Subsidence Risk Assessment

Site:

Leverton & Sons Ltd
212 Eversholt Street
Camden
London
NW1 1BD

Prepared for:

Mrs Pippa Leverton

Date of Visit:

Thursday 27th May 2021

Prepared by:

Mr James Percy-Lancaster
Senior Arboricultural Consultant
ISA Tree Risk Assessment Qualified
Professional Tree Inspector Qualified

Bartlett Project Reference:

JPL/210310/Ra

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Submitted on 18th November 2021

Table of Contents

1.0 SCOPE OF REPORT

1.1 Assignment

To inspect the six trees growing within the curtilages of No's 66A to 70 Oakley Square, Camden which are in close proximity to the eastern flank wall of 212 Eversholt Street. The report will consider the potential of these six trees to influence soils within the vicinity of the building; 212 Eversholt Street, Camden. To assess the overall health and structural condition of the six trees, assessing the current risk posed to persons and property and where deemed necessary provide suitable management recommendations.

To provide a report suitable for assessing potential risk of in-direct as well as direct damage attributed to the proximity of six trees to 212 Eversholt Street of which there is currently reported tree related subsidence damage. This assessment will be based on a combination of factors including the tree species, their current and ultimate size, the sub-soils and proximity of the subject trees to the buildings. In the absence information the report may make assumptions as to the suitability of the foundations based on the periods of construction.

The report will include guidance and recommendations on ways and means to reduce the current damage.

1.2 Background

Mr Bradley Burden, Director of Ten 1 Surveyors initially contacted Bartlett Tree Experts Ltd, following instruction from Mrs Pippa Leverton after noticing a disturbance of the structural damage on other properties within their ownership. Concern was also raised as to the potential for future damage both direct and in-direct, given the proximity of the trees to the buildings. Bartlett Consulting have been subsequently commissioned to carry out a risk assessment of subsidence damage appraisal.

1.3 External Property Damage as Visible from Non-expert Inspection

Prior to our attendance we were provided with a letter report; '*Inspection of Cracking at 212 Eversholt Street, London, NW1',* dated 1 November 2018. This survey information was composed and provided to us from Ten 1 Surveyors and demonstrated visible damage had occurred to 212 Eversholt Street. Therefore, this report is based on the premise that the building is currently subject to indirect subsidence damage resulting from tree root induced desiccation of soils.

1.4 Report References

Our Arboricultural Subsidence Appraisal has evolved from industry material including the following:

- BRE Digest 298 (1999) *Low Rise Building Foundations: The Influence of Trees in Clay Soils*
- Dunstar, J.A, Smiley. T, Matheny. N, Lilly. S. (2017) *Tree Risk Assessment Manual, Second Edition*. International Society of Arboriculture. Champaign, IL.
- Health & Safety Executive (2001) *Reducing Risk, Protecting People: HSE's Decision-Making Process*
- LTOA (2007)(3rd Edition) *A Risk Limitation Strategy for Tree Root Claims*
- Mattheck, C, et. al. (2015) *The Body Language of Trees – Encyclopaedia of Visual Tree Assessment* Karlsruhe Institute of Technology Campus North.
- NHBC Standards 4.2(2010) *Building near Trees*
- P.G. Biddle (1998) *Tree Root Damage to Buildings Volume 1 & 2,* Willowmead Publishing Ltd, Wantage, Oxfordshire, OX12 9JA

1.0 SCOPE OF REPORT (continued…)

1.5 Report Limitations & Methodologies

This report is restricted to the six trees; T1 – Common Lime, T2 – Common Lime, T3 – Silver Birch, T4 – Honey Locust, T5- Common Lime and T6 – Common Lime, located within the rear gardens of several residential properties located along Oakley Square, Camden.

Whilst making every effort to identify the trees whose potential impact on the building are most significant, it must be noted that other trees may have an effect on either or both buildings in the future. Bartlett Consulting cannot accept any liability for trees subsequently found to be causing damage that have not been identified by this survey or made-know to Bartlett Consulting previously.

