Method Statement & Schedule of Repair

5-7 Bank Street
Cheadle,
Stoke on Trent
ST10 1NR
2015/K787/8.0

1. General Approach

1.1. The approach to the building is to minimise intervention whilst providing high quality, apartments that provide a use for the building in the long term, securing its future.

1.2. Following site inspection the existing window, other than the 'shop frontage' window to Apartment 3 are to be removed and new timber sash and casement windows installed as indicated on the accompanying elevations, window schedule and window details.

1.3. The shop frontage window is to be carefully removed, taken to the Contractor's joinery shop off site, repaired as required before preparation, refitting and painting. The existing timber lintel over the window is not sufficient (movement is evident above this) and it is proposed to replace this with a steel lintel and, faced in painted timber to match the existing proportions and appearance of the timber lintel.

1.4. Internally painted timber balustrading will be installed between the jambs of windows with a cill level below 800mm above finished floor level to provide guarding to 1100mm.

1.5. It has been decided to install electric heating and hot water systems to the apartments to avoid the need for flue penetrations from boilers.

2. Floors

2.1. Careful consideration has been given to the existing floors. A site inspection has determined that all of the boards would require replacing and a significant amount of the floor structures (where these are still present).

2.2. In order to provide adequate sound separation between the apartments, to both meet Building Regulations Part E and also provide residents with a reasonable living environment acoustic separating floor need to be introduced.

2.3. Because of the depth required for an acoustic floor it is not possible to keep the floors at the existing levels throughout the building as the remaining head height would be to greatly compromised.

2.4. It is, therefore, proposed to remove the existing floors complete at first and second floors and replace with new acoustic separating floors with engineered timber joists on hangers fixed to the existing masonry walls, an acoustic ceiling below and floating acoustic floor above. The floor levels have been proposed to avoid bridging centres of windows.

2.5. The removal of the existing first and second floors will be sequential, under the direction of the engineer to avoid loss of support to the existing structure.

2.6. At ground floor, where floors are missing these will be replaced with new timber suspended floors (particleboard deck on engineered timber joists on hangers, with insulation below and a calcium silicate board fire lining to the underside).

2.7. At ground floor, where there is existing concrete slabs, these will be built up to the new floor levels with a floating particle board floor over rigid insulation boards on a new damp proof membrane.

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3. Internal Walls

3.1. Structural repairs to the existing walls are to be in accordance with the Engineer's method statement attached.

3.2. There have been a number of alterations to the existing building over its history, including removing internal walls (particularly in Apartments 4, 8 and 12) and it is proposed that these are reinstated with medium density blockwork to improve the structural stability of the building.

3.3. Elsewhere, where there are opening to infill these will again be in masonry (medium dense blockwork).

3.4. New separating walls are required in places, as indicated on the plans, to provide acoustic separation between the apartments and between the apartments and communal stairs/corridors. These are proposed to be medium density blockwork, with cavity, sand:cement scratch coat and skimmed plasterboard on dabs (broadly in line with Robust Detail E-WM-4). These will be taken down to new trench fill foundations.

4. External Walls

4.1. Structural repairs to the existing walls are to be in accordance with the Engineer's method statement attached.

4.2. The walls generally will be insulated internally, to meet the requirements of Building Regulations Part L1B, whilst maintaining the character and external appearance of the building. This is proposed as a 93mm British Gypsum Gyproc Thermaline PIR board (or similar) on 25mm metal frame wall lining system.

4.3. Where openings are to be infilled externally these will be in facing brickwork to match the existing or reusing existing, in stretcher bond, set 15mm back from the face of the existing brickwork so that these can be read as new elements and the existing elements are still legible.

4.4. New service penetrations in the existing walls have been minimised with the use of electric heating systems. Vent covers for extract fans will be coloured plastic vents to suit the colour of the brickwork as indicated on the elevations.

4.5. A new chemical DPC will be injected into all external walls. All drilling etc. for installation to be from the inside face only.

5. Basement

5.1. After inspection it has been decided to retain the existing basements and not infill these as proposed at planning stage.

5.2. The existing entrance steps to the two basements will be retained and the existing doors replaced with lockable timber doors to suit the existing. This will secure the basement, without preventing further use/investigation.

5.3. The two no. fan lights to the front of the building, under the existing shop frontage window, will be infilled with facing brickwork, to match existing and with 4 no. clay air

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bricks inset to maintain ventilation to the basement. Additional clay air bricks to be inserted as required by engineer to provide adequate ventilation to basements / suspended timber floors.

