

Reasoning for removal of trees

<i>Rev</i>	<i>Date</i>	<i>Description</i>	<i>Author</i>	<i>Checked</i>
R0	07 Sept 2018 13 Sep. 1813-Sep-18	DRAFT	MJT/DNS	JM
R1	13th September 2018	Client approved for issue	MJT/DNS	JM

1.0 Introduction

- 1.1 Mason Clark Associates (MCA) has been asked by the North Lincolnshire Council Planning Department to clarify the removal of the trees with respect to the replacement of a brick retaining wall.
- 1.2 The retaining wall is situated on the boundary of Beach House Care Home, owned by Four Seasons Healthcare, with Holydyke in Barton on Humber. The wall is currently leaning significantly as established in our structural report previously carried out for Four Seasons and is requiring attention to confirm long term stability.

2.0 Executive Summary

- 2.1 The boundary wall between the site of Beech House Care Home and Holydyke in Barton Upon Humber is in need of rebuilding due to an increasing lean; other methods of stabilisation have been considered but they have been ruled out as being impracticable. The reconstruction of the wall will entail excavating behind the wall to construct new foundations, and those excavations will extend far enough behind the wall to have to remove a number of trees identified on the drawing submitted for Planning Permission. Given that the trees are directly within the zone of foundation excavations, they cannot be saved but could be replaced after reconstruction of the wall.

3.0 Works to be undertaken

- 3.1 MCA have issued drawings proposing the removal of the brick wall in its entirety and replacing with an insitu reinforced concrete retaining wall, faced with brick on the public side to maintain a similar appearance to existing. The wall will have a new concrete foundation that will be completely hidden below ground.
- 3.2 Due to its proximity to the boundary of the property, the replacement retaining wall has a very small “toe” to the foundation edge to situate the brick skin upon, but a large foot at rear of the foundation for stability, approximately 2.5m away from the wall. This length of foot is required for the structural stability of the wall.
- 3.3 To enable the above to be constructed, the ground to the rear of the existing wall will have to be excavated and must be battered back to a safe angle, or otherwise supported behind this with adequate working room.

3.4 From the topographical survey undertaken on the site, it appears that the majority of the trees fall within the zone of the retaining wall foot or the excavation area, necessitating the removal of the trees.

4.0 Other options considered and rejected

4.1 Other options were considered at the design stage to try and negate the removal of the trees. This included the following:

- i. **Sheet piles.** These were considered too risky to install adjacent to the existing leaning wall as the vibration may cause the existing wall to collapse. The roots and branches of the trees closest to the wall may also obstruct the installation of the piles.
- ii. **Ground anchors.** It was considered that the existing wall may not be able to be proven to span between any ground anchors as it is thought that the wall is only 100mm thick. Again, there is concern that the roots may obstruct the installation. It is also thought that the ground behind the wall may be 'made ground' of poor compaction which would not be conducive to a ground anchor solution.
- iii. **Underpinning.** Whilst practically this could be carried out from the pavement side, this would not be within the ownership of Four Seasons. To dig out from the property side would entail deep excavations and large sections would not be able to be accessed due to the trees. Even if the full length of the wall was underpinned, it is not thought possible to justify the design of the stem of the wall in its present form.

5 Conclusions and Recommendations

5.1 We have considered several options for the construction of a new wall and have concluded that the solution currently shown on our drawings is the most suitable for this site, despite the loss of the trees.

5.2 As the existing trees appear to be mainly self-seeded, and if replanting is required for purposes of enhancing the street scene or providing a privacy screen for the care home, we would recommend that a more structured re-planting scheme is incorporated into the works.


Matt Thornton
Associate

MEng (Hons) DIS CEng MICE CMAPS

For and on behalf of Mason Clark Associates

LIMITATIONS: Our inspection and report are concerned with the structural aspects of the building such as foundations, walls and floors. We have not concerned ourselves with the condition of items such as doors, windows, and other fittings; or items such as timber infestation / decay, dampness, and testing of services to the property, unless specified in the report.

Sampling and testing of materials is beyond the scope of this report.

We have not inspected woodwork or other parts of the structure which are covered, unexposed or inaccessible and we are therefore unable to report that any such part of the property is free from defect.

The report has been prepared for the client alone and no third party should rely on it. For the avoidance of doubt, the Contracts (Rights of Third Parties) Act 1999 shall not apply to this contract

All building and construction works are covered by the requirements of the CDM regulations. Owners/Clients have legal responsibilities to engage persons and companies with appropriate level of skills knowledge and experience to ensure that the requirements of the CDM regulations are met. The works required will be covered by the CDM regulations 2015 and you should understand your obligations and act accordingly.

CIVIL ENGINEERING

Bridge design, maintenance and construction
Wharfs, jetties and marine structures
Highway design and maintenance
Retaining wall and slope stability solutions
Land remediation advice

STRUCTURAL ENGINEERING

Residential and commercial building structures
Education and healthcare facilities
Heavy industrial development
Feasibility studies for development sites
Building Regulations and Planning Applications

BUILDING SURVEYING SERVICES

Design, Remedial Repair / Improvement Schemes
Contract Administration
Building Surveys
Condition Surveys & Schedules of Condition
Party Wall etc. Act Representation

CONSERVATION ENGINEERING

Engineer Accredited in Building Conservation
CARE Registered Engineer
Heritage and conservation engineering
Listed Building refurbishment

3D LASER SCANNING AND DATA CAPTURE

Latest Generation 3D Laser Scanning
3D modelling (Revit, CAD, Inventor, Solidworks)
Scan data cloud hosting

EXPERT WITNESS SERVICES

Civil & Structural engineering disputes
Building Surveying
Health and Safety Regulations

PROJECT MANAGEMENT

**QUANTITY SURVEYING & CONTRACT ADVICE
CDM SERVICES**

Hull (Registered Office)

Church House
44 Newland Park
Hull HU5 2DW
01482 345797
www.masonclark.co.uk
consultants@masonclark.co.uk

Leeds

Unit E
Millshaw Business Living
Global Avenue
Leeds LS11 8PR
0113 2779542
www.masonclark.co.uk

York

Partnership House
Monks Cross Drive
Monks Cross
York YO32 9GZ
01904 438005
www.masonclark.co.uk

