



**CARR FAULKNER ASSOCIATES**

**CIVIL AND STRUCTURAL CONSULTING ENGINEERS**

1 St Marys Walk, Chorley, Lancashire. PR7 2RT

Tel: 01257 244600 Fax: 01257 231678

Email: [engineers@carrfaulkner.co.uk](mailto:engineers@carrfaulkner.co.uk)

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# **STRUCTURAL SURVEY REPORT**

**ON**

**BEECHLEY HOUSE, LIVERPOOL**

**AT THE REQUEST OF**

**REDROW HOMES LIMITED**

**CF 7834  
MARCH 2016**

# **CONTENTS**

## **1.0 SYNOPSIS**

### **1.1 MAIN HOUSE**

### **1.2 COACH HOUSE**

### **1.3 STABLE BLOCK**

## **2.0 INTRODUCTION**

## **3.0 FINDINGS**

### **3.1 MAIN HOUSE**

### **3.2 COACH HOUSE**

### **3.3 STABLE BLOCK**

## **4.0 CONCLUSIONS AND RECOMMENDATIONS**

### **4.1 MAIN HOUSE**

### **4.2 COACH HOUSE**

### **4.3 STABLE BLOCK**

## **5.0 APPENDIX A - PHOTOGRAPHS**

## **1.0 SYNOPSIS**

### **1.1 MAIN HOUSE**

- The rendered elevations have cracked to varying degrees, but the walls are structurally stable. Consideration should be given the benefits of full render removal and replacement, or breaking out of addled render and patch repair;
- The presence of a cavity wall, and the possibility of wall ties in the external wall is to be investigated;
- It is recommended that the roof coverings be fully removed and re-laid on new felt and battens;
- All flashings, valleys and lead-lined gutters should be assessed and replaced/repared as deemed necessary;
- If the existing roof structure is to remain, this will need to be checked structurally to assess whether or not it can carry the anticipated load from the proposed finishes;
- The roof and first floor structural timbers should be fully inspected by a timber specialist to determine if the timbers have been compromised due to prolonged water ingress or damp at end bearings onto the external wall;
- Localised replacement of several lintels is anticipated (most likely over feature window in the front elevation, to the left of the entrance portico and over the ground floor entrance into the building within the right-hand side elevation);
- It is anticipated that there may be timber lintels in the property, and these should be replaced with propriety concrete lintels or galvanised steel lintels when they are exposed;
- All rainwater goods should be inspected and repaired/replaced if found to be leaking as deemed necessary;
- If the building is developed into apartments, acoustic separation and the associated additional loads should be taken into consideration.

## 1.2 COACH HOUSE

- The property is in reasonable order and has been well maintained, with no evidence of significant structural movement;
- The loose masonry at eaves level on the corner formed with the left-hand gable and rear elevation should be repaired;
- Timber elements to the bay on the front elevation are starting to rot. The rotten members should be removed and replaced with treated timbers of similar size;
- The concrete lintels over windows in the rear elevation should be replaced with pre-cast concrete or proprietary galvanised lintels, specified to carry the anticipated design loads;
- The condition and insulation properties of the existing slab should be determined and, based on the findings, upgraded or broken out and re-laid to meet with Part L of the Building Regulations.



### 1.3 STABLE BLOCK

- This building is well built, and is in reasonable order with no evidence of significant structural movement;
- Localised masonry repairs should be undertaken to areas of loose/de-bonded masonry noted at eaves level in the pikes on the front elevation;
- In order to achieve a long-term watertight roof, it is recommended that the roof is fully stripped back to structure;
- If the existing roof or floor structure is to remain, this will need to be checked structurally to assess whether or not it can carry the anticipated load from the proposed finishes;
- Where existing timbers are to be utilised in the roof or first floor structural timbers, these should be fully inspected by a timber specialist to determine if the timbers have been compromised due to prolonged water ingress or damp at end bearings onto the external wall;
- As the walls are solid construction, consideration should be given to a new inner leaf in blockwork or stud to allow the appropriate insulation to be placed to comply with Part L of the Building Regulations;
- It is considered that a new concrete slab will be required to replace the cobbles and concrete that is currently present.

## **2.0 INTRODUCTION**

Carr Faulkner Associates Ltd, at the request of Redrow Homes, was appointed to carry out a structural appraisal on the property on Beechley House, Liverpool.

The purpose of the survey was to determine the structural condition of the property prior to it being redeveloped.

The survey was carried out on the 1<sup>st</sup> March, 2016.

No finishes were broken out nor brickwork removed to examine wall construction. No damp meter readings were taken. No trial holes were carried out to inspect foundations or the strata upon which they were formed.

All measurements noted were determined using a 1000mm long spirit level and steel tape. The survey confined itself to those areas readily available for inspection.

The references 'left' and 'right' are taken as stood facing the elevation or element under inspection.

### **3.0 FINDINGS**

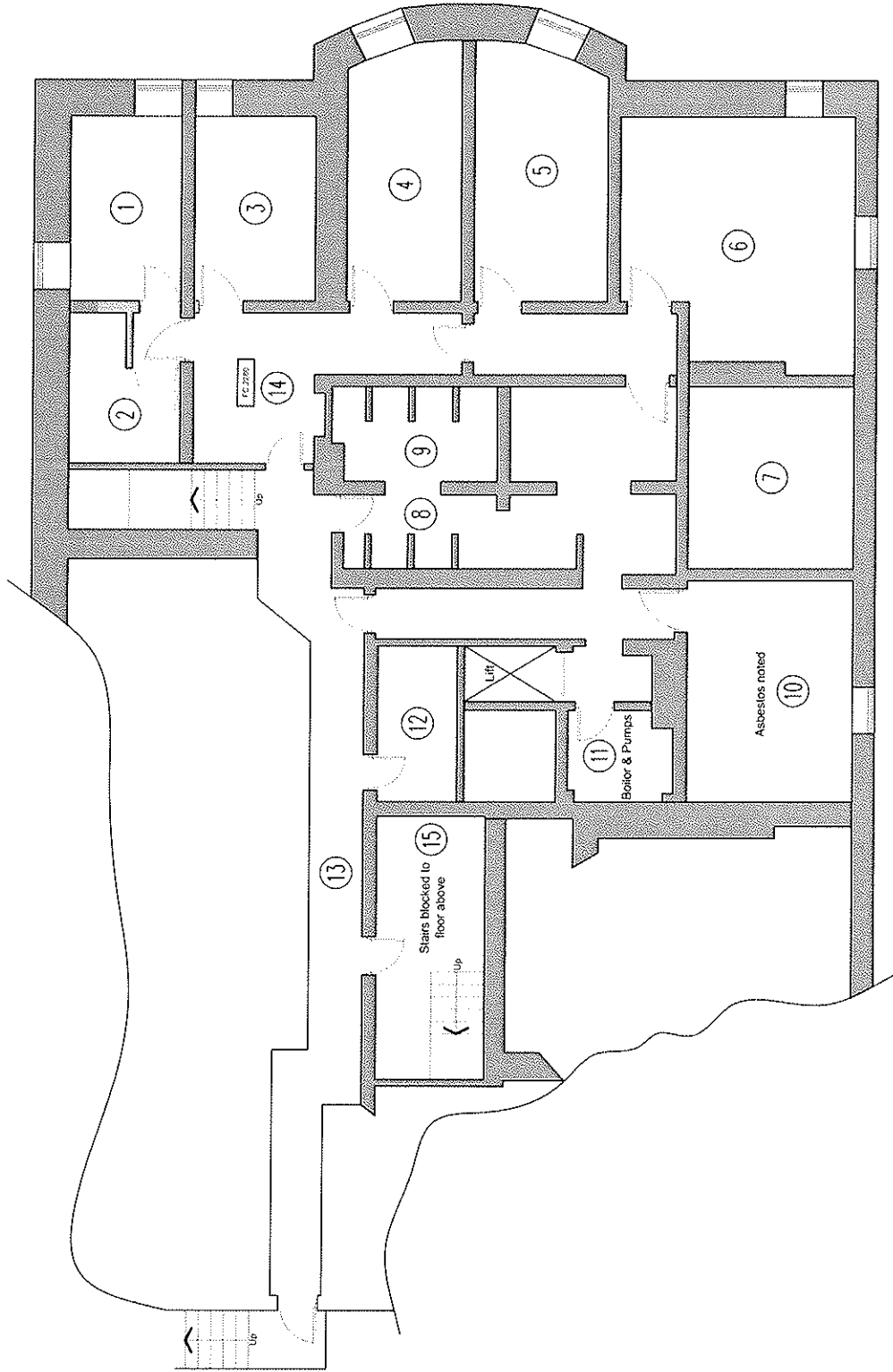
To aid with the survey plans were provided by Redrow, and these are contained in Appendix A.

The rooms have been designated numbers and indexed back to the plans at the front of each section.

Prior to attendance on site, it was advised not to go into certain areas due to the presence of asbestos, but at the time of the survey, asbestos specialists were on site, and they gave clearance to enter the areas of concern.

### **3.1 MAIN HOUSE**

# MAIN HOUSE.



Basement Layout, (N.T.S.).

## **INTERNAL INSPECTION**

### **MAIN HOUSE - BASEMENT**

The basement is accessed via a door off a small link corridor (to be demolished) that leads to the “Coach House”.

#### Room 1

Room 1 has plastered walls, a carpeted floor, and a suspended ceiling has been constructed.

There is damp ingress through the rear retaining wall and the right-hand side wall which is also retaining, but other than this no significant defects were recorded in the structural walls.

The floor is reasonably level and it appears to be relatively damp free.

#### Room 2

Room 2 has also been refurbished using plasterboard walls, carpeted floor and a suspended ceiling. Again, there is no evidence of cracking in the structural walls, but damp ingress is apparent though the retaining walls on the rear and side elevations.

#### Room 3

Room 3 is the former larder (possibly the meat locker) and contains a large stone slab in the centre of the room. The room comprises painted brickwork walls, with painted stonework on the external elevations. In the partition wall with Room 4 there are arched recesses.

The brickwork along the partition wall with Room 2 is showing signs of efflorescence, and several brick faces have spalled/blown by up to 25mm in the lower half of the wall. The joists appear to be in reasonable order.

#### Room 4

Room 4 comprises painted brickwork and masonry on the side wall. The floor has been carpeted, and in a small anteroom off the hallway there is a shower room which comprises of full-height tiling and a plastered ceiling.

There is evidence of rising damp in the brickwork, and efflorescence on the bricks in the lower section of the wall. Several individual bricks have spalled by about 20-25mm, and damp penetration is occurring through the retaining sections of the wall.

Closer to the corridor there is little evidence of damp, and the tiled bathroom area is in reasonable condition with no evidence of structural movement.

#### Room 5

Rooms 4 and 5 were formally one room, and occupied the space directly below Room 2 at Ground floor level, and have been separated by a stud wall. The room has been refurbished, and the side wall which is beneath the bay window of room above, has been plastered. The floor has a vinyl covering, and there is a suspended ceiling comprising fibre tiles in a pressed metal grid. Other than damp ingress through the retaining wall that has extended back into the two flank walls, no significant defects were recorded in the walls. Cracking is present in the stud partition wall with Room 4 above the plug sockets, but this is thought to reflect the plaster board junction or conduits behind the wall.

### Room 6

Room 6 is a laundry room, and there is no evidence of structural deformation or cracking with any of the external walls. The ceiling is painted plasterwork and is in good order.

### Room 7

No access was available at the time of the inspection.

### Room 8 & 9

Room 8 was possibly a former wine cellar, as there are stone bins located along the side of the room and an arched brick vaulted ceiling. The floor is stone cobbles. The bins have been formed using stone slabs at chest height, which span between single skin masonry walls.

With the exception of efflorescence, and spalling of the brick faces in the lower sections where damp is penetrating from the ground, no significant defects were evident in the walls.

### Room 10

Room 10 is the boiler /switch room. The walls are painted masonry, and the floor is cobbled. The ceiling is poured concrete that spans from the hall wall to the front elevation wall.

There is evidence of damp penetration through the front wall [which is retaining] and this has penetrated into the flanked walls for approximately 1m. The basement floor is in reasonable condition, and is not excessively damp. Within the ceiling there are steel joists embedded in the concrete (filler joist floor) which is typical for the age of the building. The areas of exposed steelwork are not showing signs of excessive corrosion.



### Room 11

Room 11 is possibly the pump room. Finishes comprise a concrete slab floor, painted masonry walls and a timber boarded ceiling.

No significant defects were recorded in any of the walls, other than the efflorescence and damp penetration noted elsewhere across the basement.

### Room 12

No access was available at the time of the inspection [locked for lift machinery].

### Room 13

Room 13 is the corridor that leads out to the external door in the left-hand side wall. The brick arched ceiling and masonry walls have been plastered and painted, and the floor has stone flags.

No significant defects were recorded in the masonry.

### Room 14

Room 14 is a hallway which is accessed from the bottom of the stairs leading into the basement. The finishes comprise painted masonry walls which have been plastered in areas, and the floor has been carpeted. Stone lintels are present across openings leading into the corridor, off which Rooms 4 and 5 are accessed, and these are performing satisfactorily. The solid carpeted floor has undulations underfoot, but there is no evidence of excessive damp penetration through the floor.

