Zoe Sharpley
Kershaw Surveyors Ltd

LARKE RISE, DIDSBURY - INSPECTION OF PALATINE ROAD BOUNDARY WALL

25.136

Wednesday, 11 June 2025

Prepared For Lauren Dodd

Larke Rise, West Didsbury, Manchester, M20 2UL

WORST AFFECTED AREA

The boundary wall is a retaining wall between Larke Rise and Palatine Road is approximately 300 mm thick with solid stone coping stones, and appears to be around 100 years old. The wall shows signs of distortion in a number of places, with the most significant movement occurring in front of a very well-established lime tree of approximately 22m height, as shown in the photos below. The wall is retaining to all of its height of approximate 1.4m high and is acting as a mass retaining wall, in that the weight of the wall what retains the earth and forces from behind it. There are no weepholes in the lower third of the wall suggesting that there is some form of drainage to reduce the hydrostatic pressure of water building behind the wall. The extents of the damage are shown by the red lines shown on pic 1.

If this is left without attention it is likely that a section of the wall will collapse onto the footpath and some of the earth retained behind it will fall onto the footpath or road. The road is the very busy Palatine Road (B5167). To undertake repairs would likely require to close a section of the footpath and traffic management may be required to re-direct the public across the road to avoid the well-used section of footpath.

At this location, the wall has buckled on the joint of the coping stones and has bellied by approximately 100 - 120 mm from its original position. There is stepped cracking mainly through the joints of the stone to the outer skin (pic 6) and the coping stones are now misaligned. The coping stones will likely require some mechanical means of lifting as the centre one is very substantial.

Given the proximity of the tree to the rear of the wall and likely reach of the existing roots, a root barrier would not seem feasible and it would likely require the removal of a large section of the root system to the wall side of the tree and this is likely to harm the tree and could in the worst scenario, destabilise the and make it more inclined to fall forward. Any works to re-build the wall can only be considered a short term repair as the wall will continue to be affected as the tree continues to grow. This is bourne out by the other areas of deformation to the wall in other location. The wall cannot be cut out to allow the tree to grow as the wall acts to retain the tree, root base and the earth around it and this would allow all of the retained material to fall through the cut out.

Rebuilding this section of the wall would require at least three coping stones to be removed, the wall to be taken down and rebuilt using the existing stone. The foundation may be damaged and may need to be re-

built but the damage is focused higher up as though the tree is leaning on the wall rather than heaving through the foundation and splitting the wall in half. It may be possible to put a thicker, heavier inner skin of blockwork such as dense concrete trench blocks but this will only be possible if room can be made on the tree side of the wall as the front boundary line needs to be maintained. This would require cutting some of the trees root base back to create room for a thicker wall (with more mass to resist the forces from the tree).

Fitting a new drain to the rear of the wall would allow any hydrostatic pressure to dissipate but this would simply be a section of slotted drain to the rear of this section of wall and would not provide any drainage to the remainder of the wall. It may also be sensible to remove the earth from behind the section of wall re-built and fill with cleaned stone to allow water to drain down behind the wall to encourage the water down below the wall rather to rest behind it.

The tree to the right-hand side of the lime tree (pics 10) has been trimmed back but there is a broken branch that has been cut from the tree which is hanging from a bough (pic 10, red arrow). This branch should be safely removed before it falls onto the road.

1

2

3

4

5

6

7

8

9

10

OTHER AREAS SHOWING DEFORMATION

There are at least two other areas where the wall is deforming in a similar manner and this may continue to happen due to the size and proximity of the large deciduous trees behind the wall (pics 1-5). These are not as severe as the present area but the wall appears to be built the same way and as the trees continue to grow it is likely that they will force the wall out further. Looking at the left-hand corner of the wall, on the junction between Palatine Road and Mersey Road, there seem to be many self-seeded trees growing closely together. These trees are likely to grow to the same size as the the larger trees in this area and could cause similar issues in the future, especially since they are all so close together. It is advised that the tree risk assessment should consider these trees and the density of their growth and their value to the context of the crop of trees and make recommendations for thinning or removal (pics 6,7&8).

1

2

3

4

5

6

7

8