

# Planning Response to Sustainability comments

41 Sheldon Avenue, N6  
23002

20 / 09 / 2024



# THE EXISTING PROPERTY

- a. The existing property was constructed in 1928 and has had alterations undertaken mainly internally.
- b. The property is of solid masonry construction with timber framed windows. U-values being approximately 2.1 and 4.8 W/ m2K respectively.
- c. Loft accommodation has restricted floor to ceiling levels, further compromised by the roof pitch. The roof is uninsulated and therefore has a u-value of 2.3.
- d. The north and south facades are constructed of several different types of masonry units. This demonstrates that there have been previous repairs or alterations.
- e. The whole property has a band of brickwork at high level, immediately below the eaves, that is different to the majority of the brickwork suggesting that perhaps the roof has been reconstructed.
- f. All floor to ceiling levels are lower than the London Plan suggested 2.5m.
- g. The main entry is constrained in both plan and height due to being beneath the main staircase - 2.1m floor to ceiling height. This is not an appropriate welcome to the existing house, nor a proposed house of the scale and quality expected on Sheldon Avenue.
- h. Internally at ground floor a wall has been removed to combine the rear garden facing rooms. The structural works to facilitate this have not been investigated.
- i. Throughout the property finishes are non-original and may be concealing further alterations.
- j. The property has not been assessed to verify structural integrity, nor to understand in detail what structural interventions may be necessary to retain and adapt. The signs of previous alterations would imply that the Works necessary may be complicated by previous adaptations.



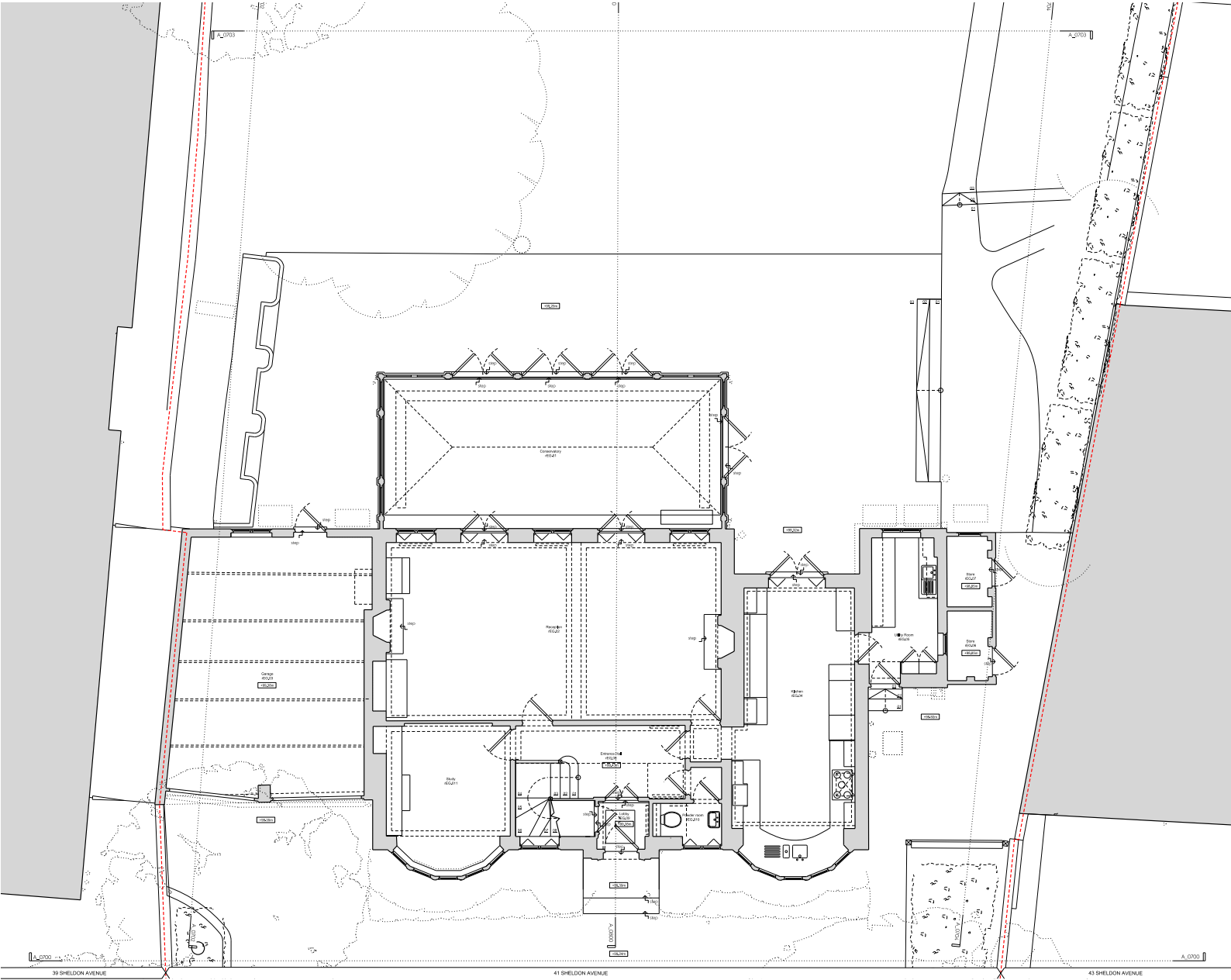
d. Brick patchwork on the north & south facades.