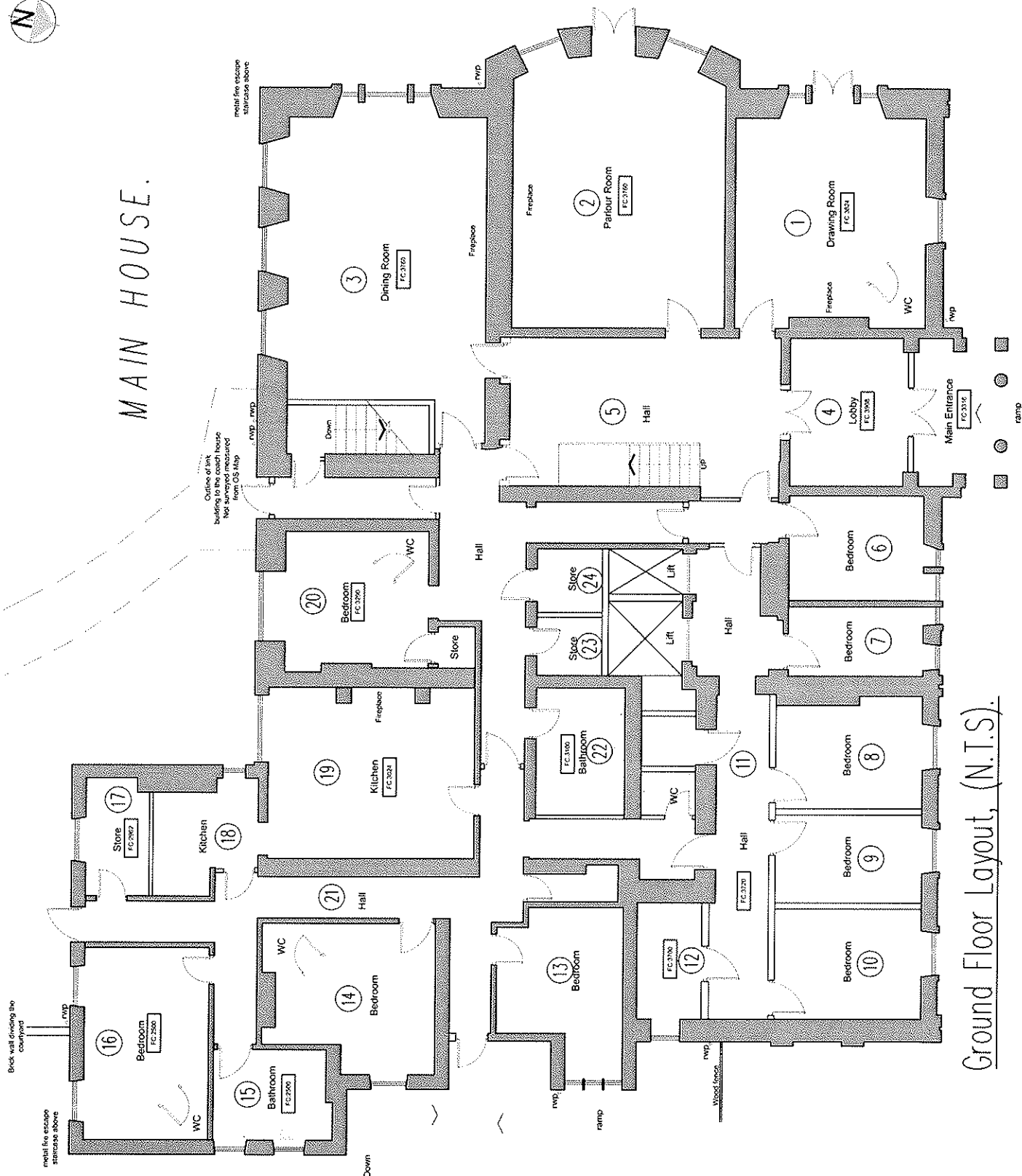
### Room 15

Room 15 is an ante-room. Finishes comprise painted masonry and brickwork and there is a staircase that leads up to ground floor level which has been sealed off.

No significant defects were recorded in the walls.



# MAIN HOUSE.



Ground Floor Layout, (N.T.S.).

## **MAIN HOUSE - GROUND FLOOR**

### Room 1

Finishes comprise painted wallpaper and painted plaster ceilings with a decorative cornice that runs around the perimeter of the room at the wall/ceiling junction. Floors are timber construction and the joints span from front to rear.

No significant defects were recorded in the walls beneath the papered finishes. The walls are plumb and the window sill on the front elevation is level. The door leading into the room is level, and the door shuts cleanly within its casing. The floor was levelled, and shows no significant deviations from the horizontal. There is superficial damage to the plastered cornices along the front elevation, but no evidence of cracking within the cornice itself.

The plastered ceiling has several cracks in it which tend to run parallel with the front elevation. The crack in pattern is synonymous of de-bonding of plasterwork from what it is assumed to be the original laths. In the side elevation there is a fire exit door, the frame of which is showing signs of rot in the bottom right-hand corner.

### Room 2

Finishes comprise a linoleum covered floor with papered walls and a painted plastered ceiling. A featured dado rail and a picture rails runs the perimeter of the room, and above the picture rail there is decorative frieze topped off with decorative cornice at the wall ceiling junction. In the side elevation there is a full height curved bay window.

No significant defects were recorded beneath the papered finishes, and the picture rail is level on all walls. Within the picture rail there is evidence of a repair, midway across the wall, in the form of an

insert piece suggesting that something previously occupied this space. The decorative cornice and the frieze are in good order, with no evidence of cracking or excessive superficial damage.

The ceiling has several cracks that span both the width and length of the room. This appears to be synonymous with de-bonding of the plasterwork from its sub-structure (laths). Door heads are level with no evidence of movement in the architrave's mitre joints, and the door shuts cleanly within its casing. The floor is level to within acceptable tolerances.

### Room 3

Finishes comprise painted wallpaper on the walls with a picture rail what runs around the perimeter of the room. The ceiling is decorative plasterwork and a feature cornice at the wall/ceiling junction around the perimeter of the room.

No significant defects were recorded beneath the papered finishes and the walls are all plumb to within acceptable tolerances. The feature plasterwork ceiling is in good order, but localised repairs have been undertaken, identified where the ceiling has been primed. Between the cornice and the picture rail above the door into the room, there is de-bonding of the wallpaper and similar de-bonding is evident on the opposite wall to the left of the left-hand window.

The suspended timber floors are robust and level to within acceptable tolerances. The door into the room into the hallway does not shut cleanly within its casing, but this appears to be due to a damaged hinge as opposed to structural movement of the door opening.

#### Entrance Lobby - Room 4

Room 4 comprises, painted wallpaper to walls and ceiling, and linoleum covered floor. At the wall ceiling junction there is a decorative cornice that runs around the perimeter of the room and on the two side walls, there are plastered framework features.

No significant defects were recorded. The door shut cleanly within its casing and there is no evidence of structural movement. The floor is robust and is level to within acceptable tolerances.

#### Main Hallway - Room 5

The main hallway is open to the underside of the first floor ceiling, and a stone cantilever staircase wraps round the left-hand wall and rear wall, before connecting to a balcony which runs around the right-hand wall and the wall that is party with the lobby (Room 4). The finishes to the walls are painted wallpaper at ground floor, but at first floor there are colonnades which have been in-filled with timber glazing panels. The roof over the hallway is vaulted with feature plasterwork and has a central located rectangular skylight. A decorative cornice runs around the perimeter of the first floor wall/ceiling junction.

The walls are in good order with no evidence of significant defects beneath the papered finishes. The architraves around the doors are generally in good order, but there is slight opening of the left-hand mitred joint around the door of Room 1.

The cantilevered stone staircase is in good order, with no evidence of excessive cracking at the tread junctions.

### Room 6

Finishes to this room comprise a carpeted floor, papered walls and a suspended ceiling, comprising tiles hung within a metal grid system. The floors are timber. All the walls are solid construction and on the partition wall to Room 7 there is a deep, single timber picture rail which runs from the front elevation to the hall wall.

No significant defects were recorded beneath the papered finishes, and the floor is robust and shows no evidence of excessive deflection. There is no evidence of movement around the door frame into the room, and the door shuts within its casing.

### Room 7

Room 7 appears to have been a small utility room with painted plasterwork walls. The floor is linoleum covered, and the ceiling comprises tiling within a pressed metal grid system. The picture rail noted on the party wall to Room 6 is also present on this side within this room on the same wall.

No significant defects were recorded within the walls, which are plumb to within acceptable tolerances, and the floor is level.

### Room 8

The finishes comprise painted wallpaper with painted plasterwork above the picture rail. A decorative cornice runs along the partition wall with Room 7 and along the front elevation, but it is not evident elsewhere, indicating that a larger room has been sub-divided in the past. The wall between Rooms 8 and 9 is studwork. The finishes to the ceiling comprise painted wallpaper.

On the partition wall with Room 7, there appears to have been a former chimney breast which has been blocked up and, at the head of the wall over the picture rail, the plasterwork has become de-bonded and staining suggests this is from water ingress down the chimney.

There is a diagonal crack midway across the ceiling which has torn the finishes, but other than this, the ceiling appears to be in reasonable order. The door into the room does not shut cleanly within this casing, catching on its lower edge, but there is no evidence of movement in the door opening and the door head is level to within 5mm.

#### Room 9

Finishes comprise painted wallpaper on the walls up to picture rail level, above which there is painted plasterwork. The finishes to the ceiling comprise embossed wallpaper which has been painted. The original cornice noted in Room 8 extends along the front elevation.

There is evidence of damp penetration to the front wall at high level, to the left and right of the window opening.

Within the ceiling a crack runs approximately the width of the room. The crack starts on the partition wall with the Room 8, approximately 1m back from the hall wall, and travels across to the corner formed between the hall wall and the partition wall with Room 10.

The floor is linoleum covered and is level to within acceptable tolerances. The floor is robust and shows no deformation of the load.



### Room 10

Room 10 is located at the front of the left-hand corner of the property. Finishes comprise painted wallpaper up to picture rail, above which there is painted plasterwork. The ceiling is painted, embossed wallpaper similar to that described in Rooms 8 and 9. The original cornice runs around external wall elevations.

There is evidence of excessive damp ingress in the upper section of the wall on the front elevation and side elevation. On the side elevation the damp extends back approximately 1.5m from the external corner.

The ceiling is in reasonable order, but there is an open crack that runs for the length of the room which has torn the papered finishes. The crack extends into the cornice above the top left-hand corner of the window, but dissipates out prior to reaching the wall with the hall.

### Hallway – Room 11

It is apparent that Rooms 8, 9 and 10 and the hallway originally formed a larger room, and the extent of the room can be determined from a feature cornice which still exists in all three rooms and the hallway, at the wall ceiling junction. The wall with Rooms 8, 9 and 10 is a studwork partition, and it is assumed that new openings have been formed within the original masonry wall opposite the stud partition. The hallway comprises painted lining paper and a painted ceiling, and the floor is covered in linoleum. At the end of the corridor, adjacent to the external side wall, there is a feature arch opening that has been infilled with a stud partition and a centrally located door that gives access into Room 12.

No significant defects were recorded in the walls, and the door heads off the corridor are all level with no evidence of significant cracking.

The WC located off the hallway has been tiled up to 2m, above which there is painted plaster. There is evidence of damp ingress in the ceiling and mould growth, but no significant defects were recorded in the walls.

### Room 12

Room 12 appears to have been an original ante-room off what was a main room, and has a feature vaulted ceiling. The walls have been papered and painted, and there is a dado rail that runs around three sides of the room.

The vaulted ceiling is in good order with no evidence of cracking, and there are no significant defects evident beneath the papered finishes. The floor is level to within acceptable tolerances. Within the side wall there is an arched window, the sill of which is level.

### Link Corridor to Room 13

There is a short link corridor that leads to Room 13. The hallway has linoleum floor coverings, papered walls and the suspended ceiling comprises tiles in metal grid system. Off the hallway there is a WC that has tiling up to 2m above which there is painted, woodchip wallpaper.

The floor undulates slightly, and there is evidence of water damage and staining on the floor. Within the WC there is excessive mould growth above tile level on the masonry wall into which the WC has been fixed.

### Room 13

Finishes to this room comprise carpeted floor, papered walls and painted plasterwork to the ceiling. A cornice runs around the perimeter of the room. The floor is suspended timber and is slightly hollow-sounding under foot.

The floor was levelled and shows some undulations below the carpeted finish of  $\pm 10\text{mm}$  over 1.2m straight edge. No significant defects were recorded beneath the heavily embossed wallpaper, but at the wall/ceiling junction there is evidence of damp penetration to the right of the door, that has stained the bottom of the cornice. Staining is also evident in the ceiling along a crack line that runs from the doorway into the room to the masonry partition wall with Room 12. There is also a small crack in the ceiling adjacent to the drop beam over the recess that houses a sink unit, adjacent to the external side wall.

The door into the room shuts cleanly within its casing, and there is no evidence of movement in the mitres of the architraves around the door.

### Room 14

Finishes to this room comprise painted, lining paper on the walls and ceiling, with a decorative cornice that runs around the majority of the room. Within the corner there is a small partitioned-off en-suite containing a sink and WC.

The walls are in reasonable order with no evidence of cracking or defects beneath the papered finishes. The ceiling has several hairline crack parallel to the walls in both directions, and some diagonal cracking that extends out from the chimney breast located on the hallway wall leading to Room 15.

The window sill at the side of the elevation is level.

### Room 15

This room is a bathroom located off the corridor. Finishes comprise painted plasterwork walls and ceiling, and there is a walk in shower. The floor has been covered with a waterproof vinyl membrane.

There is evidence of damp ingress through the side wall, which has extended into the right-hand wall adjacent to the door opening. This wall appears to have a dot and dab plasterwork finish, but there is no evidence of cracking in the walls, and the ceilings are in good order. The vinyl covering on the floor is also in reasonable order.

### Room 16

Finishes comprise a carpeted floor, which appears to be solid underfoot, and papered walls. In the corner of the room there is a small en-suite housing a sink and WC. The ceiling is suspended, and comprises tiles in a pressed metal grid.

Other than damp in the external side wall which has caused peeling paper and staining, no significant defects were recorded in the walls. There is evidence of nominal damp ingress also through the rear wall. Window sills are level, and the floor is level to within acceptable tolerances, although there are some undulations evident beneath the carpeted finish.

### Room 17

Room 17 appears to have been a small utility area. Finishes comprise painted plasterwork walls and ceiling, with a quarry-tiled floor.

The walls show some evidence of damp penetration and mould growth on the partly sealed up window. Peeling paint and nominal cracking is present in the ceiling. The solid floor slab is in reasonable condition, and is level to within acceptable tolerances.

#### Room 18

Room 18 is a small ante-room off Room 19, and appears to be a former kitchen. The walls have tiling up to 2m above which there are painted plasterwork walls and ceiling. The floor is solid and is covered in quarry tiles.

There is noticeable mould growth on all the walls above the tiles and on the ceiling, but there is no evidence of cracking in the walls, and the floor is level with no evidence of cracking in any of the tiles. Hairline cracking was recorded in the ceiling, but it could not be determined if the defect was due to peeling paint as opposed to structural movement.

#### Room 19

Room 19 is the kitchen area. The walls have been covered in hygienic panels, and the ceiling is painted plasterwork. The floor is covered in quarry tiles.

Other than mould growth on the ceiling and heavy staining towards the centre of the ceiling, no significant defects were recorded. There is water ingress in to the room which appears to be emanating from the central section of the ceiling.

### Room 20

Finishes comprise a carpeted solid floor and painted wallpaper to the walls. The ceiling is suspended, comprising tiles in a pressed metal grid. In the corner of the roof there is small partitioned-off en-suite housing a sink and WC, and to the left of the door there is a small walk-in cupboard.

There is evidence of damp ingress through the rear external wall, but other than this no structural defects were evident beneath the wallpaper. The window sill in the rear elevation is level, as is the floor.

### Room 21

Room 21 is the hallway that links all of the rear rooms, and finishes comprise papered walls, a linoleum covered solid floor, and a suspended ceiling.

While there is apparent wear and tear, damp ingress, staining from water ingress, and addling of the plasterwork due to water penetration, no significant structural defects were recorded within the wall.

