SQUARE FEET ARCHITECTS
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27th January 2022

London Borough of Camden
2nd Floor, 5 Pancras Square
c/o Town Hall, Judd Street
London
WC1H 9JE

RE: 10 Belsize Square, London NW3 4HT
Replacement of Existing Windows & Doors and Merging of Two Flats

DESIGN AND ACCESS STATEMENT

Introduction

This Design and Access Statement is submitted in support of a planning application for the proposed works to the lower ground and upper ground floor flats at 10 Belsize Square, London NW3 4HT.

10 Belsize Square is a semi-detached residential house, subdivided into residential flats, comprising of a lower ground, upper ground, first, second and roof storeys, located in the Belsize Conservation Area (BCA).

Square Feet Architects have been appointed by our client to propose the merging of the lower ground floor and upper ground floor flat to form one duplex flat, as well as the replacement of existing windows and French doors to that duplex apartment. The proposals have been sensitively designed, following advice given in the *BCA Design Guide* and *BCA Article 4(1) Direction Fact Sheet*, as well as the *Camden Local Plan Policy H3* and *London Plan (2018)*.

Planning

The proposed replacement of existing windows and doors usually would not require planning permission, however the location of the property within the BCA means the site falls under the *BCA Article 4(1) Direction*, which stipulates that replacement of windows or doors with matching double-glazed windows or doors on the front of the property requires planning permission. Given that our proposed front elevation replacement windows and doors are double glazed, we are following this guidance and pursuing the application through the planning permission route.

What needs planning permission? **Type of work**	**Requires Planning Permission?**		**Restrictions / comments** (NB There are no changes in existing planning controls for the rear elevations of properties.)
	House	**Flat**	
Windows and doors			
1. Like -for-like replacement of windows or doors on the front* of your property (or the side if this faces the road**)	✗	✗	As long as the new window or door matches all of the following: • in materials • in the size, design and profile including window glazing bars / frame • in the glazing bar / frame / window cill dimensions and opens in the same way (for example vertically sliding sash windows or side- or top-hinged casements). Any original details should be replicated and original catches, handles, pulleys, etc, should where possible be transferred to the new window or door.
2. Replacement of windows or doors with matching double-glazed windows or doors on the front of your property (or the side if this faces the road)	✓	✓	This is to ensure that historic windows and doors are retained where possible, rather than replaced.
3. Replacing windows or doors on the front of your property (or the side if this faces the road) with new ones of different material or design	✓	✓	If existing windows or doors are original or characteristic of the period this is unlikely to be granted permission; we advise like-for-like replacement (see [1] above).
4. Replacing windows or doors on the rear of your property with new ones of different material or design	✗	✓	Replacement windows or doors of a different material or design anywhere on a flat continue to require planning permission. Replication of original designs and materials (as [1]) is always encouraged.
Walls, porches and decorative features	**House**	**Flat**	
5. Any works to enlarge, alter or improve the front of your property (or the side if this faces the road) including changing / removing traditional or historic decorative features. e.g. new	✓	✓	Works which are considered to detract from the traditional / historic character and appearance of the property are unlikely to be granted permission. Like-for-like reinstatement of historic features and

Belsize Conservation Area advice on alterations and repair following the introduction of an Article 4(1) Direction with relevant note "2. Replacement of windows or doors with matching double-glazed windows or doors on the front of your property"

With regards to the merging of two residential units to one unit, guidance is provided by the in 2017 adopted *Camden Local Plan Policy H3*, which seeks to protect existing housing by resisting development that would involve the net loss of two or more homes, meaning that there is no material change of use where there would be the net loss of one unit. This is the case with our proposed merging of residential units resulting in a net loss of one unit, which we would like to outline here for your consideration in addition to the replacement of windows and doors.

