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28 March 2012

Mr Dean Ingram
1 Kings Croft
Worsborough Dale
Barnsley

Mr S Savage
29 Geaorge Street
Worsborough Dale
Barnsley

Dear Messrs Ingram & Savage,

Structural Inspection - 27/29 George Street &1 Kings Croft, Worsbrough Dale, Barnsley

Acting upon your joint instructions, I have, on 20 March 2012, carried out a Structural Inspection at the above properties. The purpose of the inspection was to comment on the structural significance of trees situated between the gardens of domestic properties at Kings Croft and George Street with respect to damage to pavings and garden walls.

I would advise that my inspection was limited to the above aspect of the properties and related structural elements. I have not examined the property as a whole in detail and I am therefore unable to comment in detail on the structural condition of the building as a whole. I must also advise that no inspection was carried out of parts of the structure which were hidden, unexposed or inaccessible at the time of the Inspection, and I am, therefore, unable to report that any such part is free from defect.

The Report of the Inspection is for the sole use of the Clients and the Clients' advisers and should not be reproduced in whole or in part or relied upon by any third parties for any use without the express written approval of Tom Henry and Associates. The report may be passed on to the Local Authority.

I would report as follows:

For the purposes of this Report, all references to front and rear, right and left, are as viewed from George Street. The natural topography in the vicinity of the property rose slightly from front to rear and falling from left to right.

The three properties under consideration, Nos. 27 and 29 George Street and No 1 Kings Croft were all modern conventionally constructed dwelling houses built with brickwork cavity walling beneath twin pitched roofs and with all three houses (presumed to be within the last 20 years) assumed to have foundations of sufficient depth to cater for mature vegetation in proximity to the buildings.

Vegetation in the general proximity of the buildings comprised a clump of mature deciduous trees with heights in excess of 12 metres and with the two most significant of these trees located immediately to each side of the boundary between the George Street properties and No 1 Kings Croft. The largest tree, at the right end of the clump, was noted to be tilted over to an angle of approximately 60 degrees in the direction of No 1 Kings Croft and with the branches being above the car port of the property.

The size and proximity of the two trees was such that they would be prejudicial to the precast concrete post and base plinth timbered fence between 27 George Street and 1 Kings Croft and with relatively recent damage at the base of this fence currently visible and requiring remedial attention. The fractured and collapsed concrete panels was situated between the two tree positions to either side of the boundary. Continued similar damage was considered likely.

Of greater concern was damage noted at the boundary between Nos 27 and 29 George Street. The rear boundary to the two properties was formed with by a brick wall with a maximum height of approximately 1 metre, with piers extending to 1.5 metres. The front section of this wall served a retaining function to a height of approximately 400mm and hence supporting the high level garden above that of No. 27.

This wall displayed relatively pronounced stepped and bed joint fracturing consistent with a differential foundation movement of the wall.

In addition to the cracking along the brick jointing, individual bricks were sheared at a number of positions. The cracking was considered to be recently active and in view of the proximity of the two trees must be assumed to be associated with seasonal ground moisture changes due to the vegetation possibly compounded by the physical presence of roots immediately beneath the apparently relatively shallow foundations of the wall.

Although the wall was of good visual standard and presumed to have been constructed at the same time as the dwellings it would be considered most unlikely that the wall would have a foundation of sufficient depth to adequately cater for ground moisture changes associated with the exacerbation effect from the trees especially during periods of extended dry weather.

In addition to the cracking of the wall the physical presence of the substantial roots to the trees was noted within the lawn area with this again demonstrating the potential for structural damage to occur to the boundary wall due to the presence of the vegetation.

The ground immediately alongside the rear of No. 27 was in situ concrete paved and this displayed relatively noticeable fracturing particularly in the vicinity of the drainage inspection chamber cover and with the cracking to the concrete again possibly caused by the vegetation.

The two trees of particular concern with regards to structural damage to the boundary wall between 27 and 29 George Street displayed no leaves at the time of inspection and consequently actual identification was precluded, however, it was considered almost certainly that there would be significant moisture demand from beneath the foundation walling of the boundary between 27 and 29 George Street.

Furthermore, and of particular concern with regards to the stability of No 1 Kings Croft, the tree to the right of the clump was inclined towards the carport/gable wall of No1 Kings Croft at an angle of approximately 60 degrees.

Conclusions;

The damage to the boundary wall between 27 and 29 George Street is considered to be associated with the root moisture demands of the trees causing seasonal differential movement of the foundations to the wall, and with this possibly combined with the effect of physical root presence from the substantial trees.

This vegetation is also considered to have caused damage to the precast concrete boundary fencing between 27 George Street and 1 Kings Croft and possibly the cracking to the insitu concrete pavings to the immediate rear of No. 27.

It is, therefore, felt that significant reduction in this tree presence should be considered in order to ensure the long term stability of the boundaries and especially the retaining wall between Nos 27 & 29 .

It is considered unrealistic for this wall to be made stable unless by means of piled underpinning. The cost of such would be high.

In addition to the structural damage resulting from the trees, there was also felt to be concern as to the structural stability of the car port of No 1 Kings Croft, as the tree closest to this, is leaning over at approximately 60 degrees and must be considered hazardous during time of high wind, both to the structure, and more importantly to the occupants of the building,

It is therefore recommended that this tilted tree should be cut down and its roots killed off, and that some localised tree maintenance/reduction measures should be implemented with regards to the other trees within the clump.

I trust that the above report is sufficient for your present requirements, but please do not hesitate to contact me again if I can be of any further assistance.

Yours sincerely

Thomas C. Henry
for and on behalf of
TOM HENRY & ASSOCIATES