

RICHARD W STAIG
CHARTERED BUILDING SURVEYOR

Mr. & Mrs. J McDaid

99 Atbara Road
Teddington
MIDDLESEX
TW11 9PA

Date: Thursday, July 11, 2024

Our ref: rs/ROL.230330/1

Dear Mr. & Mrs McDaid

**99 ATBARA ROAD TEDDINGTON MIDDLESEX TW11 9PA
DAYLIGHT/SUNLIGHT**

This Report has been commissioned to consider the effect upon the daylight/sunlight of your neighbour's property (101 Atbara Road), having regard to Appendix A & D of BR209 (2022), with regard to the attached proposals; the proposals are for the demolition of the existing building on the site and the construction of a two-storey house.

3. Residential Amenity Standards

3.1 NEIGHBOURLINESS

Sunlight and daylight

3.1.1 If no substantial loss of sunlight or daylight to adjoining dwellings and gardens occurs residential development will generally be acceptable subject to the overall design quality, impact on the character of the area and sustainability of the proposal.

3.1.2 Residential development should create good living conditions and should not cause any significant loss of daylight or sunlight to habitable rooms or gardens in neighbouring properties. In deciding the acceptability of proposals the council will be guided by the Building Research Establishment (BRE) standards. Regard will also be made to the impact on residential amenity and the patterns of use of the rooms and gardens.

Following the publication of the information paper entitled "**Site Layout planning for daylight and sunlight: A guide to good practice**" by the **Building Research Establishment** in 1991, the assessment of daylight and sunlight has been generally carried out in accordance with the criteria set by this publication and which is generally taken to be the accepted basis for such assessment and adopted by most Planning Authorities. This publication was superseded by the Second Edition **issued** October **2011** which itself has now been superseded by BR209 (2022).

Prior to presenting my detailed results, I would confirm that I am a Chartered Building Surveyor working predominately in the field of rights of light including daylight and sunlight assessments. I have an extensive and highly specialised knowledge, in these areas having worked in the past for both Anstey Horne & Co. for five years and Schatunowski Brooks (formerly known as Michael Brooks Associates as it was when I joined, then known as GVA Schatunowski Brooks and now part of Avison Young) for three years, as well as Delva Patman Associates - now known as Delva Patman Redler LLP - for four years prior to joining in Partnership Dixon Payne in 2001. All are acknowledged Experts in these fields; I now act under my own banner.



RICHARD STAIG CHARTERED BUILDING SURVEYOR
30 RED LION STREET RICHMOND TW9 1RB MOB : 07710 066235

RICHARD STAIG *RICS* METRICS

I regularly provide Expert Witness advice in respect of Planning Applications in respect of daylight and sunlight at Planning Inquiries acting for both Appellants and Planning Authorities. I was consulted by the **Building Research Establishment** prior to the revision of their guidelines in 2011 and was part of the consultation about further revisions currently being considered following the publication of BS EN 17037:2018. Those discussions have resulted in the publication of the guidance BR209 (2022) in June 2022 although the method of assessment for the effect upon adjoining properties' daylight/sunlight remains the same as for the previous guidance.

Within BR209 (2022), concerning the effect upon the daylight of adjoining properties, the advice is:

- 2.2.21** *If any part of a new building or extension, measured in a vertical section perpendicular to a main window wall of an existing building, from the centre of the lowest window, subtends an angle of more than 25° to the horizontal, then the diffuse daylighting of the existing building may be adversely affected. This will be the case if either:*
- *The VSC measured at the centre of an existing main window is less than 27%, and less than 0.8 times its former value*
 - *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 primary assessment of daylight is based on the calculation of the vertical sky component (**VSC**) to an affected window in both the existing and proposed condition. The VSC, simply put, is the amount of light received at the centre of a window with the maximum that can be received on a vertical face being 39.6%. It does not indicate distribution within a room for which other assessments are required. The guide states that if at the centre of a window the VSC is greater than 27% of the visible dome then enough skylight should be reaching the window.

This said, a VSC of 27% is the ideal, but in most urban situations unlikely to be achieved. The guide states, however, that if the VSC is below 27%, and if any reduction is within 0.8 of the original value, no significant loss will occur (a reduction which is deemed to be of no consequence and not readily identifiable). For clarification, if there is a reduction of more than 20% of the original quantum of daylight received, this will be discernible to the human eye, i.e. no reduction in daylight would provide a result of 1.0, a perceivable reduction in daylight would provide a figure of 0.79 or less, a reduction in daylight not perceivable to the human eye will result in a figure between 0.8 to 1.0.