Proposals for Replacement of Existing Windows and Doors

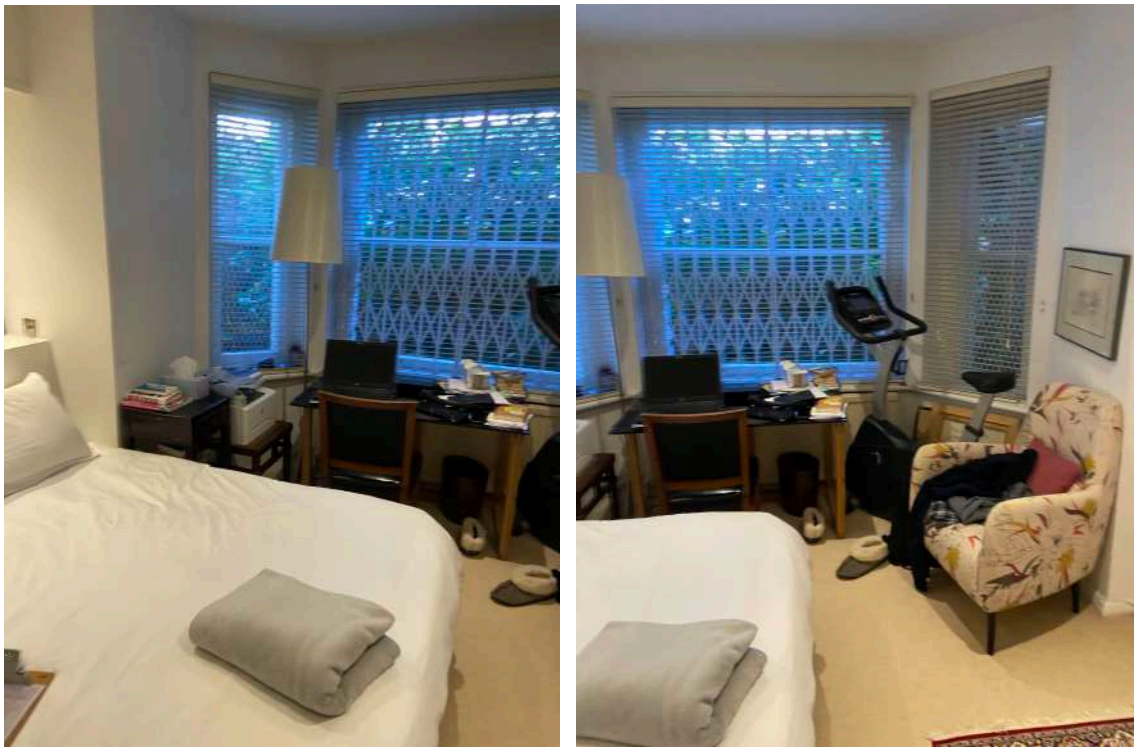
We are proposing replacement of existing windows and doors, as the present timber framed windows have very poor thermal performance. BCA Article 4(1) Direction demands that windows to the front - but not those to the side and rear - be replaced in a like-for-like manner. Therefore, we are proposing a like-for-like replacement unit for the front of the house that meets the criteria set out in the *BCA Design Guide*.

The *Design Guide* states that it is permissible to replace windows of a property facing a street within the conservation area if these are like-for-like with the existing. In order to achieve this criterion, the *Design Guide* states the new windows must:

- Match in materials, colour and surface finish
- Have the same dimensions
- Have the same pattern and detailed profile

These standards can be satisfied by a specialist timber window contractor, (Traditional Window & Conservatory Company or similar), who can replicate the existing lower ground floor timber windows to the front of the house in the three areas outlined above whilst incorporating double-glazed units to improve their thermal efficiency, limit draughts and reduce the property's environmental impact. The frame and sill dimensions along with the glazing pattern and profile of the glazing bars will broadly match the existing. The timber frames will have the benefit of modern wood treatment, preservatives and a durable white paint finish to replicate the original colour.