6. Roof

6.1. The existing roof covering over Apartment 12 and bedroom and bathroom of Apartment 11 will be retained in situ. The remainder of the roof covering will be carefully stripped before refitting on new underlay. The salvaged tiles from the existing roof will be used first on the Bank Street facing elevation before the rest of the roof. New tiles where required will be to match the existing.

6.2. The existing timber fascias and verges will be inspected with the existing retained in situ, prepared and decorated where condition allows. Where the condition does not allow for this, they will be localised replacement to match the existing.

6.3. Lead flashings etc will be renewed.

7. Repointing

7.1. Localised repointing where joint depth is twice or more joint height. Failed bricks etc to be replaced to match existing.

7.2. GENERALLY/ PREPARATION

7.3. REMOVAL OF PLANT GROWTHS FROM MASONRY
7.4. Plants, root systems and associated soil/ debris: Carefully remove from joints, voids and facework.
7.5. Removal of roots: Where growths cannot be removed completely without disturbing masonry seek instructions.
7.6. Unwanted plants close to masonry: Where removal of root system is not possible or desirable, cut through stem as close to the ground as possible. Remove bark from stump and apply herbicide paste. Leave stump to wither.

7.7. WORKMANSHIP GENERALLY
7.8. POWER TOOLS
7.9. Usage for removal of mortar: Specialist power tools permitted, disc cutters not permitted.

7.10. PROTECTION OF MASONRY UNITS AND MASONRY
7.11. Masonry units: Prevent overstressing during transit, storage, handling and fixing. Store on level bearers clear of the ground, separated with resilient spacers. Protect from adverse weather and keep dry. Prevent soiling, chipping and contamination. Lift units at designed lifting points, where provided.
7.12. Masonry: Prevent damage, particularly to arrises, projecting features and delicate, friable surfaces. Prevent mortar/ grout splashes and other staining and marking on facework. Protect using suitable nonstaining slats, boards, tarpaulins, etc. Remove protection on completion of the work.

7.13. STRUCTURAL STABILITY
7.14. General: Maintain stability of masonry. Report defects, including signs of movement that are exposed or become apparent during the removal of masonry units.

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7.15. DISTURBANCE TO RETAINED MASONRY
7.16. Retained masonry in the vicinity of repair works: Disturb as little as possible.
7.17. Existing retained masonry: Do not cut or adjust to accommodate new or reused units.
7.18. Retained loose masonry units and those vulnerable to movement during repair works: Prop or wedge so as to be firmly and correctly positioned.

7.19. WORKMANSHIP
7.20. Skill and experience of site operatives: Appropriate for types of work on which they are employed.

7.21. ADVERSE WEATHER
7.22. General: Do not use frozen materials or lay masonry units on frozen surfaces.
7.23. Air temperature: Do not bed masonry units or repoint:
7.24. In cement gauged mortars when ambient air temperature is at or below 3° and falling or unless it is at least 1° and rising, unless mortar has a minimum temperature of 4° when laid and the masonry is adequately protected.
7.25. In hydraulic lime:sand mortars when ambient air temperature is at or below 5° and falling or unless it is at least 3° and rising.
7.26. In nonhydraulic lime:sand mortars in cold weather, unless approval is given.
7.27. Temperature of the work: Maintain above freezing until mortar has fully set.
7.28. Rain, snow and dew: Protect masonry by covering during precipitation, and at all times when work is not proceeding.
7.29. Hot conditions and drying winds: Prevent masonry from drying out rapidly.
7.30. New mortar damaged by frost: Rake out and replace.

7.31. REPLACEMENTS AND INSERTIONS
7.32. PREPARATION FOR REPLACEMENT MASONRY
7.33. Defective material: Carefully remove to the extent agreed. Do not disturb, damage or mark adjacent retained masonry.
7.34. Existing metal fixings, frame members, etc: Report when exposed.
7.35. Redundant metal fixings: Remove.
7.36. Recesses: Remove projections and loose material; leave joint surfaces in a suitable condition to receive replacement units. Protect from adverse weather if units are not to be placed immediately.

7.37. REPLACEMENT OF BRICKS
7.38. Bricks: New to match existing.
7.39. Mortar: Lime mortar - no cement
7.40. Mix: Lime Green Products Ltd NHL3.5 hydraulic lime pre mixed.
7.41. Sand source/ type: Lime Green Products Ltd Type F.