e. Different brickwork banding just under eaves.



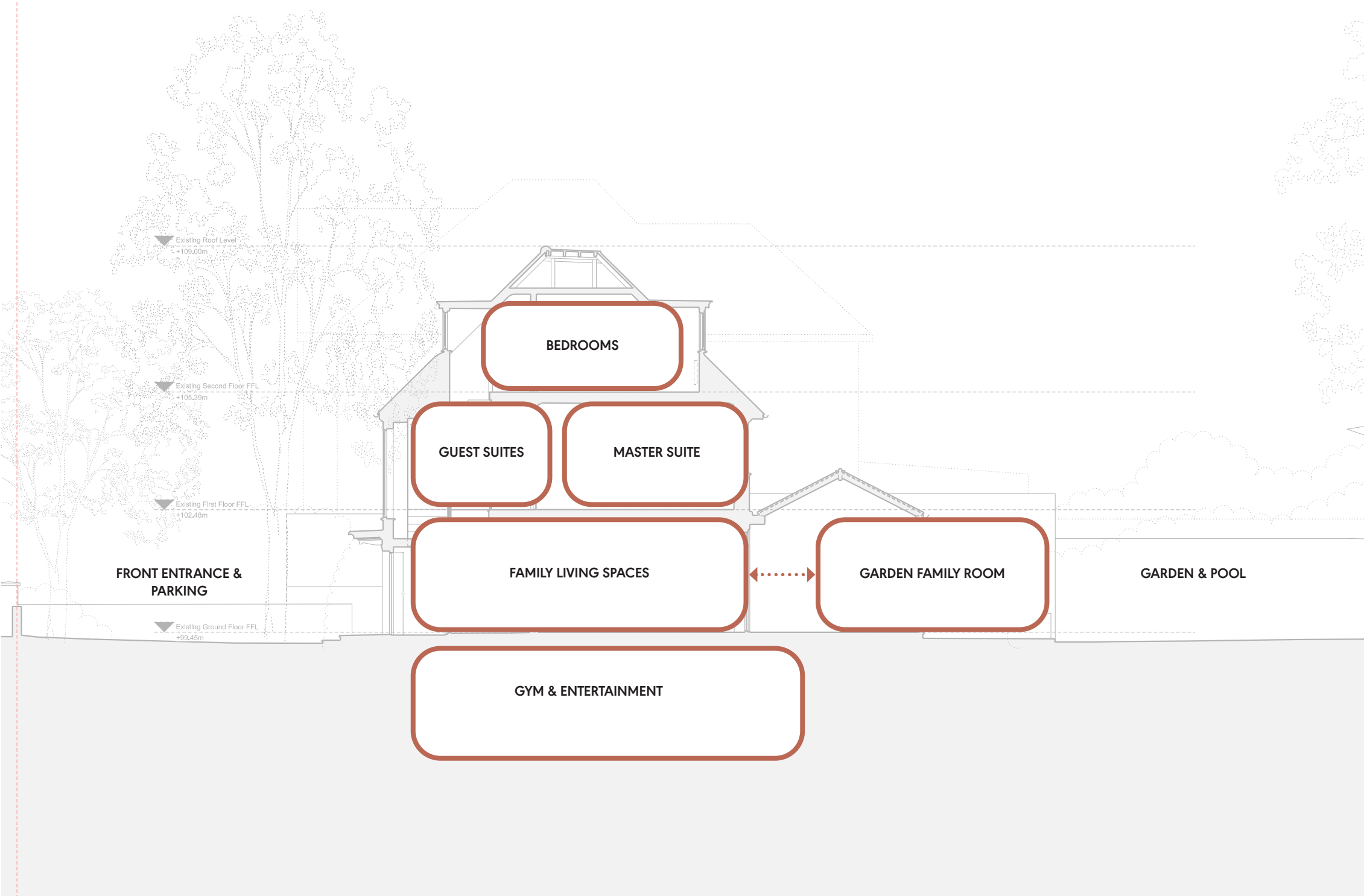
k. Area of failure causing large cracks in brickwork.