It is important to consider the potential effects of heave on the buildings if the tree is removed. Heave potential can be calculated from soil samples, which may be organised by a Structural Engineer.

As the trees were located on third party lands and access to them was prohibited, all measurements were subsequently estimated. The trees were not climbed at the time of the tree survey. Binoculars, as well as other tools, were used to assess trees in more detail. Age range and vigour were also recorded. The trees were subject to a "Level 2 Basic Assessment" as per the methodology established by the International Society of Arboriculture however with the identified limitations of access it was not possible for the tree assessor to inspect completely around the tree, looking at the site and ground conditions. The trees were viewed solely from 212 Eversholt Street.

It is important to understand that as trees are living and dynamic organisms, it is not possible to maintain them free of risk. Some level of risk must be accepted in order to experience the full range of benefits that trees provide. As such, we reference the previously published document by the National Tree Safety Group (NTSG), Common Sense Risk Management of Trees (Forestry Commission 2011). This document provides guidance on trees and public safety in the UK for owners', managers and advisors.

The statements, findings and recommendations made within the report do not take into account any effects of extreme climate and weather incidences, vandalism, changes in the natural and built environment around the tree after the date of this report or any damage whether physical, chemical or otherwise.

Assessments within this report relates only to the main buildings of 212 Eversholt Street, Camden.

Bartlett Consulting cannot accept any liability in connection with the above factors, nor where recommended tree management is not carried out in accordance with modern tree health care techniques, within the timeline proposed.

This report is valid for one year from date of issuance.

2.0 TREE PRESERVATION ORDER & CONSERVATION AREA PROTECTION STATUS

Both the Town & Country Planning Act (Tree Preservation) (England) Regulations 2012 and the Town & Country Planning Act 1990 (as amended) provides legislative protection for trees within England.

An email enquiry of the site and the trees was conducted by Bartlett Consulting on 9th June 2021 with the London Borough of Camden Council, Planning Department.

An online enquiry was also made, by accessing the interactive mapping service found at the following website address:

https://ssa.camden.gov.uk/connect/analyst/mobile/#/main?mapcfg=CamdenConservation&lang=en-gb

2.1 Tree Preservation Order (TPO) Status

None

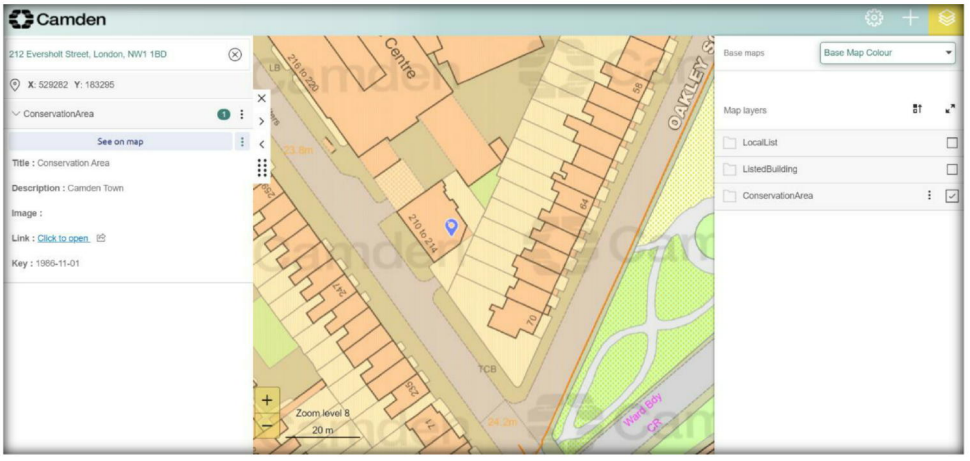

Figure1: Screen Shot Of Interactive Map Available from London Borough Of Camden Council

2.2 Conservation Area (CA) Status

The trees subject to this report are located within the Camden Town Conservation area

2.3 Development Implications

It has been established via an online search that the site stands within a designated Conservation Area (CA), administered by the LPA; the London Borough of Camden Council.