Images of existing front elevation – lower ground floor windows are behind planting and not visible from street



Images of existing front elevation lower ground floor windows – view from inside showing sash windows

In addition to replicating the windows like-for-like to the lower ground floor front elevation, we will also replace the lower ground and upper ground floor side elevation windows in a similar manner. Despite not being immediately visible from the street, we have specified a like-for-like replacement in this area to further maintain the historic integrity of the property, exceeding the minimum standard specified in the BCA *Design Guide*.

Images of existing side elevation – a 3m tall wall obscures the view to the lower ground floor windows, while only a small portion of upper ground floor window is visible through the narrow alley between this and the neighbouring property

Furthermore, at the rear of the property, all the windows to the lower ground floor and windows and French door to the upper ground floor will also be replaced in a similar manner. Albeit the rear elevation not being visible from the street, we are proposing a like-for-like replacement to this elevation as well to further maintain the historic integrity of the property, exceeding again the minimum standard specified in the *BCA Design Guide*.

Images of existing rear elevation – the lower and upper ground floor windows and French doors are not visible from the street but only from the property's rear garden and the neighbouring rear gardens

The French doors to the lower ground floor rear elevation are specified in the same timber framing with durable white paint finish as existing to further maintain the overall character of the property. These will not include the horizontal glazing bars in order to take maximum thermal benefit from full sized panes, but also to mimick the design on the upper ground floor French doors, overall leading to a more homogenous appearance on the building.

Proposals for merging of two residential units

Our client is a family who has been living on the lower ground floor flat, which has over the years become too small for their needs and has led to them recently acquiring the upper ground floor flat.

We are proposing the merging of the lower ground floor and upper ground floor flat to form one duplex flat, and thus meeting their needs for larger accommodation. This loss of one unit constitutes no material change of use as outlined in the *Camden Local Plan Policy H3.*

The existing flats have the following metrics:

- Existing lower ground floor flat is a 3-bedroom flat of 103sqm size
- Existing upper ground floor flat is 1-bedroom flat of 49sqm size

The proposed merged duplex flat is envisioned as a 4-bedroom flat of 152sqm size and conforms with the London Plan (2021) and its minimum space standards for a 2 storey dwelling.

Type of dwelling		Minimum gross internal floor areas* and storage (square metres)			
Number of bedrooms (b)	Number of bed spaces (persons(p))	1 storey dwellings	2 storey dwellings	3 storey dwellings	Built-in storage
1b	1p	39 (37) *	N/A	N/A	1
	2p	50	58	N/A	1.5
2b	3p	61	70	N/A	2
	4p	70	79	N/A	2
3b	4p	74	84	90	2.5
	5p	86	93	99	2.5
	6p	95	102	108	2.5
4b	5p	90	97	103	3
	6p	99	106	112	3
	7p	108	115	121	3
	8p	117	124	130	3
5b	6p	103	110	116	3.5
	7p	112	119	125	3.5
	8p	121	128	134	3.5
6b	7p	116	123	129	4
	8p	125	132	138	4

London Plan (2021), Table 3.1 – Minimum internal space standards for converted new dwellings

Summary

As shown above and within the accompanying drawings, the proposals have been sensitively designed, complying with relevant London, Camden and Belsize Conservation Area documents.

Furthermore, the proposals provide:

- Replacement of the existing poorly performing windows and doors to the lower and upper ground floor with a, in relevant areas, like for like designed new windows and doors, improving their thermal efficiency, limiting draughts and reducing the dwelling's environmental impact.
- Merging of the lower and upper ground floor flats, creating one larger duplex dwelling which is more suitable to the needs of the inhabitants.

We look forward to hearing from you.

Kind regards,

Ivan Soldo
For and on behalf of SQUARE FEET ARCHITECTS LTD.

TRADITIONAL WINDOW & CONSERVATORY COMPANY

Manufacturers of the Finest Traditional Timber Windows, Doors and Conservatories

[redacted]@squarefeetarchitects.co.uk

21 December 2021

10 Belsize Square, NW3

Hi Joseph

Please find to follow considerations and specifications to upgrade the windows to your home.

