



Former Ayr Station Hotel Building Structural Condition

Independent Report

03 October 2019

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Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
0					

Document reference: 399316/SNI/GLA/DOC/S2/REP/002

Information class: Standard

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Contents

Executive summary	2
1 Introduction	4
1.1 Author	7
1.2 Aim of this Report	7
1.3 SAC Concerns and Actions	8
1.4 Additional Information	8
1.5 Limitations and Exclusions	10
1.5.1 General	10
1.5.2 Accessibility	10
1.5.3 Areas and items not inspected	10
1.5.4 Building Services	11
1.5.5 Environmental Issues	11
1.5.6 Hazardous Materials	11
1.5.7 Ground Conditions	11
1.5.8 Rot and Dampness	11
1.5.9 Consent, Approvals and Searches	11
1.5.10 Previous Condition Surveys	11
2 Survey	13
2.1 External Area Survey	13
2.2 Internal Area Survey	14
2.2.1 Basement Area Survey	15
3 Observations – External Area Survey (EAS)	16
3.1 General	16
3.1.1 Components of Architectural and Structural Fabric	19
3.2 Building Perimeter Walls	19
3.3 Dormer Structures	21
3.4 Historic (and other types of) Metal Inserts	22
3.5 Cross walls, Chimney Stacks and architectural feature arch structures	22
3.6 Roof Structure	23
3.6.1 General	23
3.6.2 Mansard	23
3.6.3 Trapezoidal (top-hat) type	24
3.6.4 Clock-Tower (including feature chimney structure)	24
3.7 Ancillary External Structures	25
3.7.1 Flat roof extension at south/west corner of the south section of the building	25
3.7.2 Railway Station Concourse Enclosure	26

3.7.3	Escape Stairway (and raised walkway) Gantry West Elevation	26
4	Observations - Internal Area Survey (IAS)	28
4.1	General	28
4.1.1	Components of Architectural and Structural Fabric	28
4.1.2	Components List of Internal Area elements	28
4.2	Components of architectural and structural fabric	30
4.2.1	Building Perimeter and Cross Walls	30
4.2.2	Suspended floors (ground, first, second, third and fourth floor)	31
4.2.3	Roof Support Structure (including roof void below ridge level)	32
4.2.4	Cast or Wrought Iron Columns	33
4.2.5	Load Bearing Masonry Pilasters and Partition Walls	33
4.2.6	Feature (and ancillary) Stairway Structures	33
4.2.7	Lift Enclosure and Lift Support Structures	34
4.2.8	Ground Bearing Floor slabs	34
4.2.9	Foundations	34
5	Dampness and Rot	35
5.1	General	35
6	Causation	36
6.1	Primary and Secondary Defects Categorisation	36
7	Mechanisms that have Caused Structural Distress in the Building	44
7.1	Concentrations of stress and vertical settlement	44
7.2	General Deterioration of Structural Fabric	45
	Structural configuration and performance; Stability and Load Transfer	47
7.3	47	
7.4	Consequential Impact of Defects on Structural Performance and serviceability	49
7.5	Passive and Reactive (and Care and) Maintenance	49
8	Compliance with Building Standards (Scotland)	50
9	Conclusion	54
10	Recommendations	57
11	Cost Report	59
12	Glossary	60
A.	Defects/Observations Location Drawings	67

B.	External Defects Tables	68
C.	Internal Defects Tables	69
D.	Excluded Survey Areas	70
E.	Rectification Schedule	71
F.	Cost Estimate	72

Executive summary

Mott MacDonald was commissioned by South Ayrshire Council (SAC) Building Standards Services to undertake survey, investigation and assessment work and produce an Independent Report on the structural condition of the former Ayr Station Hotel building.

The report was commissioned by SAC further to the subject property at Ayr Station being categorised by SAC as a 'Dangerous Building'. Dangerous Building (Section 29) Notices were issued by SAC in July 2013 and March 2018, with the subject issues having been identified by Network Rail and SAC Inspectors.

Over two stages of the commission, namely S1 (Factual) and S2 (Assessment) Mott MacDonald has identified and considered the issues, and concluded on causation, rectification and the cost to restore the subject building back to compliance with baseline Building Standards.

This document presents the whole of the commission delivered in the narrative, in individual sections each covering in turn; the Survey and Observations, and the Assessment of Surveyed findings from both External and Internal Areas of the building. Access to areas of the building was limited by SAC due to the condition of the building and the presence of asbestos.

As an Independent Report the output of this document is based upon factual information recovered from site survey and inspection, and upon Mott MacDonald's opinion on cause and effect.

Mott MacDonald has considered in detail the factual information alongside the building's structural configuration and circumstances. These have been separately determined through examination of drawings and other records and information provided.

