Proposals at:
45-49 Station Road
Hampton
TW12 2BU

Daylight Assessment to No.56 & 60 Thames Street

October 2015

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1.0 Introduction

Clive Chapman Architects have produced a daylight assessment to accompany a planning application for the proposed re-development at 45-49 Station Road, Hampton.

The scheme involves the demolition of the existing car showroom and workshops, and redevelopment of the site to comprise of a new car showroom, associated car repair workshop, and eight new build residential units.

The purpose of the report is to confirm that the proposed development complies with the guidance set out by BRE: 'Site Layout Planning for Daylight and Sunlight', and does not negatively impact the daylight to the existing neighbours (No.56 and 60 Thames Street).

2.0 Information Sources

This report has been carried out based on the following information:

Clive Chapman Architects

SRH-01	Site Location Plan
SRH-05E	Site Plan
SRH-06C	Proposed Thames Street Plans
SRH-10B	Proposed Thames Street Elevations

Twickenham Surveys

Topographical Survey
Existing Site Elevations

3.0 Methodology Of The Study

3.1 BRE Guide: Site Layout Planning

The study is based on the various numerical tests laid down in the Building Research Establishment (BRE) guide 'Site Layout Planning for Daylight and Sunlight: a guide to good practice' by P J Littlefair, 2011.

It should be noted that the BRE guide is intended to be advisory and does not contain mandatory standards. The following statement is quoted directly from the BRE guide:

"The guide is intended for building designers and their clients, consultants and planning officials. 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."

3.2 Daylight to Windows

Diffuse daylight is the light received from the sun which has been diffused through the sky.

Diffuse daylight calculations should be undertaken to all rooms where daylight is required, including living rooms, kitchens and bedrooms. Usually, if a kitchen is less than 13m^2, it is considered to be a non-habitable room and the daylight tests need not be applied. The BRE guide states that windows to bathrooms, toilets, storerooms, circulation areas and garages need not be analysed.

BRE: Site Layout planning for daylighting and sunlighting good practice section 2.2 states:

"The existing building will be adversely affected if either – the vertical sky component measured at the centre of an existing window is less than 27%, and less than 0.8 its former value or the area of the working plane in a room in which can receive direct skylight is reduced to less than 0.8 times its former value."

Although the BRE 'Site Layout Planning for Daylight and Sunlight' guidance does not factor in existing deciduous trees as an obstruction due to the unpredictability of their shade, it should be noted that the trees located in the front garden of No.60 provide a significant daylight and sunlight obstruction to Windows 3-8 (See appendix A).

4.0 Results Of The Study

4.1 Windows Considered

Appendix A provides plans and photographs to indicate the positions of the windows analysed in this assessment.

4.2 Numerical Results

The table below shows what impact, if any, the proposed development has on the Vertical Sky Component of the windows to the neighbouring properties.

An average of the Vertical Sky Component has been made to multiple windows that provide light to a single room. This is to provide a more accurate representation of the effect the proposed development will have on the daylight access to the rooms of the adjacent neighbours as a whole.

