun reaching defined opes in existing buildings (e.g. windows or other openings in existing buildings, such as patio doors) and reaching neighbouring gardens or amenity spaces.

Section 10.3 above assesses the impact of the construction of the proposed development on daylight reaching defined spaces in existing building (e.g. windows or other openings in existing buildings, such as patio doors) when the weather is overcast.

10.4.2 Assessment Approach

In assessing sunlight and daylight access, Irish practitioners tend to refer to the Building Research Establishment's *Site layout planning for daylight and sunlight: a guide to good practice* (BR209, the BRE Guide; the third edition of which was published in June 2022).

Section 1.7 of the BRE Guide (2022) provides: *"The guidance here is intended for use in the UK and in the Republic of Ireland"*. Its use in assessing impacts on sunlight and daylight access as part of the planning process is supported by national government planning policy including the *Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas*, which, at Section 7.2 states: *"Planning authorities should require that daylight and shadow projection diagrams be submitted in all such proposals. The recommendations of "Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice" (B.R.E. 1991)¹⁴ or B.S. 8206 "Lighting for Buildings, Part 2 1992: Code of Practice for Daylighting" should be followed in this regard."*

It should be noted that the BRE Guide (2022) does not set out rigid standards or limits and is preceded by the following very clear warning as to how the design advice contained therein should be used: *"The advice given here is not mandatory and the guide 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 since natural lighting is only one of many factors in site layout design."* [Emphasis added.] This should be borne in mind when interpreting the results of analysis set out in this section.

In identifying receptors particularly sensitive to changes in the shadow environment, ARC considered two factors:

- a. *the use of receptors (i.e. buildings) surrounding the application site*: buildings in residential use (and, particularly, the living rooms of residences) would be considered to be sensitive to changes in the shadow environment. Section 3.2.1 of the BRE Guide states: *"In designing a new development or extension to a building, care should be taken to safeguard the access to sunlight both for existing dwellings, and for any nearby non-domestic buildings where there is a particular requirement for sunlight. People are particularly likely to notice a loss of sunlight to their homes..."*. Section 3.2.3 recommends checking the impact of shadows cast by development on all main living rooms of dwellings in particular;
- b. *the location of receptors relative to the application site*: as set out in section 3.2.2 of the BRE Guide *"obstruction to sunlight may become an issue if some part of a new development is situated within 90° of due south of a main windows wall of an existing building"* and if *"in the section drawn perpendicular to this existing window wall, the new development subtends an angle greater than 25° to the horizontal measured from the centre of the lowest window to a main living room"* (Emphasis added).

Given this, the receptors most sensitive to changes in the sunlight environment as a result of the construction of development on the application site would be low level windows to the west, north and east of the proposal in buildings in residential use, which face within 90° of due south and which are in close proximity to the site (i.e. rooms in existing buildings at Cedarview to the north and northeast and in rooms in the recently constructed Blackwood development to the west of the site). Therefore, ARC identified a representative sample of rooms and windows in these residences for detailed quantitative analysis. In the interests of completeness, ARC also undertook assessment of sample windows in the non-residential buildings to the south at Swift Square. While the BRE Guide does not identify a need to analyse windows in existing buildings facing within 90° of due north, ARC also assessed the potential for shadows cast by the proposed development to affect sunlight access to sample windows facing north where relevant. Existing buildings were omitted from the sample where there was sufficient data within the sample to allow a reasonable inference to be made about the likely impact on that existing building (e.g. in relevant circumstances, where the impact on an existing building closest to a new structure was included in the sample, windows in more distant buildings could be excluded from the sample).

¹⁴ The *Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas* refer to the first edition of the BRE Guide as published in 1991. A third edition of the Guide was published in June 2022.

Section 3.2.13 of the *Site layout planning for daylight and sunlight: a guide to good practice* (the BRE Guide) provides as follows in relation to the assessment of the impact of development on sunlight access to existing buildings.

“If a living room of an existing dwelling has a main window facing within 90 ° of due south, and any part of a new development subtends an angle of more than 25 ° to the horizontal measured from the centre of the window in a vertical section perpendicular to the window, then the sunlighting of the existing dwelling may be adversely affected. This will be the case if the centre of the window:

- *receives less than 25% of annual probable sunlight hours and less than 0.80 times its former annual value, or less than 5% of annual probable sunlight hours between 21 September and 21 March and less than 0.8 times its former value during that period;*
- *and also has a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours.”* [Emphasis added]

A three dimensional digital model of the proposed development, in combination with the permitted Whitehaven development (ABP Ref. TA06F.313317) on the adjoining site to the east and of existing buildings in the area was constructed by ARC Consultants based on drawings and three dimensional models supplied by the Design Team. Where survey data of surrounding context was not available, assumptions were made, with reference to on-site, satellite and aerial photography and to the online planning register, where relevant, in the creation of the three dimensional model.