Existing Ground Floor

### THE REQUIREMENTS

- a. The proposal is for a single family dwelling house for our clients and their three children.
- b. The proposal is to provide a dwelling and amenity space that is commensurate with the expectations of a modern high quality residence.
- c. In 2024 a high-quality dwelling house is expected to include:
  - i. Family living space that allows for group and individual occupation
  - ii. Bedrooms
  - iii. Work from home area(s)
  - iv. Gym and/or entertainment area
  - v. Modern servicing
  - vi. Guest bedroom
- d. The proposal must sit appropriately within the site such that the accommodation is provided without overdevelopment or poorly considered massing.

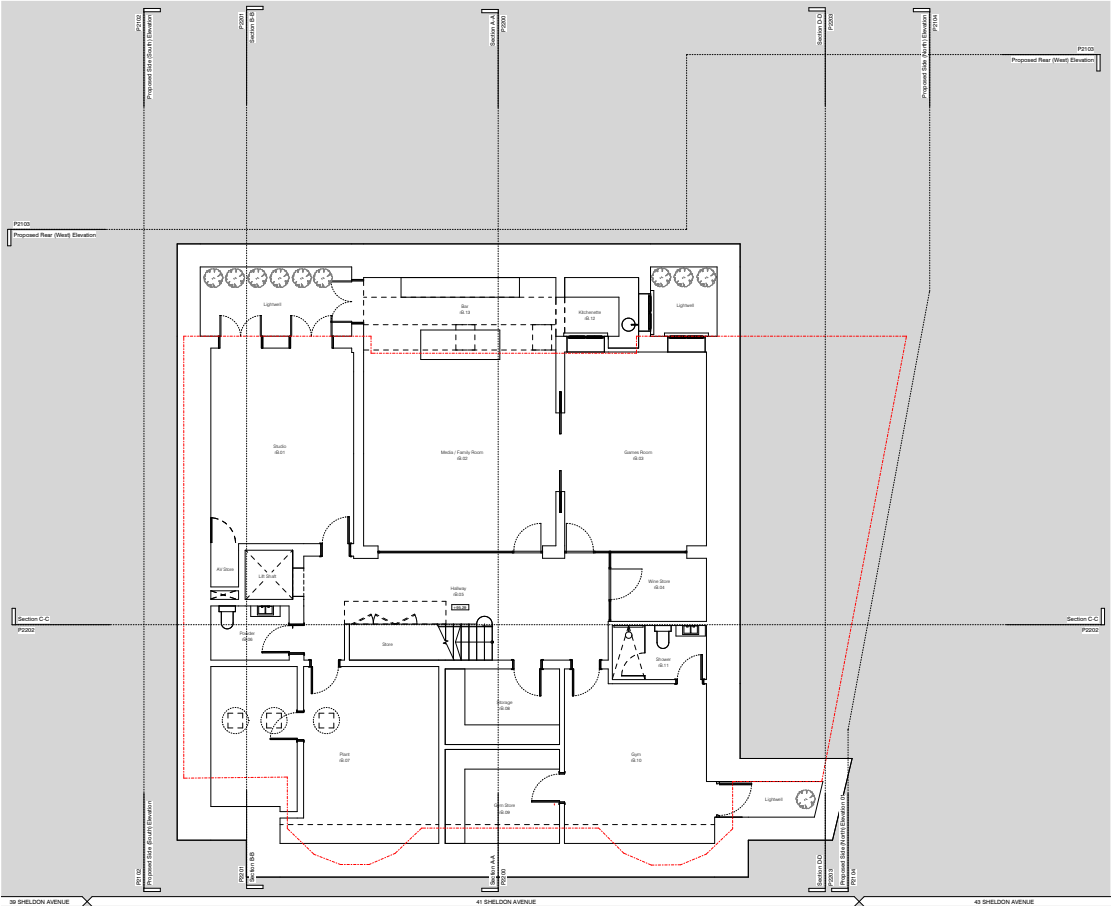


Existing cross section with spatial diagram

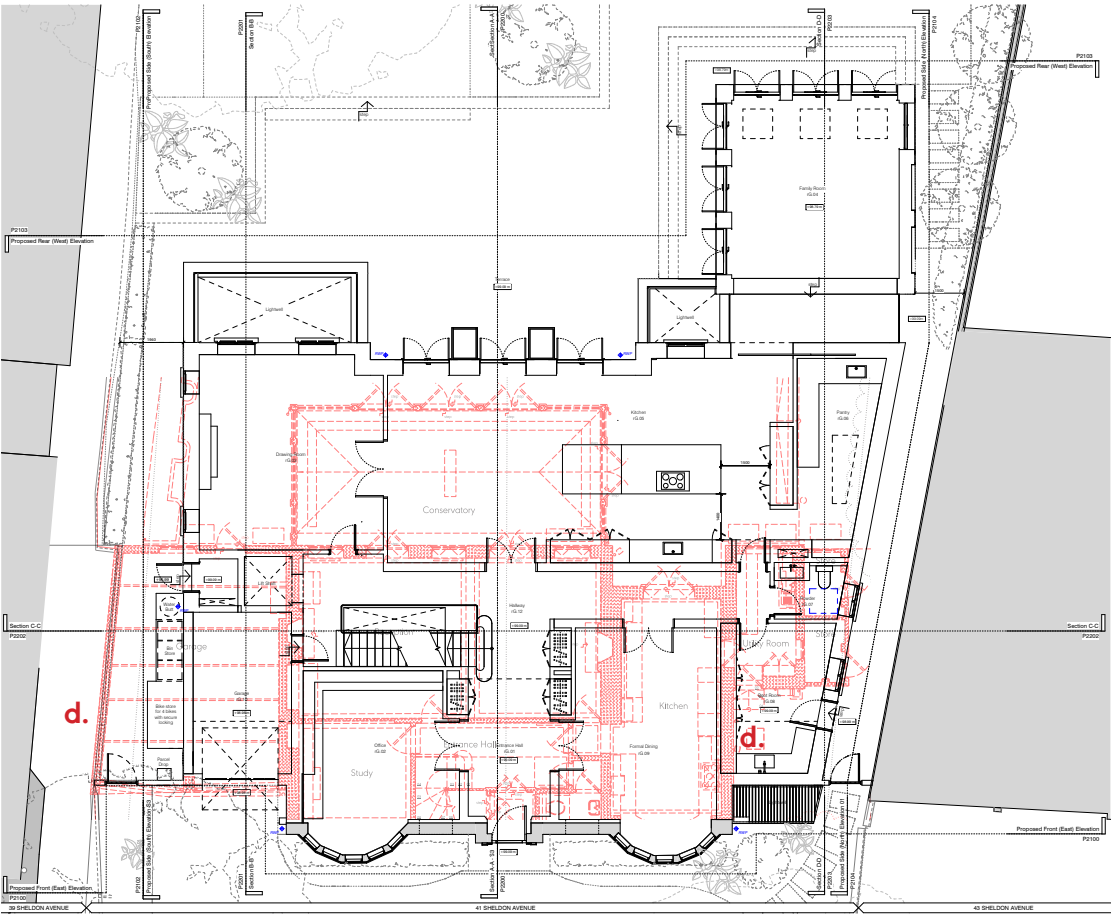
## FACADE RETENTION

- a. Retaining the facade will require additional structure to support and retain the facade in the temporary condition before it can be structurally tied to the new structure. The temporary works will not have a long life, however, they will have a significant carbon footprint, especially when considering the concrete used will not be able to be reused.
- b. The temporary works to retain the facade would include:
  - i. Additional piles
  - ii. Pynford stools
  - iii. Cantilevered concrete slab
  - iv. Steel restraint structure
- c. Retaining the facade restricts access to the rear of the existing building. The effect will extend the programme for the demolition and construction of the basement.
- d. The north and south walls are constructed of different types of masonry units, suggesting alterations or damage repair, therefore the structural ability to support and connect to the refurbished and extended property is questioned.
- e. If north or south walls are retained this will mean that the basement becomes smaller, due to piling rig access. To maintain the floor area some accommodation would need to be relocated to the ground floor which would increase the building footprint on the site. This would be unwelcome due to loss of garden area, as well as for planning and sustainability reasons.
- f. The floor levels will be restricted by the retained facade such that no significant improvement on the current floor to ceiling levels can be made.
- g. The thermal performance and airtightness of the retained facade can be improved, but not to new-build standards. Furthermore, there are likely to be thermal bridges and airtightness weaknesses where old and new constructions meet.
- h. It is unlikely that the bay windows could be retained. From previous experience the concealed metal structure is likely to have corroded and the bays will need to be replaced. This means

- that the retained fabric will be largely limited to the first floor.
- i. The ground floor fenestration responds to the cupboard and WC either side of the entrance. This limits the opportunity to make the entrance more welcoming, without compromising the side rooms.
  - j. The bay positions limit the room sizes if these are to be centred on the bays. Where rooms are not centred on the bays they feel misplaced and the Arts and Crafts intent is lost (as commented by LBH design officer).



