

CAPITAL STONE

RENOVATION LTD

Sewardstone Hall Farm
Sewardstone Road
CHINGFORD
London
E4 7RH

Office: 08456 180414
Mobile: 07860 270704
Email: mark@capitalstonerenovation.com
Web: www.capitalstonerenovation.com

Site : Queen Victoria Street,
Reading,
RG1 1TG

METHOD STATEMENT FOR THE REPAIRS OR REBUILDING OF THE HIGH LEVEL GABLES.



EXISTING FABRIC CONDITION :

The high level gables are constructed of imperial red stock bricks, over clad with ornate terracotta units and faced to the front elevations with imperial yellow/white gaunt bricks. The terracotta units are in poor condition having suffered general weathering decay and spalling due to movement and modern cement mortar splitting the arrises. Several of the gables have moved from the vertical and the cause of this is not immediately obvious. All the ornate exposed finial or urn toppings to the gables and their shoulders have been previously removed (presumably for safety reasons).

The mortar joints have failed generally as has most of the lead flashing and mortar flaunching.

There are ornate terracotta units consisting of the following : Volutid scrolls, fluted pilaster columns, acanthus swags, floral units, dental courses, plain and radius copings, finial necks and caps.

OUTLINE PLAN FOR REMEDIAL WORKS;

Our plan would be to carefully demolish a single gable to learn how it was constructed and to try to establish whether there are any fundamental causes of the various failures (old iron fixings, rotting timbers etc)

Continues.....

We would propose the approach as follows:

1. We would carry out a full photographic and dimensional survey of a gable and record all its details on one of the drawings already completed.
2. We would carefully demolish the gable by hand, brick by brick and store all the components in bags within the building to prevent loading out the scaffold.
3. We would take the gable down to window or parapet level to try to expose all likely internal structural items such as lintels and timber joists. All demolishing works will be photographically recorded and logged on site.
4. Any damaged terracotta items that are salvageable will be carefully removed and repaired using reconstituted terracotta mortar with stainless steel wire re-inforcing resin fixed in position. An example of these repairs will be presented to the Conservation Officer for approval.
5. Any terracotta units that are beyond repair will be carefully recorded prior to removal and then we will manufacture a mould and re-cast a new unit. A sample of the replacement units will be presented for approval prior to manufacture.
6. Once the rebuilding starts all bedding and pointing mortar will be natural hydraulic lime. We will test a sample of the original mortar the endeavour to match this as closely as possible.
7. All re-building works will be photographically recorded.



HIGH LEVEL GABLE REPAIRS TO QUEEN VICTORIA STREET, READING

Overview

The inspection of the high level gables to the front and side elevation undertaken in September 2018. Access was gained from a suspended scaffolding to the front elevation and by climbing on the rooves to the rear of the gables – at present there is no safe access to the rear of the gables.

The high level gables can be divided in to two distinct shapes, one almost twice as large as the other. It was difficult to closely examine these gables due to the protective mesh that has been mechanically fixed over the entire gable to protect pedestrians from falling masonry. So for indicative purposes I have photographed the gables that match from the other side of Queen Victoria Street, which appear to be the same construction.



Large gable



Small Gable

General Construction :

Both types of gable are constructed of a terracotta feature coping supported by gaunt brick face-work and redbrick internal masonry. There are terracotta finials to the centre and two splay caps, but these no longer support the finial itself (which has disappeared), only the supporting vase or plinth/neck. These features are notoriously vulnerable as the cast iron supporting central peg often corrodes and thus the upper feature becomes detached due to the spalling of the terracotta.

General Construction- continued.....

The terracotta generally is heavily weathered but is not in bad condition for its age and exposure to the elements. Overall there are units that need replacing, or lifting and re-bedding and pointing. The brickwork to the rear of the gables is generally in poor condition and needs careful repointing and re-bedding in places. The terracotta has been severely compromised by being previously pointed in neat cement pointing which has damaged and split the adjacent arrisses and caused numerous other areas to fail. This same problem occurs with the majority of the brickwork that forms the supporting substrate to the gables. We would recommend removing all the cement pointing from the terracotta and brickwork and replacing in a lime mortar. If this is not an option for financial reasons, then the minimum we would recommend is to replace the cement with lime where it has currently failed.



Cement pointing causing failure of the terracotta.



Cement pointing to failed brickwork supporting small gable.

General Construction – Continued

There is presently a large cement fillet (see photograph above) to the joint between the gable brickwork and the slate roof. This is a bad feature that has failed and been poorly patched in numerous areas. There is evidence of damp ingress internally where this joint has failed and it has the potential to compromise (rot) the timber roof structure. We would recommend that this fillet removed and replaced with a properly chased in lead flashing.



Signs of damp penetration internally to gable brickwork from failed joint above.