### Room 22

Room 22 is a bathroom area just beyond the corridor. This area has been significantly damaged by water ingress from above, that has caused the ceiling to collapse. There is extensive wet rot and possible dry rot (to be confirmed) in the room, and mould growth is present in the walls. However, the walls themselves appear to be in good order with no evidence of cracking beneath the fungal growth on the walls.

### Room 23

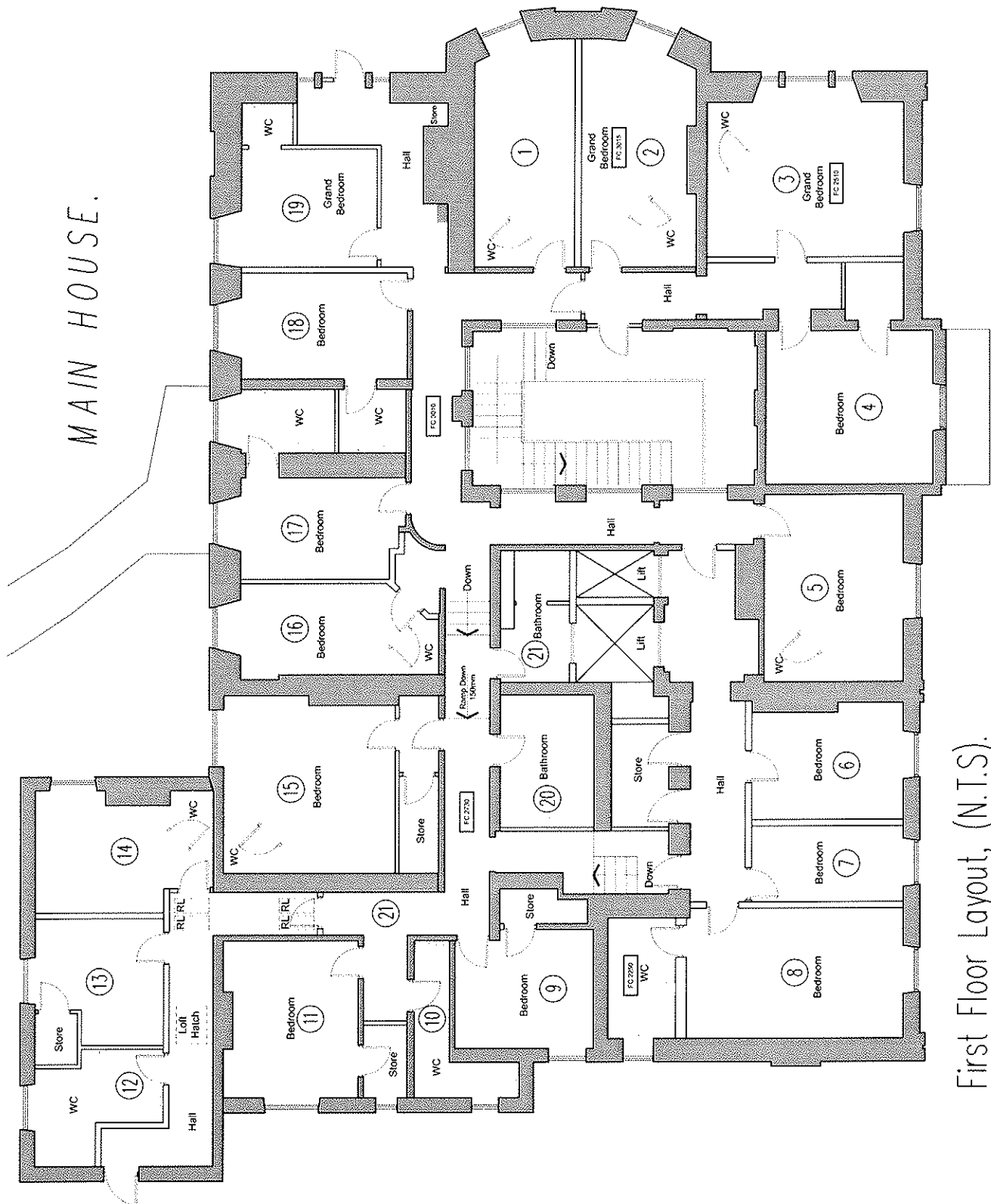
Room 23 is a sluice/bathroom with tiled walls and a suspended ceiling.

No significant defects were recorded.

#### Room 24

Room 24 is a toilet comprising painted plasterwork walls and ceiling, and a vinyl floor covering.

No significant defects were recorded.



MAIN HOUSE.

First Floor Layout, (N.T.S.).



## **MAIN HOUSE - FIRST FLOOR**

A cantilevered stone staircase gives access to the first floor and extends onto a landing. The landing and the staircase are housed within the central atrium, above which there is a feature light well. Beyond the walls of the atrium is a corridor, now separated from the atrium by the original colonnades and in-fill glazing, that gives access to a number of rooms.

### Room 1

Room 1 is a bedroom. Finishes comprise painted plasterwork walls, and a papered ceiling which has been painted. A cornice runs around three sides of the room, and the other side is a stud wall which has been introduced to divide the room forming Room 2. The floor is carpeted, and in the side external wall there is a bay window which has featured timbered panelling. In the corner of the room there is a small en-suite which has been partitioned off from the main room.

Within the main walls there is evidence of added plasterwork, but no evidence of significant structural movement. The partition that separates Rooms 1 and 2 is robust construction. It appears to be solid in parts, but midway down the wall there is a hollow sounding section, and this coupled with uniform cracking around the studwork section, suggests a blocked up opening. There is evidence of damp penetration through the ceiling in several locations, more noticeably over the door into the small en-suite.

The floor is level to within acceptable tolerances.

### Room 2

Room 2 is similar to Room 1. Finishes comprise a linoleum floor, painted plasterwork walls and ceiling, and a cornice that runs around three sides of the room, but not on the partition wall with Room 1. The front arched bay window has featured panelling in timberwork.

There is cracking in the partition wall which mirrors on that noted on opposite side. There is also cracking on the partition wall with Room 3 that appears to denote where a studwork infill has been adopted. Cracking was recorded in the ceiling, but this appears to be due to general deterioration as opposed to evidence of structural movement.

The floors are reasonably level.

### Bedroom 3

Located in the right-hand corner, the finishes to this room comprise papered walls, a carpeted floor and a suspended ceiling with tiles in a pressed metal grid. Within the corner of the room there is partitioned-off en-suite.

No significant defects were evident beneath the papered finishes, and the sill of the window in the side of the elevation is level, and shows no evidence of distortion or cracking.

The floors show nominal deviations of  $\pm 10\text{mm}$  over 1.2m straight edge in both directions, but there is no particular trend in anyone direction.

### Room 4

Finishes comprise a carpeted floor, papered walls and a painted suspended ceiling with tiles in a pressed metal grid. Off this room there is a small en-suite which has been finished in a similar manner, but with a vinyl floor.

No significant defects were evident beneath the papered finishes, and there is no evidence of movement within the front window or internal doorframes.

### Room 5

Finishes comprise papered walls, carpeted floors and a suspended ceiling comprising tiles in a pressed metal grid.

No significant defects were recorded beneath the papered finishes. The walls are plumb to within acceptable tolerances and the floor shows no significant deviations from accepted tolerances.

The doorframe shows no signs of distortion.

### Room 6

Room 6 is a small bedroom. Finishes comprise papered walls, a carpeted floor and a suspended ceiling with tiles in a pressed metal grid.

With the exception of damp ingress through the front wall which has caused staining and peeling of the wallpaper, no significant defects were recorded. The window sill is level to within acceptable tolerances, the door shows no evidence of distortion, and the floor is level to within acceptable tolerances.

### Room 7

Room 7 is a small bedroom. Finishes comprise papered walls, a carpeted floor and a suspended ceiling with tiles in a pressed metal grid.

With the exception of damp ingress through the front wall which has caused staining and peeling of the wallpaper, no significant defects were recorded. The window sill is level to within acceptable tolerances, the door shows no evidence of distortion and the floor is levelled to within acceptable tolerances.

### Room 8

Finishes comprise painted plasterwork walls, a vinyl covered floor and a suspended ceiling with tiles in a pressed metal grid. At the rear of the room is a small lobby, off which there is an en-suite.

In the front elevation there is damp penetration to the left of the window, and spalling plasterwork. Damp penetration is also evident on the side external wall in several locations. The floor is level to within acceptable tolerances, and the door into the room shuts cleanly within its casing with no evidence of distortion.

The lobby before the en-suite has a lower ceiling, with a hatch that gives access into the roof void. This was lifted and revealed traditional rafter roof construction with a felted roof.

The wall adjacent to the hallway has several old cracks and efflorescing paint, and there is evidence of damp penetration through these cracks.

### Corridor to Room 9

Room 9 is accessed via a small corridor which leads down several steps. The left-hand side of the corridor is showing signs of damp penetration through the walls, suggesting that there is possible leak in the roof. There is a loft hatch at the base of the stairs, which was lifted but only revealed a higher ceiling and no evidence of water penetration. In front of the door to Room 9 there is a timber drop beam around which there is evidence of water penetration through the roof structure, mould growth, staining of the finishes, and spalling of the plaster.

### Bedroom 9

Finishes comprise painted wallpaper to the walls and ceiling, and a linoleum covered floor. There is heavy damp ingress above the chimney breast, suggesting that flashings are failing. However, there is no evidence of significant structural deformation beneath the wallpaper, and the ceiling, while exhibiting undulations, has no discernible cracking beneath the papered finishes.

### Room 10

Room 10 is a small bathroom. The finishes comprise painted plaster to the walls and ceiling. The paint is peeling off, due to damp penetration through the walls, and has 'crazed' in several areas. There is evidence of damp penetration through the suspended ceiling which has caused staining of the tiles within the pressed metal grid system. Mould growth is present across all the walls, but there is no evidence of structural movement.

### Room 11

Finishes comprise papered walls, a painted plasterwork ceiling and a linoleum covered floor. Coving runs around the perimeter of the room. Off this room there is a small en-suite, containing a WC and wash basin.

Within the main room the walls are in reasonable order, and show no evidence of excessive damp penetration or cracking beneath the papered finishes. The floor demonstrates a slight undulation, but is generally level.

Within the small en-suite there is peeling wallpaper and evidence of damp penetration that appears to be emanating from the roof above. There are old cracks in the plasterwork behind the wallpaper, but these do not appear to be structural in nature.

### Room 12

Room 12 is a bathroom. Finishes comprise, waterproof coverings around the wet area of the walk-in shower and a waterproof membrane on the floor. Elsewhere, there is painted plasterwork walls and ceiling.

Generally this room is in good order with no evidence or significant damp penetration, mould growth or structural defects. There is hairline cracking within the ceiling but this is not excessive. The wall is plumb to within acceptable tolerances and there is no distortion in the frame of the door into the room.

### Room 13

Finishes comprise painted plasterwork to the walls, carpeted floor and a papered ceiling. At the right-hand corner there is a small en-suite.

No significant defects were recorded in the plasterwork walls, but there is evidence of damp penetration through the rear elevation which has caused the wallpaper to peel off. Similarly, the wallpaper on the ceiling has started to peel adjacent to the rear elevation. There is no evidence of structural cracking within the wall and the walls are level to within acceptable tolerances. The door shuts cleanly within its casing.

### Room 14

The finishes comprise papered walls and an Artexed ceiling with a small en-suite in the corner housing a wash basin and WC. The floor has been taken up to reveal hardboard over the floorboards.

There has been heavy water ingress in the external wall to the right of the window. This has caused the ceiling to drop and has exposed wet and rotten ceiling joists. There is fungal growth hanging from the

laths which maybe evidence of dry rot. The window sill is level as is the floor and the walls are all plumb to within acceptable tolerances. There is no evidence of structural movements beneath the papered finishes.

### Room 15

Finishes comprise painted plasterwork walls and ceiling, with a vinyl floor covering. In the corner there is a partitioned-off en-suite housing a sink and WC.

There is evidence of water penetration through the ceiling in this roof which has caused ponding adjacent to the door and the wallpaper to peel off. Staining is evident in the partition wall with Room 16 and across the floor, suggesting that continued water ingress is occurring from the roof above. However, the walls are all plumb and the wall and the floor is level, as is the window sill on the rear elevation. There is no evidence of significant cracking in the walls, but there is diagonal hairline cracking in the partition wall with Room 16, adjacent to the rear elevation.

### Room 16

Finishes comprise painted wallpaper to walls and a suspended ceiling. The floor is carpeted. Within the corner of the room there is a small en-suite housing a sink and WC.

There is damp penetration on the partition wall with Room 15, in similar location to where ponding was noted within Room 15, but other than this the walls appear to be in good order with no evidence of structural defects beneath the papered finishes. The floor and window sills are level and the door in to the room shuts cleanly within its casing.

### Room 17

The finishes comprise painted plasterwork walls, a carpeted floor and a suspended ceiling with tiles in a pressed metal grid system. An en-suite is present at the rear right-hand side of the room which houses a sink and WC.

No significant defects were present within the walls, other than minor hairline cracking at the junction of the stud partition wall with the external wall, and around light switches. The floor is level to within acceptable tolerances and the walls are plumb.

### Room 18 & 19

Not surveyed.

### Room 20

Room 20 is a bathroom, accessed off the corridor opposite Room 15. The finishes comprise painted plasterwork, and the floor has a vinyl finish which is covered in mould growth.

This room has suffered from excessive water penetration, and water is ponding on the floor. The ceiling has collapsed, and clearly has been in this condition for some time as there is extensive mould growth on the walls. While the room is in a poor condition, there is no evidence of structural movement in the main walls.

### Room 22

Room 22 is a corridor with carpeted floors and painted plasterwork walls and ceiling.

No significant defects were recorded.



### Room 23

Room 23 is a corridor with painted plasterwork ceiling and walls.

No significant defects were recorded.

### **LOFT**

The loft is accessed from a high-level hatch in the wall within the corridor that runs between the lift and the atrium. The access hatch leads into a small room which occupies the roof space. A staircase leads up to a small flat roof that is set below the ridges that run parallel with the perimeter walls. From the room there is an opening that gives access to the roof void, and steps that originally led to the first floor (into Room 21) but have been blocked off.

The roof construction comprises purlins, hips and rafters, supported off internal cross walls. For the most part the roof is not underdrawn with felt, but there are areas where repair has been undertaken and felt has been laid. There is an internal timber gutter system that runs across the roof void, draining the flat roof between the ridges.

External inspection of the roofs was undertaken from the flat roof area, and this revealed that the roof was in varying states of repair. Various repairs have been carried out, some to a reasonable standard, whilst other patch repairs can only be described as “make-shift”. There are several valley and hidden gutters which are blocked in some locations by leaves, and the water-tightness in the valleys can not assured.

In several areas there are missing slates, ridge tiles and holes in the roof covering.

