

# 3.1 CONCEPT

## INTRODUCTION

The proposal involves restoring the site to its former use by reinstating a detached single residence for a private, single family end user. The Neo-Georgian design has been inspired by contextual examples of early 20th century houses in the surrounding Elsworth Conservation Area and neighbouring St John's Wood Conservation Area. It should be noted that neo means to take reference from, and as such this style, and its subsequent materials, is reflective of the twentieth century era, as opposed to that of a true Georgian or Palladian home.

This application represents the culmination of a detailed design process, where the scheme's architectural rationale has been based on a scholarly holistic approach, and has sought to incorporate true to style materials and details, inspired from the surrounding context and historical research. We believe that the new scheme will be a complimentary addition to existing surroundings, and enhance the character and appearance of the Elsworth Conservation Area.

Numerous sketch proposals were worked through to understand the site constraints and opportunities for development and how they best fit in with our clients brief. Every effort has been made to maximise the natural light and aspect available to the property while providing a luxury home arranged laterally.

The details used in the design; like classically proportioned six over six sashes, stone cornice embellished with dentil work, stone window and door surrounds, slate roof tiles and lead clad dormers are contextual in their design and execution. The quality of the materials, details and finish of the proposed building are based on both the immediate context, as well as its historic design integrity. The following section discusses the design scheme in terms of its layout, scale, appearance, architectural details, materials and finishes etc.

## LAYOUT

The basic form of the plan is dictated by the tree protection zones and set backs to afford privacy to neighbours. The building therefore adopts a linear format in which the spaces are organised around a central service/stair core, which also serves as vertical circulation throughout the house. The ground floor comprises of formal, informal and staff living areas, while family and staff sleeping accommodation is housed on the first floor. Entertainment, leisure and utility areas, are contained on the lower ground floor. The basement will be used to accommodate mechanical and electrical plant. See below for detailed organisation of spaces

### Basement Floor

Plant room

### Lower Ground Floor

Cinema, Wine cellar, Wine lounge, Gym, Pool, Leisure area, Catering kitchen, Laundry room, Plant room and art store.

### Ground Floor

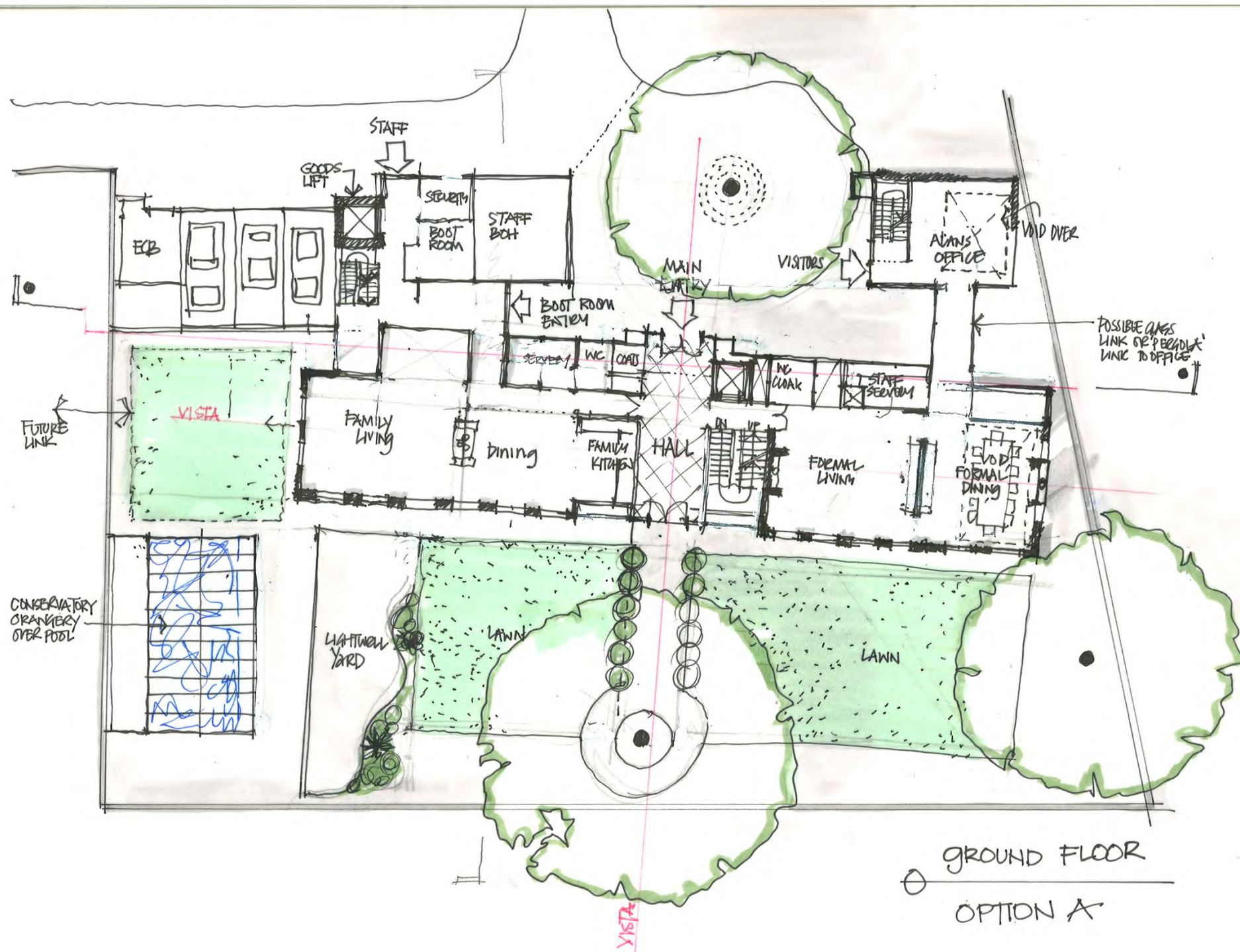
Formal Reception and Dining room, Informal Reception and Dining room, Family Kitchen, Rest room, Staff Living, Study, Garage, Substation, etc