Under the Town and Country Planning Act 1990 (as amended), a Section 211 Notice must be served upon the LPA, providing them with 6 weeks' notice of any intention to implement works to protected trees.

The purpose of this notice is to provide the LPA an opportunity to consider whether a TPO should be made in respect of the trees.

3.0 SITE & BUILDING DETAILS

3.1 Site Location

The site; 212 Eversholt Street is located within Camden Town, the immediate landscape around the site can be described as a mixture of residential and commercial premises.

There is a high level of tree cover around the site considered to be providing a positive contrition to local amenity of the area.

Figure 2: Snipped Image Of The Local Area As Obtained From Google, With The Site Highlighted With A Red Polygon.

3.0 SITE & BUILDING DETAILS (Continued…)

3.2 Underlying Soils

(Ref: British Geological Survey materials © NERC [2021] – Website data as of 9th June 2021)

In the absence of a scientific laboratory soil analysis, using the British Geological Survey 'Geology of Britain Viewer' (www.bgs.ac.uk) as viewed on 09.06.2021, it has been determined that the sub-soils are:

- Bedrock Geology – London Clay Formation – Clay, Silt and Sand
- Superficial Deposits – None recorded

Figure 3: Screenshot of British Geological Survey Geology of Britain Viewer With the Site Identified By A Red Pin.

3.3 Plasticity Index

Plasticity index (PI) is the measure of a soils ability to shrink and expand in volume when wetted or dried. A high percentage (greater than 30%) is indicative of a soil with a wide range of potential movement.

As no soil samples have been taken prior to the commission of Bartlett Consulting, the PI is unknown. However, with reference to the BGS findings provided above, we would anticipate that the local soils are of a London Clay Formation – consisting of clay, silt and sand, considered to be of a high clay content and subsequent high plasticity index.

Soils testing would be required to provide further clarity on this matter.

3.0 SITE & BUILDING DETAILS (Continued…)

3.4 Recent Climate

With reference to the local historic station data monthly climate averages, as provided by the Met Office:

https://www.metoffice.gov.uk/pub/data/weather/uk/climate/stationdata/heathrowdata.txt

Month &Year	Total Rainfall	Max Summer Temp.
May 2021	84.6mm	16.5°C
December 2020	72.4mm	8.5°C
June 2020	54.0mm	22.5°C
December 2019	89.6mm	10.2°C
June 2019	81.8mm	21.8°C
December 2018	60.6mm	10.7°C
June 2018	0.4mm	24.2°C

3.5 Building Type

212 Eversholt Street is a four storey building, with commercial premise operating within the basement, on ground level as well as on the first floor with the two subsequent floors consisting of residential apartments. The age of construction of the original building is not known to us, but we suspect that it is Victorian based upon its architectural features. The premises has undergone a number of external alteration since this time although it is not clear as to when these occurred. A significant rear extension appears to marry into the original building, with the addition of a more recent first floor rear extension extending over the driveway, supported in part by a concrete lintel and corner pillar. No records regarding these additions are recorded on the London Borough of Camden Council, Planning Department website.

3.6 Tree Locations

All six third party trees were found to be growing within the rear amenity garden areas of residential dwellings along Oakley Square. It is worth noting that none of the specimens have yet reached full maturity and as such will continue to grow an increased rate of vigour.

T1 – Common Lime, is confirmed to be located within the curtilage of 69 Oakley Square.

T2 – Common Lime, is confirmed to be located within the curtilage of 68 Oakley Square.

T3 – Silver Birch, is confirmed to be located within the curtilage of 68 Oakley Square.

T4 – Honey Locust, is confirmed to be located within the curtilage of 67 Oakley Square.