We offer a unique installation service where all the glazing and painting, both internal and external is carried out away from the elements in controlled conditions at our joinery. Not only does this greatly improve the quality of the process that we undertake to produce our bespoke joinery, but it also:

- Makes for a less disruptive installation in your home i.e. the replacement window is installed immediately after the original has been removed
- Enables our customers to maximise the benefit of the replacements as soon as possible and when it matters most.

We are a FENSA (see 'Considerations') Registered Window Joinery Company and as such will arrange for the Building Regulation Certificate of Compliance to be issued following any window/door replacement. This document confirms that the work carried out is fully compliant with current Building Regulations and is also needed to help calculate the Energy Performance Certificate (EPC) for your home. The EPC is now required when a property is sold or rented out.

If you have any further questions, please do not hesitate to contact me.

Yours sincerely

Des

Des Ward
Joinery Surveyor
07968 969 325
des@traditionalwindow.com
www.traditionalwindow.com

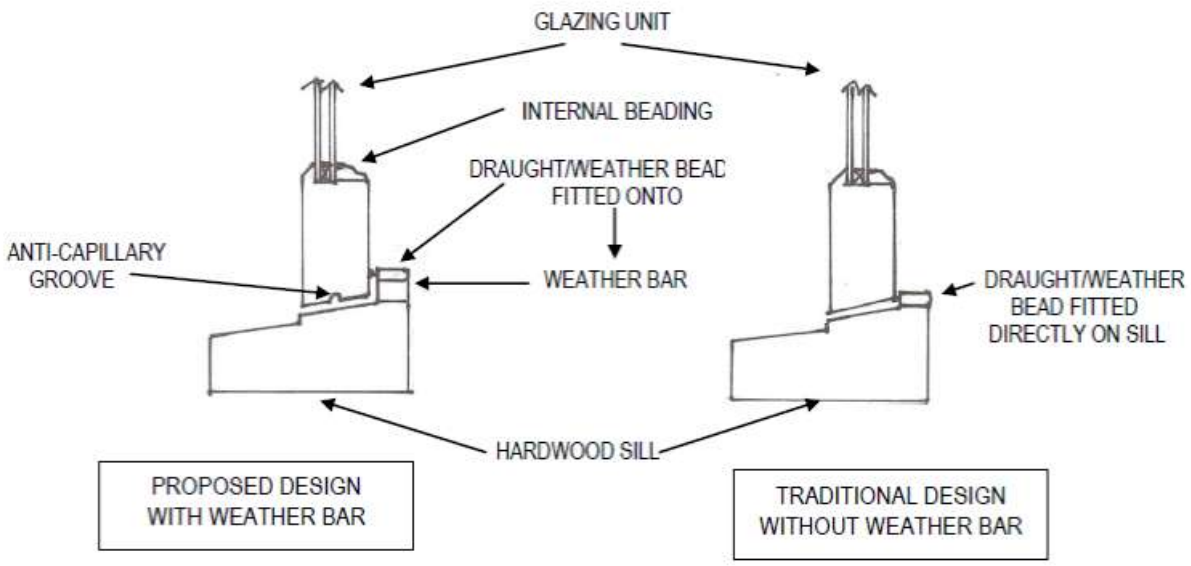
PROPOSALS

As bespoke joiners we will mirror the original/existing profiles and period detail or as specified all fitted with 20mm low emissivity soft cost double glazed sealed units.