### First Floor

Master Bedroom suite, additional Bedroom suites, nanny's accommodation and staff accommodation

### Second Floor

Attic storage



Sketch Plan  
NTS



## 3.2 PROPOSAL

### SCALE

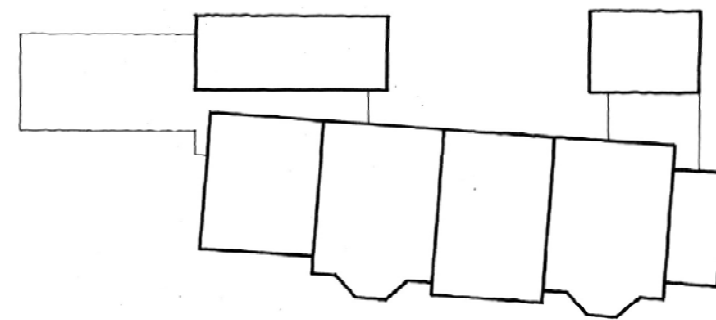
A stepped facade design has been adopted to reduce the perceived mass of the building when viewed from all facades. When approaching from Radlett Place one is initially presented with a single storey garage structure followed by low double storey wings of reduced scale which frame the larger main house. Single storey glass links connect the wings to the main house to provide additional facade articulation and further reduce overall mass.

The double volume main house steps similarly down to present a single storey facade to the adjacent Primrose Hill. The boundary wall dividing Primrose Hill and 1 Radlett Place is of substantial height and will be retained, concealing most of the single storey extension from view. The primary building will therefore appear to be substantially set back from the boundary line.

The length of the south east facade has been broken down by expressing a central bay on the main house with two further bays divided by a double volume recess in a symmetrical arrangement. The 30 degree pitched roof extends over this portion of the building and is broken by a central pediment. Parapet wall and flat roof construction is proposed for the section of building accommodating the first floor bedrooms. This reduces the extents of the pitched roof and therefore perception of scale.