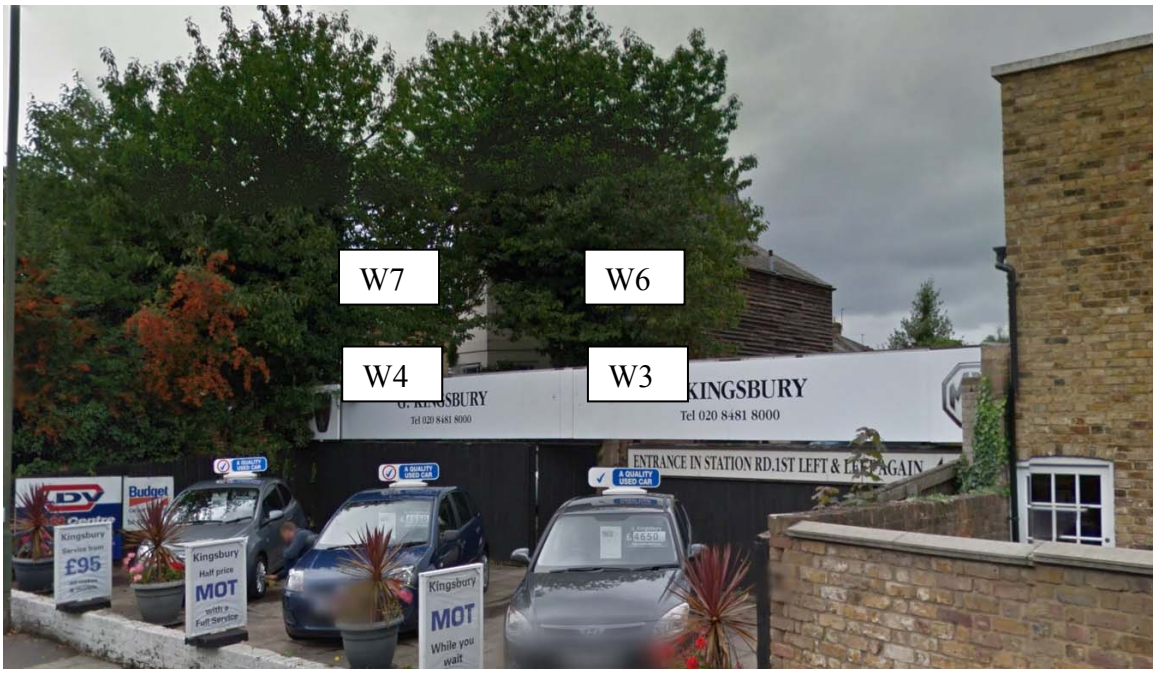
Window Reference	Use Class	Vertical Sky Component		
		Before	After	Ratio
56 Thames Street				
Window 1	Habitable	40%	40%	1.0
Window 2	Secondary Window to Habitable	40%	24.25%	0.6
W1 & W2 Mean Average		**40%**	**32.12%**	**0.8**
60 Thames Street				
Window 3	Habitable	39.5%	28.75%	0.72
Window 4	Habitable	40%	37.85%	0.95
Window 5	Habitable	36%	36%	1.0
W1, W2 and W3 Mean Average		**38.5%**	**34.2%**	**0.88**
Window 6	Habitable	40%	40%	1.0
Window 7	Habitable	40%	40%	1.0
Window 8	Habitable	40%	40%	1.0
W6, W7 and W8 Mean Average		**40%**	**40%**	**1.0**

4.3 Conclusion

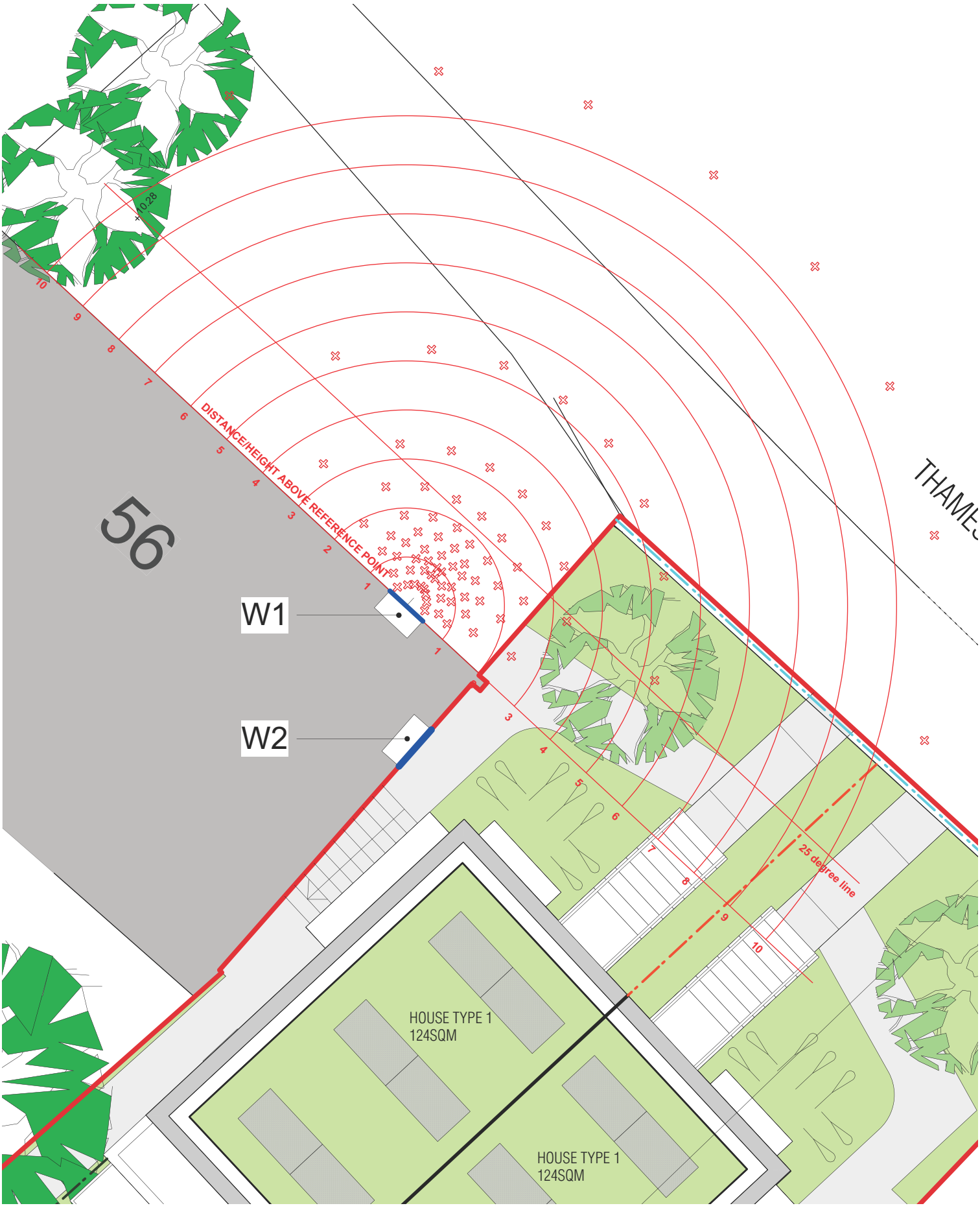
The average of all windows to both neighbouring properties (No.56 & 60 Thames Street) passes the Vertical Sky Component test. The proposed development has been designed to comply with the guidance and therefore satisfies the BRE daylight requirements.