In respect of sunlight, the guide details the assessment of this by way of calculating the number of probable sunlight hours. Probable sunlight hours take into account the total number of hours a year that the sun is expected to shine taking into account average levels of cloud cover for the geographical location. Only windows which face within 90° of south meet the criteria for assessment.

Sunlight is considered important for living rooms, but less so for bedrooms and kitchens. If the assessment is appropriate, the guide states that a window should receive at least 25% of annual probable sunlight hours (APSH) with at least 5% of winter probable sunlight hours (WPSH), but no less than 0.8 times the former if the sunlight is originally below as well as a reduction in sunlight received over the whole year no greater than 4% of annual probable sunlight hours.

For the detailed technical analysis of the effect upon daylight/sunlight, which is detailed in Appendix A of the BR209 2022, whilst daylight distribution is detailed in Appendix D (the internal configuration has been sourced from Agents' details), I have constructed a 3D model of the existing/proposed site with massing of the surrounding contextual building sourced from the OS, and using specialist computer programs, the quantum of daylight/sunlight received in the existing and proposed conditions to the has been calculated by way of Waldram analysis – Appendix B of the BR209 (2022).

By way of explanation, Percy J. Waldram invented the Waldram diagram as a method of showing on a 2d image the curved and three-dimensional view of the sky from a fixed point. The area of a Waldram diagram drawn to scale is 396cm² which represents the total amount of unobscured sky that can be seen from a vertical plane. The vertical edges of any obstructions are plotted as vertical lines on the diagrams by reference to their angle from the reference point. The head of any obstruction are plotted along the droop line corresponding to their altitudes above the horizontal measured in the section perpendicular to the reference point.

The results of the analysis are as follows:

| Daylight | | | | | | | |
|-----------------|------------------|-------------|------------------|--------------|--------------|-------|--------------------|
| Building Name | Floor Name | Window Name | Traffic Light Id | VSC Existing | VSC Proposed | Pr/Ex | Meets BRE Criteria |
| 101 Atbara Road | Ground - Bedroom | W1 | 1 | 23.04 | 5.73 | 0.25 | NO |
| 101 Atbara Road | Ground - Kitchen | W2 | 2 | 29.41 | 17.29 | 0.59 | NO |
| 101 Atbara Road | Ground - Kitchen | W3 | 3 | 27.17 | 27.17 | 1 | YES |
| 101 Atbara Road | Ground - Kitchen | W4 | 4 | 29.85 | 29.85 | 1 | YES |

| Sunlight | | | | | | | | | | | | |
|-----------------|------------------|-------------|------------------|--------------------|-----------|-----------|-------|--------------------|-----------|-----------|-------|--------------------|
| Building Name | Floor Name | Window Name | Traffic Light Id | Window Orientation | Annual Ex | Annual Pr | Pr/Ex | Meets BRE Criteria | Winter Ex | Winter Pr | Pr/Ex | Meets BRE Criteria |
| 101 Atbara Road | Ground - Bedroom | W1 | 1 | 231° | 47 | 9 | 0.19 | NO | 11 | 3 | 0.27 | NO |
| 101 Atbara Road | Ground - Kitchen | W2 | 2 | 231° | 54 | 29 | 0.54 | YES | 14 | 3 | 0.21 | NO |
| 101 Atbara Road | Ground - Kitchen | W3 | 3 | 321°N | 15 | 15 | North | North | 2 | 2 | North | North |
| 101 Atbara Road | Ground - Kitchen | W4 | 4 | 321°N | 13 | 13 | North | North | 1 | 1 | North | North |

| Daylight Distribution | | | | | | | | | | |
|-----------------------|------------------|-----------|----------|-----------|-------------|-------------|------------|------------|-------|--------------------|
| Building Name | Floor Name | Room Name | Room Use | Room Area | Lit Area Ex | Lit Area Pr | Existing % | Proposed % | Pr/Ex | Meets BRE Criteria |
| 101 Atbara Road | Ground - Bedroom | R1 | Bedroom | 6.575 | 6.284151 | 1.525311 | 95.58% | 23.20% | 0.24 | NO |
| 101 Atbara Road | Ground - Kitchen | R2 | Kitchen | 12.956 | 12.903418 | 12.842714 | 99.59% | 99.13% | 1 | YES |

The analysis demonstrates that whilst windows W1 & W2 (side elevation windows of 101 Albara Road facing onto the site) have reductions in daylight than will be discernible to the human eye, the effect upon the daylight distribution to the kitchen of 101 Atbara Road is *de minimis*.