## EXTERNAL INSPECTION

### Front Elevation

This elevation comprises a fully rendered front with corbelled-out eaves. In the right-hand third of the elevation there is a rectangular, piked portico with colonnades that form an entrance feature.

Within the render, there is a feature band course at first floor level, and feature pilasters at the corner and mid-way between the entrance bay and the left-hand corner. Windows have feature stone surrounds at ground floor, but are plain at first floor. All windows have stone sills.

Between the top right-hand corner of the window, adjacent to the left-hand external corner and the first window above it, there is cracking in the render that extends through the feature band course. Horizontal cracking is also present between windows at first floor and ground floor level. Cracking that extends up into eaves level, and possibly delineates the ends of a lintel beneath the render, is evident above the top left and top right-hand corners of the window, adjacent to the left-hand corner. Moving down the elevation towards the bay, horizontal cracking is evident between the first three windows at both ground and first floor levels, between the left-hand corner and the feature pilaster adjacent to the portico. In this area the eaves soffits have rotted away in several areas, and there is a loose soffit board directly above the pilaster.

Between the pilaster and the portico there is a large feature window at ground floor, and a typical window, similar in size to the others, at first floor level. Cracking is evident in the rendered section of the window head of the feature window and is possible this is a previous repair. A hairline crack is also present above the window which extends vertically upwards to the underside of the first floor window sill. To the left of the first floor window, cracking extends up from the top left-hand corner to eaves level and again this possibly describes the end of a lintel. Cracking is evident in the lintel across the head of

the feature window and there is a noticeable deformity at the top left-hand corner. The type of the lintel used could not be determined but the cracking suggests that the lintel has experienced some degree of movement or corrosion of reinforcement (if reinforced concrete has been used). Rotting eaves boards are present above the first floor window. Between the right-hand corner and the portico, vertical cracking is present over the top right-hand corner of the ground floor window which extends up to the bottom right-hand corner of the first floor window sill. Crazeing and spalling of the paintwork is evident locally at the lower levels of the wall. The entrance portico comprises render, and the piked wall over the entrance is supported off four columns, two circular and two square columns, built off stone plinths. The roof over has lead-lined parapet gutters, and there is lead flashing above the feature pike.

No significant defects were recorded.

From ground level it appears that the external gutters to the main house are lead-lined as the leadwork flashes runs over the eaves at the head of the elevation.

#### Right-hand Elevation

The right-hand elevation of the main house comprises fully rendered walls with a centrally located, curved feature bay that is two-storeys high, and has a slate-clad hipped roof over it. The bay has a feature band at mid-height. To the left and right of the bay there are two feature windows with painted feature stone surrounds. A plinth course runs is present at the base of wall which has been rendered and painted black. To the right of the bay, there is a steel fire escape stair that has been constructed to give egress from the first floor doorway.

The wall appears to in reasonable condition, but there is superficial cracking and crazeing of the rendered finish in several areas, most noticeably between the ground and first floor windows. The wall shows no

significant deformations in the vertical or horizontal planes, and no evidence of cracking that is suggestive of structural movement.

The main house has been extended in the past and there is a small outrigger and a rear left-hand corner build using yellow stock brick in English Garden Wall Bond. Only the upper section of this wall could be observed above a flat roof over link building and, from what could be observed, the wall appears to be in good order. The brick heads have been constructed using arched masonry, and these too show no evidence of movement. The roof over is slate, and has lead-capped hips. A chimney stack penetrates through the roof of the extension has been capped off apart from one pot.

#### Rear Elevation

The rear elevation of the main house comprises render with windows at regular centres at ground and first floor level. The ground floor windows are higher than those at first floor and all windows have painted stone sills.

The render appears to be in reasonable order but there is nominal hairline cracking at the top corners several of the window openings, and horizontal cracking and crazing in the render between the windows at first floor level. The soffit boards to the eaves are showing signs of excessive weathering again there appears to be a lead-lined gutter at roof level as the lead lining flashes over the cantilever eaves. Similar to the side elevation, there is a plinth course at ground level which has been painted black.

There is no evidence of cracking to suggest that settlement or structural movement has taken place.

The rear elevation of the extension is yellow stock brick in English Garden Wall Bond. Only the upper section of the wall can be observed but from the limited vantage point offered at ground floor level the wall appears to be in good order with no evidence of settlement or cracking.

#### Left-hand Elevation

The elevation is rendered and has a piked head with a corbel feature adjacent to the front elevation, behind which is the standard eaves detail.

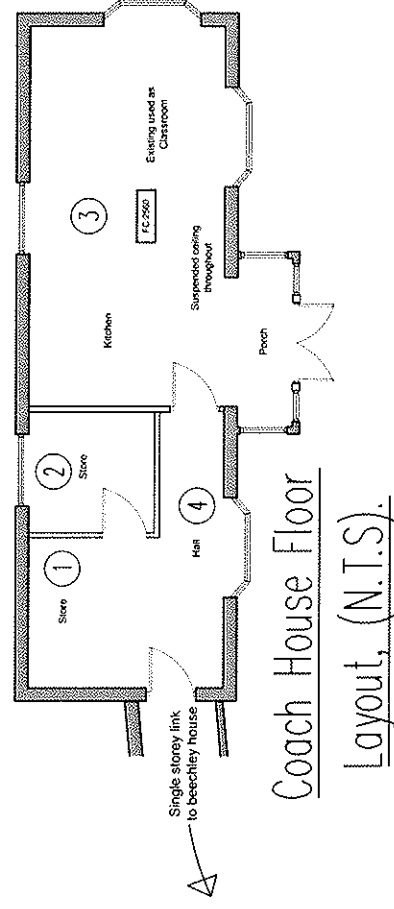
As with the other elevations the render has cracked and crazed in several areas, mainly at stress points around window openings. Horizontal cracking is evident in several locations adjacent to window reveals.

The extension area comprises yellow stock brick in English Garden Wall Bond, with headers at every fifth course. All window heads have arched brick heads and to the left-hand side there is a steel fire escape which leads up to the first floor to allow egress from a door that has been formed in the wall. All the windows have stone sills.

Generally the extension is in good order and has weathered well. There is light surface weathering towards the base of the wall and the wall demonstrates no evidence of significant movement or distortion from the vertical or horizontal planes. Above the recessed entrance into the main house there is a lintel that spans between the rendered bay on the original building and the brick extension. The lintel is probably reinforced concrete, and there is evidence of spalling suggesting that the reinforcement is starting to corrode.

## **3.2 COACH HOUSE**

# COACH HOUSE.



## **COACH HOUSE - INTERNAL INSPECTION**

The main room is located in the right-hand half of the building is open plan. Within the left-hand section of the building there are two small rooms and a lobby from the link corridor that leads to the main house.

### Main Room

The main room is located in the right-hand half of the building is open plan. Finishes comprise wood panelling up to dado rail level, above which there is painted plasterwork. There is a kitchen area in front of the double doors within the centrally located rectangular bay. The ceiling comprises fibre tiles in a pressed metal grid.

No significant defects were recorded.

### Room 1

Room 1 is a small kitchen area. It has hygienic panels on the walls and a suspended ceiling that comprises fibre tiles in a pressed metal grid. The floor has vinyl covering.

The panelled walls mask prevented direct assessment of the structure but no significant defects could be seen in the panelling and the floor is level. The section of wall that is exposed beneath the sink unit has superficial surface damage from leaking water but no evidence of damage to the structure.

### Room 2

The walls have been dry lined using dot and dab plasterwork and on the rear external wall the wall measures in excess of 500mm. The walls show no evidence of movement and the window sill in the rear elevation is level.



There is possible damp penetration through the roof that has stained the suspended ceilings but the floor is level and relatively damp free.

### Room 3

This room the lobby from the link corridor and comprises painted plasterwork to the stud walls and suspended ceiling as described previously.

No significant defects were recorded.

## **COACH HOUSE - EXTERNAL INSPECTION**

The Coach House is located at the end of the link block and is a single-storey structure with a hip roof and a timber bay located centrally on the front elevation. On either side of the bay there are two semi-circular bay windows. The walls have been constructed in English Garden Wall Bond using yellow stock brick and the roof has been clad in slate. The Coach House has been built up to tight up to a boundary wall at its right-hand corner.

### Front Elevation

The front elevation is in good order. The brickwork is of reasonable quality and shows no signs of excessive weathering or structural movement. The walls are plumb and there are no deviations in the bed courses and can be determined using a 1.2m long spirit level.

The front bay has been built up to sill level using standard red bricks, and these tie into timber corner posts. The corner posts are showing signs of rot at their base where they bear onto a stone plinth. Similarly, the bottom of the door frames to the double doors of the bay is showing signs of rot.

The roof over the front elevation is slate and flashes into a flat felted roof over the central entrance bay. The roof is in good order and shows no signs of slipped or damaged slates. However, the rainwater goods have collapsed in a couple of areas. The ridge riles are in reasonable order and all in tact.

### Right-hand Elevation

The right-hand elevation comprises masonry in Garden English Wall Bond with a central bay window. The wall has been extended out beyond the rear elevation and abuts a sand stone boundary wall.

The wall is in good order with no evidence of settlement or structural movement. The small hip roof over the gable end is in good order and the ridge tiles are in tact. The wall is plumb and horizontal bed courses are level.

The timber above the bay is showing signs of weathering and has probably reached the end of its serviceable life.

#### Rear Elevation

The rear elevation comprises traditional masonry in English Garden Wall Bond with headers every eight courses. There are two windows the rear elevation, over the left-hand window there is an exposed steel lintel which is showing signs of excessive corrosion to a point where it has fractured and lifted the roof up locally by approximately 20mm. Over the right-hand window there is a concrete lintel which has clearly corroded and has been repaired in the past using a cement based mortar.

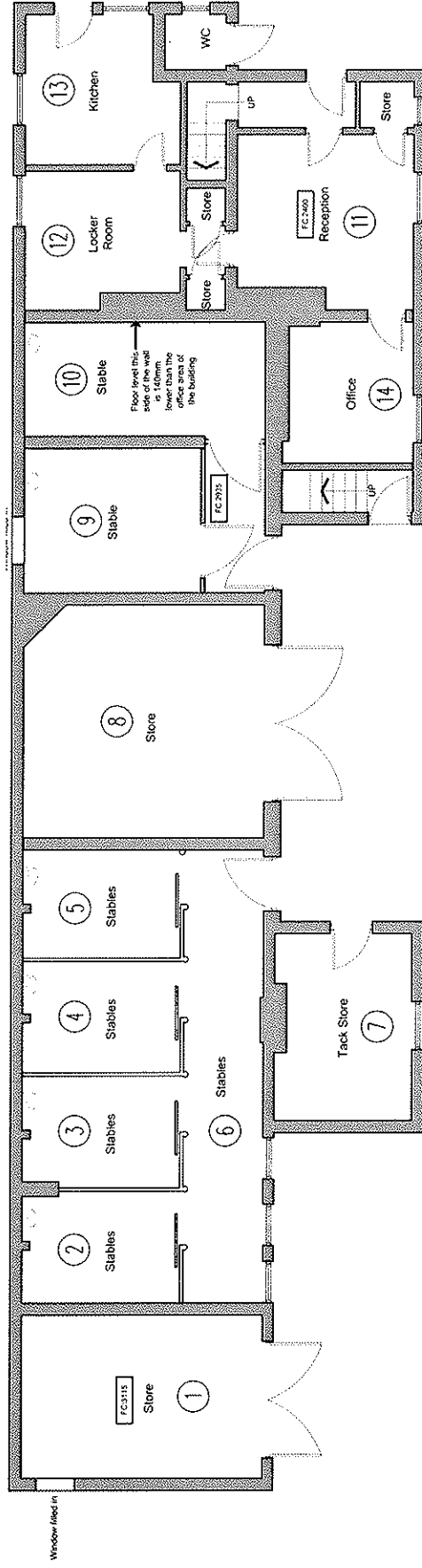
Other than defects in the lintels, the wall is in good order and demonstrates no significant movement away from the vertical or excessive deviations in the horizontal plane.

#### Left-hand Gable

The brickwork of the elevation is mainly masked by the link structure that runs into it. For the most part the exposed section of the wall is in reasonable order but in the upper left-hand corner of the wall, adjacent to the rear elevation, the brickwork has become dislodged and moved due to deterioration of the lime mortar.

### **3.3 STABLE BLOCK**

# STABLES.



Stables Ground Floor Layout, (N.T.S.).

## **STABLE BLOCK - INTERNAL INSPECTION**

### **GROUND FLOOR**

#### Room 1

This is a store room with double doors that currently houses plant. All the walls are exposed masonry and the ceiling has been boarded out.

Localised repairs have been undertaken on the rear wall but other than this the walls are in reasonable order with no significant defects or evidence of structural movement.

#### Rooms 2, 3, 4, 5 and 6

This is a long room which has been divided up into individual stables. Cobble stones have been used in the floor of the stable areas but the corridor floor in front of the stables is concrete. Within the stable area the party wall between Room 1 and 2 is timber construction but is masonry at the end of the corridor. The first floor ceiling has been boarded out in timber and painted. The front wall has been rendered.

Other than nominal hairline cracking in the finishes no significant defects were recorded in the walls. The walls are plumb to within acceptable tolerances and the floors are acceptable for its current use as a stable block. The rear walls have internal piers centrally located in each of the stable blocks. On closer inspection these piers are timber clad steel members that support a beam that runs adjacent to the rear and parallel to it.

### Room 7

Finishes comprise plasterwork and there is a chimney breast on the rear wall which is party with Room 6. On the left-hand side elevation wall there is timber panelling and a feature timber bulk head. The ceilings have been timber clad and the floor comprises stone slabs.

No significant defects were recorded.

### Room 8

This room is currently being used for hay storage and as most of the walls were obscured, inspection was limited. The front elevation wall demonstrates no significant defects.

### Room 9

The majority of the walls in this room comprise painted masonry but several of the brick faces have eroded away by up to 25mm in depth. On the party with Room 8 the wall has been rendered in its upper section and there is nominal hairline cracking in the render approximately midway down the wall, but this is no greater than 1mm in width.

### Room 10

The room is currently being used as stable. The walls have all been rendered. The floor is stone flagged but in the back of the stable block the floor is cobbled. Along with the party wall with Room 12 render has spalled revealing traditional brickwork in stretcher bond.

Other than superficial damage there is no evidence of cracking or structural movement in the walls.

### Room 11

Room 11 is currently an office. Finishes comprise painted plasterwork to walls and ceiling and a vinyl covered floor.

There is nominal cracking that runs parallel with the front elevation in the ceiling. On the wall with Room 10 there is evidence of nominal rising damp and damp ingress in the upper half of the wall adjacent to the chimney breast.

### Room 12

Locker Room, finishes comprise painted plasterwork to walls and ceiling and a vinyl covered floor. The floor is level and solid, walls are plumb, no significant defects.

