



Daylight, Sunlight &
Overshadowing Result
(Phase 1)



1 Parson
Street and 3
Florence
Street,
London,
NW4 1QD

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Ref: 20-7413

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1. INTRODUCTION

This document is **an initial result (phase 1) for a feasibility study prior to moving on to phase 2 full report** for the planning application. The phase 1 results are not suitable for the planning application but will show the impact of the proposed scheme at **1 Parson Street and 3 Florence Street, London, NW4 1QD** on the surrounding properties.

The study has been undertaken by constructing a 3D IES model of the existing site, the proposed site and the surrounding buildings. This model analyses the daylight, sunlight and overshadowing impact of the new development on the surrounding buildings. All images used in this report are technical 3D models created using 2D AutoCAD Drawings (floor plans, sections and elevations) and is not 3D visualisation images.

Please note that elevations of surrounding buildings were not provided, hence the location and size of the surrounding windows have been assumed based on Google Maps and planning documents available on the council website.

2. CRITERIA FOR DAYLIGHT, SUNLIGHT AND OVERSHADOWING IMPACTS

The table below is a summary of the criteria to assess daylight, sunlight and overshadowing impacts as per the BRE 209 guidance (Site Layout Planning for Daylight and Sunlight: A guide to good practice, second edition). Based on that Syntegra classifies the magnitude of effect according to the ratio.

Magnitude of effect	Criteria		
Beneficial	An improvement ratio > 1.3 of the baseline value		
Negligible (BRE 209)	Daylight A VSC of 27% or above in the proposed scenario with adequate daylight distribution Or A reduction ratio <1.0 and ≥ 0.8 of the baseline value	Sunlight An APSH of 25%, of which 5% are in the winter months Or A reduction ratio <1.0 and ≥ 0.8 of the baseline value	Overshadowing 50% of any amenity areas receiving at least 2 hours of direct sunlight on 21 st March Or A reduction ratio <1.0 and ≥ 0.8 of the baseline value
Minor adverse	A reduction ratio <0.8 and ≥ 0.7 of the baseline value		
Moderate adverse	A reduction ratio <0.7 and ≥ 0.6 of the baseline value		
Major adverse	A reduction ratio <0.6 of the baseline value		

Table 1 Criteria for assessing daylight, sunlight and overshadowing effects

3. RESULTS

3.1. Daylight

The table below indicates the levels of daylight on the windows at **Ferrydale Lodge, 5-7 Parson Street, 16-20 Parson Street, 2-6 Florence Street and 5-7 Florence Street** with the existing and the proposed development.

A summary of results is displayed in the table 2 below. The location of the windows can be found in appendix 4.2 of this report.

Assessed Window	Daylight Assessment		Ratio	Result
	Existing VSC >27%	Proposed VSC >27%		
S1 – Ferrydale Lodge – East - 1F	38.08	37.92	1.00	Negligible
S2 – Ferrydale Lodge – East - 1F	37.04	36.34	0.98	Negligible
S3 – Ferrydale Lodge – West - 1F	34.65	32.08	0.93	Negligible
S4 – Ferrydale Lodge – West - 1F	35.51	34.30	0.97	Negligible
S5 - Ferrydale Lodge – West - 1F	27.03	27.01	1.00	Negligible
S6 - Ferrydale Lodge – West - 2F	29.45	29.45	1.00	Negligible
S7 - Ferrydale Lodge – West - 3F	38.90	38.87	1.00	Negligible
S8 – 5-8 Parson Street - West - 2F	26.79	16.36	0.61	Moderate Adverse (NSL Pass)
S9 – 20 Parson Street - West - GF	28.10	27.04	0.96	Negligible
S10 - 18 Parson Street - West - GF	27.54	26.32	0.96	Negligible
S11 - 16 Parson Street - West - GF	27.18	26.16	0.96	Negligible
S12 - 20 Parson Street - West - 1F	31.89	30.92	0.97	Negligible
S13 – 20 Parson Street - West - 1F	31.78	30.62	0.96	Negligible
S14 – 20 Parson Street - West - 1F	31.73	30.38	0.96	Negligible
S15 – 18 Parson Street - West - 1F	31.62	30.17	0.95	Negligible
S16 – 18 Parson Street - West - 1F	31.55	30.14	0.96	Negligible
S17 – 16 Parson Street - West - 1F	31.23	30.09	0.96	Negligible
S18 – 16 Parson Street - West - 1F	31.09	29.96	0.96	Negligible