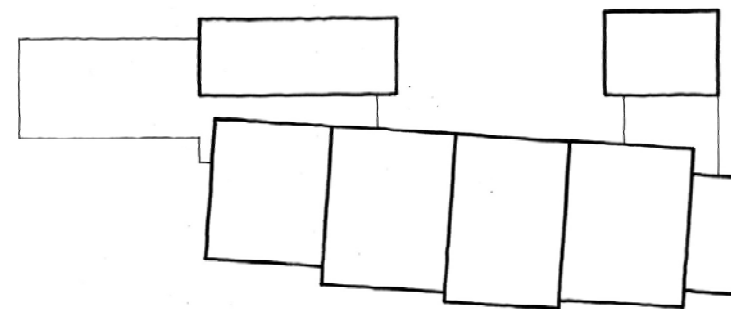
Rear elevation sketch 01



plan indicating rear facade with stepped bay windows



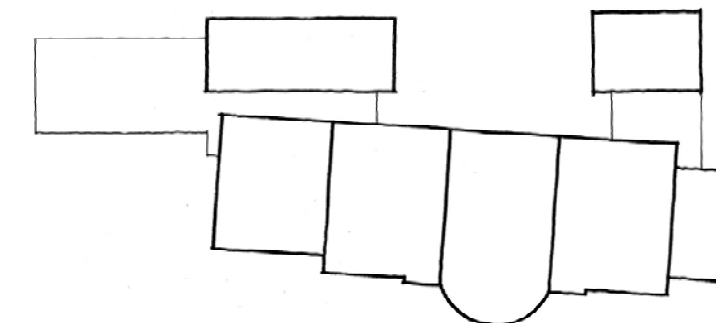
Rear elevation sketch 02



plan indicating rear facade with stepped central bay



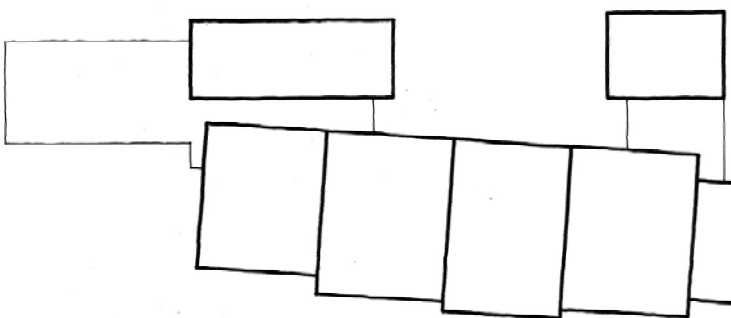
Rear elevation sketch 03



plan indicating rear facade with stepped rotunda



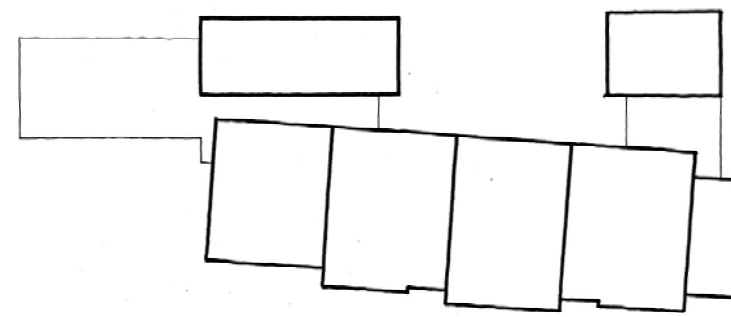
Rear elevation sketch 04



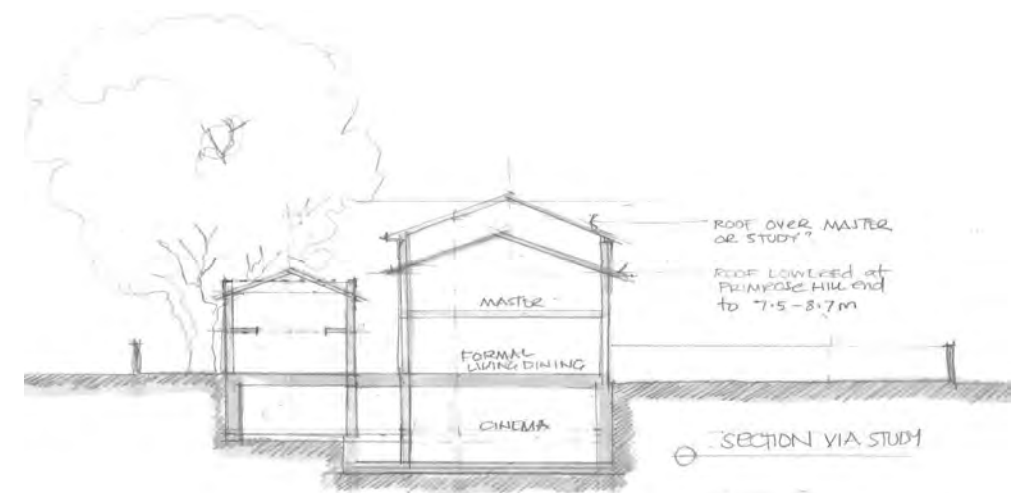
plan indicating rear facade with stepped central bay



Rear elevation sketch 05



plan indicating rear facade with central and end bays



Sketch section



Sketch section



## 3.2 PROPOSAL

### MATERIALS

Traditional materials are proposed in keeping with the period form and styling of the building. These have the benefit of being hard wearing and requiring little annual maintenance.

#### Roof

Natural Slates are proposed for all pitched roof elements in a blue/grey colouring. These will be trimmed with lead flashings, including stepped flashings to chimney's and abutments. Timber framed dormers will be finished in lead to the roof and cheeks. The living roof elements will be a proprietary egg crate and planting system over concrete slabs.

#### Walls

Masonry cavity walls are proposed throughout. The external cladding of these will be either brickwork or reconstituted stone cladding. Detail is introduced to break up the expanse of the walls in the form of reconstituted stone trim and brick/re-con stone quoins. Pointing of the brickwork will be weather stuck and cut and coloured to match the stonework.

#### Fenestration

Doors and windows will generally be traditional painted hardwood double glazed units. Doors are predominately French double doors and windows double hung box sashes. The front door will be of solid construction and finished in a high gloss lacquer.