5.0 Appendices

Appendix A – Daylight assessment of window




W8
W5
PLEVNA RD



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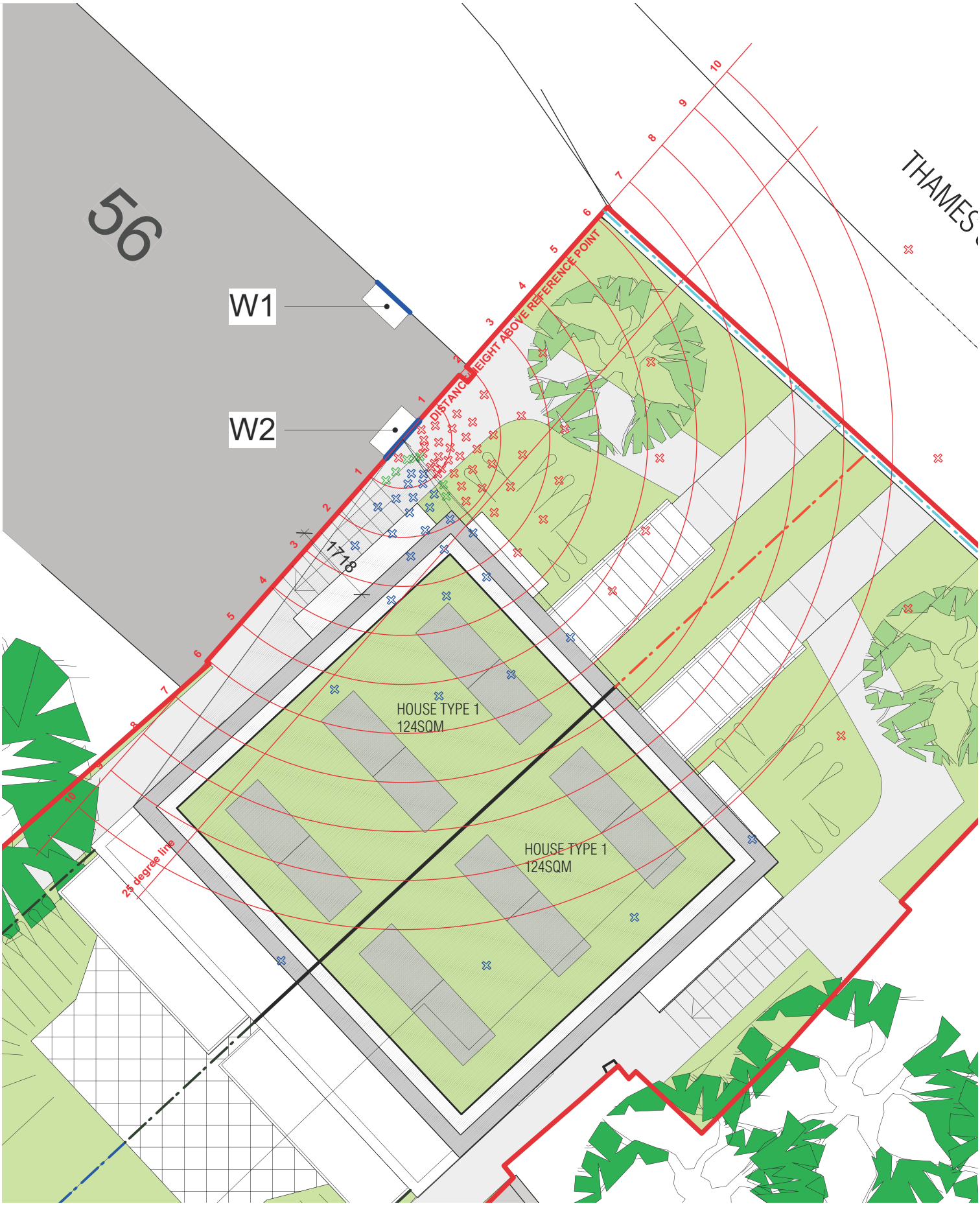