S19 – 16 Parson Street - West - 1F	30.90	29.78	0.96	Negligible
S20 – 6 Florence Street – South - GF	28.20	26.87	0.95	Negligible
S21 – 4 Florence Street – South - GF	26.01	24.57	0.94	Negligible
S22 – 2 Florence Street – South - GF	24.74	23.48	0.95	Negligible
S23 – 6 Florence Street – South - 1F	33.43	32.44	0.97	Negligible
S24 – 6 Florence Street – South - 1F	33.28	32.09	0.96	Negligible
S25 – 4 Florence Street – South - 1F	32.53	30.75	0.95	Negligible
S26 – 4 Florence Street – South - 1F	32.38	30.36	0.94	Negligible
S27 – 2 Florence Street – South - 1F	31.93	29.93	0.94	Negligible
S28 – 2 Florence Street – South - 1F	31.12	29.50	0.95	Negligible
S29 – 5 Florence Street – North - GF	31.04	31.14	1.00	Negligible
S30 – 7 Florence Street – North - GF	31.16	31.17	1.00	Negligible
S31 – 5 Florence Street – North - 1F	36.29	36.01	0.99	Negligible
S32 – 5 Florence Street – North - 1F	36.57	36.47	1.00	Negligible
S33 – 7 Florence Street – North - 1F	36.54	36.50	1.00	Negligible
S34 – 7 Florence Street – North - 1F	36.41	36.40	1.00	Negligible
S35 – 5 Florence Street – South - GF	28.77	27.00	0.94	Negligible
S36 – 5 Florence Street – South - 1F	34.26	32.78	0.96	Negligible
S37 – 5 Florence Street – South - 1F	32.80	28.91	0.88	Negligible
S38 – 7 Florence Street – South - GF	27.32	27.07	0.99	Negligible
S39 – 7 Florence Street – South - 1F	34.95	34.59	0.99	Negligible
S40 – 7 Florence Street – South - 1F	34.12	33.29	0.98	Negligible

Table 2 Daylight results

The slight loss in daylight for other windows is not considered of concern as the proposed VSC levels are either above 27% or more than 0.8 times their former values and will provide adequate levels of daylight. It should be noted that the values provided in the BRE 209 are for guidance purposes only.

As shown in the above table, **one window (S8) at 5-7 Parson Street will be adversely impacted by the proposed building. However it is not considered a concern as the impacted room meets the No Sky Line criteria as demonstrated below.**

- **5-7 Parson Street**

The impacted window (S8) serves a kitchen/living room according to the floor plan in planning documents (ref.16/5966/FUL) below.