Record drawings were used to determine the form of construction and the layout of the building. Targeted intrusive investigation of internal structure, identified by Mott MacDonald and instructed by SAC, has been used to assist with the findings.

The following points that pertain to the subject Grade Listed and Extended buildings have been established by Mott MacDonald during the commission:

Safety Priority 1 issues (and mitigation) relating to the subject building were established during the inspections and mitigation instigated as follows:

- Compromised Timber Roof Structure – south section (Option 2 Encapsulation works installed)
- Compromised Timber Suspended Floor Structure - south section (access to building prohibited)
- Unstable upper section of feature Clocktower Chimney (upper section of chimney dismantled)
- Fragile elements of architectural detail – north and south façades (nylon netting installed)
- Presence of Asbestos preventing full access to the building

The 'headline' detail that Mott MacDonald considers to be the principal causes of the established defects is:

- Wind, rain, temperature and rooted plants and vegetation
- Failed and/or missing Rain Water Exclusion systems
- Inactive Building Management System and Care and Maintenance regime
- Concentration of stress and minor settlement of sub strata and structure
- Vibration generated by adjacent rail and road traffic and infrastructure

In the event that Option 2 Encapsulation is removed as planned in May 2020, and that none of the rectifications recommended by Mott MacDonald in this report are implemented within the next 3 years, the south section of the grade listed building will:

- Continue to degrade and the cost of rectification to rise, increasingly over time;
- Reach the point a point in the medium to long term that a substantial demolition of the south section is required for viability and safety reasons;
 - Any decision to remove the encapsulation would have to be subject to a rigorous risk assessment. This process would likely conclude that further structural consideration and significant rectification work is required to assure safety.

A Red, Amber and Green (RAG) and a risk assessment have been used to categorise the defects for:

- Level of severity
- Timeframe for action to rectify

Other Key recommendations include:

- Further investigation is required to establish further information to complete a full maintenance plan
- Completion of a risk log to prioritise the repair work
- Implementation of the proposed rectifications within the timeframe for action
- Reinstatement of an inspection and maintenance regime

1 Introduction

Mott MacDonald was commissioned by South Ayrshire Council (SAC) in July 2018, to undertake a visual survey and assessment of the structural condition of the Station Hotel Building. This report presents the findings from the survey, assessment, conclusions and costed recommendations for making the building viable and safe.

The subject building is sited in a development connected to Ayr Railway Station and located in the town centre of Ayr. The building is historic dating from the mid to late 19th century and is a category B Building, listed by Historic Environment Scotland (HES).

HES have described the building to be French Renaissance in style and dating from 1885. Other records show the building to have been opened to the general public and passengers using the rail service in 1886.

Highly detailed period architectural features predominate throughout the external facades and continue across the mansard styled roofscape including 'trapezoidal' shaped flat roofed areas, clocktower and chimneys. Incorporated within the architectural detailing are numerous metal features that form rainwater flashing, decoration and balustrading.



Photo 1: Dormer at east corner of south section

Source: Mott MacDonald

Feature dormers formed from decorative sandstone pilasters and mullions topped by both triangular and semi-circular pediments, are formed throughout at eaves level. In individual component parts, the dormers are supported from the 'head' of perimeter walls and built into the lower section of the mansard roof.

The original building is understood to have operated from the outset as a railway station and hotel, and for the purpose of descriptions in this report the principal sections of the building are referred to as; the north section, and the south section. The south section includes the feature Clock Tower and adjacent feature chimney that are located close to the north/south change point.

Principal structural elements of the building are formed from modular sandstone blocks used throughout on external facades, modular bricks used internally for example in the construction of cross-walls and timber for beams and rafters supporting the roof. Iron used for columns and beams and joists in suspended floors is indicted on the record drawings.

The principal 'structure' of the building is set-out over 5 storeys rising from basement slab level, some 4.5m below external ground level. Configured around a feature 'open' atrium from ground to eaves level, the south section of the building accommodates a large reception area at ground level. A stairway and lift are incorporated within the reception area for the circulation of hotel patrons.

Other open areas that form a bar/reception, kitchen, dining and ballroom are located on ground and first floors respectively. Sleeping compartments, toilets and ancillary apartments are distributed across upper floors along with access service (and escape) stairways.

To accommodate and cover passengers using the railway station platforms, a cast iron structural frame in period style was formed to support a canopy roof. The original canopy likely formed in open timber trussing and slate tiled roof has been replaced with a modern equivalent formed in Perspex. Both frame and canopy extend over the rail tracks, partially covering current platforms 1, 2, 3 and 4.