Large Gables : The majority of these have been compromised by the failure of the joints/pointing and in some the actual units have spalled and split. We may be able to salvage these with resin and stainless steel pins, if the terracotta has not become too friable and weak, but if this is not possible we can either cast new ones in our yard or construct new ones on site from coloured mortars. If there are numerous failed units that are the same it is more economic to cast new ones in the yard, so this is something we cannot determine until the gables are properly accessible.



Large Gable

Small Gables : These gables have the same problems as the larger gables, but because they contain less detail and scroll work they have been less vulnerable to the problems of damp penetration. The face brickwork within these gables has been reasonably well protected, but there are numerous splits and cracks that are allowing water and damp penetration.



Small Gable from rear.

Gable to Front elevation : There is a long low level gable to the front elevation which overlooks Friar Street – it is gaunt brick to the upper levels and terracotta features to the window level. The terracotta has suffered erosion due to weathering and cement pointing, but generally appears in reasonable condition – although there is no direct access at present. The upper level of the gable is crowned with a brick on edge feature that seems to have been an afterthought and is not a good weather proofing as the pointing has failed and the bricks do not oversail the wall beneath. We would recommend removing the brick on edge detail and installing a terracotta or similar coping to guarantee a waterproof covering.



Friars Street Gable with failing brick on edge coping.

Proposed Repair Works

Refer to Method Statement – with overview below

Works needed to individual gables :

Friar street end gable :

Remove existing brick on edge and replace with new coping to match. Rake out and repoint brickwork and terracotta.

Continues.....

Corner Splay gable – Carefully dismantle upper levels of terracotta and brickwork down to dentil course. Rebuild in lime mortar and repair spalled units. Check rear roof/gable interface and replace cement fillet with chased in lead flashing.

First Gable to Queen Victoria street - Carefully dismantle upper levels of terracotta and brickwork down to dentil course. Rebuild in lime mortar and repair spalled units. Rake out and repoint terracotta to window surround. Check rear roof/gable interface and replace cement fillet with chased in lead flashing.

Second Gable to Queen Victoria street - Carefully dismantle upper levels of terracotta and brickwork down to dentil course. Rebuild in lime mortar and repair spalled units. Rake out and repoint terracotta to window surround. Check rear roof/gable interface and replace cement fillet with chased in lead flashing.

Third Gable to Queen Victoria street – Carefully remove brick on edge and replace with new coping to match. Rake out and repoint brickwork to gable. Check rear roof/gable interface and replace cement fillet with chased in lead flashing.

Fourth Gable to Queen Victoria street - Carefully dismantle upper levels of terracotta and brickwork down to dentil course. Rebuild in lime mortar and repair spalled units. Rake out and repoint terracotta to window surround. Check rear roof/gable interface and replace cement fillet with chased in lead flashing.

Fifth Gable to Queen Victoria street – Large gable : Carefully dismantle upper levels of large scrolled terracotta and brickwork down to dentil course. Rebuild in lime mortar and repair spalled units. Rake out and repoint terracotta to window surround. Check rear roof/gable interface and replace cement fillet with chased in lead flashing.

Sixth Gable to Queen Victoria street – very large gable : Carefully dismantle upper levels of terracotta scrolls, fruit clusters and brickwork down to dentil course. Rebuild in lime mortar and repair spalled units. Rake out and repoint terracotta to window surrounds. Check rear roof/gable interface and replace cement fillet with chased in lead flashing.

Seventh Gable to Queen Victoria street - Carefully dismantle badly spalled upper levels of terracotta and brickwork down to dentil course. Rebuild in lime mortar and repair spalled units. Rake out and repoint terracotta to window surround. Check rear roof/gable interface and replace cement fillet with chased in lead flashing.

Eighth Gable to Queen Victoria street – Large Gable : Carefully dismantle all levels of terracotta and brickwork down to window height. Rebuild in lime mortar and numerous repairs to spalled units. Rake out and repoint terracotta to window surround. Check rear roof/gable interface and replace cement fillet with chased in lead flashing.

Ninth Gable to Queen Victoria street – Large Gable: Carefully dismantle upper levels of terracotta and brickwork down to dentil course. Rebuild in lime mortar and numerous repairs to spalled units. Rake out and repoint terracotta to window surround. Check rear roof/gable interface and replace cement fillet with chased in lead flashing.

Tenth Gable to Queen Victoria street – small Gable : Carefully dismantle upper levels of terracotta and brickwork down to window lintel height. Rebuild in lime mortar and lift up dropped key stone. Repair numerous spalled units. Rake out and repoint terracotta to window surround. Check rear roof/gable interface and replace cement fillet with chased in lead flashing.

Eleventh Gable to Queen Victoria street – Large Gable : : Carefully dismantle all levels of terracotta and brickwork down to window height. Rebuild in lime mortar and numerous repairs to spalled units. Rake out and repoint terracotta to window surround. Brick and terracotta to splays need to be rebuild. Check rear roof/gable interface and replace cement fillet with chased in lead flashing