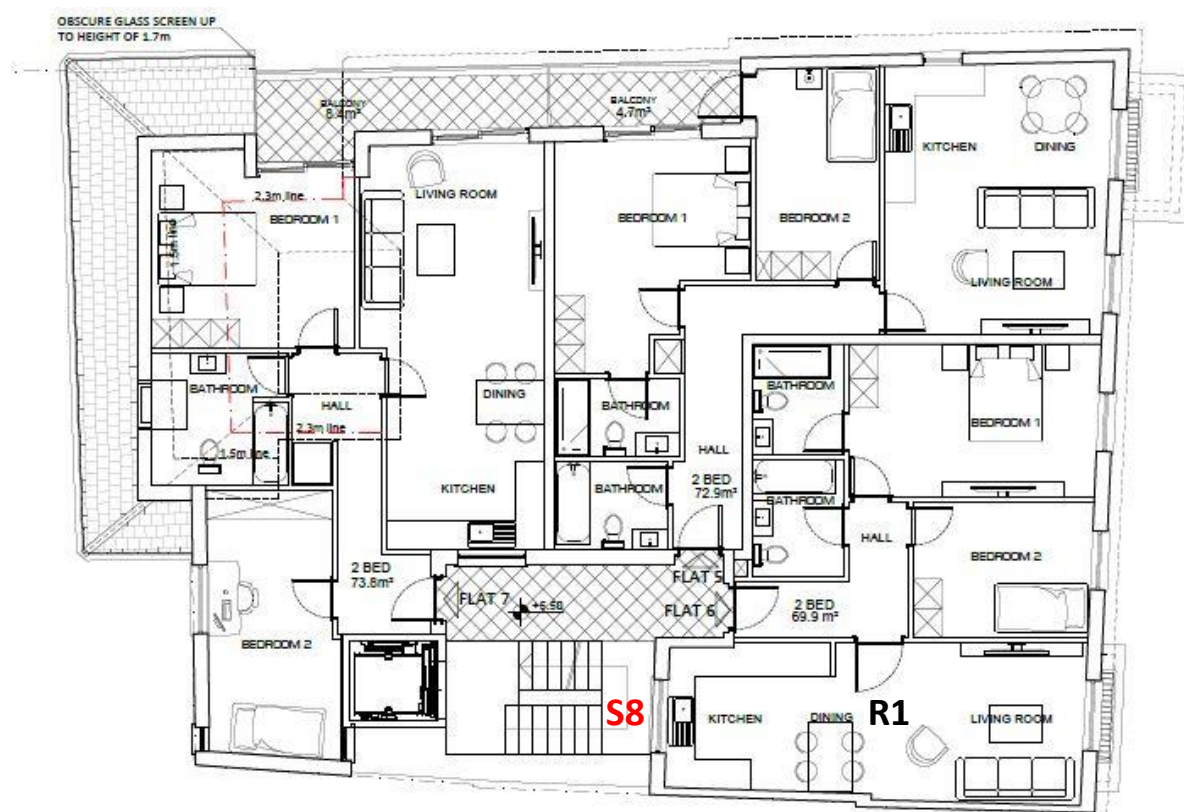


Figure 1 The 2nd floor plan at 5-7 Parson Street (ref. 16/5966/FUL)

Based on the floor plan, we have carried out the internal daylight assessment (No Sky Line) to prove the compliance with BRE guidance below.

“2.2.9 Following construction of a new development, the no sky line moves so that the area of the existing room, which does receive direct skylight, is reduced to less than 0.8 times its former value this will be noticeable to the occupants, and more of the rooms will appear poorly lit. This is also true if the no sky line encroaches on key areas like kitchen sinks and worktops.”

Since the impacted room (R1) has an additional window on East elevation, the NSL result achieves more than the BRE criteria (NSL ratio of 0.8) as shown in the table below. Therefore the daylight loss from S8 is not considered a concern as the overall internal daylight level meets the BRE criteria. Details will be provided in the phase 2 report.

No Sky Line Assessment					
Room	Use	Existing	Proposed	Ratio	Results
R1 – 2nd Floor	Kitchen/Living	100 %	100 %	1.00	PASS

Table 3 NSL results

3.2. Sunlight

The table below indicates the levels of sunlight on the windows at **Ferrydale Lodge, 5-7 Parson Street, 16-20 Parson Street, 2-6 Florence Street and 5-7 Florence Street** with the existing and the proposed development.

A summary of results is displayed in the table 3 below. The location of the windows can be found in appendix 4.2 of this report.