Rear elevation - Material application option 01



Rear elevation - Material application option 02



Rear elevation - Material application option 03



Rear elevation - Material application option 04



Rear elevation - Material application option 05



Rear elevation - Material application option 06



## 3.2 PROPOSAL



Natural Slate  
NTS



Brick  
NTS



Reconstituted Stone  
NTS

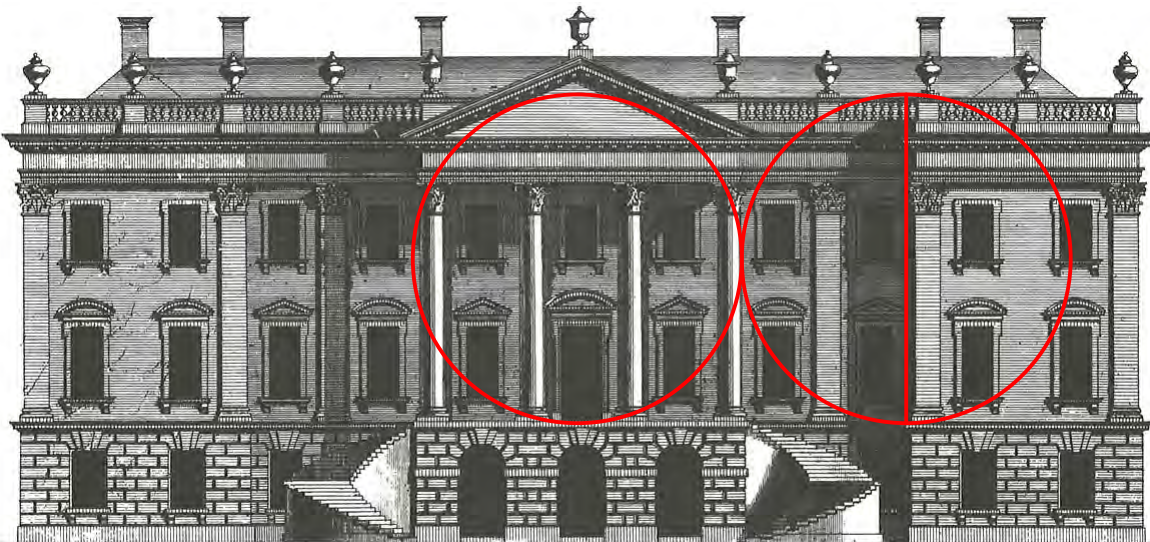




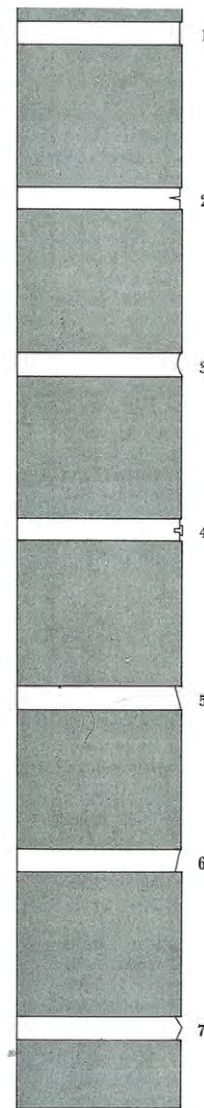
### 3.3 HISTORICAL ANALYSIS



Palladian height to width facade proportion



Palladian stepped facade proportion



Mortar pointing

**Key to pointing terms:**

**1 Flush Joint** The most common traditional form of pointing, where the mortar is finished flush with the brick face.

**2 Flush Scribed Joint** Often seen in 18th century work. The flush pointing is scribed with a rule and travel end shortly before the mortar sets, producing a neat lined and appearance in otherwise relatively irregular work.

**3 Raked Joint** Not to be confused with the rather exaggerated modern raked joint. The mortar is pressed into the joint with a basket handle or similar curved tool to give a slightly concave section. Useful in some cases for repointing old work where the bricks are irregular.

**4 Tuck Pointing** An elaborate technique used particularly in the second half of the 18th century. Where the effect of fine

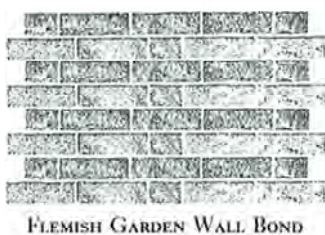
brickwork was required from lower quality work, the joints were flush pointed with mortar coloured to match the bricks. Before this was, a groove was cut into the mortar to receive a thin line of carefully sieved lime putty.

**5 Struck Pointing** Commonly used in modern brickwork; the hard mortar slopes in from the bed joints to cast off the rain. This type of pointing produces a hard line and is rarely

suitable for restoration purposes.

**6 Overhand Struck Pointing** Struck pointing with the slope reversed is sometimes used in old brickwork.

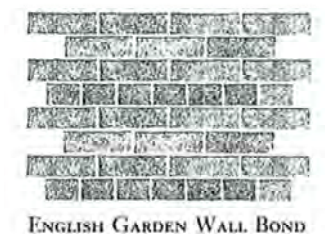
**7 Beaded Joint** A kind of double struck pointing, more usually associated with stonework but occasionally used in brickwork where the sharp line achieved was thought desirable.



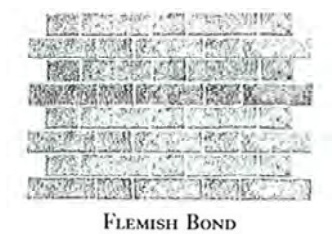
FLEMISH GARDEN WALL BOND



HEADER BOND



ENGLISH GARDEN WALL BOND



FLEMISH BOND

Varieties in brick bonding



Ground floor banding in stucco to imply stone, brick above

The following section discusses our approach to the design, which was informed by a study of Georgian Architecture, as well as an analysis of the prevalent styles of detached houses in the surrounding context. SHH have undertaken research on Georgian Architecture, to create a scholarly approach to the design of the new residence.