Box Sash Specifications

- Box frame and sashes traditional construction with mortise and tenon joints in finest Joinery Timber
- Straight grained, knot free, pressure/vacuum treated engineered Redwood, Sapele external hardwood sill
- Profile moulding to be as original design for double glazing or to your specification.
- Sash windows to be hung on pre-stretched nylon cord with lead sash weights, and brass axle pulleys.
- Windows to be weather-proofed, independently tested to BS 5368 parts 1 & 2, and BS 6375.
- Glazing to be 4.12.4 low emissivity glass sealed units, BS. 6206, CLASS A, white spacer bar, unless specified otherwise, factory glazed, bedded in Silicone and beaded from the inside for increased security.
- Security and acoustic glazed sealed units available on request
- Paint finish to be 3 No: coats Impralan acrylic paint, airless spray, applied to a thickness of 180 microns on inside and outside to your specification.
- All window furniture supplied to your requirements
- Security locks to be 2 No: Barrs security sash stops per window
- Window boards and architrave to be replaced and spray painted finish 4 coats Impralan acrylic airless spray paint, or to your specifications.
- New hardwood sills spray painted as above

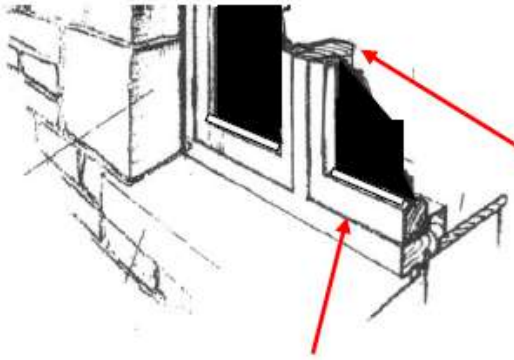
Cross Section of Bottom Sash Rail & Wood Sill Illustrating Weather Bar etc.



Casement Specifications

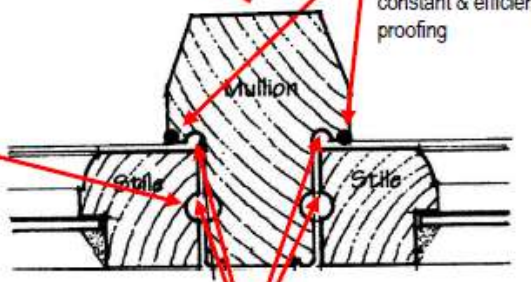
- Traditional construction with mortise and tenon joints in finest joinery timber
- Straight grained, virtually knot free, quality European Redwood Pine or laminated timber all Protim preservative treated in our own Protim pressure/vacuum treatment tank
- Sapele hardwood available
- Profile moulding to be as original window for double glazing as per Building Inspectorate approval March 2015
- Hinges to be 3 x 2 brass butts with bronze washers or as specified
- Casement fasteners to be traditional pattern, solid brass polished and lacquered, our ref B976 or as specified
- Casement stays to be traditional pattern, solid brass polished and lacquered, our ref B979/80 or as specified
- Windows to be weather-proofed, independently tested to BS 5368 parts 1 & 2, and BS 6375
- **Fully spray painted;** paint finish to be 3(No.) coats Impralan acrylic paint, airless spray, applied to a thickness of 180 microns
- Glazing to be 4-12-4 low emissivity soft coat glass sealed units, BS. 6206, CLASS A, white warm edge spacer, krypton filled unless specified otherwise, factory glazed, bedded in Silicone and beaded from the outside with traditional putty style bead. Alternatively external, preservative treated timber bead machined to look like traditional putty bead as on test sample window
- All window furniture supplied to your requirements
- Security locks to consist of Chubb key locking system or as per your requirements
- Window boards and architrave to be replaced where necessary and spray painted finish 3 coats Impralan M.V.P. Acrylic airless spray paint, or to your specifications.
- New hardwood sills spray painted as above, extended sills according to site requirements
- Design and period detail to mirror original design

FIXED MULLION FLUSH FITTING CASEMENTS



Bottom rails are also fitted with anti-capillary grooves & sloping underside & sill to assist in rainwater runoff & compliment stile grooves

CROSS SECTION OF BASIC MULLION & STILE



Weatherproof/draught seals easily replaceable to ensure and encourage constant & efficient draught & weather proofing

Pressure relief stile grooves to reduce air/wind pressure and encourage airborne moisture to drop out into drainage grooves. This prevents excess pressure & moisture on the seals thus maximising their efficiency, the grooves are also important to cut back on dust & sound transmission ingress.

