



SYMMETRYS
STRUCTURAL / CIVIL ENGINEERS

STRUCTURAL INSPECTION REPORT

Retaining Party Fence Wall between
28 & 30 Redington Road
London
NW3 7RB

19117-SYM-RP-S-002

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REVISION HISTORY

Revision	Description	Date	By	Checked
-	Initial Issue	29.07.20	DS	DB

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1.0 INTRODUCTION

- 1.1 Symmetryrs have been instructed by Thomas Croft Architects on behalf of the building owner to carry out a visual inspection of the party fence retaining walls to the front and rear gardens between 28 and 30 Redington. The scope of the appraisal is as follows:
- (1) Visit site to carry out a visual inspection of the existing retaining party fence walls to the front and rear gardens between 28 and 30 Redington Road.
 - (2) Report on the condition of the existing party fence retaining walls
 - (3) Discuss any repairs or remediation works required to the boundary wall structures.
- 1.2 David Snaith of Symmetryrs visited 28 and 30 Redington Road on 28th July 2020.
- 1.3 The proposal for the site is to develop 28 Redington road as a residential dwelling.
- 1.4 The landscape slopes down from property to property along Redington Road from East to West.
- 1.5 There are a number of photos included within this report which visually document the findings on site in relation to the retaining party fence walls.

2.0 DISCLAIMER

- 2.1 This report is prepared only for our named client. No liability is extended to any other person who may seek to rely on it. By accepting this report and acting upon it, our client accepts the conditions stated in this section.
- 2.2 We have not inspected parts of the structure which are covered, unexposed or inaccessible and are therefore unable to report that any such part of the property is free from defect.
- 2.3 This appraisal is based on a brief visual inspection. In accordance with our instructions no trial pits or boreholes were dug or render removed, or tests or calculations carried out except as specified herein.
- 2.4 There are a number of trees present in the vicinity of the retaining walls and the advice of an arboriculturist should be sought in relation to the health, importance and stability of these trees.
- 2.5 Dimensions if given are approximations for identification only and should not be used for any other purpose.

3.0 EXISTING SITE

- 3.1 The site location is 28 Redington Road, London, NW3 7RB.
- 3.2 The current site arrangement is a four-storey residential building, with an existing basement. The main building is partially connected to a garage, towards the boundary wall with No. 26 Redington Road.
- 3.3 The existing building structure is load-bearing masonry with timber floors spanning between party walls and supported on internal load bearing walls.



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Figure 1 - Front Elevation

- 3.4 The proposed development of the property comprises of the refurbishment of the building structure and includes:
- Demolition of the existing rear extension and construction of new extension with lantern roof.
 - Lowering the existing basement finished floor level of approximately 500mm.
 - Reconfiguration of the internal walls.
 - Extensive external landscaping
- 3.5 The site is bound by retaining walls on each side.
- 3.6 The site is lower than No. 26, but higher than No. 30 Redington Road.
- 3.7 The existing party fence retaining wall with No. 30 Redington Road is of masonry construction founded on exposed mass concrete.



Figure 2 - Retaining party fence wall to front of property taken from No.28 facing Redington Road



Figure 3 - Retaining party fence wall to front of property taken from No.28 facing the property

- 3.8 At some point in the past the masonry to the walls to the front had been extended vertically.
- 3.9 The retained heights varied to the front as the land sloped down towards the road, but closest to the property the level difference was approximately 1.5m
- 3.10 The party fence wall to the rear of the property was of the same construction as the front, albeit covered in foliage on the side of No. 30 Redington road, as shown in Figure 4.



Figure 4 - Retaining party fence wall to rear of property taken from No.30 facing the garden

- 3.11 To the rear the retained height was approximately 0.8m.
- 3.12 There were a number of trees present to front and the rear of the property in close proximity to the retaining walls.



4.0 OBSERVATIONS

4.1 The retaining wall to the front of the property had failed in a number of locations.

4.2 This failure was evident from the large cracks which could be seen along the wall's elevation, as seen in Figures 5 and 6.