The north section of the building is similarly formed over 4 storeys above ground level, however, there is a vertical step down from suspended floor levels in the south section of some 600mm. This appears to provide for reduced ceiling heights in the north section that appear to be on less grand scale than the south that accommodates more 'front of house' type areas.

Accommodating further sleeping compartments and various other reception and ancillary rooms, the north section appears to have fewer 'open concept' public type areas than the south section.

Building interventions undertaken in the 1970's and 1980's in the form of a reconfiguration of the basement area and a two-storey extension at the south/west corner of the south section of the building, were warranted and are a matter of record held by SAC Building Standards (SACBS). A modern dormer intervention is apparent on the mansard roof on the south section' west elevation above the entrance to the hotel and adjacent to the clocktower.

The hotel is understood to have ceased all operations in 2013, when it was apparently closed for business. In the interim the south section of the building and part of the north section have remained closed and appear to have had little or no meaningful external or internal maintenance in the interim. Consequently, the south and part of the north section of the building have fallen into a largely dilapidated state.

A 'pend' type passageway formed at ground level (from east to west) allows passengers using the railway to pass through the building into the station concourse. The concourse is an enclosed area accommodating ticketing sales and passenger control, and retail that is covered by the modern 'perspex' canopy.

ScotRail/Network Rail (SR/NR) occupied the building's ground floor accommodation in the north section adjacent to station platform 1. This accommodation was used for various operations up to the issue of the Dangerous Building Notice (DBN) when the operatives vacated the accommodation from July 2018.

The usable pedestrianised external areas (concourse and railway line platforms) adjacent to the building's perimeter are protected by a temporary 'crash deck' structure, formed above the concourse canopy level from scaffolding and timber boards. The 'crash deck' was designed and erected (in 2013) above an area extending along platforms 1 and 3, between the building's south and north gables. The intended purpose was to protect the customers and railway operatives using the Railway Station from falling debris from the Grade Listed Building.

SACBS have to date served two Section 29 DBN documents on the owners firstly in July 2013 and most recently in April 2018.

Safety works that were identified by SAC within the DBN document were addressed in a works contract with scaffold contractor CPMS. CPMS set up a controlled site confined within perimeter fencing and sub-contracted and deployed specialist surveyor Zenith to undertake and implement a 'tactile' survey.

The tactile survey comprised close-proximity access to all external areas of the subject building to establish loose and/or fragile components of fabric that were at risk of detaching and falling to ground. Once identified Zenith in agreement with CPMS and SAC removed the components and as required set them aside for future use. Zenith's sub-contract was expanded to include de-vegetation (removal of plant and

root growth) and netting (containment) of areas where there was further risk of stonework becoming dislodged in the near future.

Mott MacDonald's commission was undertaken in 2 stages:

Stage 1 (S1)

- Site Survey;
- Desktop Review;
- Interim investigation and assessment;
- Interim conclusions;
- Interim recommendations;
- Factual Report.

Stage 2 (S2)

- Intrusive Investigations (as required during and following S1);
- Detailed assessment, including rectification requirement;
- Compliance Check against Building Standards;
- Detailed Conclusion;
- Recommendations on Rectifications;
- Costed Rectifications and site works.

As the Factual sections (2, 3 and 4) of this report document presents findings that Mott MacDonald established at the end of S1.

Sections 2, 3 and 4 present general information along with the survey and observations sub-divided into two sections: External Area Survey (EAS); Internal Area Survey (IAS).

Note that the EAS does not include items, elements or components of architectural and structural fabric that are located inside the building, apart from exposed elements of timber roof structure. The timber roof structure is also included along with other key structural components in the IAS document.

Photo images are contained within the defects schedule, along with a brief description of each defect item.

Other photographs have been added to the text sections to assist the reader with descriptions provided and points made.

A severity categorisation for each defect was established during the detailed assessment in S2. This categorisation has been added to defects in the schedule that is annexed in appendix B and C.

A definition is used by Mott MacDonald to present a view on the condition of items, components, elements and areas of the building. The definitions used include; good, reasonable, poor, very, poor and hazardous. A brief description of each definition is also provided to assist the reader.

Where defects have been determined, during the course of Mott MacDonald's commission, to be safety priority issues, a more specific definition of SP1 has been used.

Condition of Building Fabric

- Good
The item is fully functional and fully meets the requirements of the specification;
- Reasonable
The item is functional and just meets the basic requirements of the specification;

- **Poor**
The item is barely functional and fails to meet the requirements of the specification;
- **Very Poor**
The item is largely dysfunctional and fails to meet the requirements of the specification;
- **Chronic**
The item is fully dysfunctional, fails to meet the requirements of the specification and bordering on dangerous;
- **Hazardous**
The item is dangerous (unsafe) and requires immediate attention and rectification.