N.B. Timber preferences to be confirmed subject to site visit.

CONSIDERATIONS

N.B - Subject to Article 4 Direction

Replacement Windows: FENSA

From April 2002, all replacement glazing now comes within the scope of the Building Regulations. Anyone who installs replacement windows or doors must comply with strict thermal performance standards. One of the main reasons for the change is the need to reduce energy loss. The Building Regulations have controlled glazing in new buildings for many years, but they represent only a very small percentage of our total building stock. It is also essential to improve the performance of the much larger numbers of existing buildings if we are to meet increasingly stringent national and global energy saving targets.
When the time comes to sell your property, your purchaser's surveyors will ask for evidence that any replacement glazing installed after April 2002 complies with the new Building Regulations.

There will be two ways to prove compliance:

- A certificate showing that the work has been done by an installer who is registered under the FENSA Scheme.
- A certificate from the local authority saying that the installation has approval under the Building Regulations.

The FENSA Scheme

It is estimated that around 2 million installations of replacement glazing happen every year. If all of them went through the normal Building Regulations application process it would place an enormous burden on local authorities. It is essential to have a way to ensure that the work is done properly without an unreasonable increase in the administrative and financial burden on installers and property owners. The answer is a scheme which allows installation companies that meet certain criteria to self-certify that their work complies with the Building Regulations.

The scheme is known as FENSA, which stands for Fenestration Self-Assessment. It was set up by the Glass and Glazing Federation, in association with all key stakeholders, and meets with central Government approval. A sample of work of every installer is inspected by FENSA appointed inspectors to ensure standards are maintained. FENSA also inform local authorities of all completed FENSA installations and issue certificates to householders confirming compliance.
Any installation done by a firm which is not registered to self-certify, or done as a DIY project by a householder, needs full local authority approval under the Building Regulations. The council knows all the approved installers in the area and can identify unauthorised work very easily. You should note that you, as the house owner, are ultimately responsible for ensuring the work complies with the Building Regulations. Before you sign a contract to buy replacement glazing, be sure to ask whether the installer is able to self-certify. If not, either they, or you, will need to make an application to the council for approval under the Building Regulations and pay any relevant charges.

Energy Performance Certificate (EPC)

Properties either built, sold or rented now require an Energy Performance Certificate as a measure of the overall efficiency of energy in a property. It provides information on use, typical energy costs, heating etc. and recommendations of how to reduce energy uses and save money.
EPC gives a property an energy efficiency rating from A (most efficient) to G (least efficient) and is valid for 10 years. Naturally the higher the rating the more energy efficient the property is and the lower the fuel bills will be.

SOFTWOOD OR HARDWOOD

Most of the period windows and doors in London are over 100 years old and are made with European pine/red softwoods, which also include the external wood sills. The timbers used did not have the benefit of modern wood treatment, preservatives, high quality micro porous paint finishes, and yet the windows are still alive and kicking today.

"Softwood can be treated to achieve an equivalent life to durable hardwoods such as iroko, teak, mahogany or oak" TRADA (Timber Research and Development Association) High Performance Wood Windows 2004. (TBL 65 - 2nd edition, section 4.4 timber durability). For softwood doors we will use a laminated timber.

The main weakness points of any window/doors are simply the external wood sill, and the absence of anti-capillary grooves on the bottom rail, even though this only represents the bottom 100 mm or 8% of a window. If timber degeneration occurs, this is normally where it will start. Consequently to counter this we install as standard on all our windows a hardwood external sill and anti-capillary grooves on all sloping bottom rails, therefore wet rot to the above is a rarity unless of course the window is totally neglected over many years (20 -30 years).