Figure 5 - Cracking to the front party fence retaining wall taken from No. 30



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Figure 6 - Cracking at the junction between the party fence wall and party wall to the front of the property taken from No. 28

- 4.3 The existing wall foundations were very shallow.
- 4.4 The base of the foundation was at around the same level as the ground level on the side of No.30 Redington Road.
- 4.5 It could be seen in two locations that animals had burrowed beneath the wall, as seen in Figure 7, which confirms the shallow profile of the foundation.



Figure 7 - Evidence of burrowing beneath the shallow foundations of the party fence retaining wall taken from No. 30

- 4.6 To the rear of the property, the retaining party fence wall between No. 28 and No.30 was masonry founded on mass concrete shallow footings.
- 4.7 There was a second retaining wall inset approximately two meters from the boundary on the side of No. 30 Redington Road – Refer to Figure 9 for sectional profile.



Figure 8 - Garden retaining wall inset from the party fence retaining wall taken from No. 30 facing the garden



Job No.	Sheet No.	Revision
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28 REDINGTON ROAD.	8/20	DT
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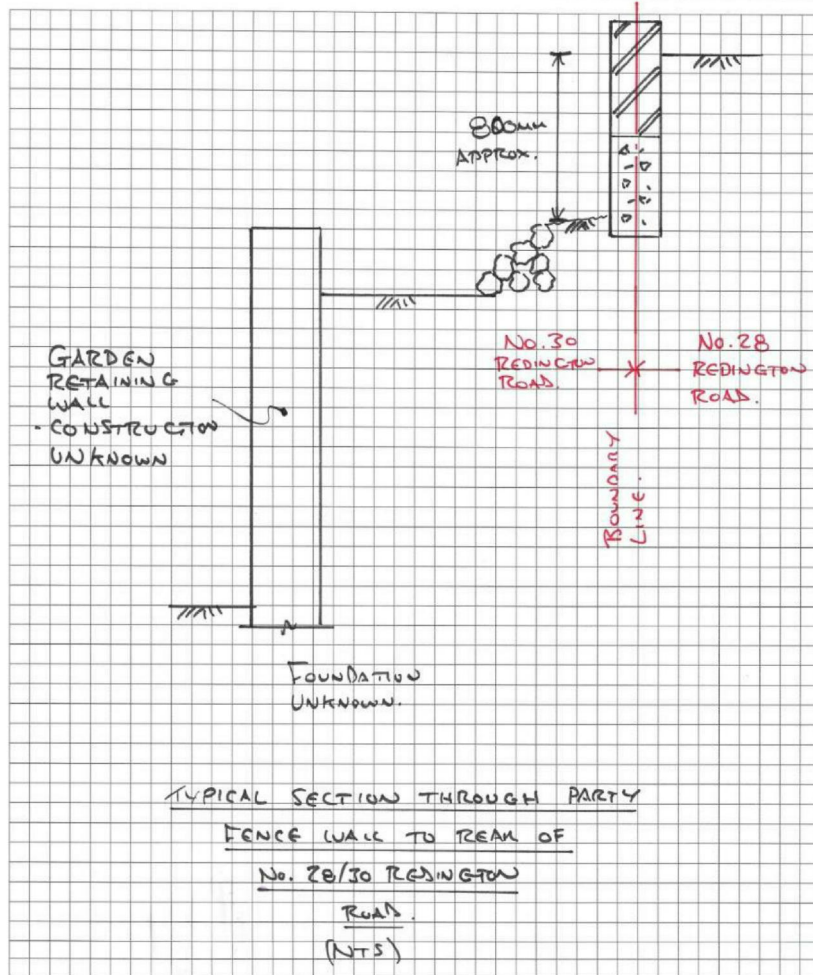


Figure 9 - Typical section through party fence retaining wall to rear of No. 28/30 Redington Road



- 4.8 The party fence retaining wall showed little sign of movement.
- 4.9 An existing tree stump remained within the line of the wall, and this was where some movement has taken place.

