Winiecki Associates
Consulting Structural Engineers

Structural Feasibility Report for Planning Purposes.

at

26 Thurlow Road,
Hampstead

WA Job Reference: 428-16
Revision B

Structural Engineer

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Document History

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1.0 Introduction

1.1 This feasibility report is concerned with proposed external works at the rear of these premises and is compiled as a consequence of a structural inspection of the property and a Design Team discussion held on site with reference to the following architectural drawings by Retrouvius Design Ltd:

EX 19_01 Existing Lower Ground Floor Plan
EX 19_02 Existing Ground Floor Plan
EX 19_06 Existing Site Plan

1.2 Externally at the rear of the house there is a light-well AREA with brick retaining walls and associated terracing. Integrated with this are mature planting features. It is proposed to enlarge the Light-well AREA but maintain existing planting and access features associated with the Party Fence walls.

Refer to Winiecki Associates drawing:
428-16 01 Rev P2 Proposed Rear Light-well structure

2.0 Existing Construction and Condition

2.1 This is a semidetached house dating from the 19th century with Lower Ground, Ground, First and Second floor levels. There is also accommodation within the pitched roof void that appears to be a common feature as the neighbouring property has a similar roof form

2.2 In general, the construction is based on a load bearing solid brickwork wall external shell with suspended timber floors and a timber framed pitched roof weathered with slate.

2.3 Internally the load bearing walls in the Lower Ground Floor storey are of solid brickwork supported by the building foundations. Above the Lower Ground floor, up to the Attic floor level, the internal load bearing wall constructions are of timber stud framing with brick infill typical of high status traditional building practice in the19th century.

2.4 The roof construction is of common rafters and Hip rafters that are propped by timber stud walls, denoting the perimeter of the Attic floor accommodation, onto the Attic floor level construction.

2.5 The building structure throughout and its foundations exhibit very good historic structural performance without significant defect or deformation.

2.6 The rear Lower Ground floor light-well AREA is a typical feature with brick retaining walls integrated with planting and terracing and generally is in a self-buttressing form. It includes the West Party fence wall that is full depth in the light-well zone but probably steps up to normal foundation formation levels where the garden planting continues. Although the latter could not be checked, in the interest of maintaining the planting, the worst case will be assumed in the engineering of proposed light-well alterations without involving underpinning works.

3.0 Feasibility of Structural Proposals

3.1 External Rear AREA

3.2.1 The proposal to enlarge the rear light-well AREA will require the careful removal of the existing brick retaining walls and the construction of new retaining walls using reinforced concrete wall stems and bases. If required the wall faces can be dressed with brickwork.

An alternative to the RC wall stem is to construct reinforced masonry walls but these tend to be thicker than the concrete wall form and take significantly longer to construct and would still require reinforced concrete bases.

3.2.2 With reference to the Winiecki Associates drawing numbered 428-16 01 rev P2 the reinforced concrete proposal is shown. The following features should be noted:

a) The extent of the retaining wall base is minimised to maintain good rain water drainage into the ground.

b) The retaining wall construction will be carried out in complete separate sections to negate any necessity to underpin the Party Fence wall or other remaining existing structures or features.

c) The existing planting is maintained alongside the Party Fence wall to help maintain the wall integrity and to assist in negating any need to underpin it.

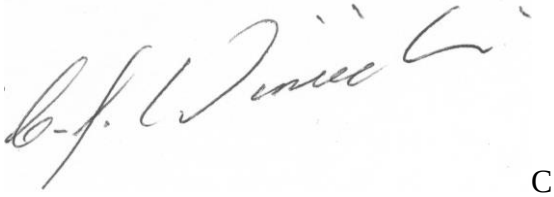
d) The construction of the new retaining structure will not have any adverse effect on the existing building.

Conclusions

The proposed rear external alterations will be engineered to work with and compliment the original building construction and in such a way that does not compromise the existing building construction or any Party wall elements.

End of Report

Signed



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