#### GEORGIAN ARCHITECTURE

##### History

Our research revealed that the styles of Georgian architecture (Palladianism, Rococo, Neo Classicism, and Regency) evolved and changed over a period of 120 years in response to changing political climates, tastes, building acts, industrial revolution etc.

This popular style was revived again in early 20<sup>th</sup> century, which also coincided with a phase of development in wider St. John's Wood, where this style was commonly adopted for new detached and semi detached houses. Our reason for adopting this style was based on its strong contextual presence and the precedent of the existing house.

Georgian architecture reserved for large detached houses referenced Palladian design features, most notably horizontal division of the facade through emphasis of the ground floor plinth and cornice. Other features included arrangement and sizes of windows, a central porticoed block framed by lower lateral wings linked by colonades. This style was adapted in the early nineteenth century by James Gibbs who also introduced projecting entry canopies, quoining, a middle cornice delineating stories, keystones over openings and a round window in the pediment<sup>1</sup>.

##### Proportion

The underlying principles that remained constant in the evolution of Georgian architecture is the use of symmetry and simple mathematical ratios to determine proportion. Arrangement of individual façades; of wall space to window space, and room height to room length were determined through the use of basic elemental geometric shapes like the square, the circle, the cube, the cube and the half etc.

This approach was rigorously adopted to determine the ratio of facade width to height. This approach extended to encompass diminishing grandeur and scale of architectural detailing with successive storeys, organisation and size of windows across the façade, ratio of cornice to quoin height, etc.

##### Materials

Following the Great Fire of London in 1666, the Rebuilding Act was introduced in February 1667 stipulating that external walls were to be constructed in brick or stone and their precise thicknesses at various heights fixed to reduce the risk of fire<sup>2</sup>. The use of timber on external walls was banned. Advances in technology increased brick production. By the mid-18th Century demand rose for yellow or grey bricks which simulated stone and could be identified as having been made in a different region<sup>3</sup>. London mixed stock in flemish bond with flush pointing was typically used in Georgian residential architecture and is widely evident in the local context.

Use of stone was restricted to more expensive buildings to present a grander street front. Portland stone was highly regarded for its weathering capabilities and is widely used in the local area. Stone banding on ground floor was a Palladian technique widely adopted in Britain to convey a visual impression of strength<sup>4</sup>. Brickwork was regularly adopted above ground level to reduce cost and provide a perception of diminishing scale and grandeur.

Stucco became popular for its ability to conceal cheap irregular brickwork and mimic expensive stonework. Architects, Robert and James Adam were responsible for popularising the use of stucco duro (painted scored lines in the render) on the ground floor of brick elevations, to imply rusticated stone expressed on the ground floor of Palladian villas<sup>5</sup>. By the end of the Georgian period, Stucco was no longer applied to the whole facade, but was restricted to use on the cornice, quoins, basement/ ground, window surrounds and porch<sup>6</sup>.

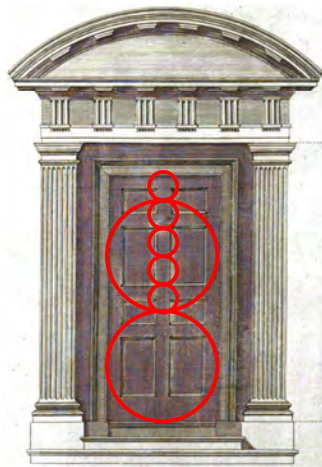
1. Ingrid Cranfield, 'The Georgian House Style' (David & Charles, 1997), 56  
 2. Steven Parissien, 'The Georgian Group Book of The Georgian House' (Aurum Press, 1995), 59  
 3. Steven Parissien, 'The Georgian Group Book of The Georgian House' (Aurum Press, 1995), 60  
 4. Steven Parissien, 'The Georgian Group Book of The Georgian House' (Aurum Press, 1995), 67  
 5. Ingrid Cranfield, 'The Georgian House Style' (David & Charles, 1997), 60  
 6. Ingrid Cranfield, 'The Georgian House Style' (David & Charles, 1997), 64