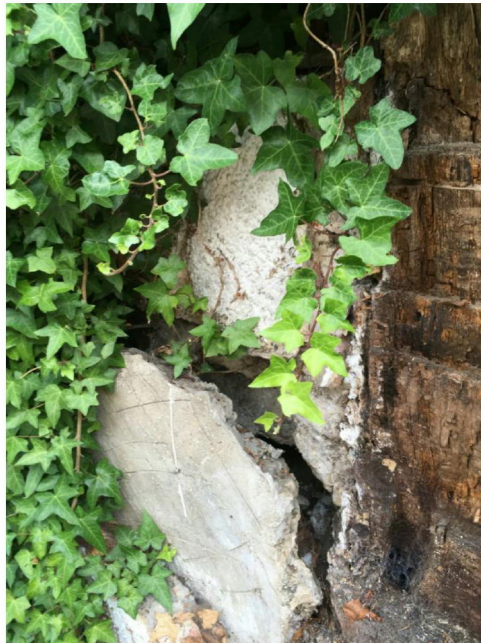


Figure 10 - Cracking at junction between rear party fence retaining wall and tree stub taken from No.30



- 4.10 There was a large stepped retaining wall adjacent the rear of the property which retains approximately 3m of earth and shows no sign of distress.

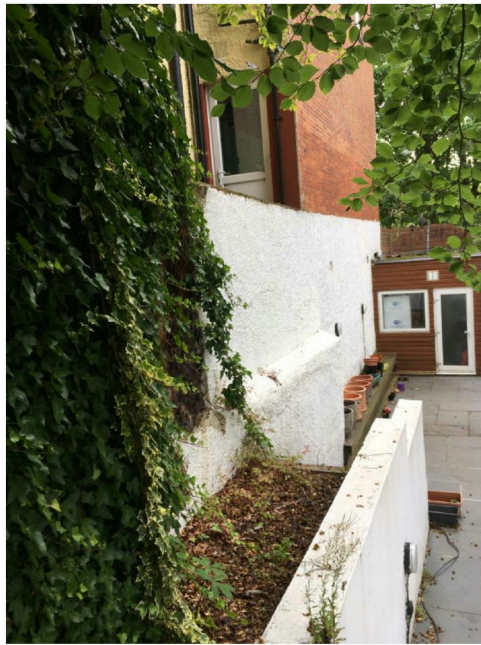


Figure 11 - Photo taken from rear of No.30 facing south west showing party wall/stepped party fence wall and inset garden retaining wall



5.0 RECOMMENDATIONS

- 5.1 The proposals include extensive excavation works to the front of the property to install a new attenuation tank and re-landscape the driveway.
- 5.2 The existing front party fence retaining wall should be demolished and rebuilt as part of these works, utilising the space on the side of No. 28 Redington Road for the new foundation as required.
- 5.3 The wall will be designed to the latest building codes, in a material to be determined, but would be faced in brickwork to maintain the same appearance as the existing.
- 5.4 The party fence retaining wall to the rear of the property shows very little sign of movement and is retaining less earth and is not subject to surcharge from vehicles.
- 5.5 The proposed ground levels to No. 28 are broadly unchanged adjacent to the wall.
- 5.6 This wall could remain as there is no concern regarding the safety of the occupiers in relation to this wall in its current condition.
- 5.7 If there is a desire to replace the wall for aesthetic reasons, care would need to be taken to not destabilise the trees in close proximity to the wall during construction.
- 5.8 This could be undertaken utilising a post and beam solution – minimising excavations.

6.0 CONCLUSION

- 6.1 The party fence retaining wall to the front of the properties shows signs of failure and should be replaced.
- 6.2 The distress to the wall is most likely caused by a number of factors including:
 - The trees nearby increasing earth pressure on the wall from the side of No. 28 Redington Road.
 - The wall has been extended in the past, presumably to allow for the raising of the ground level on the side of No. 28 Redington – increasing the earth pressure on the wall.
 - Shallow foundations.
- 6.3 The party fence retaining wall to the rear of the property showed little sign of distress and therefore can remain in its current form.



David Snaith
Associate