Assessed Window	Sunlight Assessment				Ratio Annual	Result
	Total APSH >25%		Winter APSH >5%			
	Existing	Proposed	Existing	Proposed		
S1 – Ferrydale Lodge – East - 1F	49	49	14	14	1.00	Negligible
S2 – Ferrydale Lodge – East - 1F	49	49	14	14	1.00	Negligible
S3 – Ferrydale Lodge – West - 1F	45	45	12	12	1.00	Negligible
S4 – Ferrydale Lodge – West - 1F	45	45	11	11	1.00	Negligible
S5 - Ferrydale Lodge – West - 1F	25	25	5	5	1.00	Negligible
S6 - Ferrydale Lodge – West - 2F	26	26	5	5	1.00	Negligible
S7 - Ferrydale Lodge – West - 3F	48	48	15	15	1.00	Negligible
S8 – 5-8 Parson Street - West - 2F	39	4	12	0	0.10	Negligible
S9 – 20 Parson Street - West - GF	33	32	8	8	0.97	Negligible
S10 - 18 Parson Street - West - GF	33	32	8	8	0.97	Negligible
S11 - 16 Parson Street - West - GF	35	34	9	9	0.97	Negligible
S12 - 20 Parson Street - West - 1F	38	36	11	10	0.95	Negligible
S13 – 20 Parson Street - West - 1F	37	35	10	9	0.95	Negligible
S14 – 20 Parson Street - West - 1F	38	37	11	10	0.97	Negligible
S15 – 18 Parson Street - West - 1F	38	36	9	9	0.95	Negligible
S16 – 18 Parson Street - West - 1F	40	37	10	10	0.93	Negligible
S17 – 16 Parson Street - West - 1F	40	36	10	10	0.90	Negligible
S18 – 16 Parson Street - West - 1F	40	35	10	10	0.88	Negligible
S19 – 16 Parson Street - West - 1F	39	36	10	10	0.92	Negligible
S20 – 6 Florence Street – South - GF	74	72	17	15	0.97	Negligible
S21 – 4 Florence Street – South - GF	69	67	12	10	0.97	Negligible
S22 – 2 Florence Street – South - GF	68	67	11	10	0.99	Negligible

S23 – 6 Florence Street – South - 1F	83	81	26	24	0.98	Negligible
S24 – 6 Florence Street – South - 1F	83	81	26	24	0.98	Negligible
S25 – 4 Florence Street – South - 1F	82	78	25	21	0.95	Negligible
S26 – 4 Florence Street – South - 1F	81	76	24	19	0.94	Negligible
S27 – 2 Florence Street – South - 1F	78	75	21	18	0.96	Negligible
S28 – 2 Florence Street – South - 1F	80	77	23	20	0.96	Negligible
S29 – 5 Florence Street – North - GF	N/A	N/A	N/A	N/A	N/A	N/A
S30 – 7 Florence Street – North - GF	N/A	N/A	N/A	N/A	N/A	N/A
S31 – 5 Florence Street – North - 1F	N/A	N/A	N/A	N/A	N/A	N/A
S32 – 5 Florence Street – North - 1F	N/A	N/A	N/A	N/A	N/A	N/A
S33 – 7 Florence Street – North - 1F	N/A	N/A	N/A	N/A	N/A	N/A
S34 – 7 Florence Street – North - 1F	N/A	N/A	N/A	N/A	N/A	N/A
S35 – 5 Florence Street – South - GF	66	61	20	20	0.92	Negligible
S36 – 5 Florence Street – South - 1F	85	77	28	25	0.91	Negligible
S37 – 5 Florence Street – South - 1F	80	64	26	23	0.80	Negligible
S38 – 7 Florence Street – South - GF	67	63	15	15	0.94	Negligible
S39 – 7 Florence Street – South - 1F	86	83	29	27	0.97	Negligible
S40 – 7 Florence Street – South - 1F	85	81	28	27	0.95	Negligible

Table 4 Sunlight results

NOTE: N/A - Not applicable. The buildings surrounding or adjacent to the site that do not contain windows within 90° of due South have been excluded from the sunlight assessments. This is because sunlight is directional and North-facing windows in this location will only receive sunlight at the height of summer at occasional times. As such, pursuant to the BRE guide, North-facing windows are not considered to have a reasonable expectation of sunlight and do not require assessment.

The table above demonstrates that **none of assessed windows will be adversely impacted by the proposed development. Hence in terms of sunlight, the proposed development is acceptable.**

The slight loss in sunlight for the other surfaces is not considered to be a concern as the proposed total APSH is above >25% of which more than 5% is in winter months or more than 0.8 times their former values and will provide adequate levels of sunlight. It should be noted that the values provided in the BRE 209 are for guidance purposes only.