Basement - Facade Retention



Ground Floor (including demolition in red) - Facade Retention

All windows to be replaced with new joinery and glazing to increase thermal and air tightness performance.

Roof to be replaced to facilitate the demolition of rear walls and to upgrade thermally, maximising loft accommodation.

Non-original brickwork to be replaced with matching existing

Patchwork of brickwork to North and South elevations

Non-original brickwork to side extension to be replaced

No survey done to brickwork under bay windows - potential damage and wear of wall, due to heavy vegetation and little access and ventilation available





Existing House



Side extensions demolition



Windows & doors demolition



Chimney demolition



Roof demolition



Non-original brickwork demolition

#### FACADE RETENTION

This page demonstrates that the retention of the front façade will actually be limited to less than 30% of the fabric being retained.

In order to remove the side additions, make good previous repairs, facilitate the fabric retention and the demolition of the remainder of the property and to increase thermal performance of the windows and the roof the amount of fabric being retained is significantly below the whole elevation.

When considered against the programme, carbon and financial costs incurred to retain this fabric the argument for retention over replacement becomes a fine decision.

With replacement additional improvements can be incorporated into the proposed design including efficiency of detailing and more complete thermal envelope, improved floor to ceiling heights (beneath the same ridge level, improved accessibility, improved relationship between the façade and internal space planning, improved entry experience, greater flexibility in internal space planning and the structure designed for flexible internal planning and modification in future.

The analysis undertaken and summarised here, together with the carbon models and the heritage impact analysis, has driven the scheme to be developed as a demolition and new build project rather than a retention and extension project.

Full demolition allows for a proposed dwelling that will be sustainable in terms of carbon, streetscape contribution and in longevity of occupation.



