

Design Note.

To:	Mark Finch
Cc:	Louise Winston
From:	Adrian McCordick, Principal Acoustics Engineer
Date:	16 October 2025
Project:	Nigra House, Fishponds Road, Wokingham
File ref:	NOTE-10-15295-AM-20250630-Condition 26 - Rev 02.docx

Nigra House, Fishponds Road – Condition 26.

Audit sheet.

Rev.	Date	Description of change / purpose of issue	Prepared	Reviewed	Authorised
0	30/06/2025	Initial issue	AM	AP	PM
1	08/10/2025	Updated following building envelope material change	AM	AM	PM
2	16/10/2025	Update following Design Team Comments	AM	AM	PM

Introduction.

Following the submission of the Hoare Lea noise report reference 'REP-1015295-SG-20240220-Acoustic planning report-Rev00' dated 20th February 2024, and the Design Note reference 'LET-1015295-AM-20240409-Response to EHO enquiry-Rev00' dated 23rd April 2024, planning approval has been granted to the site, subject to a series of conditions, including Condition 26 which states the following:

Condition 26

Prior to above ground construction, details shall be submitted to and approved in writing by the Local Planning Authority demonstrating that the building envelope shall be constructed with a minimum sound reduction of Rw 27 dB, increasing to Rw 33 dB where Class B2 operations are proposed. The details thereby agreed shall be fully implemented prior to the occupation of the building and maintained in perpetuity.

This condition relates to Section 5.1 of the noise report which states, 'In order to enable B2 operations at the development site, a higher performing façade building envelope is recommended. It is calculated that a façade envelope construction with a minimum sound reduction of Rw 33 dB would be sufficient to



enable a level of a low impact at each of the nearest receptors during both the day and night-time periods.

This Design Note confirms the proposed building envelope constructions and assesses their suitability in accordance with the requirements of Condition 26 above.

Building Envelope Elements.

Building Envelope:

The building envelope construction performance is detailed in document MDF 13 Rev A with information supplied by Euroclad. The relevant sections are attached to this Design Note.

This document confirms that the roof will be constructed from Euroclad Elite 3.18 which has been tested to provide a sound reduction of Rw 47 dB.

In addition, the document confirms that the walls will be constructed from either Euroclad Elite 55 or Elite 51, both of which have been tested to provide a sound reduction of Rw 41 dB.

Where Micro rib walls are utilised, these will be constructed using Euroclad Elite 58. This construction is expected to provide a minimum sound reduction of Rw 33, in line with the requirement of Condition 26. However, the use of this product will be limited to the office areas only and as such, noise break-out from these areas will not be significant. The assessment below has been based upon the expected performance of the Elite 55 and 51 system relating to the remainder of the building on the basis of the noisier B2 operations.

Glazing

We have been advised that the glazing elements of the building can achieve a sound reduction rating of Rw 35 dB.

Fire Doors

We have been advised that the fire doors can achieve a sound reduction rating of Rw 39 dB.

Loading Doors

We have been advised that the Loading Doors can achieve a sound reduction rating of Rw 25 dB.

Building Façade Composite Performances.

Roof

Roof: 3360m² Euroclad Elite 3.18 (Rw 47 dB)

The roof provides a performance well in excess of Rw 33 (dB+ 14 dB). This fully achieves the requirements of Condition 26.

South East Façade

Building envelope:	430 m ²	Rw 41 dB
Fire doors x 2:	4.8 m ²	Rw 39 dB
Composite performance		Rw 41 dB

The south east elevation provides a performance in excess of Rw 33 dB (+ 8 dB). This fully achieves the requirements of Condition 26.



South West Façade

Building envelope:	640 m ²	Rw 41 dB
Fire doors x 2:	4.8 m ²	Rw 39 dB
Composite performance		Rw 41 dB

The south west elevation provides a performance in excess of Rw 33 dB (+ 8 dB). This fully achieves the requirements of Condition 26.

North West Façade

Building Envelope	488 m ²	Rw 41 dB
Loading Bay Doors x 4:	80 m ²	Rw 25 dB
Fire doors x 1:	2.2 m ²	Rw 39 dB
Windows	72 m ²	Rw 35 dB
Composite performance		Rw 33 dB

The north west elevation provides a composite performance of Rw 33 dB thus achieving the requirements of Condition 26.

North East Facade

Building Envelope	540 m ²	Rw 41 dB
Fire doors x 1:	2.2 m ²	Rw 39 dB
Windows	103 m ²	Rw 35 dB
Composite performance		Rw 39 dB

The north east elevation provides a performance of Rw 39 dB (+6 dB) thus achieving the requirements of Condition 26.

Conclusions.

Based upon each the elements of the building envelope, each of the building facades can demonstrate compliance with the requirements of Condition 26 based upon the louder B2 usage of the building.

This document has been prepared for Indurent only and solely for the purposes expressly defined herein. We owe no duty of care to any third parties in respect of its content. Therefore, unless expressly agreed by us in signed writing, we hereby exclude all liability to third parties, including liability for negligence, save only for liabilities that cannot be so excluded by operation of applicable law. The consequences of climate change and the effects of future changes in climatic conditions cannot be accurately predicted. This document has been based solely on the specific design assumptions and criteria stated herein.