### Room 13

Currently this room is a kitchen. Finishes comprise a vinyl covering on a solid floor with painted plasterwork to walls and ceiling. There are wall units against the rear and partition wall with Room 12 and the walls behind work surfaces have been tiled.

No significant defects were recorded.

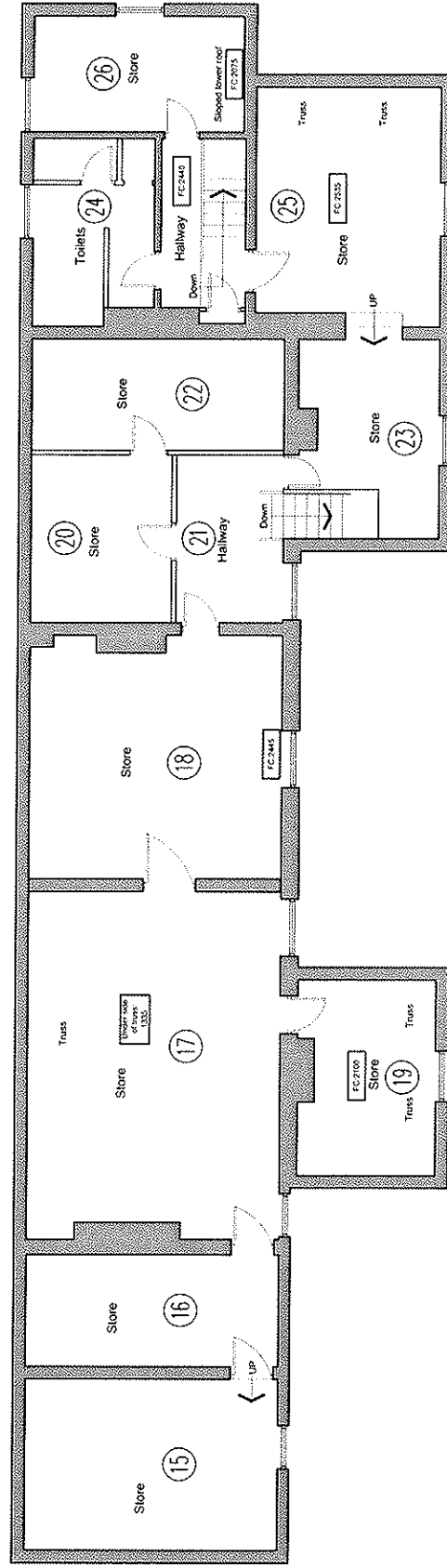
### Room 14

Finishes comprise plasterwork to walls and ceilings and a vinyl covered solid floor. There is a chimney breast and a fire place on the wall that is party with Rooms 10 and 11.

Floors are solid and level and walls are plumb to within acceptable tolerances with no evidence of structural cracking or past movement. The nominal cracking recorded in the ceiling appears to be of considerable age.



# STABLES.



Stables First Floor Layout, (N.T.S.).

## **FIRST FLOOR**

### Room 15

The room is located in left-hand section of the stable block, within the hip roof section. Finishes comprise, painted masonry walls with an Artexed ceiling. The purlins are rotated 90° to the roof slope and along with the hips have been painted. The floor is suspended timber with joists spanning parallel with front elevation. A low level door connects Room 15 to Room 16.

No significant defects were recorded in the masonry and the room is dry. The purlins show no evidence of excessive deformation or deviation but the hips appear to be slightly undersized for the span and demonstrate a nominal deviation across their length.

### Room 16

Room 16 is a store room and extends the full width of the property. Purlins, one per pitch, span between the cross walls between Room 16-15 and 16-17, and are set 90° to the slope. The floor is covered with boards and joists span from front to back. The ceiling follows the slope of the roof and has been Artexed. No significant defects were recorded in the walls or the finished to the roof and the room is relatively dry, although there does appear to be a big leak from a water pipe in the rear right-hand corner of the room.

### Room 17

Room 17 is a large store room, which has low level truss at mid span, approximately 1.3m above floor level. The ceiling follows the slope of the roof and the purlins as with elsewhere are orientated at 90° to the roof pitch. Towards the front of the room there are two valley beams which are supported off the purlin and these take purlins that run in to a small outrigger that extends out from the front elevation. The floor has been covered in hardboard.

There is evidence of damp penetration in the upper section of the roof on the front pitch, directly behind the ridge of the roof over the small bay. There is also evidence that the roof has leaked in the past where the valley beams marry into the purlin but the roof purlins appear to be performing satisfactorily as does the truss.

No significant defects were recorded in the walls or roof structure.

### Room 19

Room 19 is the bay in front of Room 17. The floor is covered in hardboard and the walls have been plastered and painted. The roof follows the slope of the roof which is 90° to the main pitch and there is a flat ceiling between the two purlins that run from the front elevation back to the intermediate purlin on the front pitch on the main roof.

There is evidence of damp ingress at eaves level on the right-hand wall (as viewed looking towards the front) and nominal cracking in the plastered finishes but other than this no significant defects were recorded. The floor is level.

### Room 18

This is another store room that spans full width of the building. There is a small dormer on the front pitch, the valley beams and ridge of which run into the intermediate purlin. The floors have been covered in hardboard and ceiling has been Artexed.

Other than localised former leaks that have stained the finishes around the ridge beam, no significant defects were recorded in the walls or the ceiling

### Room 20

The room is similar to other rooms comprising painted plasterwork walls, an Artexed ceiling that follows in line of the roof and a vinyl covered floor.

No significant defects were recorded.

### Room 21

This is the landing to the head of the stairs that leads down to ground floor level. All the walls are painted plasterwork and there is a stud wall between this room, Room 20, and Room 22. Above the head of the stairs there is a valley beam which runs into the intermediate purlin and picks up another purlin that supports the roof over Rooms 23 and 25. The soffit of the beam has been repaired in the past using a splice section of timber and nail plates. Other than this repair no other significant defects were recorded.

### Room 22

No access available at the time of inspection.

### Room 23

This room is a small storage room at the front of the building. Finishes comprise Artexed ceiling which follows the slope of the roof, and painted plaster walls. The purlins are canted at 90° to the roof slope.

No significant defects were recorded and the hardboard covered floor is level.

#### Room 24

Room 24 is the staff toilets. The walls have full height tiling and the painted plaster ceiling is flat for most part but follows the roof slope adjacent to the rear wall. The floor has been covered with a vinyl finish.

There is added tiling on the rear elevation and evidence of old cracking in the ceiling, but other than this no significant defects were recorded. The floor is level and robust.

#### Room 25

Room 25 is at a lower level and is currently being used as an office. The walls and ceiling have been plastered and two large purlins span the width of the room, parallel with front elevation and are rotated at 90° to the roof pitch.

The large span purlins demonstrate a slight dip across their length. On the front pitch, between the eaves and the first purlin, there is evidence of damp ingress and past repairs have been taken. However, elsewhere the room is in reasonable order and the floor is level and there is no evidence of cracking in the plastered finishes.

#### Room 26

Another store room located at the right-hand end of the building. Finishes comprise painted plasterwork to walls and ceiling. Floorboards are exposed and the floor joists span from front to rear. For most part the roof is flat but the ceiling follows the slope of the roof towards the front and rear eaves. The hip projects below the ceiling line and supported on dragon ties that span across the external corners.

There is evidence of former cracking in the ceilings and possible damp ingress through the front elevation adjacent to the eaves on the front elevation. No other significant defects were recorded. The floors are robust and the walls show evidence of structural movement.

## THE STABLE BLOCK - EXTERNAL INSPECTION

### Left-hand Gable

The left-hand gable of the stable block comprises traditional masonry in English Garden Wall Bond with headers every sixth course. A window opening has been blocked at up at ground floor level but the sill and lintel still remains.

The wall has a slight outward bow in both the vertical and horizontal planes around mid-height. The deformation was measured at approximately 30mm over a 2m straight edge but there is no evidence of cracking.

### Front Elevation

The Front Elevation comprises traditional brickwork in Flemish Bond and the walls are one brick thick. It appears that the left-hand section maybe an extension as there is a butt joint above second window back from the left-hand gable. At the left-hand end of the front elevation there are double doors and then three windows, before a two-storey outrigger with a piked gable. Between the outrigger and the office block that also extends out from the main elevation, there are two doors leading into the stable block, and a large door opening at ground floor level with an arched head over. Above the arched opening there is a piked section of wall.

The right-hand section of the building contains the offices and kitchen and extends out from the face of the main elevation. The office area has a piked roof over its left-hand section and a pitched roof with a dormer over its right-hand half.

The square headed windows have wedge stone lintels and stone sills and where arched heads are present, these have been formed in brickwork. The double door opening into Room 1 has a steel lintel as opposed to masonry. All lintels appear to be performing satisfactorily.

The lower half of the elevation has been re-pointed in the past. Localised weathering to the brickwork is present around the rainwater pipe to the left of the second first floor window opening back from the left-hand gable, possibly caused by a leaking joint in the rain water goods

The outrigger wall is in good condition and re-pointing that has been undertaken extends full height on the left-hand side wall. The brickwork is in good order, it appears that the lower section of the pointed brickwork has been cleaned while the upper other section has been left untouched. Within the upper section of the elevation there are missing bricks and open bed joints and per-pends present at both eaves on the front elevation. The masonry to the right-hand side of the outrigger is in good order.

The central section of the stable block has large double doors with an arch brick head opening that is one and a half bricks deep. Either side of the arched opening is are personal doors which leads into stable blocks. Above the doors are two small windows and above the large opening is smaller arched window. The brickwork, while having nominal weathering, is in good order and the lower section below the door heads has been pointed.

There is no evidence of significant movement in the past or structural movement in the masonry. The walls are plumb and are in good condition and the bed courses are level.



The right-hand section of the elevation containing the offices and the kitchen extends out from the main elevation. The brickwork has been pointed up to top of the window openings. Within this elevation there are three windows at ground and first floor level.

The wall is in good order and shows no evidence of structural movement or deformation from the vertical or horizontal plane. All the lintels are performing adequately. There is localised weathering of the bed courses in several areas but this is not excessive. Missing brickwork is evident either side of the first floor window at eaves level, in the left-hand half of the piked section of elevation and it is possible that this is former vent or something was fixed into the wall at this location. In the right-hand half of the elevation there is a dormer wall and the upper section of the dormer is showing signs of weathering. Currently this is not excessive and is easily remedied.

The wall is in good order with no evidence of deviations from the vertical and horizontal place.

#### Right-hand Side Elevation

Within this elevation there is a door leading into the office and a small internal toilet can be accessed in the recessed wall which is in line with the main stable block. The side elevation of the office area has been rendered.

The render is in good order but there is a horizontal crack just below eaves level which may be a day joint. A more random crack is evident within the gable pike but this is not considered indicative structural movement.

The gable end of the stable block is brickwork in Flemish Bond. There are two windows and a door opening at ground floor level, and a single centrally located window at first floor level. The window

adjacent to the door has no lintel over it and appears to be a more recent addition. A dressed stone lintel is present over the left-hand window and the door at ground floor level.

No significant defects were recorded in the masonry which is in good order but has not been re-pointed.

### Rear Elevation

The rear elevation accessed via a small passageway formed with the boundary wall. For most of the wall's length there are no openings and windows that were present have been blocked up. The exception to this is in the left-hand half of the elevation (as viewed) where there are two windows at ground floor level (Room 12 & 13) and two more at first floor (Room 24 & 26). All the window openings in the left-hand half of the elevation have dressed stone sills. The lintels at ground floor level are dressed stone but at first floor level there are timber lintels just below the eaves supporting one course of masonry.

Between the windows the wall bows outwards around first floor level by approximately 15mm over a 1.2m straight edge. This is a localised defect and does not to continue down the length of the wall.

Elsewhere the wall itself shows no deviations from the vertical and the bed joints are relatively horizontal.

### Roof

The Roof comprises tiles and demonstrates some undulation across its plane. However the tiling appears to be in good order and the ridge tiles appear to be well bedded down. Where lead work could be seen it appeared to be in reasonable order.

## 4.0 CONCLUSIONS AND RECOMMENDATIONS

### 4.1 MAIN HOUSE

This building appears to have been reasonably maintained up until the point it was vacated. It is apparent that some elements of the building have been refurbished/re-modelled in the past to form bedrooms by introducing stud partitions to split larger rooms.

For most part property is still in good condition having suffered mainly from a lack of maintenance during the time it has been vacant and varying degrees damp ingress through the walls and roof.

On the rendered elevations the cracking in the render that is present is considered to be due to weathering, shrinkage and general weathering. Around the windows, several cracks appear to delineate the ends of the lintels which, given the age of the property are possibly stone. There is no evidence to suggest that the walls are structurally unstable or have experienced any structural movement that will affect their long term integrity.

**It is assumed that the wall will not be cavity construction but this should be investigated as, if it is and wall ties are present, corrosion of the ties may be contributing to the horizontal cracking.**

Several lintels show signs of cracking and deterioration, most notably over the feature window in the front elevation, to the left of the entrance portico, and the concrete lintels over the ground floor entrance into the building within the right-hand side elevation.

**The lintels over feature window in the front elevation, to the left of the entrance portico, and the concrete lintels over the ground floor entrance into the building within the right-hand side elevation require further investigation and if extensive corrosion of reinforcement or degradation of the member has taken place they should be replaced.**

Elsewhere, damage to the lintels and sills is superficial and appear they to performing satisfactorily as structural elements. Therefore, replacement or repair will be subject to findings if and when the internal finishes are removed or aesthetics requirements.

The suspended timber floors at ground and first floor are generally robust, level and do not exhibit excessive deflections. However, within Room 19 and 22 (ground level) and Room 15 and 20 (first floor level) extensive and prolonged water ingress has occurred. This has caused ceilings to collapse and excessive mould/fungal growth to take place.

**It is recommended that a timber specialist is employed to determine the extent of the water damage at ground and first floor and how it has affect the floor joists. Their report should include appropriate treatments if it is determined that the timbers can be saved or identify the timbers that need to be removed and replaced.**

Inspection of the roof structure revealed a complicated layout of valleys, hips, ridges, flat roof sections and hidden/narrow gutters. Repairs have been undertaken but several of these are of poor quality and have failed. Other areas of the roof are demonstrating degradation in the form of slipped slates, deterioration roofing felt and questionable water-tightness of gutters. Internal inspection revealed an absence of roof felt, slipped slates and an internal timber gutter system to drain the inner flat roof area. However, the majority of the roof structure that could be easily accessed appeared to be in good order and externally the plane of the roof did not exhibit any significant deformations.