7.42. LAYING REPLACEMENT MASONRY UNITS
7.43. Exposed faces of new material: Keep to agreed face lines.
7.44. Faces, angles and features: Align accurately. Set out carefully to ensure satisfactory junctions with existing masonry and maintain existing joint widths.
7.45. Joint surfaces: Dampen to control suction as necessary.
7.46. Laying units: On a full bed of mortar, all joints filled.
7.47. Exposed faces: Keep clear of mortar and grout.

7.48. POINTING/ REPOINTING
7.49. PREPARATION FOR REPOINTING

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7.50. Existing mortar: Working from top of wall downwards, remove mortar carefully, without damaging adjacent masonry or widening joints, to a minimum depth of twice joint thickness.
7.51. Loose or friable mortar: Seek instructions when mortar beyond specified recess depth is loose or friable and/ or if cavities are found.
7.52. Raked joints: Remove dust and debris.

7.53. POINTING
7.54. Preparation of joints: Carefully brush away loose mortar.
7.55. Mortar: Lime mortar - no cement
7.56. Mix: Lime Green Products Ltd NHL3.5 hydraulic lime pre mixed.
7.57. Sand source/ type: Lime Green Products Ltd Type F.
7.58. Joints profile/ finish: Recessed back from weathered arrises to retain original joint widths. Brushed finish, after initial mortar set has taken place remove laitance and excess fines by brushing, to give a coarse texture. Do not compact mortar..

7.59. POINTING WITH TOOLS/ IRONS
7.60. General: Press mortar well into joints using pointing tools/ irons that fit into the joints, so that they are fully filled.
7.61. Face of masonry: Keep clear of mortar. Use suitable temporary adhesive tape on each side of joints where necessary. Finish joints neatly.

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REPAIRS TO EXISTING BUILDING

5 and 7 BANK STREET, CHEADLE

METHOD STATEMENT FOR CRACK REPAIRS

Introduction

The existing building at 5 and 7 Bank Street, Cheadle is to be refurbished to provide residential accommodation. On some of the external walls there are cracks in the masonry mainly immediately above some windows. The building has been surveyed and it is considered that the cracks fall at worst into Category 2 of Building Research Establishment Digest 251 "Assessment of damage in low rise buildings". The purpose of this digest is to assist building professionals, property valuers and insurance advisors both in putting building damage into its true perspective and in determining necessary action. The Digest discusses the assessment and classification of visible damage resulting from structural distortion. The assessment is based on a description of work considered necessary to repair the building fabric and suggests six categories of damage (ranging from Category 0 to 5) taking into account the nature, location and type of damage. The Digest states that for "*For domestic dwellings, which constitute the majority of cases, damage at or below Category 2 does not normally justify remedial work other than the restoration of the appearance of the building. For the cause of damage at this level to be accurately identified it may be necessary to conduct detailed examinations of the structure, its materials, the foundations and the local clear ground conditions. Consequently, unless there are clear indications that damage is progressing to a higher level it may be expensive and inappropriate to carry out extensive work for what amounts to aesthetic damage*." Therefore, as the cracks are classed as aesthetic damage, repairs to the cracks will be undertaken as part of the refurbishment.

Extent

There are localised areas of cracks on most elevations and each area will be identified. Before the work starts, the areas of repairs will be clearly identified by marking out the areas using chalk or other easily removable marker.

The main area of crack repair occurs above the large windows on the right hand side of the front elevation, in the walls either side of the passageway to rear of the building and on the rear elevation of the right hand side wing (when viewed from the front)

General Requirements for the Works

1) All personnel engaged in the works are to be given an adequate brief. All personnel are to be trained and experienced in the proposed type of repair works.
2) The method statement and manufacturer's instructions must be followed. Any discrepancies must be highlighted prior to commencing work. before work starts.
3) Account must be taken of health and safety hazards including all necessary Personal Protective Equipment worn. Safe access to the working s to be provided.

Method Statement

For every crack identified as requiring repair

1) Chase slots at 300mm intervals along a length of wall that extends 500mm each side of crack. For cracks less than 1m long chase slots at 150mm centres. Depth of slot to be 30mm on a 100mm thick brick wall and 45mm thick on a 215mm thick wall.
2) Clear loose detritus from slots and flush thoroughly with water,
3) Pump bead of Twistfix WHO60 cement grout (or equivalent) to rear of slot, filling it evenly to approximately two thirds full.
4) Push 6mm stainless steel helical crack stitching tie into grout to approximately two thirds of slot depth. Trowel displaced grout to firmly encapsulate rod.
5) Repoint area of repair wall on completion ensuring that mortar blends in with existing.

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