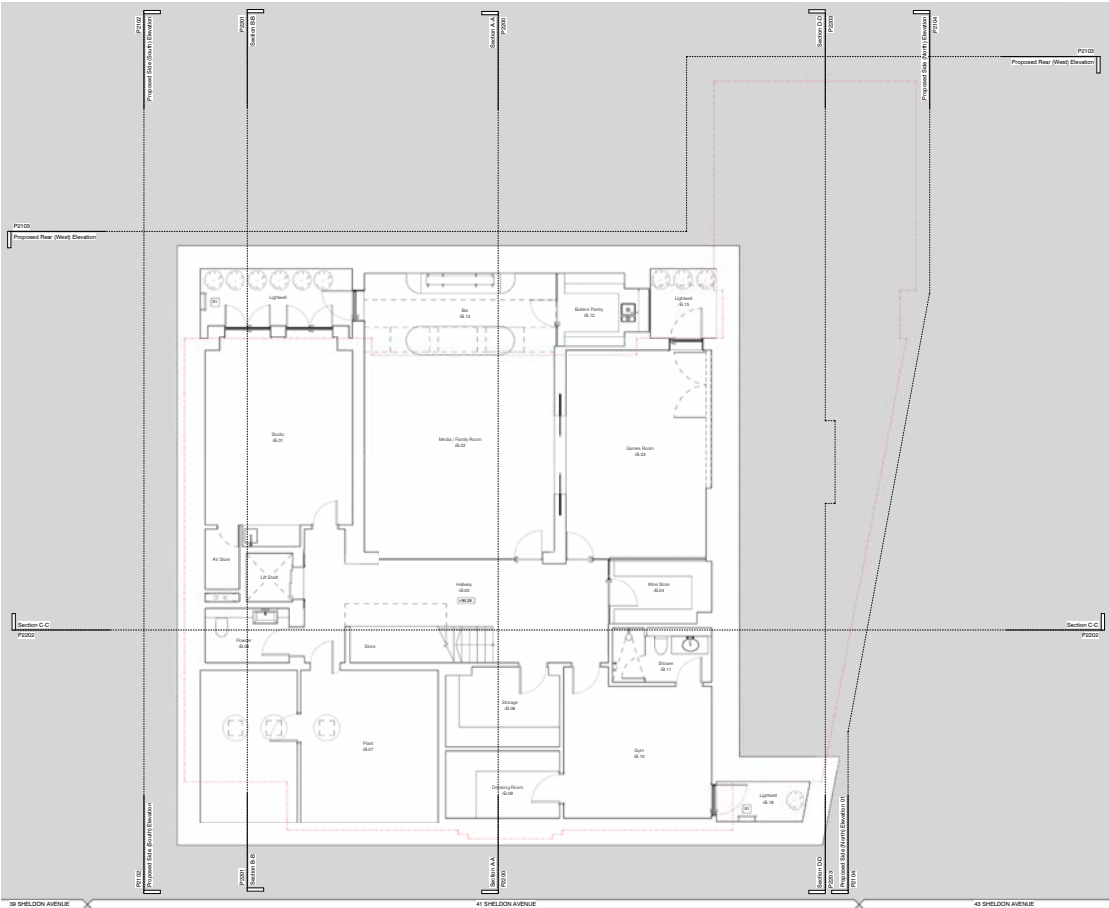
Existing house



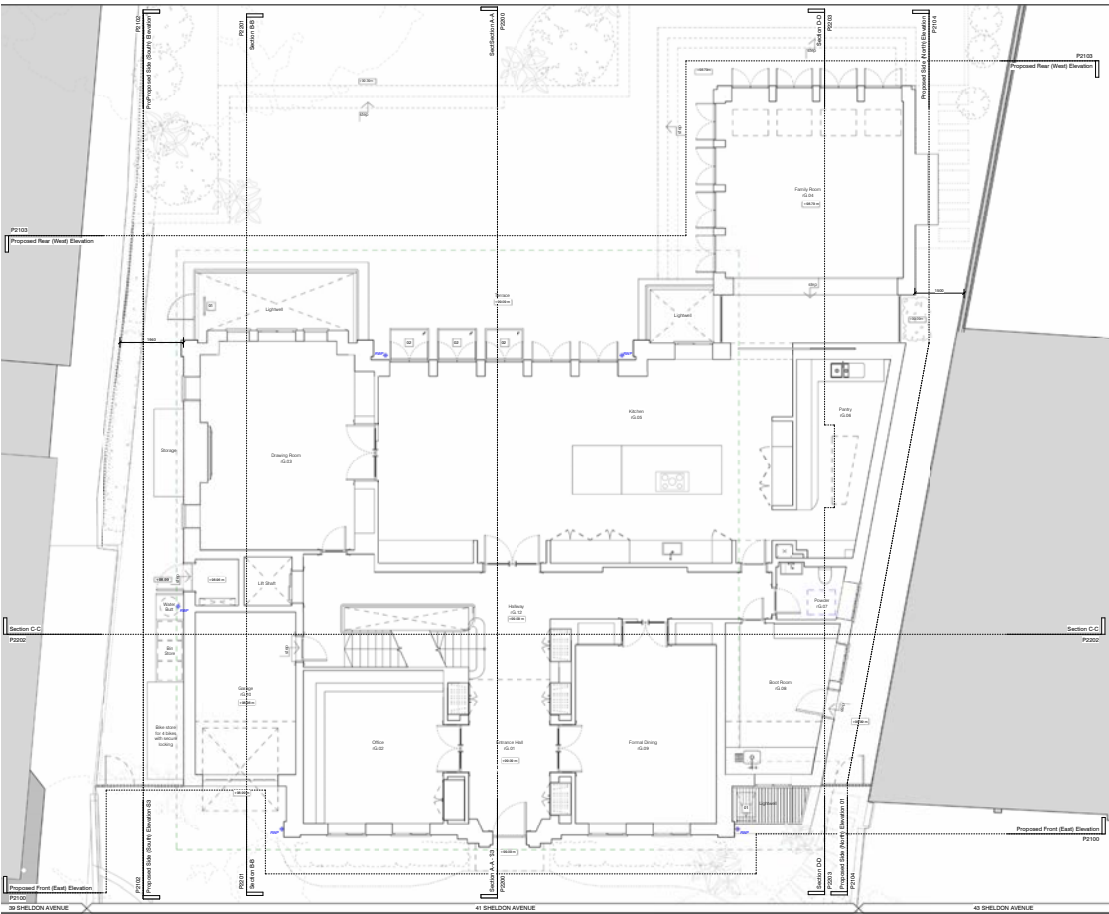
Facade to be retained - after demolition

DEMOLITION & NEW BUILD

- a. Full demolition allows full site access and facilitates more efficient demolition, basement construction and landscaping of the rear garden.
- b. New construction allows all fabric to be designed and detailed to exceed current thermal and air tightness requirements.
- c. New construction allows the design to meet or exceed current accessibility (Approved Document M) requirements.
- d. New construction allows the ground floor level to be dropped and floor to ceiling heights improved whilst retaining the same ridge level. This will ensure a minimum of 2.8m floor to ceiling height to majority of floors, with the ground floor slightly taller, at 3m. This also allows for a more generous and welcoming entrance hall, benefitting from a double height space, reflecting the front facade design.
- e. New structural design can be developed to allow future adaptation of layout to be more efficient.
- f. A new-build will have the longest life-expectancy and can be designed to allow for maintenance and adaptability so that future demolition is less likely.