**In order to achieve a long term water tight roof it is recommended that the roof is fully stripped back to structure. At this point the existing timber structure should fully assessed by a timber specialist to determine whether wet rot or timber infection has affected the strength of timbers, particularly at their bearings. If the timbers approved to be satisfactory and are deemed fit for purpose by a structural engineer, the roof may be recovered using felt and battens throughout. The**

**roof slates on the roof pitch are in reasonable order and maybe reused, but it is recommended that a 30% loss of covering is allowed to take account of breakage/unusable slates. It would also be prudent to consider re-detailing the more problematic gutters and valleys, and around the sky light along with insulation of the gutter and flat roof elements. All flashing should be replaced and, haunching to the capped chimney stacks and the lead lining to the eaves gutters checked and repaired/replaced as deemed necessary.**

Damp penetration through the external walls may be due to leaking rain water goods or rainwater tracking through crack and behind the render.

**All rainwater goods should be inspected and repaired/replaced if found to be leaking as deemed necessary.**

It is not known if it is intended to re-render the property. There is no structural requirement to re-render but if repair is contemplated it is considered that area of addled render will need to be hacked off and the long term integrity of the remaining render cannot be guaranteed. The benefit of re-rendering is that external insulation can be introduced to meet with Part L of the Building Regulations but this may affect the proportions of the existing features of the elevations.

The other option would be to introduce a proprietary cavity drain waterproofing system behind a false wall on the external elevations from basement through to first floor. This would allow appropriate insulation to be introduced, prevent potential damp penetration, and the system can be routed to a drainage system in the basement.

## 4.2 COACH HOUSE

There is no evidence to suggest that the building suffering from any excessive structural movement and the nominal cracking noted internally appears to due to localized stresses, thermal movements of the masonry or just general age related deterioration. However, there is loose masonry at eaves level on the corner formed with the left-hand gable and rear elevation.

**Localised masonry repairs should be undertaken to areas of loose/de-bonded masonry.**

Timber elements to the bay are starting to rot.

**The rotten members should be removed and replaced with treated timbers of similar size.**

The concrete lintel over one of the windows in the rear elevation is cracked, probably due to corroding reinforcement, and the steel beam over the other window is corroding.

**The lintels should be replaced with pre-cast concrete or proprietary galvanised lintels specified to carry the anticipated design loads.**

The condition and insulation properties of the existing slab could not be determined. If it is intended to utilise the existing slab, its make up should be determined by localised breaking out. If it is structurally fit for purpose, insulation and screed can be cast over it but it should be noted that this will affect threshold, door and window head levels. Alternatively, the slab can be broken out and cast over purpose designed insulation, a damp-proof membrane, and slab to meet with Part L of the Building Regulations.

### 4.3 STABLE BLOCK

This building well-built and may have been extended in the past. The majority of the original building is in reasonable order though there are localised areas of missing masonry around eaves level of the front elevation.

**Localised masonry repairs should be undertaken to areas of loose/de-bonded masonry.**

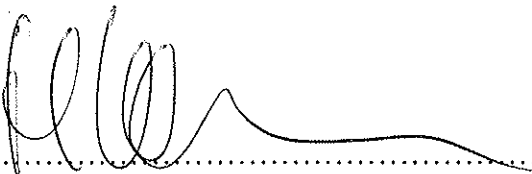
The ceiling finishes are showing signs of past damp penetration and past repairs have taken place. There is no evidence of extensive leaks but the roof may not have been overlaid with felt and it is unlikely that insulation will be present between the ceiling finish that follows the roof slope and the slates.

**In order to achieve a long term water tight roof it is recommended that the roof is fully stripped back to structure. At this point the existing timber structure should fully assessed by a timber specialist to determine whether wet rot or timber infection has affected the strength of timbers, particularly at their bearings. If the timbers approved to be satisfactory and are deemed fit for purpose by a structural engineer, the roof may be recovered using felt, battens and insulation (subject to the Architect's details) throughout. The roof slates on the roof pitch are in reasonable order and maybe reused, but it is recommended that a 30% loss of covering is allowed to take account of breakage/unusable slates. All flashing should be replaced and leadwork to the valleys checked and repaired/replaced as deemed necessary.**

As the walls are solid construction, a new inner leaf in blockwork or stud should be introduced around the external walls. This will allow the appropriate insulation to be placed to comply with Part L of the Building Regulations standards when the finishes are replaced. If blockwork is adopted the floor joists can be cut so that they do not bridge the cavity and carried on the new inner leaf. This will eliminate damp in the solid walls adversely affecting the joist bearings in the future.

It is considered that a new concrete slab will be detailed to replace the cobbles and concrete that is currently present. If new block walls re to be adopted around the perimeter as suggested above, the slab should be designed as a raft, designed to accommodate the load from the new inner leaf and the floor loads it will carry.

Subject to final proposals, the joists that currently exist at first floor will need to be checked for suitability. If the joists can be used, a timber specialist should be appointed to undertake a detailed survey and determine whether or not the timberwork has been subject to wet rot or infestation, taking particular note of the condition of the joists where they bear into external walls. A similar inspection should be carried on the roof timbers if it is proposed to use them in the final scheme.

Signed .....  ..... Date ..... 16/03/2016 .....  
Howard W Faulkner *B. Eng (Hons) C. Eng MI Struct E*  
**CARR FAULKNER ASSOCIATES**



## **Appendix A - Photographs**

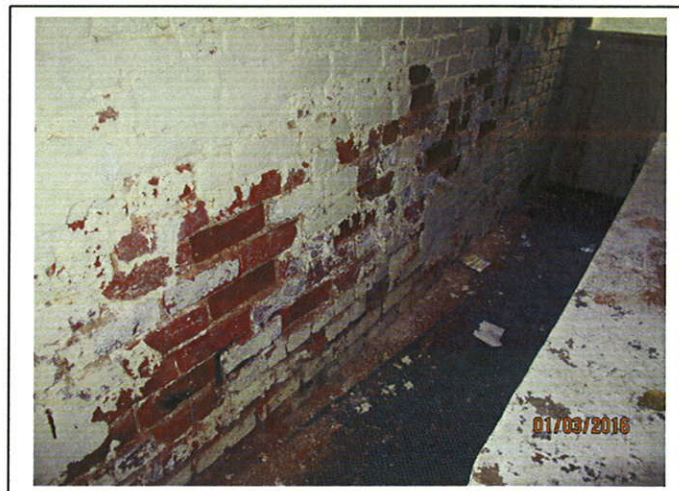
PHOTOS

MAIN HOUSE

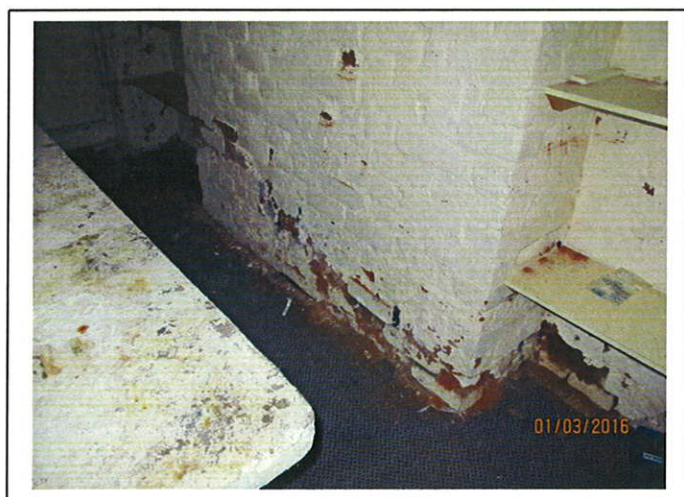
## BEECHLEY HOUSE - MAIN HOUSE



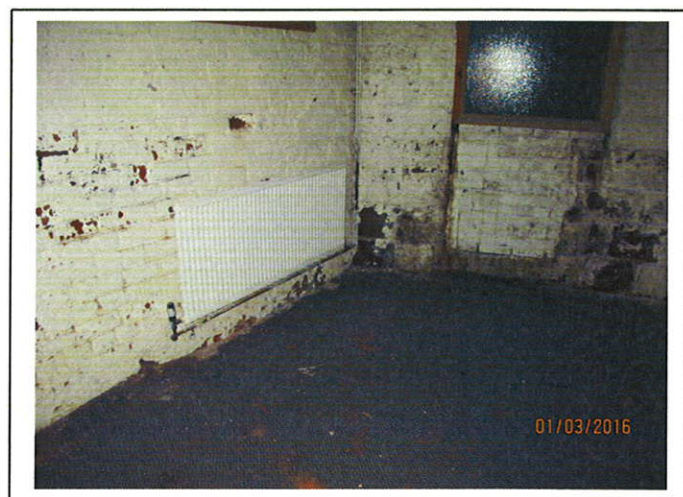
Basement  
Room 2 - Damp penetration through retaining walls



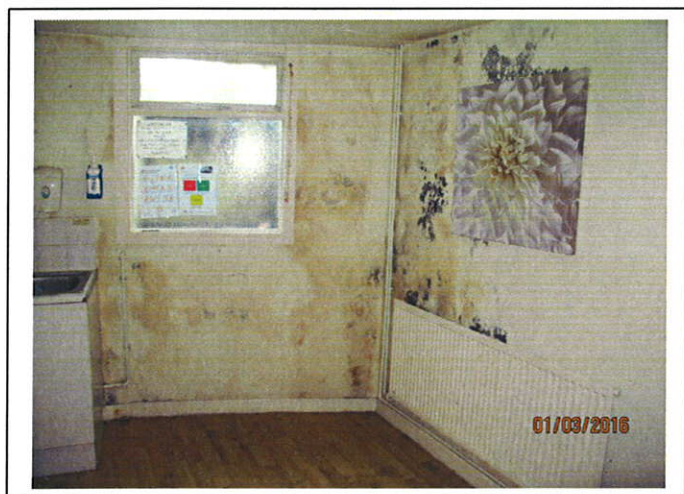
Basement  
Room 3 - efflorescence on brick wall



Basement  
Room 3 - Efflorescence on partition wall with Room 4



Basement  
Room 4 - Efflorescent on brick walls



Basement  
Room 5 - Damp penetration through retaining walls



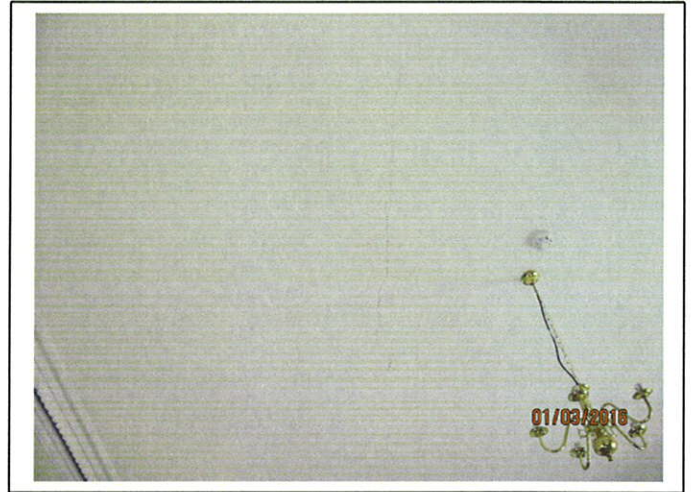
Basement  
Room 10 - Damp penetration through retaining wall



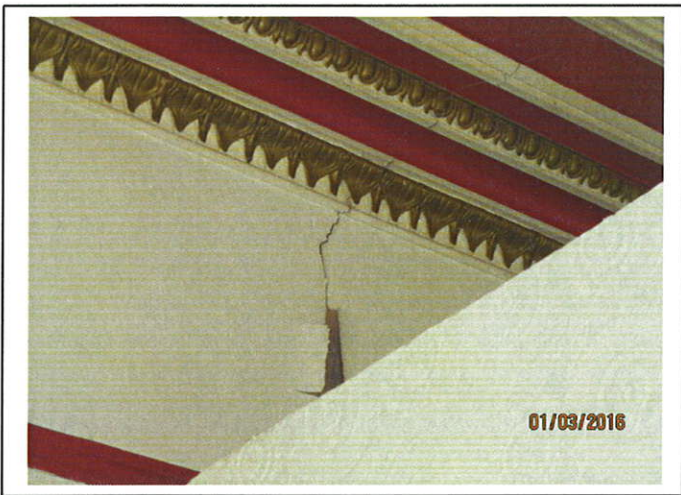
BEECHLEY HOUSE - MAIN HOUSE



Basement  
Typical joist support detail.



Ground Floor  
Room 1 - Typical crack in the ceiling.



Ground Floor  
Room 3 - Cracking on section of wall adjacent to the staircase.



Ground Floor  
Room 8 - Staining on the chimney breast.



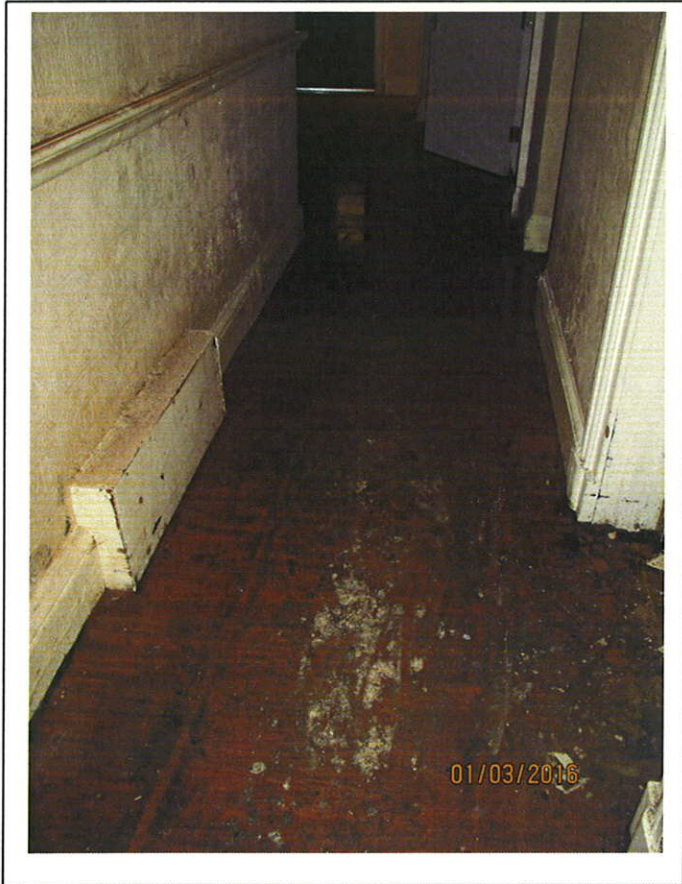
Ground Floor  
Room 9 - Typical damp penetration through from wall.