With regard to the Bedroom served by W1, this also shows a substantial effect on the daylight distribution as well.

Whilst these results show an adverse effect to the Bedroom of 101 Atbara Road, it is important to consider both the advice of NPPF and BR209 (2022) itself before reaching any conclusions.

NPPF paragraph 129(c) provides:

- c) local planning authorities should refuse applications which they consider fail to make efficient use of land, taking into account the policies in this Framework. In this context, when considering applications for housing, authorities should take a flexible approach in applying policies or guidance relating to daylight and sunlight, where they would otherwise inhibit making efficient use of a site (as long as the resulting scheme would provide acceptable living standards).**

Paragraph 1.6 of the **BR209 (2022)** states in its entirety:

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 (see Section 5). In special circumstances the developer or planning authority may wish to use different target values. For example, in a historic city centre, or in an area with modern high-rise buildings, a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings. Alternatively, where natural light is of special importance, less obstruction and hence more sunlight and daylight may be deemed necessary. The calculation methods in Appendices A and B are entirely flexible in this respect. Appendix F gives advice on how to develop a consistent set of target values for skylight under such circumstances.

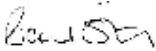
The properties on Atbara Road consist of two-storey dwellings with either front or rear mansard extensions. However, 99 and 101 Atbara Road are both bungalow dwellings. The attached agents' details for 101 Atbara Road show the internal configuration of the property, demonstrating that the affected bedroom is actually a secondary bedroom, with the principal bedrooms having outlooks unaffected by the proposals.

5/...

Considering NPPF 129(c) and paragraph 1.6 of the BR209 (2022), even though the results indicate a noticeable impact on the daylight to the secondary bedroom, taking into account the existing building type on Atbara Road and the proposed dwelling on the site, it would be reasonable to consider the proposals acceptable and grant Planning Permission.

I trust that the foregoing clarifies matters, but if you require anything further, please do not hesitate to contact me.

Yours sincerely,



R W STAIG

E-mail : richardstaig@btinternet.com

Mobile : 07710 066235

Encs

Atbara Road, Teddington, TW11



Main area: Approx. 102.2 sq. metres (1100.2 sq. feet)
Plus outbuildings, approx. 13.0 sq. metres (146.2 sq. feet)

Contact

To arrange a viewing call our office on the number below or visit our website.