3.3. Overshadowing

The following results represent the cumulative overshadowing impacts of the proposed development. As identified from the AutoCAD drawings and/or site plan, the existing open space is located at **Ferrydale Lodge and 5-7 Florence Street**. In accordance with the BRE guidelines, overshadowing has been assessed during times of the day where the sun's altitude is above 10° (from 7:30am to 5:00pm).

"It is suggested that, for it to appear adequately sunlit throughout the year, at least half of a garden or amenity area should receive at least two hours of sunlight on 21st March. If as a result of new development, an existing garden or amenity area does not meet these guidelines, and the area which can receive two hours of sun on 21st March is less than 0.8 times its former value, then the loss of sunlight is likely to be noticeable".

A summary of results is displayed in the table 4 below. The location of the amenity area can be found in appendix 4.2 of this report.

Overshadowing assessment from 7.30am to 5.00pm % of area receiving sunlight on 21 st March				
Assessed Area	Existing (%)	Proposed (%)	Ratio	Result
A1 – Ferrydale Lodge – Rear Amenity	15.75	15.75	1.00	Negligible
A2 – 5 Florence Street – Rear Garden	23.63	23.68	1.00	Negligible
A3 – 7 Florence Street – Rear Garden	26.69	26.69	1.00	Negligible

Table 5 Overshadowing results

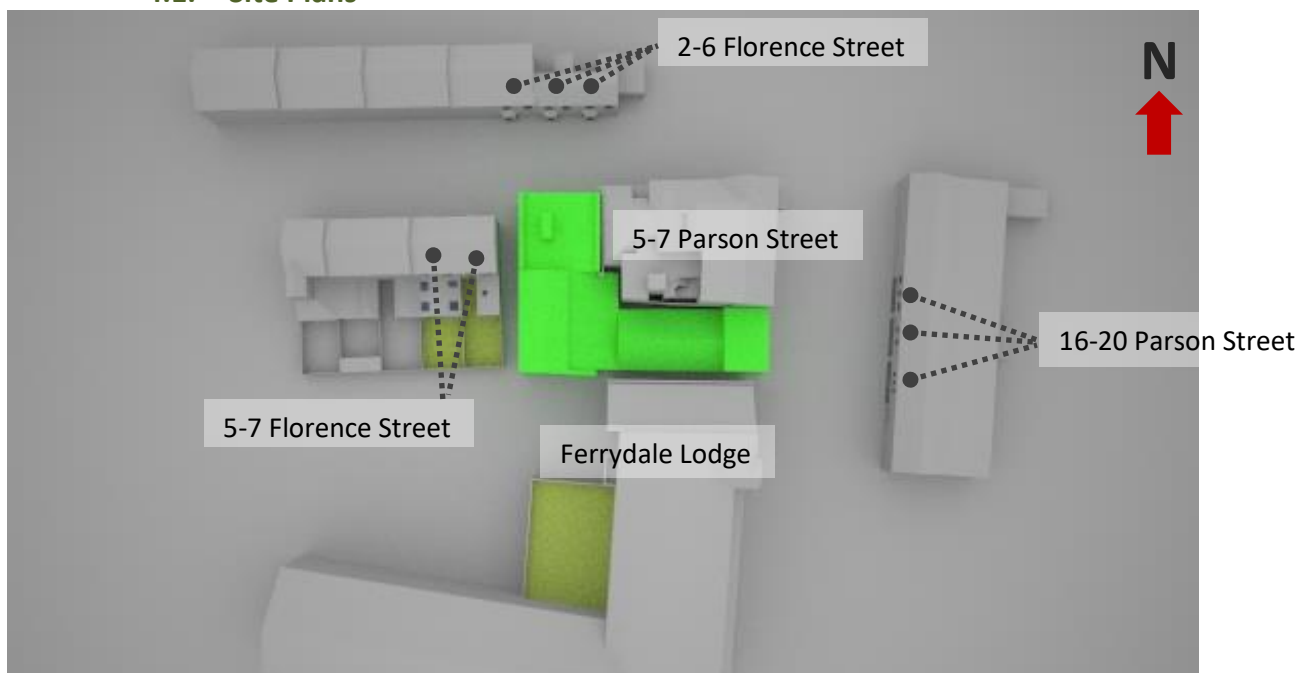
As shown in the table above, the existing amenity area/garden/open space will not be impacted by the proposed development. Hence, **in terms of overshadowing the proposed scheme is considered acceptable.**

The slight loss in sunlight is not considered to be a concern as at least half of its area will receive at least two hours of sunlight on 21st March or have a ratio existing/proposed more than 0.8 and will provide adequate levels of sunlight. It should be noted that the values provided in the BRE 209 are for guidance purposes only.