T5 – Common Lime, is confirmed to be located within the curtilage of 66 Oakley Square

T6 – Common Lime, is suspected to be located within the curtilage of 65 Oakley Square

3.7 Visible Service Runs

There were a number of external service runs to the exterior flank wall of the building, all service runs as described to us are found within the footprint of the building.

4.0 DEFINITIONS

4.1 Indirect damage

Indirect damage typically referred to as tree subsidence and heave is usually associated with volumetric change in the subsoil through seasonal variation. Trees and other vegetation extract moisture from the soil to fuel a number of natural processes including photosynthesis and transportation of nutrients.

When a sufficient level of clay is present within the soils, this process can result in the desiccation of the soil leading to volumetric changes which can affect a structure or its support/foundation leading to damage.

4.2 Direct Damage

Direct damage is a term applied when tree roots come in direct contact with a structure leading to damage caused by the increased growth of the roots, and/or where the tree utilises the structure as an anchor point transferring above ground stresses into the root system, i.e. wind induced tree movement.

The severity of any direct damage is related to the ability of the structure to resist the force being exerted by or through the root.

Direct damage can also occur above ground and is generally associated with incremental growth of the main stem in direct contact with a structure; the movement of branches in the wind causing damage through direct contact or striking; or failure of branches and main limbs from the tree and falling on people or property below.

4.3 Heave and Recovery

Heave is when a building is taken above the original build level due to rehydration of the soil. Heave is usually, though not always, restricted to situations where there is a persistent moisture deficit. This is when the drying is such that rewetting in the autumn and winter months is not enough to rehydrate the soil before the next drying season. A common cause of heave is the removal or significant reduction of trees or other vegetation, causing a clay soil fully re-hydrate.

Recovery is when a subsided building is returned to its original build level following rehydration of the soils. Recovery will often occur in “standard situations” where there is seasonal movement of the soils with desiccation in the summer and rehydration in the winter.

5.0 VISUAL TREE ASSESSMENT

Table 1: Tree Survey

Tree No.	Species	DBH (mm)	Height (m)	Crown Spread (m)	Age	Vitality	Condition
T01	Common Lime *(Tilia europaea)*	550	9.0	N: 2.5 E: 1.0 S: 3.0 W: 3.0	EM	Good	• Third party tree. • Access prohibited, measurements estimated. • Single stemmed specimen with crown break forming at 3m. • Recently pollarded, adequate regrowth. • No observable defects. • Slight bowing of brick masonry wall, adjacent to tree, attributed to direct damage. • Cracks present within mortar, attributed to lateral movement.
T02	Common Lime *(Tilia europaea)*	300	8.5	N: 2.5 E: 2.0 S: 0.0 W: 1.0	EM	Good	• Third party tree. • Access prohibited, measurements estimated. • Single stemmed specimen with crown break forming at 6m. • Recently pollarded, adequate regrowth. • No observable defects. • Bowing of brick masonry wall. • Vertical crack present within wall adjacent to tree.
T03	Silver Birch *(Betula pendula)*	450	15.0	N: 4.0 E: 3.0 S: 5.0 W: 5.0	M	Good	• Third party tree. • Access prohibited, measurements estimated. • Developing adjacent to brick boundary wall. • Single stemmed specimen with crown break forming at 6m. • Crown in very close proximity to building. • Minor deadwood throughout crown, approx. 5%. • Significant bowing of brick masonry wall. • Evidence of various repairs to the wall. • Horizontal cracking identified within the wall. • Cracks identified within tarmac driveway.
T04	Honey Locust *(Gleditsia triacanthos)*	120	5.0	N: 2.0 E: 2.0 S: 2.0 W: 2.0	Y	Good	• Third party tree. • Access prohibited, measurements estimated. • Climbing plant inhibiting inspection of main stem. • Single stemmed specimen with crown break forming at 4m. • Suppressed specimen. • No observable defects.