### 3.3 HISTORICAL ANALYSIS



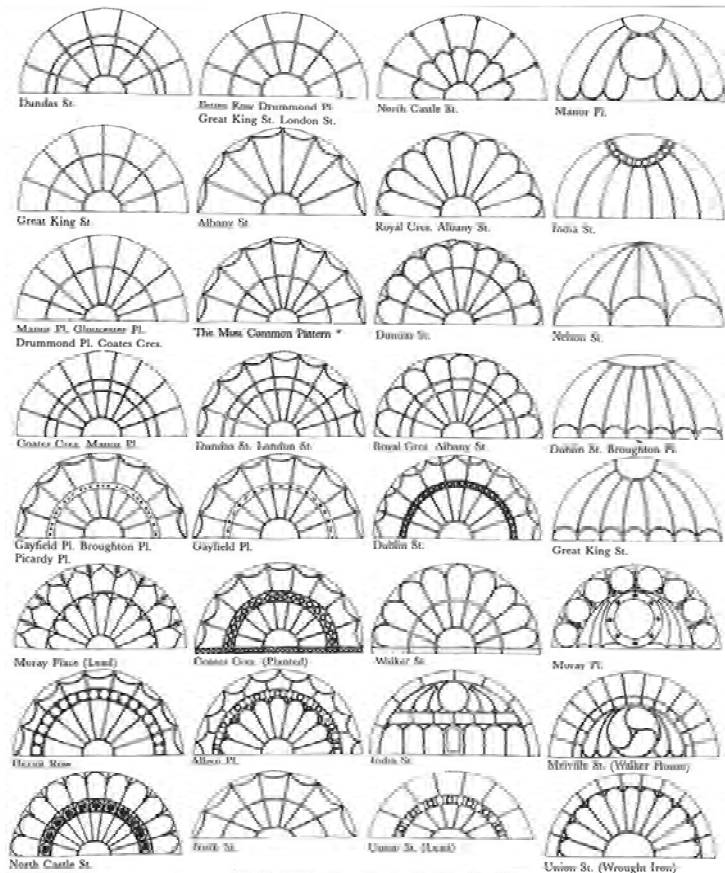
Decorative front door hood



Front door proportion



Georgian french door design



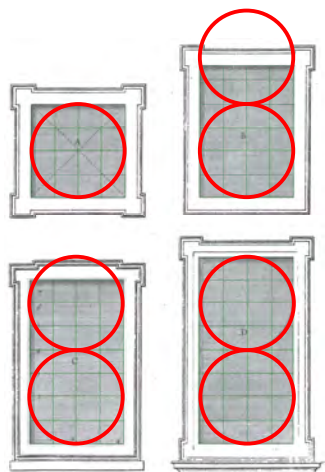
Georgian front door fanlight designs



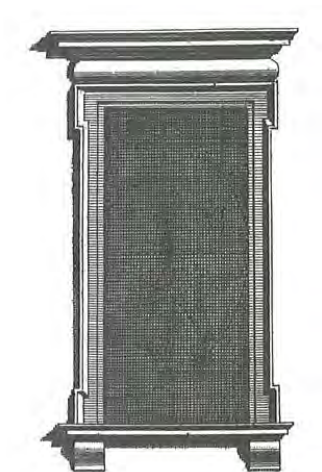
First floor 6/6 sash window



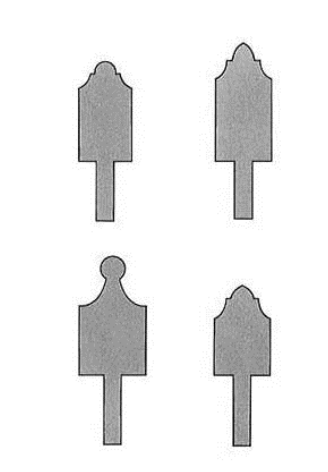
Ground floor 6/6 sash window



Diminishing window proportion



Georgian window surround



Georgian glazing bar profiles

#### Doors

External doors in Palladian Classicism were protected from the weather by an ornamental porch which also served to emphasise their importance. Early Georgian design adopted the porch, which was later superseded by ornamental bracketted hoods of classical proportion as the fashion changed. Pillars or pilasters often supported the hoods, which ranged in design from arched, flat or triangular pediments<sup>1</sup>.

Typical early Georgian front doors were of six recessed timber panels arranged in accordance with Palladian proportion. The top two panels were far smaller than the middle two panels, which were in turn smaller than the bottom two<sup>2</sup>. Doors were uniformly painted black and most ironmongery made of cast iron, with only the wealthy able to afford brass. The door knob was bold and simple in design and fixed at waist height. Door knocker design varied greatly, but was often based on animal heads<sup>3</sup>.

Fan lights first appeared over front doors in the 1720s to allow light penetration into the entry hall, however they emerged as a popular means of expressing individuality of a residence through design. In the mid-18th Century and under the influence of the Adam brothers, designs became increasingly intricate compositions of iron and lead<sup>4</sup>, expressing the importance of the entrance, opulence of the house and status of its owners through ornamentation. By 1800 fan light designs became increasingly restrained and based on simple geometric forms. The semi-circular 'tear drop' designs of the 1820s and 30s were widely used and perhaps best demonstrates this shift<sup>5</sup>.

#### Windows

The size of windows in Georgian architecture related to the importance of the rooms and were identically applied across the elevation on that storey. Entertaining and living spaces were accommodated on ground floor, thus benefitting from the largest windows. Bedroom accommodation was on first floor and therefore only needed smaller windows. Dormer windows were used to light the roof space which was traditionally reserved for storage or servant sleeping accommodation, as this space was the coldest in winter and the hottest in summer; consequently there was no reason to provide large windows<sup>6</sup>. Dormer window heads vary between a flat cornice, curved cornice or triangular pediment.