4. SITE PLAN AND LOCATION

Location	1 Parson Street and 3 Florence Street, London, NW4 1QD
Latitude (°)	51.59 N
Longitude (°)	0.22 W

4.1. Site Plans

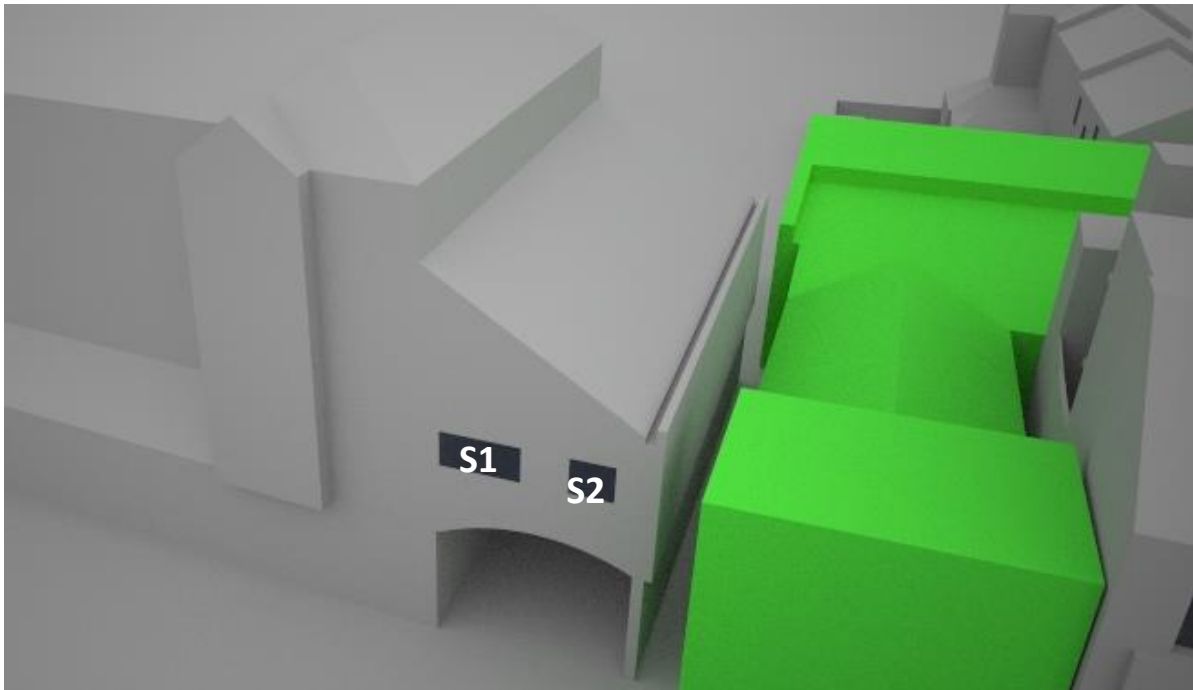


Existing site layout