Paint Cover with Hardwoods

Because hardwood is more dense and impermeable than softwood stains or paints cannot achieve the same level of penetration and adhesion as on softwood and may therefore require more frequent maintenance. "This is particularly true of naturally oily woods such as teak and iroko" (TRADA Technology of High Performance Wood Windows 2nd Edition 2004)

Paint and Timber Windows

Below is an extract from a Trada (*The Timber Research & Development Association)* technology report entitled 'High Performance Wood Windows' (2004) and notes to illustrate how we as a joinery company respond. Trada Technology is the leading independent timber research consultancy and information provider for the construction industry with clients from government and local authorities and throughout the construction chain both in the U.K. and overseas.

"Modern well designed correctly installed high performance wood windows/doors provide long-term durability and lasting performance. Past criticisms that wood windows/doors require a high level of maintenance and that despite this, they will eventually decay and cease to achieve the same overall performance as windows of other materials are no longer valid.

Although many windows/doors of untreated softwood have lasted for more than 200 years, their long life generally has been dependent upon good initial selection of the wood, frequent maintenance with suitable paints, and a good standard of workmanship in their construction. Unfortunately the introduction of oil based paints to replace lead based paints, the practice of leaving windows/doors virtually unfinished during the construction period, and finally poor preparation and workmanship in eventually applying the finishes on site, often resulted in failures.

The mandatory use of wood preservative for susceptible timbers and the use of modern flexible paints and stains have largely eliminated any risk of decay. Factory applied finishes will always last longer than those applied on site and will therefore require less frequent attention. Some manufacturers now offer guarantees of 10 years or more for factory applied finishes, whereas windows with finishes applied on site will require a higher frequency of maintenance.

Modern wood windows/doors match the operational performance and weather resistance of windows/doors of any other material. However, attaining minimum maintenance, durability and high levels of functional performance can only be done with a full understanding of what constitutes good design and specification and the following are designed to address these issues.

Low Maintenance Paint Frequency

With the aforementioned in mind achieving longevity with low maintenance and painting frequency whilst retaining period detail in timber windows is dependent upon not one but a combination of all of the following:

The Quality of Timber Used

Irrespective of the position of the windows/doors, we will use the best quality certificated straight grained virtually knot free timber from sustainable sources. Treated laminated softwoods, modified timber i.e. Accoya and hardwoods (Sapele) are also available.

Chemical Preservation

Where soft woods are specified the timber is treated in Protim water borne timber preservation systems, in Protim pressure vacuum tanks at our joinery, all certified to ISO 9001 Quality Assurance & ISO 14001 Environment Standard Award & supplied with full insurance back up warranty certificate. Hardwood or modified timber cannot be treated as such.

Surface Preservation

The timber is sealed in 3 coats of micro porous paint which is specially applied with an air assisted spray at our joinery before installation. This provides long term protection from excess absorption or loss of moisture which can lead to dimensional fluctuation as the timber expands and contracts. The consequent straining and opening of joints creates further weak points in the structure leading to eventual paint cover failure as the cycle repeats itself. This micro porous, flexible acrylic coating system restricts the latter phenomena and also protects against biological and fungal attacks whilst resisting the UV radiation in natural sunlight.

High Design and Construction Specifications

Glazing is externally installed against a timber rebate with a traditional putty bead profile to mirror traditional putty bead. Internally beaded windows are also available which helps to eliminate maintenance/painting requirements associated with putty shrinkage and externally applied timber beading.

All casement window sashes, whether fixed or opening, are made with capillary and pressure grooves to all sides of the casement sashes and frames. This cuts back on any problems regarding rain water retention between the bottom rails and external sill, thus reducing potential paint blow and wet rot development. Profile edges have small radii (rounded); this ensures full paint coating adhesion which greatly improves weather seal performance by reducing weakness created by sharp edges.