Ground Floor  
Room 10 - Damp penetration through front wall and side wall



BEECHLEY HOUSE - MAIN HOUSE



Ground Floor  
Flooding in front of 22



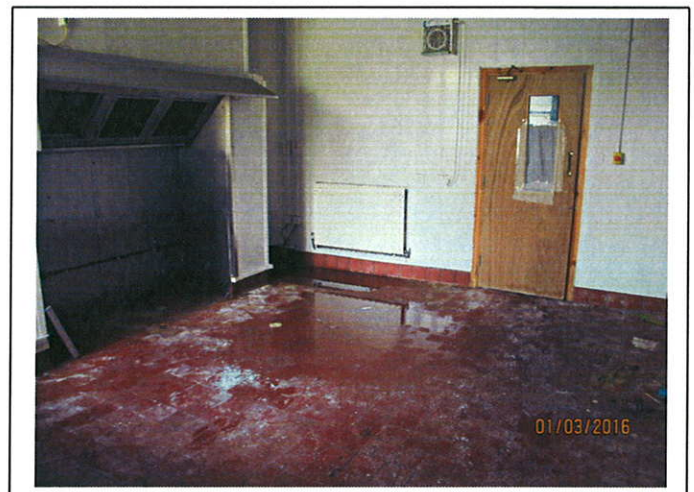
Ground Floor  
Room 15 - Damp penetration through side wall



Ground Floor  
Room 22 - Water damage to bathroom



Ground Floor  
Room 22 - Water damage to bathroom.



Ground Floor  
Room 19 - Water penetration and ponding on floor.



BEECHLEY HOUSE - MAIN HOUSE



Ground Floor  
Room 19 - Damp in ceiling and fungal growth.



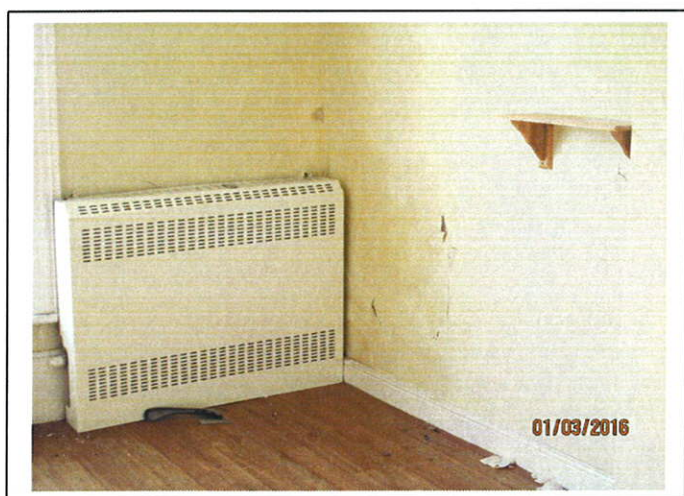
First Floor  
Room 1 - Damp penetration through the ceiling.



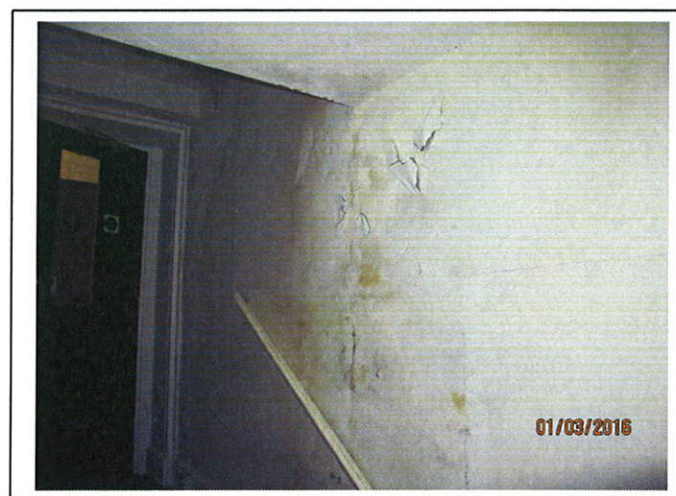
First Floor  
Room 6 - Damp penetration through the front wall.



First Floor  
Room 7 - Damp penetration through the front wall.



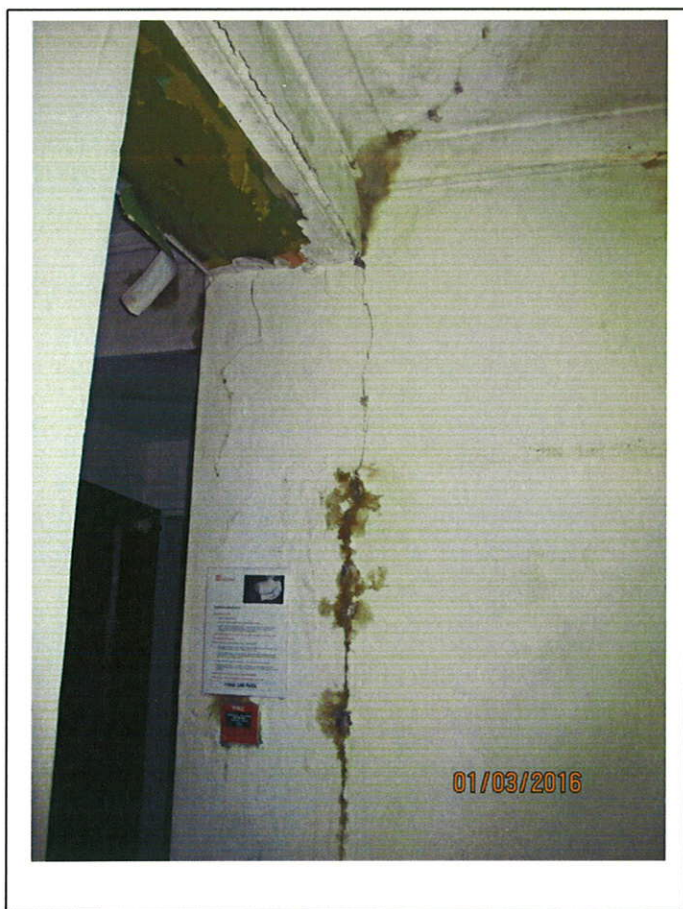
First Floor  
Room 8 - Damp penetration through the front wall and side wall.



First Floor  
Corridor to Room 9 - Damp penetration



BEECHLEY HOUSE - MAIN HOUSE



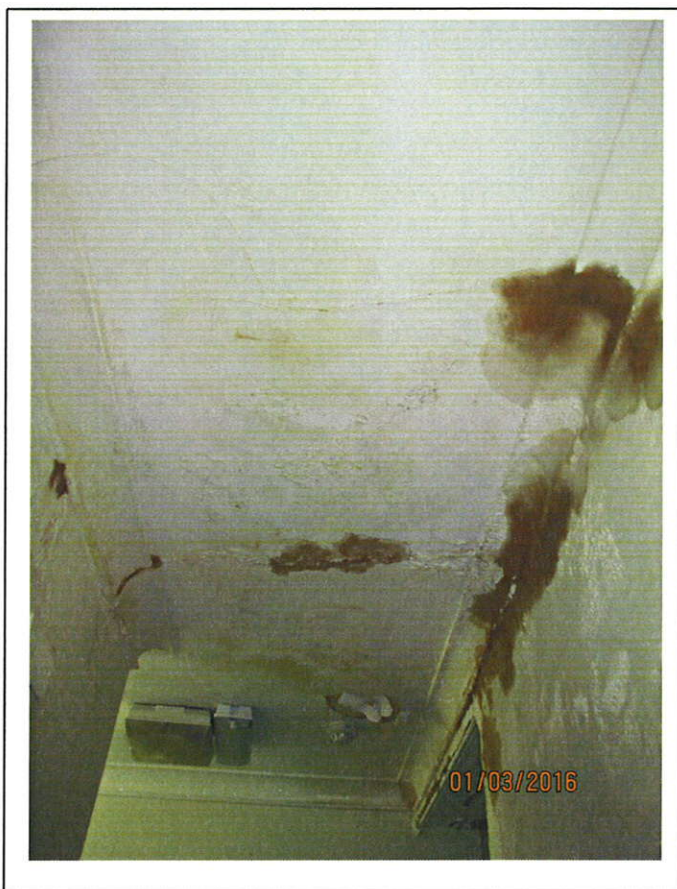
First Floor  
Corridor in front of Room 9 from roof - Damp penetration.



First Floor  
Room 10 - Damp penetration and mould growth.



First Floor  
Corridor in front of Room 9 - Damp penetration through ceiling.



First Floor  
Corridor in front of Room 10 - Damp penetration and mould growth on the ceiling



BEECHLEY HOUSE - MAIN HOUSE



First Floor  
Room 14 - Damp penetration causing collapse to ceiling.



First Floor  
Room 14 - Damp penetration causing collapse to ceiling, mould growth in the en-suite.



First Floor  
Room 14 - Damp penetration causing collapse to ceiling.



First Floor  
Room 15 - Leaking roof .



First Floor  
Room 20 - Mould growth on walls



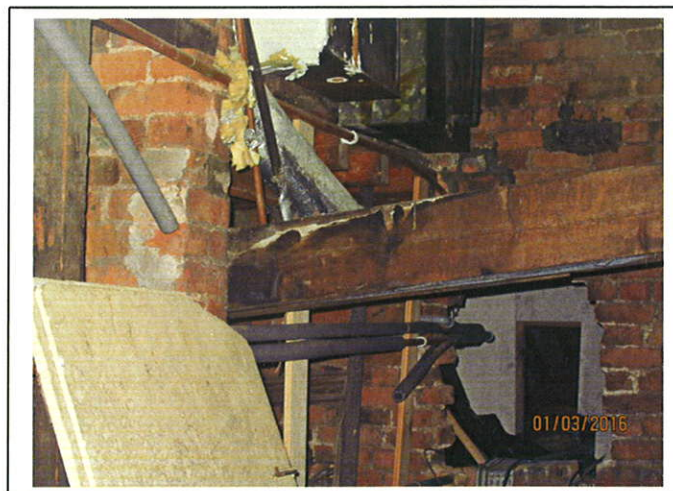
First Floor  
Room 20 - Collapsed ceiling and mould growth



## BEECHLEY HOUSE - MAIN HOUSE



First Floor  
Room 15 - Ponding from leaking roof.



Roof void - Internal timber gutter.



BEECHLEY HOUSE - MAIN HOUSE



Roof Void.



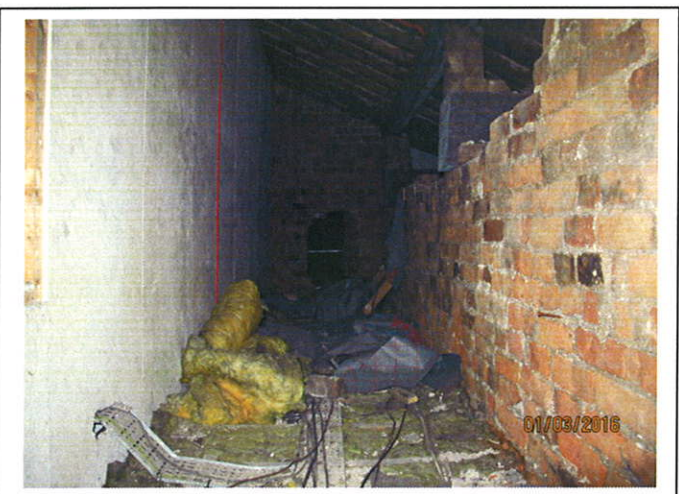
Roof Void.



Roof Void.



Roof Void.



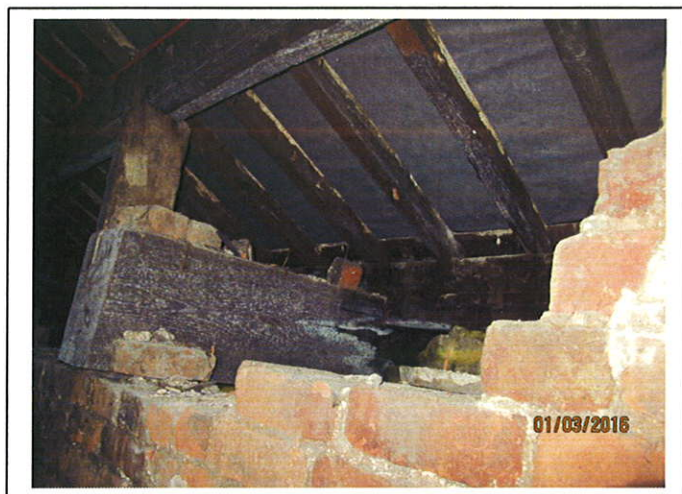
Roof Void.



Roof Void.



BEECHLEY HOUSE - MAIN HOUSE



Roof Void.



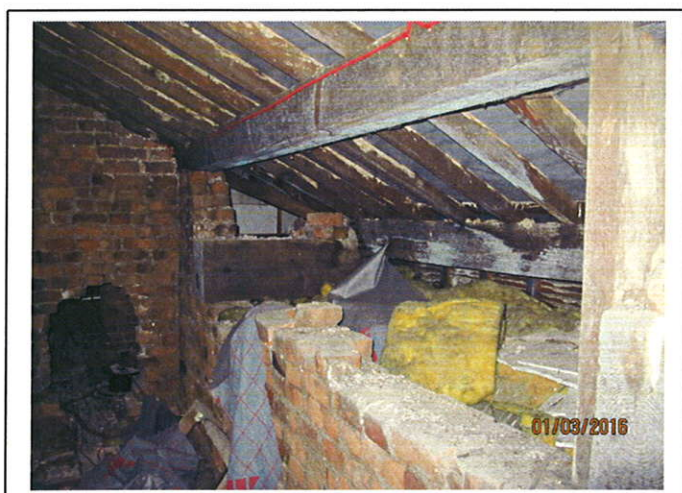
Roof Void.



Roof Void.



Roof Void.



Roof Void.



Roof Void.



# BEECHLEY HOUSE - MAIN HOUSE



Main Roof - External Defects.



Main Roof - External Defects.



Main Roof - External Defects.



Main Roof - External Defects.



Main Roof - External Defects.



Main Roof - External Defects.



BEECHLEY HOUSE - MAIN HOUSE



Main Roof - External Defects.



Main Roof - External Defects.



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Main Roof - External Defects.



Main Roof - External Defects.



BEECHLEY HOUSE - MAIN HOUSE



Main Roof - External Defects.



Main Roof - External Defects.



Main Roof - External Defects.



Main Roof - External Defects.



Main Roof - External Defects.



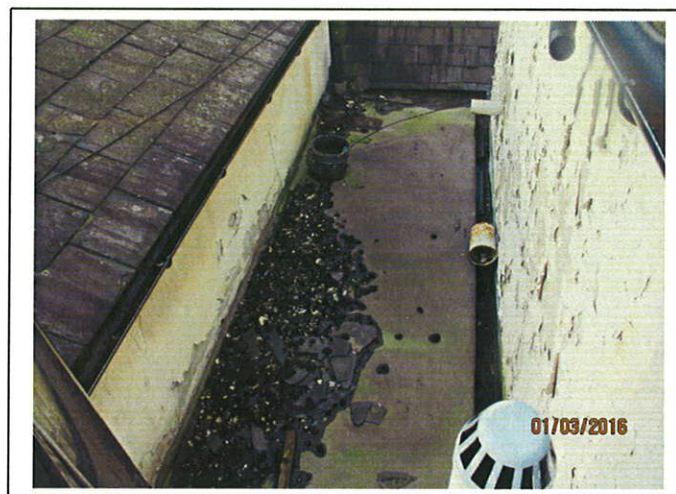
Main Roof - External Defects.