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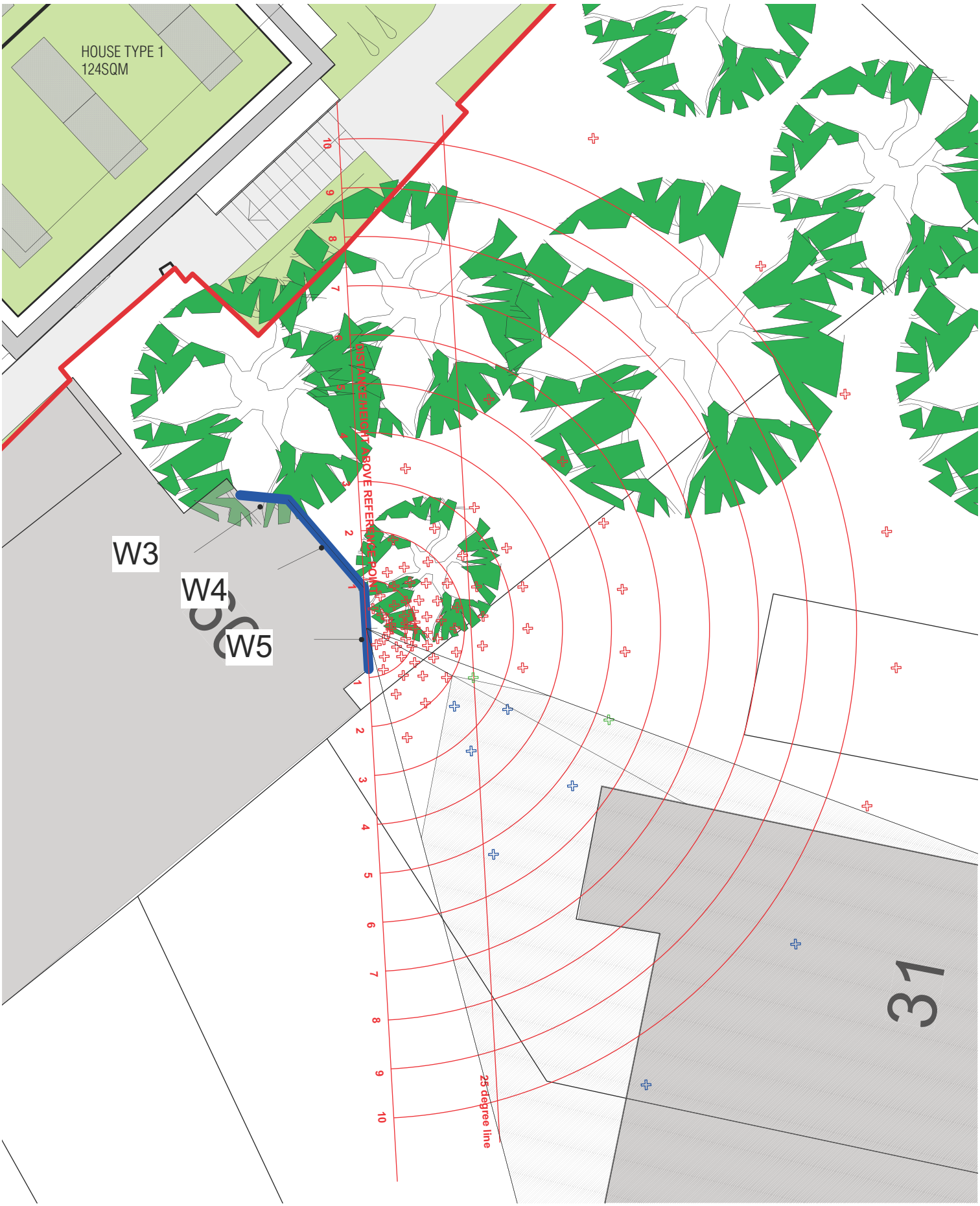