5.0 VISUAL TREE ASSESSMENT (Continued…)

Table 1: Tree Survey (Continued…)

Tree No.	Species	DBH (mm)	Height (m)	Crown Spread (m)	Age	Vitality	Condition
T05	Common Lime *(Tilia europaea)*	350	14.0	N: 4.5 E: 4.5 S: 4.5 W: 4.5	EM	Good	• Third party tree. • Access prohibited, measurements estimated. • Developing adjacent to brick boundary wall. • Single stemmed specimen with crown break forming at 6m. • Historically pollarded, adequate regrowth. • Unsympathetically pruned to west. • No observable defects.
T06	Common Lime *(Tilia europaea)*	350	14.0	N: 6.0 E: 5.0 S: 4.0 W: 6.0	EM	Good	• Third party tree. • Access prohibited, measurements estimated. • Developing adjacent to third party property. • Single stemmed specimen with crown break forming at 5m. • Historically pollarded, adequate regrowth. • No observable defects. • Cracks present within north brick masonry wall (third party). • Cracks present within tarmac driveway.

6.0 TREE SURVEY SCHEDULE & SUBSIDENCE RISK DETAILS

Table 2 below provides relevant information about the relationship of the surveyed trees and their proximity to the properties.

Table 2: Tree Details and Proximity to Buildings

Tree Ref	Species	Water Demand / Risk	Existing Height (m)	Mature Height (m)	Amenity Value British Standard 5837:2012	Stem to pillar supporting overhang of 212 Eversholt Street (m)	Zone of Influence (m) NHBC Chapter 4.2 Existing / Mature Height	
							Existing	Mature
T01	Common Lime *(Tilia europaea)*	Moderate	9.0	22.0	B2	10.6	6.75	16.5
T02	Common Lime *(Tilia europaea)*	Moderate	8.5	22.0	B2	7.1	6.38	16.5
T03	Silver Birch *(Betula pendula)*	Low	15.0	14	B2	1.9	7.5	7.5
T04	Honey Locust *(Gleditsia triacanthos)*	Low	5.0	14	C2	2.0	2.5	7
T05	Common Lime *(Tilia europaea)*	Moderate	14.0	22.0	B2	5.4	10.5	16.5
T06	Common Lime *(Tilia europaea)*	Moderate	14.0	22.0	B2	10.5	10.5	16.5

Key: Tree Ref – tree/ hedge reference on plan and/ or tree tags where used. **Species** – tree species giving English common name. **Water Demand** - based on matrix of NHBC Classification and BRE Digest. **Height –** tree/ hedge height recorded in metres. **Spread** - average of overall crown spread from each of the four cardinal compass points. **Vigour** - physiological assessment of tree as normal for species. **DBH –** the individual or cumulative (if multi-stem) trunk diameter when measured at 1.5m above ground. **Amenity Value –** a tree quality assessment using **U** to remove trees for Arboricultural reasons; **A** is high quality specimen; **B** is moderate quality; **C** is low quality. **Stem to Building -** distance of tree trunk/ nearest part of hedge to nearest building(s) in metres. **Zone of Influence –** distance from tree stem/ hedge within which the tree has the ability to desiccate the soils. This is the zone of influence when (a) the tree reaches maturity and (b) at its existing height.

7.0 DISCUSSIONS

7.1 General Overview

Trees T01, T02 and T03 each share high visibility as they can all be viewed from Eversholt Street, as a result they hold the highest level of amenity, whilst trees T04, T05 and T06 each share limited visibility.

Both T01 and T02 – Common Lime have been historically managed with a high pollard/topped, which has effectively managed the trees physical dimensions. Equally this cyclical pruning regime has effectively controlled the trees calculated Zone of Influence.

T03 - The Silver Birch crown does not appear to have been proactively managed and as a result the western flank overhangs the property. It is found to be developing in very close proximity to the concrete pillar serving the rear extension of 212 Eversholt Street.

T04 - The Honey Locust is a small specimen which cannot be viewed from a public location in the local vicinity, as such this tree possess little to no public amenity.