Basement - New Build



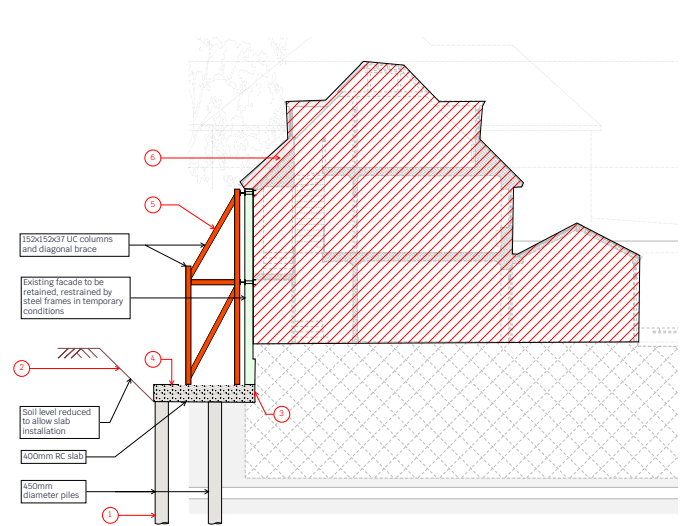
Ground Floor - New Build

STRUCTURAL COMPARISON  
FACADE RETENTION vs NEW BUILD

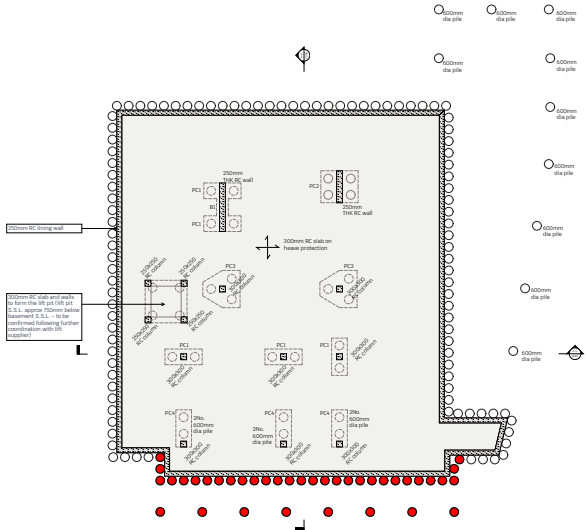
As visible on this page, the facade retention scheme requires more work structurally, such as:

- more piles towards the front of the property to go around the existing facade footprint
- a concrete deck on top of these piles
- temporary steelwork built on the concrete deck to support the front facade during demolition and rebuilt stages

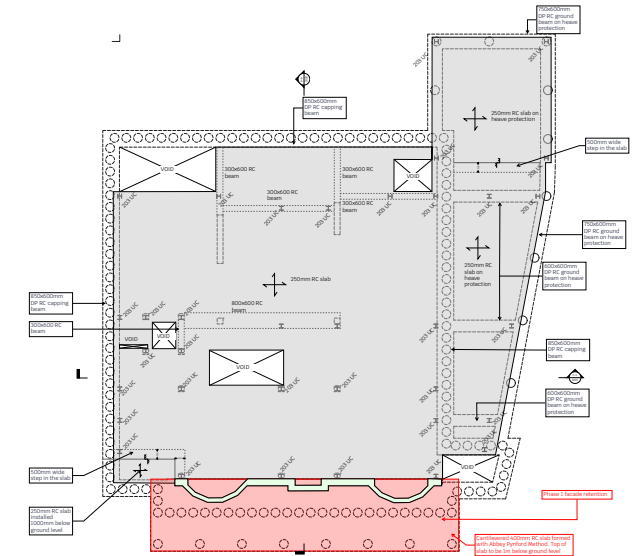
As can be noted in the carbon model, these additional works and structures have an impact on the Carbon footprint.