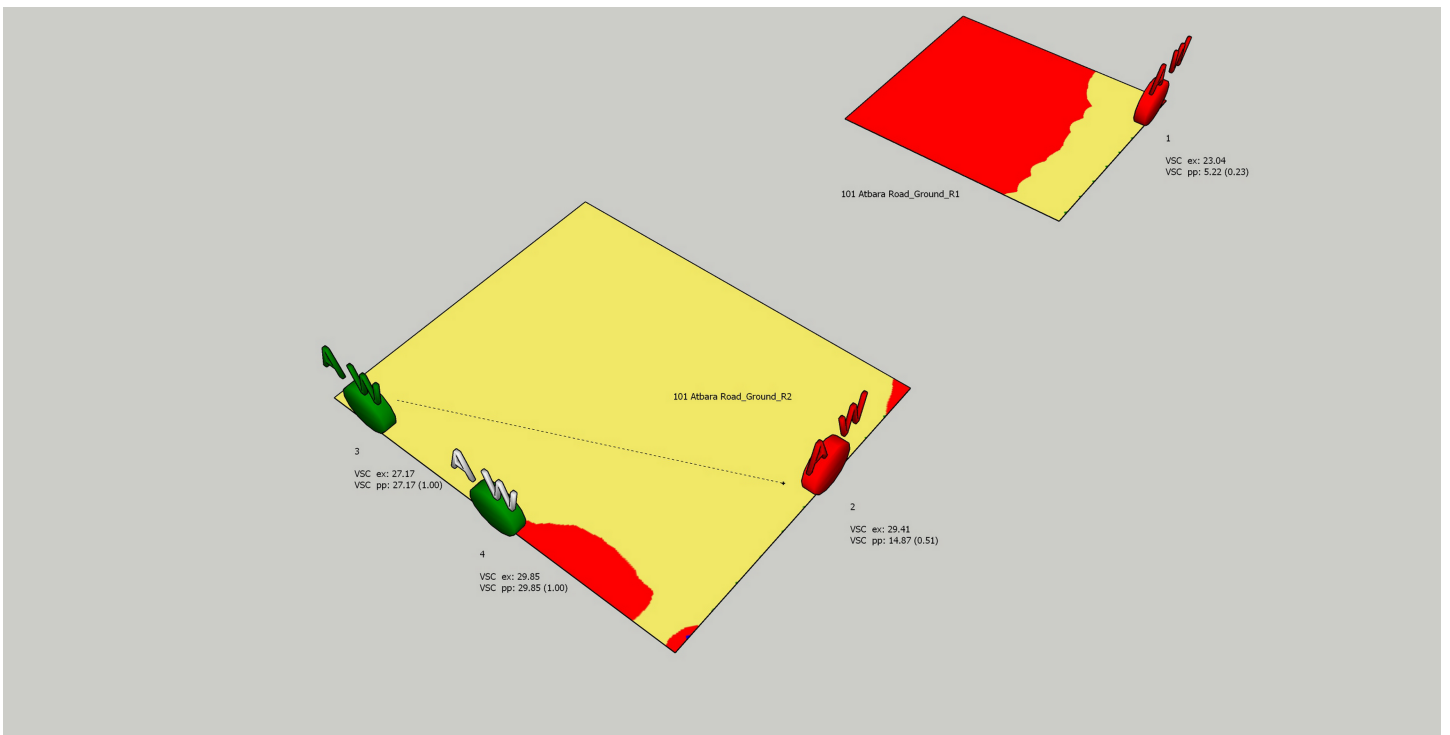


Energy Rating: E. We aim to make our particulars both accurate and reliable. However they are not guaranteed; nor do they form part of an offer or contract. If you require clarification on any points then please contact us, especially if you're traveling some distance to view. Please note that appliances and heating systems have not been tested and therefore no warranties can be given as to their good working order.