T05 and T06 - Common Lime trees are viewed as a continuation of the Common Lime tree line, forming part of a historical boundary planting and are large specimens. Each tree appears to have been historically pollarded, however based upon the trees subsequent growth, management has lapsed over recent years.

7.2 Risk of Indirect Damage (Subsidence Damage)

Having gained an indication of the three tree species; T01, T02, T05 and T06 – Common Lime are each considered to be of a moderate water demand/ uptake, whilst T03 – Silver Birch and T04 – Honey Locust are both considered to be a low water demand / uptake as per NHBC classification.

Based upon the information provided to us, we consider that the concrete vertical structural pillar supporting the corner of the rear extension is currently subsiding.

Based on current measured heights, the current nominal calculated Zone of Influence (ZoI) trees; T02 – Common Lime, T03 – Silver Birch, T04 – Honey Locust, T05 and T06 – Common Lime each falls well within the footprint of the concrete vertical pillar, as illustrated within the appended Zone of Influence Map supporting this report.

Whilst using the methods of calculation contained within NHBC Guidance Chapter 4.2, we have applied the current tree data and calculated the potential ZoI, based upon the predicted trees maturity for all six trees. We have calculated that the ZoI for each tree would further extend beneath the footprint of 212 Eversholt Street.

At the time of writing no detailed laboratory analysis of the surrounding soil have been carried out however based on the information available to us it would be reasonable to assume that the local soils contain a high clay component making them susceptible to volumetric change.

In the absence of further information we are of the presumption that the original building of 212 Eversholt Street has been constructed atop of a sizeable basement. Due to the basement the foundations of the original building is likely to be sat atop solid ground, and thus unaffected by volumetric change.

However that said we do not know the type of foundations used to support the two additional rear extensions. We can only presume that they are now considered to be shallow foundations not of an appropriate depth to account for the potential for volumetric change. Furthermore, we can only presume that the concrete vertical pillar is constructed atop of equally shallow concrete pad.

7.0 DISCUSSIONS (Continued…)

7.3 Risk of Direct Damage

We identified during our site visit, various cracking and deformation to the eastern brick masonry boundary wall adjacent to trees; T01, T02 – Common Lime, T03 – Silver Birch and T05 – Common Lime, please view Figures 4 to 7 below for further information.

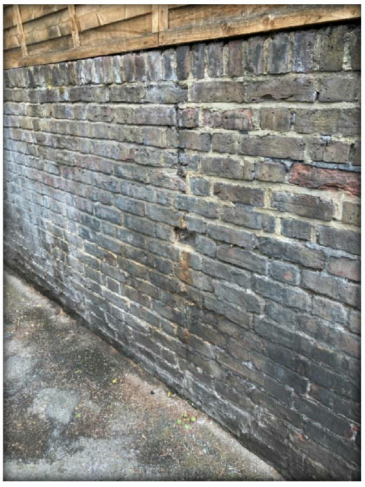

Figure 4: Photograph Of Damage Visible To Eastern Flank Wall, Adjacent to T01 – Common Lime.

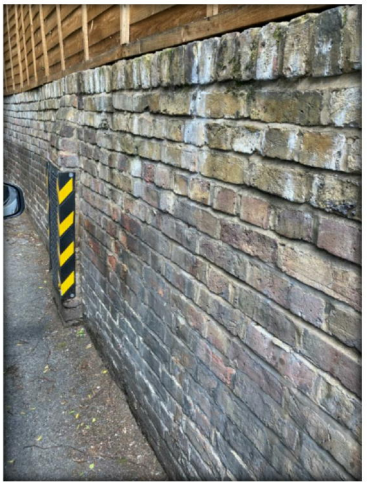

Figure 5: Photograph Of Damage Expressed To Eastern Flank Wall, Adjacent to T02 – Common Lime.