Section 3.3.9 of the BRE Guide provides that the *“question of whether trees or fences should be included in the calculation depends upon the type of shade they produce. Normally trees and shrubs need not be included, and partly because the dappled shade of a tree is more pleasant than the deep shadow of a building (this applies especially to deciduous trees).”* Given this, existing and proposed landscaping was not included in the assessment model.

Using the digital model, shadows were cast by ARC at several times of the day at the summer and winter solstices, and at the equinox. An equinox occurs twice a year: the March or vernal equinox (typically in or around the 20th to 21st March) and the September or autumnal equinox (typically in or around the 21st to 23rd September). For the purposes of this analysis and with reference to the BRE Guide, shadows were cast at several times of the day on 21st March.

The results are presented in shadow study diagrams associated with this report. Three images have been prepared for each time period on each representative date as follows:

- **Receiving Environment:** this image shows the shadows cast by the existing buildings only. Existing buildings surrounding the application site are shown in light grey, while existing buildings on the application site are shown in orange. The shadows cast are shown in a dark grey tone.
- **Proposed Development:** this image shows the shadows cast by the existing buildings together with the shadows cast by the proposed development. The existing buildings surrounding the site are shown in light grey, while the proposed development on the application site is shown in blue. The shadows cast are shown in a dark grey tone.
- **Cumulative:** this image shows the shadows cast by the existing buildings together with the shadows cast by the proposed development and the permitted Whitehaven development on the adjoining site to the east (ABP Ref. TA06F.313317). The existing buildings surrounding the site are shown in light grey, while the proposed development on the application site is shown in blue. The envisaged development on the adjoining site to the east is shown in dark blue. The shadows cast are shown in a dark grey tone.

In order to calculate sunlight access to rooms, ARC referenced the methodology outlined in Appendix A: Indicators to calculate access to skylight, sunlight and solar radiation of the BRE Guide. Using proprietary sunlight and daylight access analysis software, ARC analysed a sunpath diagram overlaid with a shading mask corresponding to the existing or proposed shadow environment (as appropriate) and the sunlight probability diagram for a latitude of 53° N (i.e., Dublin) for a reference point (i.e. the centre point) of each sample study window. The sunlight availability indicator has 100 spots on it. Each of these represents 1% of annual probable sunlight hours (APSH). The percentage of APSH at the reference point is found by counting up all the unobstructed spots.

In order to calculate sunlight access to rear gardens, ARC used proprietary sunlight analysis software to calculate the proportion of sample gardens in sunlight at regular intervals on 21st March in circumstances

where the existing environment remains unchanged, in circumstances where the proposed development is constructed.

10.4.3 Definition of Study Area

The study area for the overview assessment of the potential impact of the proposed development on sunlight access to the surrounding area considered an area 200 m around the application site. For the purposes of detailed analysis, ARC undertook detailed quantitative analysis of the potential impact of the proposed development on sunlight access to a sample of receptors in existing buildings with that sample being chosen with reference to Section 3.2.7 of the BRE Guide, which states:

“It is not always necessary to do a full calculation to check sunlight potential. The guidelines above is met provided either of the following is true:

- *If the distance of each part of the new development from the existing window is three or more times its height above the centre of the existing window (NB obstructions within 90° of due north of the existing window need not count here).*
- *The window wall faces within 90° of due south and no obstruction, measured in the section perpendicular to the window wall, subtends an angle of more than 25° to the horizontal ... Again, obstructions within 90° of due north of the existing window need not be counted.*
- *The window wall faces within 20° of due south and the reference point has a VSC... of 27% or more.”*

10.4.4 Assessment Criteria

The assessment of the impact of the proposed development on sunlight access had regard to the *Guidelines on the Information to be Contained in Environmental Impact Assessment Reports* prepared by the Environmental Protection Agency (2022), and to Directive 2011/92/EU (as amended by Directive 2014/52/EU) on the assessment of the likely effects of certain public and private projects on the environment.

In assessing whether a predicted effect of the proposal on sunlight access is likely to be “imperceptible”, “not significant”, “slight”, “moderate”, “significant”, “very significant” or “profound” within the meaning of the EPA’s *Guidelines on the Information to be Contained in Environmental Impact Assessment Reports*, ARC referred to Appendix H of the BRE Guide sets out advice on environment impact assessment. It states:

H4 The assessment of impact will depend on a combination of factors, and there is no simple rule of thumb that can be applied.