BR209 (2022)
 101 ATBARA ROAD
 DAYLIGHT DISTRIBUTIONS



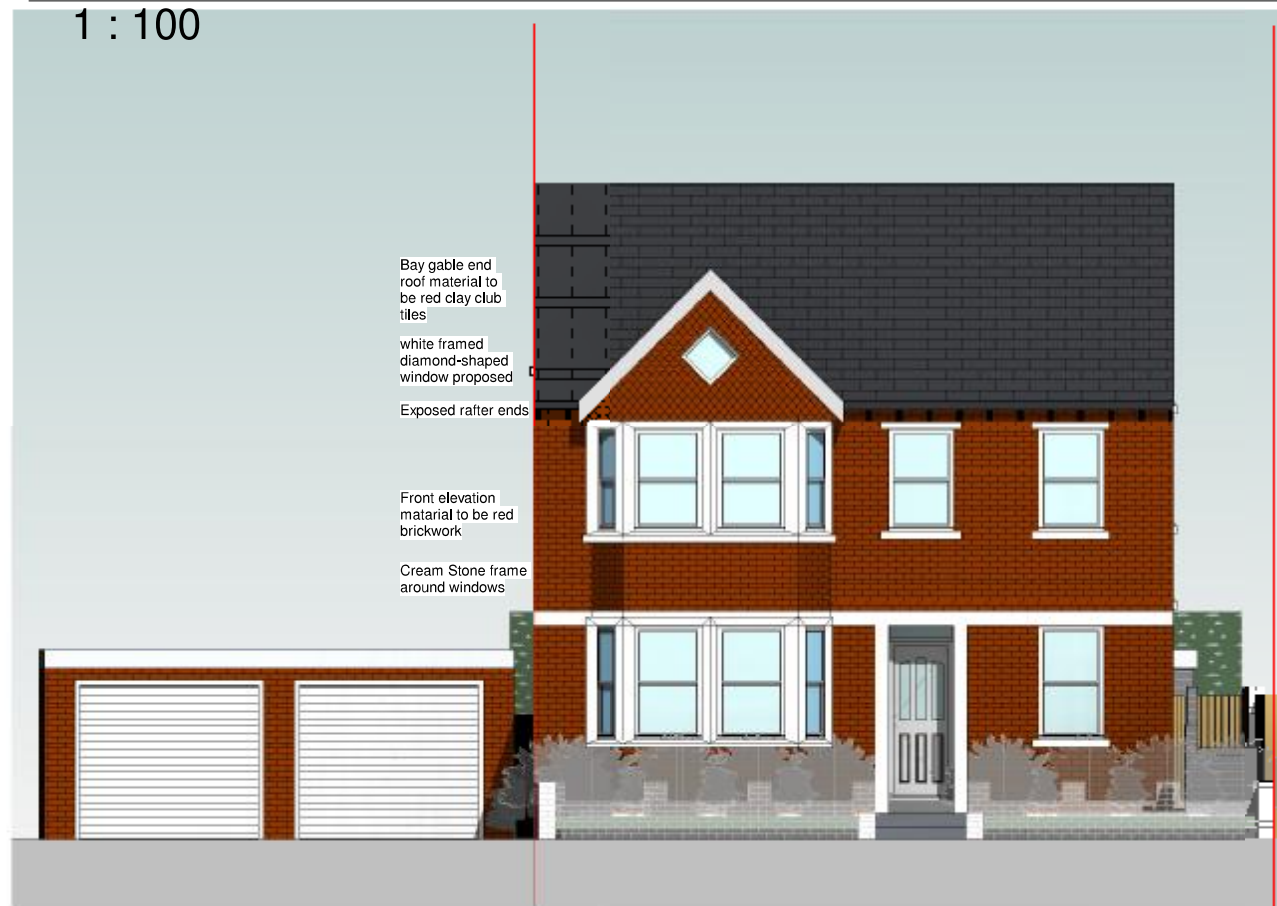
Model RevB results



Model RevB results (2)

FRONT ELEVATION

1 : 100



RH ELEVATION

1 : 100



Ground level lowered (4.6m long and across the width of the plot) to match existing level directly behind house to comply and exceed compensatory flood risk requirements per the FRA

PROGRAMME:

KEY:

| | | | |
|-----------|----------------------|------------|-------------------|
| | Neighbouring context | RWP | Rain Water Pipe |
| | Existing walls | SVP | Soil Vent Pipe |
| | Proposed walls | | Boundary line |
| | Proposed rooflight | | Existing removed |
| MH | Manhole | | Existing beam |
| B | Boiler | | 1.2 m head height |
| EM | Electric Meter | | 1.5 m head height |
| GM | Gas Meter | | Ridge line |

REVISION NOTES:

REV: | DATE: | DESCRIPTION:

GENERAL NOTES:

- All Dimensions are in millimetres unless otherwise stated
- All work to be carried out in accordance with current building regulations and all relevant british standards/codes of practice.
- The Contractor is responsible for the correct setting out of the works on site, all dimensions to be checked prior to fabrication of materials and commencement of works.
- This Drawing is to be read in conjunction with all relevant drawings and specifications
- Exact SVP and Boiler position to be determined onsite by contractor
- A 'macerator toilet' would be required for a certain designs if the toilet location is away from existing SVP
- Steels imbedded into ceiling may be charged additionally by your contractor
- All proposed materials are to be similar in appearance to that of the existing house, unless otherwise stated.
- Skylights must not protrude past the roof slope by more than 150mm
- Glazing which exceeds 25% of the added floor area will result in extra charges for S.A.P Calculations
- Windows on a side elevation at first floor level or above must be obscured glazing and non openable below 1.7m
- Load-bearing partitions and/or posts are shown in a rough position. The exact position is to be confirmed by a structural engineer prior to construction.



EXTENSION PLANS

Extension Plans. Ealing Cross, 85 Uxbridge Rd, London W5 5BW

CLIENT: Jamie & Beverley McDaid

PROJECT: New 4 Bed House

PROJECT ADDRESS: 99 Atbara Road, Teddington TW11 9PA

PROPOSED ELEVATIONS

DRAWING TITLE:

DRAWN BY: LG | CHECKED BY: JH

DATE: 22/09/2023 | Rev: | Rev. DATE:

SCALE@A3: 1:100 | DRAWING No: AR-R02-PR-105

REAR ELEVATION

1 : 100



LH ELEVATION

1 : 100



PROGRAMME:

KEY:

| | | | |
|-----------|----------------------|------------|-------------------|
| | Neighbouring context | RWP | Rain Water Pipe |
| | Existing walls | SVP | Soil Vent Pipe |
| | Proposed walls | | Boundary line |
| | Proposed rooflight | | Existing removed |
| MH | Manhole | | Existing beam |
| B | Boiler | | 1.2 m head height |
| EM | Electric Meter | | 1.5 m head height |
| GM | Gas Meter | | Ridge line |

REVISION NOTES:

| REV: | DATE: | DESCRIPTION: |
|------|-------|--------------|
|------|-------|--------------|

- GENERAL NOTES:
- All Dimensions are in millimetres unless otherwise stated
 - All work to be carried out in accordance with current building regulations and all relevant british standards/codes of practice.
 - The Contractor is responsible for the correct setting out of the works on site, all dimensions to be checked prior to fabrication of materials and commencement of works.
 - This Drawing is to be read in conjunction with all relevant drawings and specifications
 - Exact SVP and Boiler position to be determined onsite by contractor
 - A 'macerator toilet' would be required for a certain designs if the toilet location is away from existing SVP
 - Steels imbedded into ceiling may be charged additionally by your contractor
 - All proposed materials are to be similar in appearance to that of the existing house, unless otherwise stated.
 - Skylights must not protrude past the roof slope by more than 150mm
 - Glazing which exceeds 25% of the added floor area will result in extra charges for S.A.P Calculations
 - Windows on a side elevation at first floor level or above must be obscured glazing and non openable below 1.7m
 - Load-bearing partitions and/or posts are shown in a rough position. The exact position is to be confirmed by a structural engineer prior to construction.



Extension Plans. Ealing Cross, 85 Uxbridge Rd, London W5 5BW

CLIENT: Jamie & Beverley McDaid

PROJECT: New 4 Bed House

PROJECT ADDRESS: 99 Atbara Road, Teddington TW11 9PA

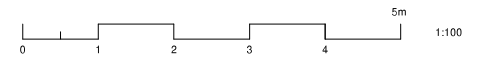
PROPOSED ELEVATIONS

DRAWING TITLE:

DRAWN BY: LG | CHECKED BY: JH

DATE: 22/09/2023 | Rev: | Rev. DATE:

SCALE@A3: 1:100 | DRAWING No: AR-R02-PR-106



PROPOSED STREET SCENE

1 : 100



PROGRAMME:

KEY:

| | | | |
|-----------|----------------------|------------|-------------------|
| | Neighbouring context | RWP | Rain Water Pipe |
| | Existing walls | SVP | Soil Vent Pipe |
| | Proposed walls | | Boundary line |
| | Proposed rooflight | | Existing removed |
| MH | Manhole | | Existing beam |
| B | Boiler | | 1.2 m head height |
| EM | Electric Meter | | 1.5 m head height |
| GM | Gas Meter | | Ridge line |

REVISION NOTES:

REV: | DATE: | DESCRIPTION:

GENERAL NOTES:

- All Dimensions are in millimetres unless otherwise stated
- All work to be carried out in accordance with current building regulations and all relevant british standards/codes of practice.
- The Contractor is responsible for the correct setting out of the works on site, all dimensions to be checked prior to fabrication of materials and commencement of works.
- This Drawing is to be read in conjunction with all relevant drawings and specifications
- Exact SVP and Boiler position to be determined onsite by contractor
- A 'macerator toilet' would be required for a certain designs if the toilet location is away from existing SVP
- Steels imbedded into ceiling may be charged additionally by your contractor
- All proposed materials are to be similar in appearance to that of the existing house, unless otherwise stated.
- Skylights must not protrude past the roof slope by more than 150mm
- Glazing which exceeds 25% of the added floor area will result in extra charges for S.A.P Calculations
- Windows on a side elevation at first floor level or above must be obscured glazing and non operable below 1.7m
- Load-bearing partitions and/or posts are shown in a rough position. The exact position is to be confirmed by a structural engineer prior to construction.



Extension Plans. Ealing Cross, 85 Uxbridge Rd, London W5 5BW

CLIENT: Jamie & Beverley McDaid

PROJECT: New 4 Bed House

PROJECT ADDRESS: 99 Atbara Road, Teddington TW11 9PA

DRAWING TITLE: PROPOSED STREET SCENE

DRAWN BY: LG

CHECKED BY: JH

DATE: 22/09/2023

Rev:

Rev. DATE:

SCALE@A3: 1:100

DRAWING No: AR-R02-PR-107