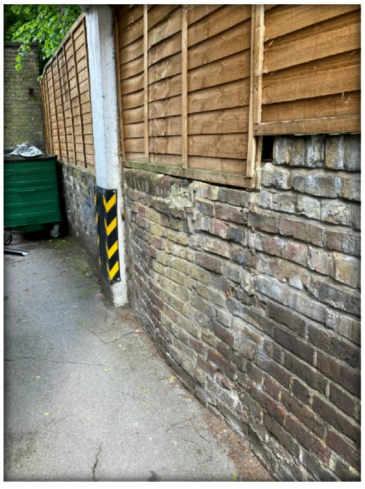

Figure 6: Photograph Of Damage Expressed To Eastern Flank Wall, Adjacent to T03 – Silver Birch.

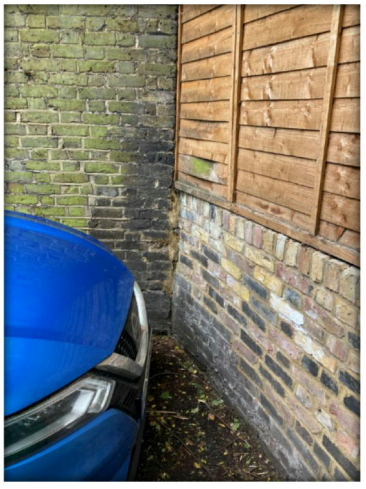

Figure 7: Photograph Of Damage Expressed To Eastern Flank Wall, Adjacent to T05 – Common Lime.

7.0 DISCUSSIONS (Continued…)

7.3 Risk of Direct Damage (Continued…)

We also identified radiating cracks within the tarmacadam hard surfacing of the vehicular driveway, which is primarily attributed to T03 – Silver Birch, please view Figures 8 and 9 for further information.

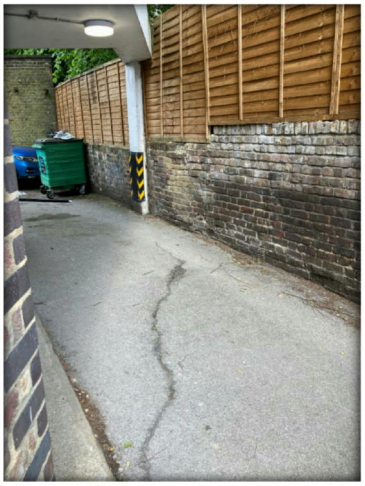

Figure 8: Photograph Of Damage Expressed To Tarmacadam, Adjacent to T03 – Silver Birch.

Figure 9: Photograph Of Damage Expressed To Tarmacadam, Adjacent to T03 – Silver Birch.

7.4 Observations on Structural Condition

Our visual assessment identified that all six trees were in good structural condition with no immediate concerns.

The survey identified that both trees T01 and T02 – Common Lime had recently been pollarded to an approximate height of 8.5 – 9.0 metres and appears to feature new growth. It is presumed that these works have been implemented to limit encroachment of the crown spread towards the adjacent properties.

Due to the nature of the tree works, cyclical pruning will be required as regrowth shall develop from weak points of attachment.

8.0 CONCLUSIONS

At time of writing we did not witness the damage caused to 212 Eversholt Street. However that said during our site visit we introduced ourselves to the appointed roofing contractors who informed us that the flat roof had to be replaced due to the pitch drastically changing; attributed to the subsiding corner of the building. We have also been provided with a Crack Monitoring Report, Ref: 002_8200903_AJ_Cracking Monitoring Report, as composed by Granville, dated 30th April 2021.

With reference to the reports Section 3.0 Conclusion:

3.1 Since the results of the monitoring indicate a seasonal movement in the masonry, it is now important that the trees adjacent to both properties are reduced in size to limit their water uptake. Tree management should be undertaken over a 2-5 year period and the then the trees should be completely removed. This will allow the ground under the foundations to reach a stable moisture content in a more controlled manner than sudden removal (or death) of the tree. The reduction in tree size should be undertaken in a staged and managed way. An arboriculturalist should be consulted to establish the best way of achieving this.

3.2 The cracks should continue to be monitored at regular intervals throughout the above process to establish the point at which movement has ceased. After this, the masonry can be made good and the properties re-decorated.