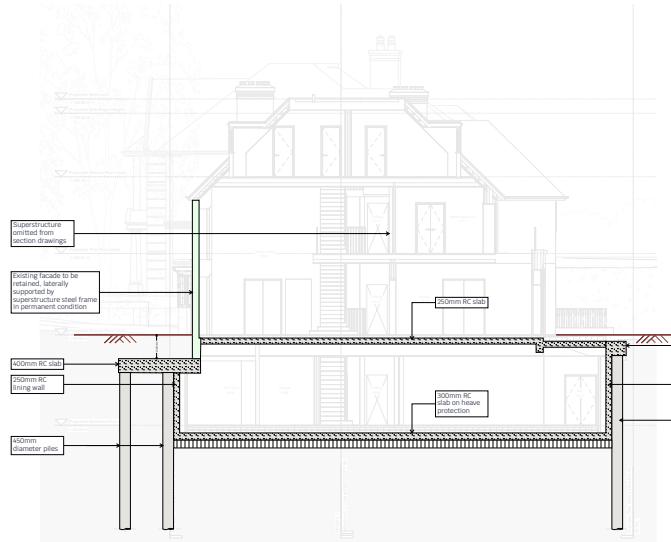
FACADE RETENTION - Temporary Works required



Basement

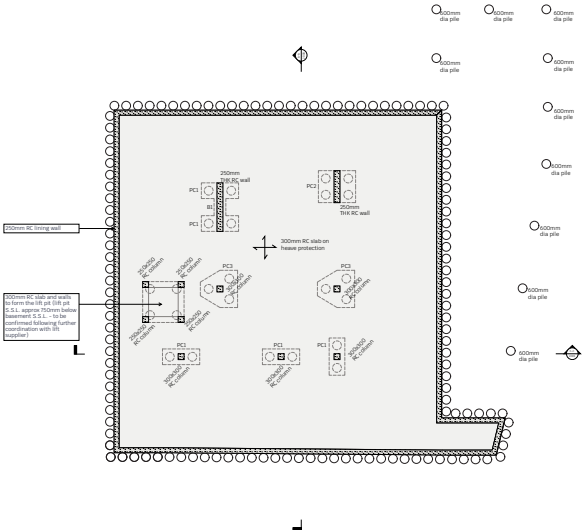


Ground Floor

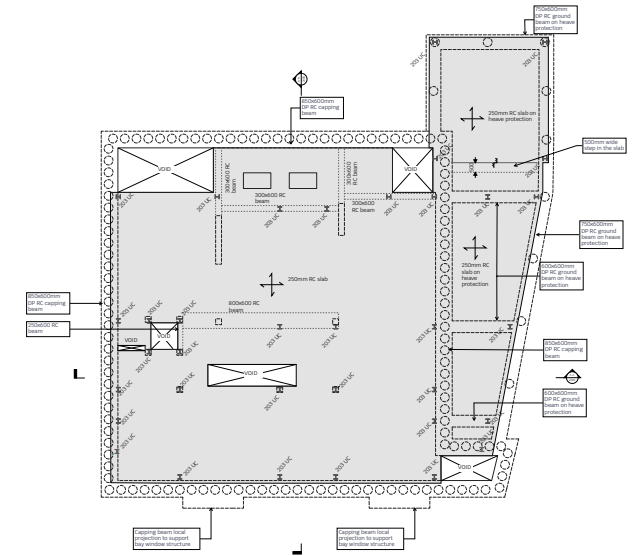


Cross Section

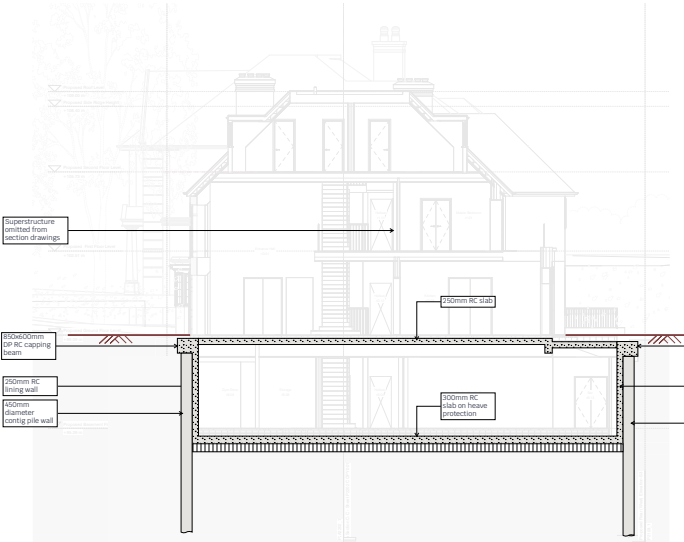
Facade Retention



Basement



Ground Floor



Cross Section

New Build