H5 Where the loss of skylight or sunlight fully meets the guidelines in this document, the impact is assessed as negligible or minor adverse. Where the loss of light is well within the guidelines, or only a small number of windows or limited area of open space lose light (within the guidelines), a classification of negligible impact is more appropriate. Where the loss of light is only just within the guidelines, and a larger number of windows or open space area are affected, a minor adverse impact would be more appropriate, especially if there is a particularly strong requirement for daylight and sunlight in the affected building or open space.

H6 Where the loss of skylight or sunlight does not meet the guidelines in this document, the impact is assessed as minor, moderate or major adverse. Factors tending towards a minor adverse impact include:

- *only a small number of windows or limited area of open space are affected*
- *the loss of light is only marginally outside the guidelines*
- *an affected room has other sources of skylight or sunlight*
- *the affected building or open space only has a low level requirement for skylight or sunlight*

- *there are particular reasons why an alternative, less stringent, guideline should be applied, for example an overhang above the window or a window standing unusually close to the boundary.*

H7 Factors tending towards a major adverse impact include:

- *a large number of windows or large area of open space are affected*
- *the loss of light is substantially outside the guidelines*
- *all the windows in a particular property are affected*
- *the affected indoor or outdoor spaces have a particularly strong requirement for skylight or sunlight, e.g. a living room in a dwelling or a children's playground.*

Having considered the factors outlined in Appendix H of the BRE Guide, ARC's assessment classifies the impact of the proposed development on sunlight access within existing buildings or open spaces with reference to the list of definitions set out at Table 3.3: Descriptions of Effects contained in the *Guidelines on the Information to be Contained in Environmental Impact Assessment Reports* prepared by the Environmental Protection Agency. The definitions from the EPA document are in italics, while some comment is also given below on what ARC considers these definitions might imply in the case of sunlight access (e.g. having regard to Appendix H of the BRE Guide). Please note that, for the purpose of this report, the word "effect" is taken to have the same meaning as the word "impact".

- *Imperceptible: An effect capable of measurement but without significant consequences.* The definition implies that the development would cause a change in the sunlight received at a location, capable of measurement, but not noticeable to the casual observer. If the development caused no change in sunlight access, there could be no effect. Examples of "imperceptible" impacts on sunlight access would include:
 - c. scenario where the proposed development is predicted to reduce the amount of sunlight received by a sample window, but the sample window will continue to receive the relevant recommended level of Annual Probable Sunlight Hours after the construction of the proposed development; and
 - d. a scenario where the proposed development is predicted to reduce the Annual Probable Sunlight Hours received by a sample window to not less than 0.8 times its existing value (i.e. the BRE Guide threshold for an adverse impact). Similarly, where sunlight access to a sample garden is reduced, the impact of proposed development could be considered to be "imperceptible" or "not significant" where the sample garden continues to receive at least two hours of sunlight over half its area on 21st March, and, where the area of the garden capable of receiving sunlight on 21st March does not drop to less than 0.8 times its existing level after the construction of the proposed development.
- *Not Significant: An effect which causes noticeable changes in the character of the environment but without significant consequences.* The definition implies that the development would cause a change in the sunlight received at a location, which is capable of measurement and capable of being noticed by an observer who is taking an active interest in the extent to which the proposal might affect sunlight access.
- *Slight: An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.* For this definition to apply, the amount of sunlight received at a location would be changed by shadows cast by the development to an extent that is both capable of measurement and is noticeable to a minor degree. However, the shadow environment of the surrounding environment should remain largely unchanged. An example of a "slight" impact would be a scenario where, although the impact of the proposed development is not predicted to reduce the amount of sunlight received by a sample window or garden to less than 0.8 times its former value, the amount of light received by the sample window or garden is predicted to fall below a key recommended level, whether that is the BRE Guide recommended target value or an alternative target value. A further example of a "slight" impact would be where, although the construction of the proposed development is predicted to reduce the amount of light received to a level below the BRE Guide threshold for an adverse impact, the predicted reduction is just outside that BRE Guide threshold (e.g. the amount of daylight received by a sample window or sunlight received by a sample window or garden falls to not less than 0.7 times its existing value*). A "slight" impact could also occur where there is a more considerable reduction in sunlight by a sample window within an existing building, but only a small number of windows within that property are affected to that extent.