Palladian architectural proportions were employed by Georgian architects to determine the ratio of window width to height. Ground floor window heights were calculated as equal to twice that of the width. Window sizes diminished with successive storeys, such that first floor window heights were calculated as equal to one and three quarter widths.

Windows were adorned with classical ornamentation including architraves, cornices and friezes to add interest and express grandeur. The architrave was defined as one sixth the clear opening of the window. The architrave was into four parts, three of which formed the height of the frieze and five of which formed the height of the cornice<sup>7</sup>.

Early Georgian villas typically exhibited single glazed double hung box sash windows. The characteristic Georgian timber frame sash window was painted white and usually of six over six panes<sup>8</sup>. Operation was via traditional chords and counter balanced weights with metal faced pulleys concealed in the jambs. The timber sashes and frame were painted white. The fire prevention provisions evident in the Rebuilding Act were reformed in 1707 when it became a requirement that box sash windows be recessed at least 100mm from the outer masonry skin of the elevations<sup>9</sup>.

During the mid-Georgian period spanning from 1760 to 1800, the considerable influence of the Adam brothers over domestic architecture can be recognised in the wide spread adoption of techniques including pediments supported by consoles over windows. Towards the end of the Georgian period, advances in technology allowed production of larger panes of glass supported by smaller glazing bars with delicate mouldings<sup>10</sup>.

1. Ingrid Cranfield, 'The Georgian House Style' (David & Charles, 1997), 81
2. Steven Parissien, 'The Georgian Group Book of The Georgian House' (Aurum Press, 1995), 103
3. Ingrid Cranfield, 'The Georgian House Style' (David & Charles, 1997), 81
4. Steven Parissien, 'The Georgian Group Book of The Georgian House' (Aurum Press, 1995), 105
5. Ingrid Cranfield, 'The Georgian House Style' (David & Charles, 1997), 88
6. Steven Parissien, 'The Georgian Group Book of The Georgian House' (Aurum Press, 1995), 115
7. Andrea Palladio, 'The Four Books on Architecture' (The MIT Press, 2002), 61
8. Steven Parissien, 'The Georgian Group Book of The Georgian House' (Aurum Press, 1995), 91
9. Ingrid Cranfield, 'The Georgian House Style' (David & Charles, 1997), 36
10. Ingrid Cranfield, 'The Georgian House Style' (David & Charles, 1997), 77



### 3.3 HISTORICAL ANALYSIS

#### Roofs

Georgian houses were designed to ensure that the roof was hidden from view at street level by avoiding the use of gables and pitching the roof between 25-35 degrees.

1930s Neo Georgian houses are characterised by use of higher pitches and neatly detailed dormers. These more often than not accommodated an attic storey

The composition of the elevation is usually completed by a strong stucco or stone cornice or low projecting eaves, often bracketed.

Clay roof tiles were superseded by slates in the late eighteenth century because they could be laid in diminishing courses, transferring loads of the roof covering from the apex to the outer walls, thereby permitting a shallower roof pitch<sup>1</sup>.

In the early 1800s the construction of rain water pipes and headers shifted from soft wood and lead to cast iron. Similar to other cast iron building components, these were often painted black and the rain water headers adorned with elaborate designs.

#### Detailing

The Rebuilding Act were further strengthened in 1707 when external wooden cornices were forbidden<sup>2</sup>. The design and proportion of the cornice adopted by the Georgian architects extends from classicism and is documented by Palladio as being divided into 29 parts, which are distributed across its 5 main components: component 1 (6 parts) cavetto, component 2 (6 parts) ovolo, component 3 (8 parts) corona, component 4 (7 parts) gola, component 5 (2 parts) orlo<sup>3</sup>.

Stone quoins at the corners of external walls occasionally served a structural purpose, but were primarily used to add visual weight to the facade edges, creating an impression of permanence and strength. They additionally provided a vertical division of the facade to maintain proportion across its length. Quoins were expressed in both stone or brick, regardless of the material of the wall in which they were set. Quoin detailing was either dental and stacked, and wrapped around the corner so as to be viewed from both sides of the building.

Stone banding was also used as a mechanism to break up large expanses of vertical wall to maintaining proportion and provide a linear expression to contrast the vertical columns or quoining. The band was formed from a projecting continuous course of brickwork or decorative stone profile.



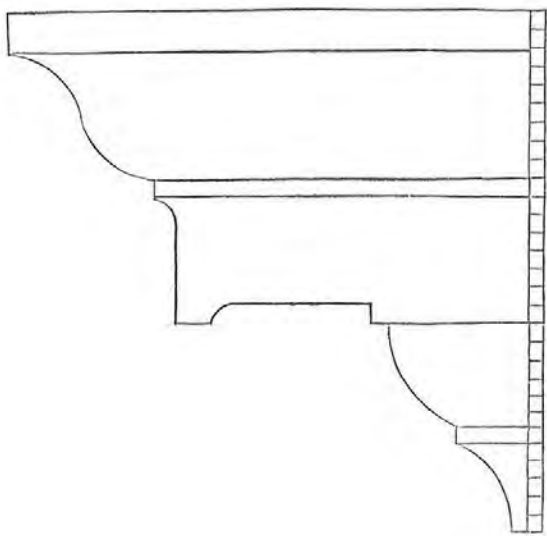
Georgian cast iron headers and down pipes