Highly Skilled Installation

Good installation is of course critical, even the best products, if poorly installed will fail. We not only manufacture the windows and doors but install them ourselves to the same exacting standards. No sub-contractors are used.

All of these design and high preparation specifications are essential if the windows/doors are south or west facing and open to the harsh weathering effects of the sun (ultra violet light), rain and the wind. The micro porous paint will allow the timber to breathe but keep moisture out and minimize any bowing and warping of the timber. It will also mean no paint blistering or embrittlement resulting in low maintenance i.e. a light rub down with fine wire wool every 8-10 years and a coat of the existing finish as recommended by Impralan paints. Exposed south and west facing windows/doors that are open to the summer sun's harsh weathering may need painting every 8-10 years whereas east facing 10-12 years and north facing every 12-14 years.

Paint Stability

The back elevation are south facing and open to the suns harsh weathering effects.

It is important that a stable timber is used in order to increase paint coating stability and enhance its lifespan. This is key to the long life of a window or door, because if the coating remains intact the window/door will last indefinitely and require minimum future maintenance requirements.
Knot removal along with the aesthetic effect also prevents resin exudation, which will damage paint coating.

With the above in mind we propose protim vacuum/pressure treated engineered redwood for the windows with Sapele hardwood external sills.

To enhance paint coating stability still further all our timber products are spray painted in a controlled factory environment with the latest microporous paint.

The Accoya® Production Process

Accoya® raises the standards and reliability of timber windows, doors and conservatories to new levels with a minimum 60 year service life. Accoya® has properties that surpass those of the best tropical hardwoods, yet is manufactured using a non-toxic wood modification process and timber

Stage 1

Radiata pine is used for Accoya® production. The sustainable plantation involves pruning of the branches up to height of 6 metres. Clear, knot free timber is normally only available from old growth boreal of tropical rainforests.
Pruning, along with finger jointing, allows us to provide more sustainable, clearer grade timber.

Stage 2

Wood is prepared for the modification vessel by separating the layers with fillets. These fillets are designed to allow optimum circulation and facilitate complete cross sectional modification of the timber

Stage 3

To produce Accoya®, the acetic anhydride reacts with and blocks the chemical components of wood which normally absorb water and moisture. This is a closed loop process where the residual materials are recycled and used for subsequent modifications.

Stage 4

Accoya® is removed from the modification tank. Only naturally occurring wood components have been added to Accoya® in this process. The wood resists rot, decay and swelling by resisting moisture absorption.

Revolutionary Wood Modification Process

Major Benefits to Consumers

- High performance timber windows, doors and conservatories
- Class 1 durability, greater than oak and teak
- Significantly reduced coating maintenance
- Peace of mind with credible and robust guarantees
- Highly sustainable
- Only naturally occurring wood compounds are added during the wood modification process

60 Year Life Expectancy
- Minimum 60 year life expectancy backed by BRE and supported with a 50 year guarantee

Exceptional Coatings Performance
- 12 year guarantee for an opaque (paint), fully factory applied coating system to first brush applied planned maintenance, 10 year for translucent (stains)*

Stability
- Accoya® is guarantees to shrink and swell less than any other joinery timber – making windows and doors open effortlessly all year round.

Complete Protection
- Accoya® wood modification process is all the way through to the core of the timber. No problems with machining.

Sustainable
- Accoya® timber is sourced from managed sustainable sources

Eliminates Resin
- No resin bleed occurs from Accoya®

100% Non-Toxic
- Accoya® is non-toxic.

The only addition to Accoya® is naturally occurring acetyl groups. Pine has 2%, Oak has 4% and Accoya® has 20%

Rot Resistant
- Accoya® achieves the highest possible British Standard durability rating – Class 1

Efficiency
- High yield from engineered lengths. Excellent machining properties, reduced denibbing of coatings

UV Protection
- Accoya® has superior resistance to the Effects of UV exposure

Long Life and Low Maintenance