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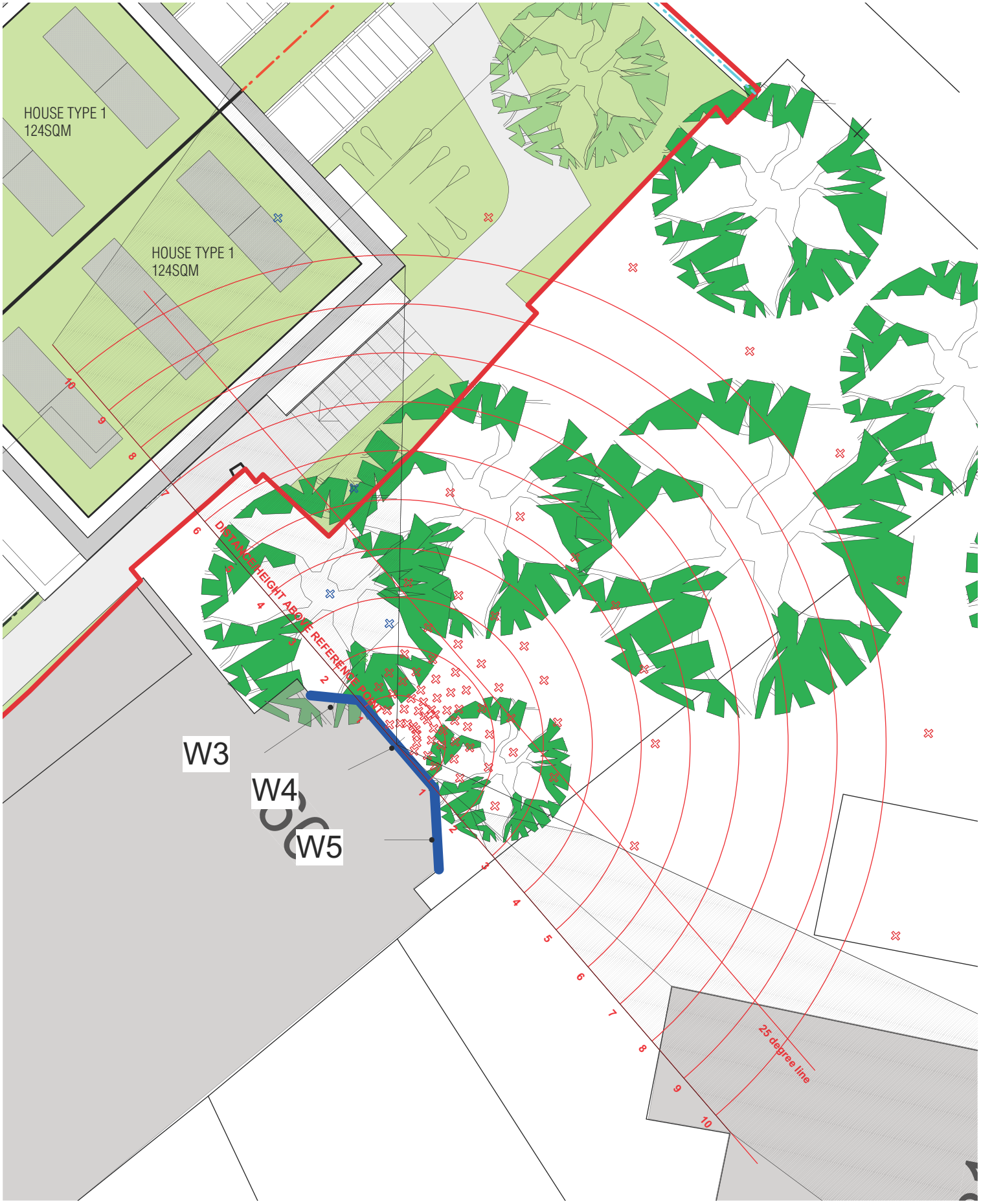

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