C179 – Indurent Park – Wokingham

Technical Submittal Title:	Euroclad – Wall Cladding – Roof Cladding – Specification		
Technical Submittal Reference Number:	003		
Originator:	Ronald Hening	Date Issued:	08/09/2025
Organisation:	Magrock	Response Required By:	15/09/2025
Distribution List:	Anastasia Appleyard anastasia@knightwebb.co.uk Mark Finch <mark@knightwebb.co.uk>; Richard Webb <richard@knightwebb.co.uk>; Matthew Naylor <matthew.naylor@htcarchitects.co.uk> David Wainwright <david@htcarchitects.co.uk>; Andy Scott <andy@knightwebb.co.uk>; Richard Bailey <richard.bailey@indurent.com>; Bradley Harris <bradley@magrock.co.uk>; Mason Smith <mason@magrock.co.uk>; Jack Keating <jackk@magrock.co.uk>;		
Document Description:	Euroclad Specification for a full system , which is to include roof and walls as follows : • Roof - Elite 3.18 - This system achieves a 47DB reduction as all metal skins are equal gauge, and the insulation cavity utilises the same insulation thickness, lambda and density. The only change is the geometry of the external profile. • Trapezoidal Walls - Horizontal Wall (Elite 55) - closest laboratory test data supports a 0.30 u value. This achieves a 41DB reduction. As we are utilising a deeper cavity to achieve 0.26 u value, it would be possible that the proposed system will exceed the attached test data in performance. • Trapezoidal Walls - Vertical Wall (Elite 51) - closest laboratory test data supports a 0.30 u value. This also achieves a 41DB reduction. As noted above, we will be utilising a deeper cavity to achieve 0.26 u value. It would there be possible that the proposed system will exceed the attached test data in performance. • Micro rib Walls - Horizontal Opus/plank (Elite 58) It is possible attached data utilising trapezoidal external profile (Elite 55) can be reviewed as comparable data to demonstrate the likelihood of achieving but also exceeding the project requirements of 33DB. To note that HTC is to confirm the extent of the Elite58 with the extent of the install only being to the offices area , which does not impact operational activities in order to ensure that the requirements are met in line with the planning condition no.26 of Planning Permission Ref: 242136		

Sound Reduction Test Data Sheet

Elite System 55.30 Kn

Frequency f Hz	Sound reduction Index, dB1/3 Oct	Sound reduction Index, dB1/1 Oct
50+	8.8	10.1
63+	10.7	
80+	11.3	
100	17.1	19.6
125	20.3	
160	24.3	
200	28.3	30.9
250	32.3	
315	34.6	
400	35.5	37.8
500	38.8	
630	40.8	
800	44.1	44.7
1000	45.1	
1250	45.1	
1600	50.5	52.6
2000	53.4	
2500	55.1	
3150	59.8	60.3
4000	60.0	
5000	61.4	
6300+	62.2	62.3
8000+	64.3	
10000+	61.1	
Average 100-3150	39.1	

Sound Reduction Rating according to
BS EN ISO 717-1:1997

Rw(C;Ctr) = **41 (-2;-8) dB**

SRL Report Number: C/06/5L/3499/1

Notes:

- * designates measurement corrected for background
- # designates limit of measurement due to background
- + designates frequency beyond standard and not UKAS accredited

Issue Date: 04/06/2019

Sound Reduction Test Data Sheet

Elite System 51.30 Kn

Frequency f Hz	Sound reduction Index, dB1/3 Oct	Sound reduction Index, dB1/1 Oct
50+	9.3	12.1
63+	16.1	
80+	13.5	
100	13.5	16.6
125	17.6	
160	24.4	
200	28.7	31.4
250	32.8	
315	35.1	
400	37.3	39.0
500	40.1	
630	41.1	
800	42.5	44.5
1000	44.0	
1250	49.6	
1600	49.1	50.1
2000	52.0	
2500	49.6	
3150	50.9	53.1
4000	54.1	
5000	55.7	
6300+	60.1	62.3
8000+	63.7	
10000+	64.3	
Average 100-3150	38.0	

Sound Reduction Rating according to
BS EN ISO 717-1:1997

$R_w(C;Ctr) = 41 (-3;-10) \text{ dB}$

SRL Report Number: C/06/5L/3499/1

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Issue Date: 05/06/2019

Sound Reduction Test Data Sheet

Elite System 3.18 Kn

Frequency f Hz	Sound reduction Index, dB1/3 Oct	Sound reduction Index, dB1/1 Oct
50+	16.4	18.5
63+	18.9	
80+	22.2	
100	26.0	28.0
125	28.2	
160	31.2	
200	35.5	38.0
250	38.8	
315	42.3	
400	44.5	45.9
500	45.8	
630	48.0	
800	49.6	46.8
1000	46.1	
1250	45.7	
1600	49.7	51.2
2000	50.9	
2500	54.2	
3150	56.5	57.6
4000	58.1	
5000	58.6	
6300+	60.0	60.4
8000+	61.5	
10000+	59.8*	
Average 100-3150	43.3	

Sound Reduction Rating according to
BS EN ISO 717-1:1997

Rw(C;Ctr) = **47 (-2;-7) dB**

SRL Report Number: C/22349/T02

Notes:

- * designates measurement corrected for background
- # designates limit of measurement due to background
- + designates frequency beyond standard and not UKAS accredited

Issue Date: 17/05/2019