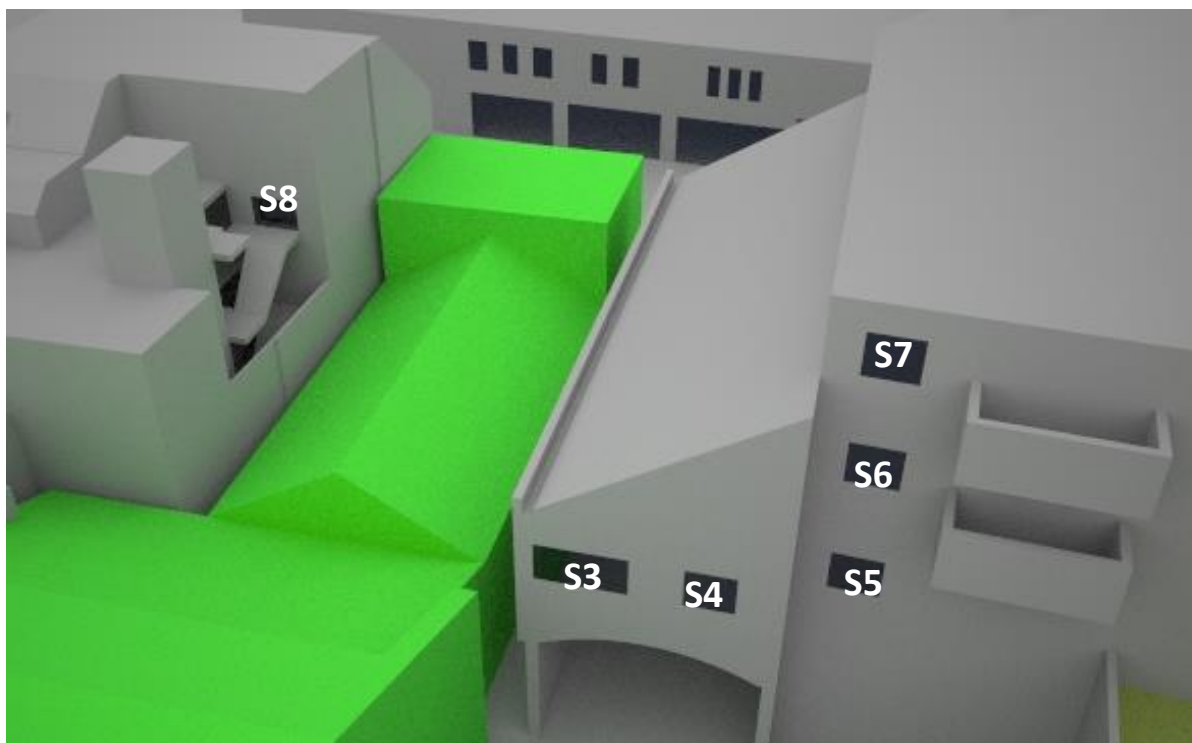


Proposed site layout

4.2. Location of Assessed Surfaces and Amenities



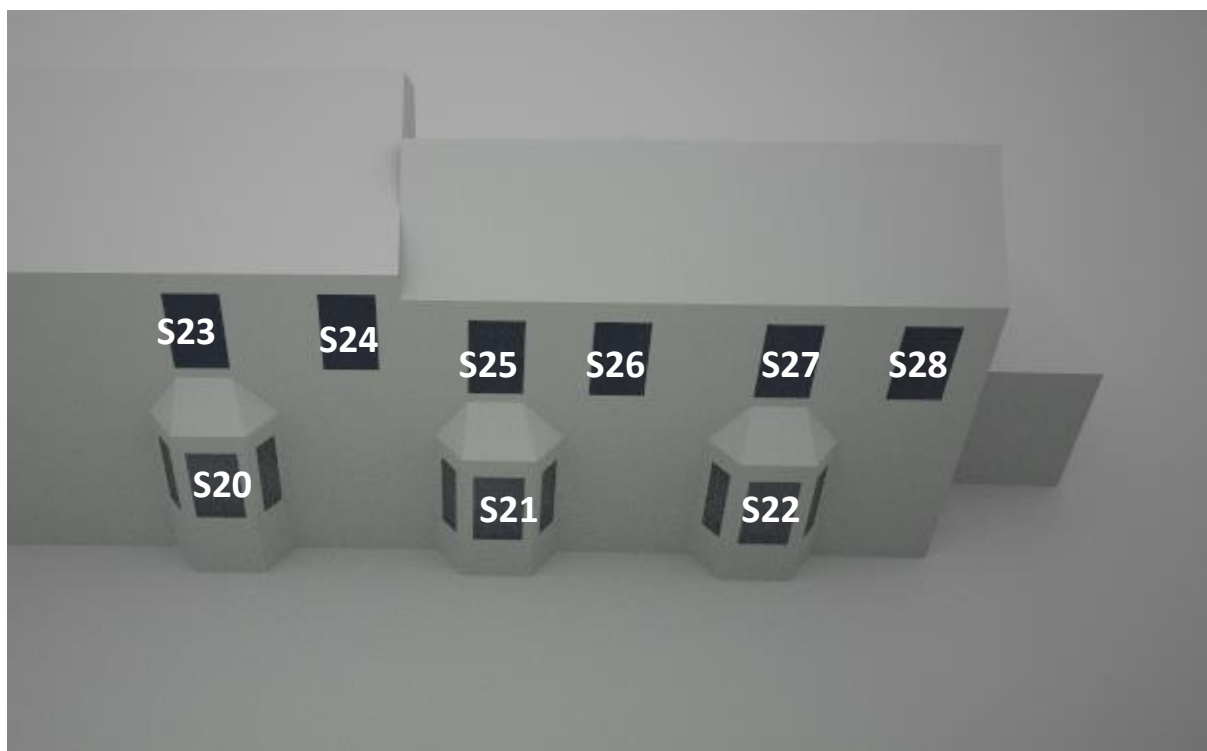
Ferrydale Lodge - Front



Ferrydale Lodge and 5-7 Parson Street - Rear