We would concur that trees; T01, T02, T05 and T06 should all be managed as pollards, however we disagree with the concept of implementing a stage and protracted crown reduction prior to eventual removal. This is an outdated methodology which the arboricultural industry no longer adopts. Essentially volumetric change is inevitable, regardless of timeframe.

As T01 and T02 have recently been pollarded; within the last six months, they must be managed on a cyclical basis. Depending upon the trees growth rate this may be conducted every 3 to 5 years.

Trees T05 and T06 – Common Lime must now be pollarded, to reduce the trees ZoI and thus reduce their potential to cause damage, ideally as soon as practically possible. Please note all these trees are subject to statutory protection, by virtue of them being located within a Conservation Area, as such a Section 211 Notice must be served upon the London Borough of Camden in the first instance.

We consider that T03 – Silver Birch, whilst is categorised as a low water demand tree is the greatest contributing factor associated with the subsidence expressed to 212 Eversholt Street, by virtue of its close proximity to the concrete supporting pillar, measured to be approximately 2.0 metres away. We do not consider a pruning specification compliant with *BS: 3998 (2010) Tree Work – Recommendations* would be effective in reducing the trees ZoI, as such we prescribe the trees removal.

Risk of direct damage to 212 Eversholt Street due to direct conflict with roots from T03 – Silver Birch is considered to be moderate.

Despite the small size and maturity of T04 – Honey Locust, its current calculated ZoI still extend beyond the concrete supporting pillar serving 212 Eversholt Street. Whilst considering the trees age and anticipated growth rate, the ZoI will increase further. Similar to above, we do not consider a pruning specification compliant with *BS: 3998 (2010) Tree Work – Recommendations* would be effective in reducing the trees ZoI, as such we prescribe the trees removal.

Due to the damage caused to the eastern brick masonry boundary wall and ongoing issues related to direct damage, we consider that the wall will in time need to be replaced entirely.

9.0 RECOMENDATIONS

Table 3: TREE MANAGEMENT RECOMMENDATIONS

Tree Ref	Species	Present Considerations	Future considerations
T01	Common Lime *(Tilia europaea)*	• No works presently required.	Maintain cyclical pollarding regime.
T02	Common Lime *(Tilia europaea)*	• No works presently required.	Maintain cyclical pollarding regime.
T03	Silver Birch *(Betula pendula)*	• Remove to ground level & poison stump.	No further considerations required
T04	Honey Locust *(Gleditsia triacanthos)*	• Remove to ground level & poison stump.	No further considerations required
T05	Common Lime *(Tilia europaea)*	• Pollard (reduce height by approx. 6.0 - 7.0m)	Maintain cyclical pollarding regime.
T06	Common Lime *(Tilia europaea)*	• Pollard (reduce height by approx. 2.0 - 3.0m)	Maintain cyclical pollarding regime.

Bartlett Consulting must be informed should any further damage to the property of 212 Eversholt Street continue.

9.1 Pruning Specifications

Pollarding: The removal of the tree canopy, back to the stem or primary branches. Pollarding may involve the removal of the entire canopy in one operation, or may be phased over several years. The period of safe retention of trees having been pollarded varies with species and individuals. It is usually necessary to re-pollard on a regular basis, annually in the case of some species.

We trust that the contents and recommendations contained within this report were informative, easy to understand and helpful to you, with regards to managing your tree. Should you have any further questions or concerns, please do not hesitate to contact us again.

REPORT CLASSIFICATION: Subsidence Risk Assessment

REPORT STATUS: Final

REPORT COMPLETED BY: Mr James Percy-Lancaster
Senior Arboricultural Consultant

SIGNATURE: [redacted]

DATE: 17th June 2021

UPDATED: 18th November 2021

REPORT CHECKED BY: Mr G Davies *FdSc Arb*
Arboricultural Consultant

SIGNATURE: [redacted]

DATE: 17th June 2021