## BEECHLEY HOUSE - MAIN HOUSE



Main Roof - External Defects.



Main Roof - External Defects.



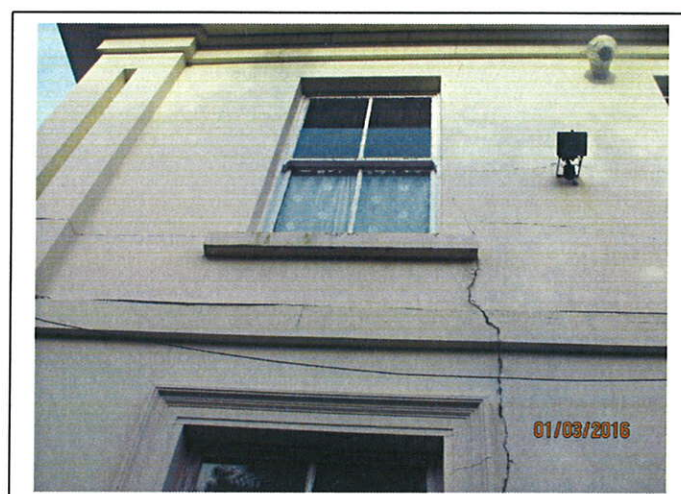
Front Elevation.



Front Elevation.



Front Elevation.



Front Elevation - Cracking in render.



# BEECHLEY HOUSE - MAIN HOUSE



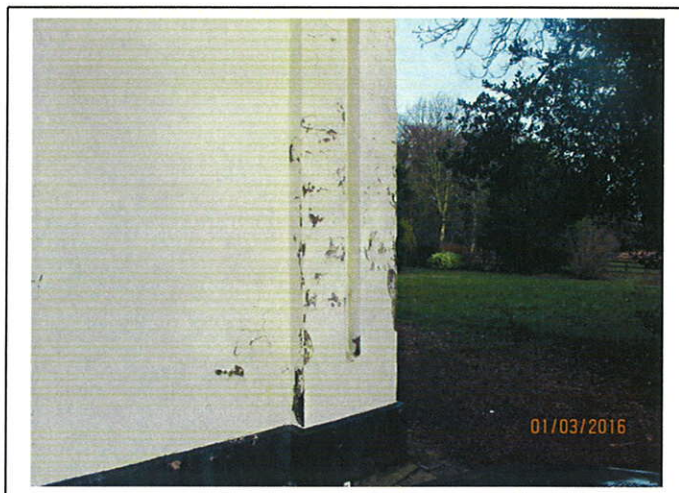
Front Elevation - Typical cracking in render.



Front Elevation - Cracking over feature window.



Front Elevation - Cracking over feature window.



Efflorescing paintwork



Right hand side elevation.



Right hand side elevation.



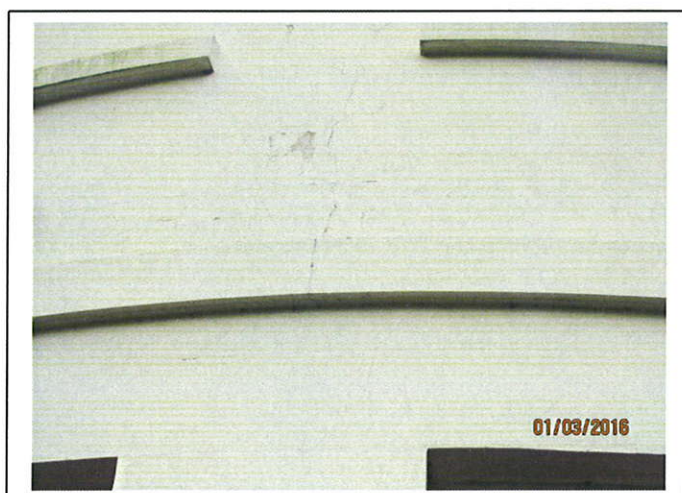
## BEECHLEY HOUSE - MAIN HOUSE



Right hand side elevation.



Typical cracking in render.



Typical cracking in render.



Rear Elevation.



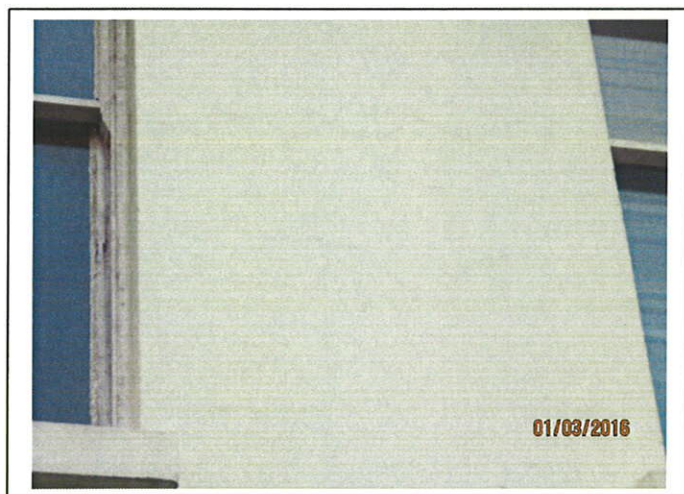
Side elevation to extension.



Typical cracking in render.



BEECHLEY HOUSE - MAIN HOUSE



Side elevation to extension.



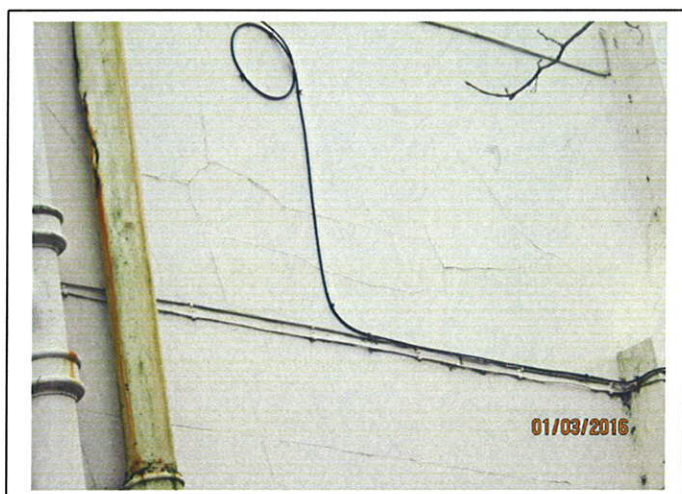
Rotten soffit boards.



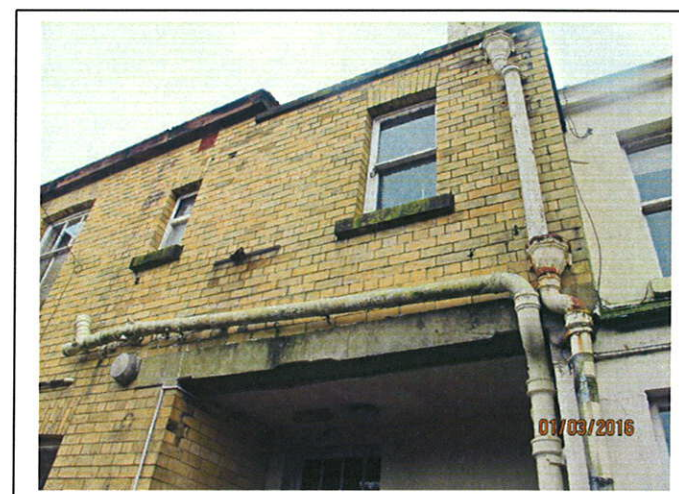
Left hand elevation.



Left hand elevation - Cracking in render.



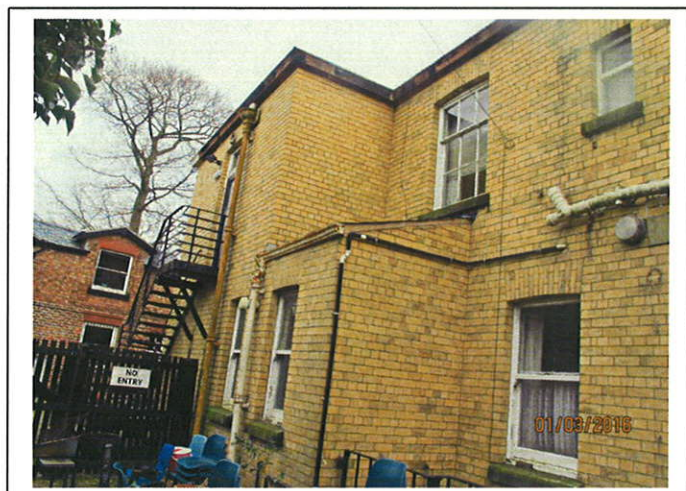
Left hand elevation - Cracking/crazing in render.



Left hand elevation to extension.



# BEECHLEY HOUSE - MAIN HOUSE



Left hand elevation to extension.



Spalled concrete lintel.



Spalled concrete lintel.



Left elevation - Extension

PHOTOS

COACH HOUSE



## BEECHLEY HOUSE - COACH HOUSE



Rear and left hand elevations.



Damage to top left hand corner of left hand elevation.



Rear elevation.



Drainage on the rear elevationl.



Spalling lintel on rear elevation.



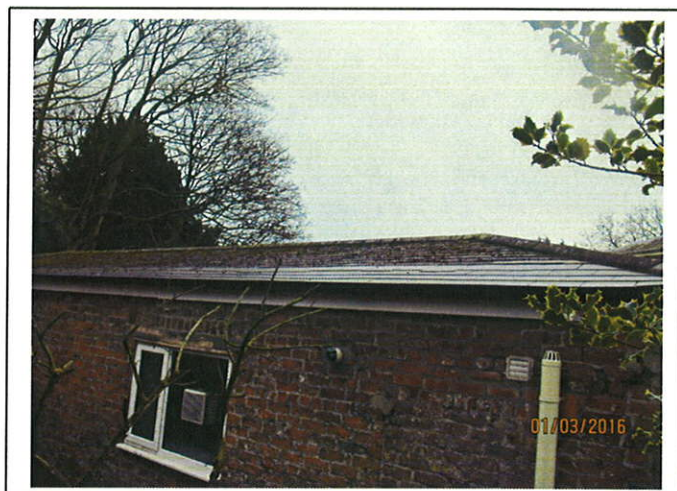
Corroded steel over window in rear elevation.



## BEECHLEY HOUSE - COACH HOUSE



Corroded steel over window in rear elevation.



Localised repair to roof.

PHOTOS

STABLE BLOCK



## BEECHLEY HOUSE - STABLE BLOCK



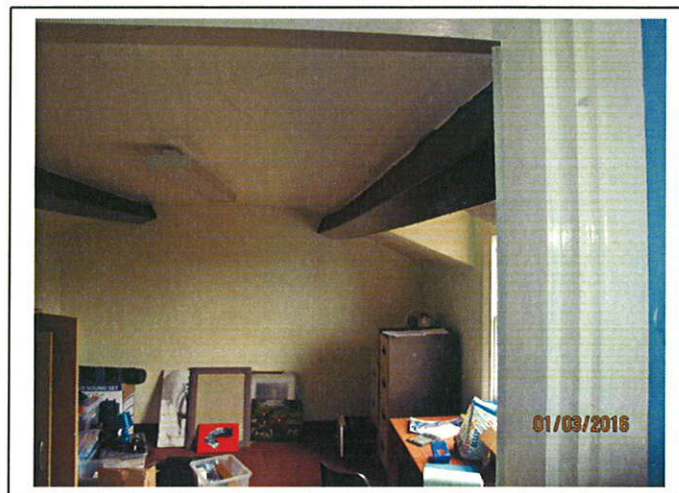
Room 17 - Typical roof layout.



Typical roof layout.



Splice repair to valley beam.



Deformation in purlin.



Right Hand Elevation.



Rear Elevation.



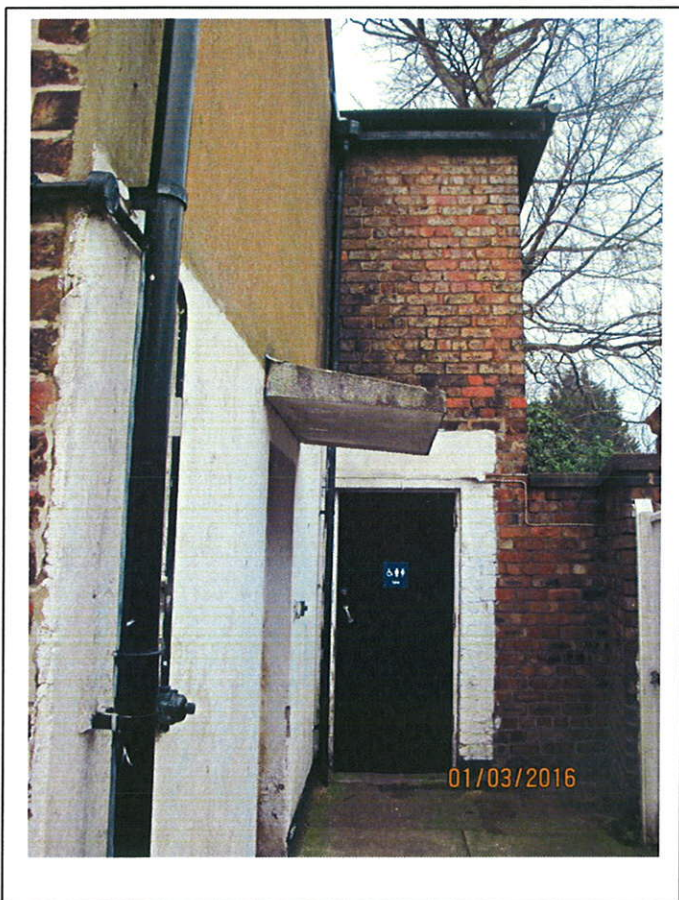
## BEECHLEY HOUSE - STABLE BLOCK



Rear Elevation - Spalled masonry.



Right hand elevation Day joint in render.



Right hand elevation gable.



Front Elevation.



Front Elevation.



## BEECHLEY HOUSE - STABLE BLOCK



Front Elevation.



Slight movement at lintel end.



Front Elevation.



Front Elevation.



Left Hand Gable.



Joint in masonry.



## BEECHLEY HOUSE - STABLE BLOCK



Roof deformation.



Roof.