16-20 Parson Street - Front



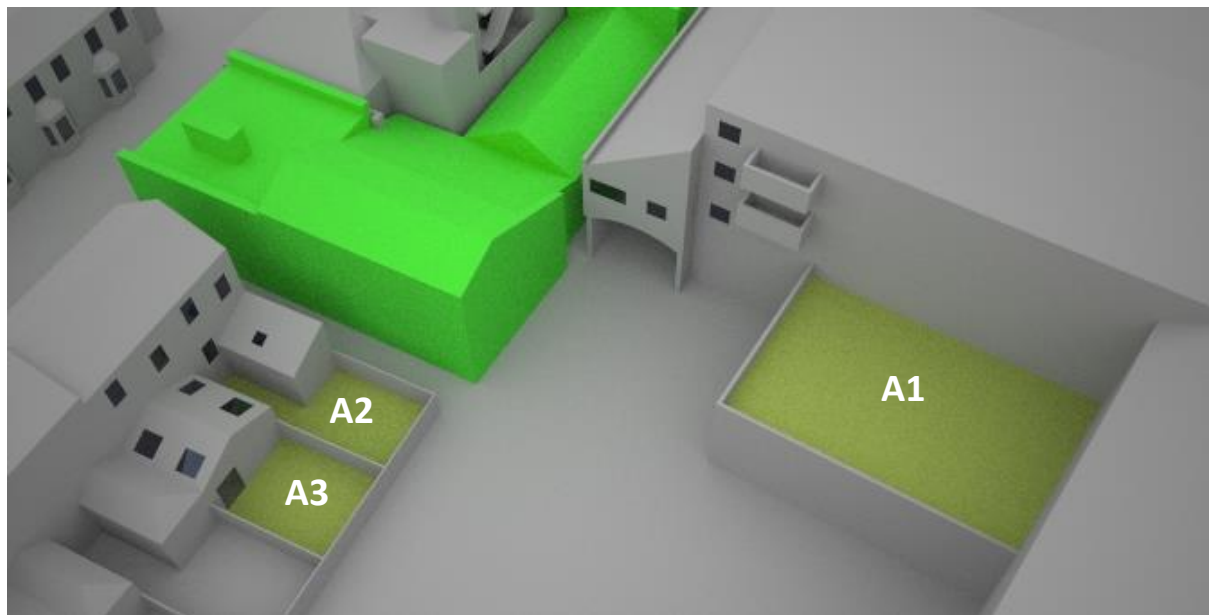
2-6 Florence Street - Front



5-7 Florence Street – Front



5-7 Florence Street – Rear



Assessed Gardens and Amenity Area