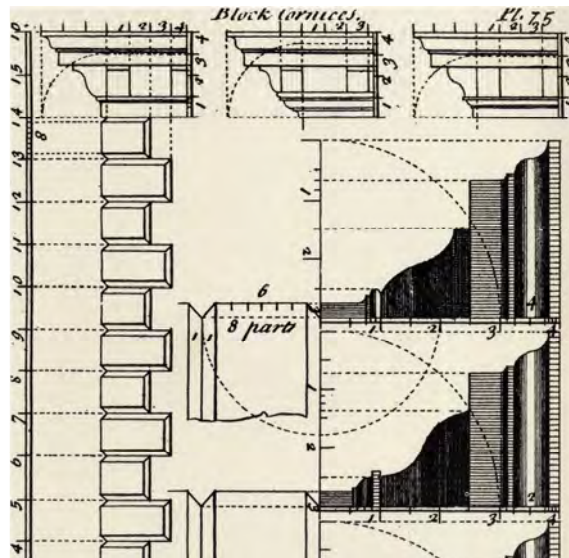
Dormer window design & detailing in slate roof



Diminishing dormer window proportion



Palladian cornice profile and proportion



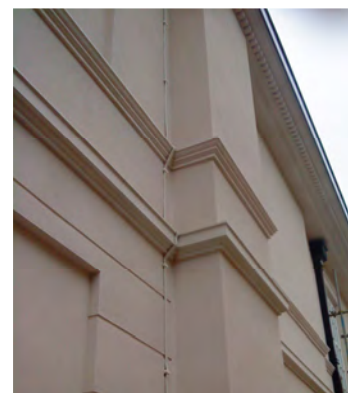
Quoin to cornice proportion



Stacked quoins in stone/stucco



Dental quoins in brickwork



Horizontal stone banding

1. Ingrid Cranfield, 'The Georgian House Style' (David & Charles, 1997), 49  
 2. Ingrid Cranfield, 'The Georgian House Style' (David & Charles, 1997), 44  
 3. Andrea Palladio, 'The Four Books on Architecture' (The MIT Press, 2002), 61



## 3.4 DESIGN CONCLUSION

The proposed design has been informed by rigorous application of aforementioned classical design principles and historical references within the local context.

Central and end bays on the facades establish symmetry and balance, while providing domestic scale through visual articulation. The ratio of height to width of the central bay and its relationship to the end bays have been based on Palladian studies of classical architecture. All façades have storeys of diminishing heights.

Intricacy of architectural detailing increases proportionately with scale across the facade, thereby bestowing sections of the building with a greater level of grandeur. The application of stone and brickwork is equally used in this manner; the central and side bays exhibit large extents of stonework with horizontal banding, decorative window/ door surrounds, quoining and cornice. This contrasts with other sections expressed in brickwork with minimal stone fenestration. The staff and office wings of reduced scale are constructed entirely of brickwork with detailing restricted to highlights in alternative brickwork.

The entrance porch and doorway is designed with projecting moulded hood, a typical Neo Georgian element that can be seen at a number of houses in the area. This is to be formed in timber with decorative semi-circular fan skylight over.

There are 5 flat top roof dormer windows proposed. These are consistent with the other flat top dormers found on Neo Georgian properties in the surrounding area. The cheeks and roofs of the dormers will be lead clad, with white painted windows in sash and case style.

The windows are derived from classical principles, using a circle as an element of proportion. The window sizes are derived using elemental square and fractions thereof. Thus, ground floor windows are 6 over 6 sashes made of two squares, while the first floor windows of diminishing height is one and  $\frac{3}{4}$  square proportion and the attic is one and  $\frac{1}{4}$  square proportion. The sash jambs are also concealed behind the brick reveal to show thin profile of the sashes. Fenestration of openings vary to establish hierarchy based on the location of the window on the facade.

The stone and brick quoins are used at the corners to articulate edges of the building and terminate the facade. Horizontal stone banding assists in breaking down expanses of brickwork into ordered and rhythmic proportions. A stone plinth gives visual weight at the base of the building while a projecting cornice terminates the building at high level. Plenty of examples of such architectural detailing can be found historically and in the surrounding area.

A hipped roof with 30 degree pitch has been adopted to reduce the overall perceived form and mass of the building and also relates to guidance in the local context. There are sections of flat roof behind parapet walls to once again reduce mass and provide a subservient appearance. The sunken roof over the garage will conceal solar PV cells.

The contextual analysis highlights varying styles of brick chimneys, however chimneys in the local area are typically rectangular in shape with some form of high level brick or stone corbelling. These principles have been considered within the design.

Investigations have established design styles prevalent in the area and detailed research undertaken to determine historical reference, architectural expression, materials and detailing. We have applied this research to the design proposal, which thus forms a scholarly representation of a Neo-Georgian building that is true to style and appropriate to its local context.



Front elevation



Rear elevation