

SPECIFICATION AND METHOD STATEMENT FOR DISMANTLING AND RE-BUILDING THE STONE PIER

1. General

Work should not be carried out when there is danger of frost or heavy rain.

Re-pointing is only needed where mortar has become so loose, powdery, decayed or eroded that water has started to penetrate the joints.

Do not use a power hose or jet wash to clean the stonework or wash out the joints.

Use a reputable and experienced contractor who has knowledge of historic buildings and their repair.

A risk assessment is to be undertaken by the stone mason before any work is carried out. This is to include danger to the public using the road and pavement from men working on the public areas and from possibility of machinery and stone falling and causing damage or danger to others.

Areas for working, protection of men working and where stone is to be stored during the course of the work are to be agreed with the owners.

The driveway area to no.14 is to be protected from damage to the existing resin bonded and tarmacadam surfaces.

2. Cleaning of stonework

Where stonework has been stained or greened through age, areas to be cleaned and the method are to be agreed before starting. It may be best to clean the stone before it is dismantled.

Cleaning should be carried out using water and bristle or non-ferrous brushes. Mechanical cleaning, sand or grit blasting are not to be used. Care is to be taken not to over-saturate the stonework or rub too hard. Where this is inadequate, use a weak solution of 5% hydraulic acid. Area to be wetted first and then the solution painted on carefully by brush, left on for about five minutes and then washed off with water.

Clean only 1m² test panel for inspection of work before proceeding further.

3. Taking down the stone pier

Inspect and agree where to begin the work.

Agree a safe method for dismantling and replacing the stone using suitable lifting tackle

Agree which stones can be reused and the extent of new stone needed.

Where stonework has been stained or greened through defective rainwater goods, areas to be cleaned and method are to be agreed.

4. Materials - mortar mix

Ensure the mortar mix is weaker than the stone and that the mortar mix and colour match the existing. Use no cement, only lime mortar. Use no additives ie colourants, plasticizers or retardants. Use 3:1 mix of sharp sand aggregate/lime binder. Aggregate to be clean, well washed, matched against the existing mortar, graded to a range of particle sizes appropriate to

the size of the joint and of an agreed colour. Use moderately hydrated mortar NHL 3.5. Do not use soft building sand. Use tubs or bags of hydrated lime putty rather than dry bagged lime hydrate. Sample of aggregate to be provided on site and agreed before work proceeds. The re-erected stone pier and the existing stone wall are to be tied in securely together – details to be agreed on site.

5. Mortar joints

Examine the composition of the mortar to agree materials to use for re-pointing.

If the mortar to the existing stone is firm or so hard it needs to be chiselled out, then it should be left in place as removal could damage the stonework.

Joints should be about 10mm to match adjacent stonework. Take care not to damage the stones. When carrying out final pointing, all loose material should be brushed and/or gently washed out of the joints using clean water (avoid saturation).

Damp down the stonework and the mortar joints – it is important that the wall is damp. This may mean spraying with a plant sprayer and letting it soak in for a few hours. Where the weather is hot and the wall exposed to direct sunlight it may be wise to spray the stone wall the day before as well. This helps to prevent the mortar from drying too quickly and helping it to bond better without cracking.

The mortar should be rammed as far back as possible into the joint with a narrow pointing tool and left slightly recessed to match the existing. Pack the head joints first and the bed joints second. All cavities must be filled so that no pockets of air remain. Keep the mortar off the face of the stone.

Point up only 1m² test panel for inspection of work before proceeding further. Once agreed, this is to be used as a reference area for further re-pointing.

6. Finishing the joint

At the end of each day the mortar should be dampened with water unless there is a risk of frost. Mortar should be allowed to dry out slowly. It should therefore be protected during its initial hardening by means of damp hessian. This may take several hours or days.

When the mortar begins to harden, the joint should be brushed with a stiff bristle brush (not steel wire) or rubbed with sacking to expose some of the larger aggregate and stimulate early weathering.

If new areas of re-pointing are obviously standing out, it may be useful to tone down the surface by the application of a soot wash (immerse a cloth bag of soot in a bucket of water for 24 hours).

7. Completion

On completion any damage to the tarmac of the footway and resin bonded surface to the private driveway is to be repaired to the satisfaction of the KCC Highways and the client. This is to include adjusting the black Staffordshire Blue stable blocks

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