This report presents in detail Mott MacDonald's considerations, assessment, conclusions, and recommendations on:

- Severity and Causation of Primary Defects;
- A Red, Amber and Green Priority rating for Primary and Secondary Defects;
- Risk profile and view on longevity;
- Compliance with Building Standards;
- Outline detail of Risk Management, further Investigation and Review/Study and Repair Works required to reinstate the building to baseline SAC BS;
- Order of Cost Estimate of Repair Works.

1.1 Author

Mott MacDonald was commissioned by SACBS in July 2018, further to the emerging safety issues and the placing of a Dangerous Building Notice to produce and an Independent Report (IR).

The IR was managed and delivered by Mott MacDonald, who led the survey and assessment and cost teams.

Having undertaken and delivered several IR's, Mott MacDonald has been directly involved in the investigation and assessment of several cases of contemporary and historic buildings with 'defective' components.

The IR was commissioned by SAC further to emerging safety issues related to the subject building.

1.2 Aim of this Report

Evidence of defective components of both architectural and structural fabric, that had detached and fallen to ground raising concerns over public safety, were established firstly by SAC. These items are listed in the DBN documents, an extract of which is contained for information in the IR document.

As part of the first stage commission (S1), Mott MacDonald deployed to site and undertook detailed survey and an inspection of the accessible areas of the subject building. Thereafter Mott MacDonald conducted a preliminary assessment of the recorded defects to determine as far as is possible the mechanisms of causation.

Site survey and inspection were also necessary to establish salient dimensional and physical details of the building structure and the developed ground level areas. These were required to assist Mott MacDonald's preliminary understanding and considerations of structural performance.

The Mott MacDonald inspection identified a significant number of additional defects. All defects have been the subject of a detailed assessment to categorise severity and then to risk-profile the impact upon current, short, medium and longer-term structural performance of the building'.

Upon completion in S2 of the commission, the IR presents a conclusion to a full and detailed assessment that has been benchmarked to current Building Standard requirements. This along with the categorisation of severity of the defects and a forecast on longevity providing final context to the condition of the building.

The IR also presents an 'Order of Cost' Report for the rectifications and contract works that are required to restore the building to baseline viability. The term 'baseline viability' is defined in section 8.

In summary the aim of this report is to:

- Capture the findings of the survey
- Rate the severity of the defects
- Establish the impact of defects on the building
- Identify rectification work that are required to make the building safe
- Identify rectification work and approximate costs, to bring the building back to baseline building standards

1.3 SAC Concerns and Actions

SAC' Dangerous Building Notice (DBN) documents, that were served upon the property owners, are referenced in this report for information.

SAC DBN Documents:

- DBN Document reference *13/52667, dated 25th July 2013*
- DBN Document reference *12/59124, dated 28th March 2018*

Areas of the subject building and adjacencies affected by safety matters raised in the DBN include:

- Elevations;
- Roofscape;
- Suspended floors;
- Basement;
- Foundations;
- Adjacent roadway and over-bridge;
- Adjacent railway concourse platforms and railway infrastructure.

Key Concerns:

The condition of the building, impacting on short, medium and long term public safety.

SAC is concerned that the condition of the building is detrimental to the durability and lifetime performance of the principal structure.

1.4 Additional Information

SAC provided Mott MacDonald with pertinent information relating to the building including copies of various architectural record and building warrant drawings. Information was recovered from the record drawings that assisted Mott MacDonald and provided information that is referenced in both the FR and the IR.

Whilst the drawings were informative, showing good and revealing detail, there was insufficient engineering information to wholly determine the structural configuration and detail. As such Mott MacDonald has relied upon information provided by the Mott MacDonald surveyors and where this has been absent (due to parts or areas of the building that were inaccessible at the time) certain assumptions have been made.

Option 2 (O2) works referred to by Mott MacDonald from time-to-time represent the outcome of separate investigation and risk profiling commissioned by SAC to assess priority safety concerns to protect the building from further deterioration.

The O2 works were designed, commissioned and installed by contractor CPMS and sub-contractor Zenith) to mitigate the risk of materials of building fabric detaching and falling and/or being blown off the roof under hazard wind conditions. And to prevent rain water accessing the degraded timber rafters and other degraded roof fabric, and thereafter internal areas of the building, thus avoiding a compounding of the pre-existing deterioration.

Comprising scaffold and specialist proprietary metal framing erected around the perimeter and over the roof of the south section of the Grade Listed building; the O2 works include 'wrapping' the scaffold (and the metal framing) in specialist PVC sheeting.

To sustain environmental wind loading imparted to the building by the O2 works; structural loading is transferred to a large number of locations on the chimney stacks above roof level and external walls as concentrated points of loading on the building's principal structure.

Surveying of the building was both helped and hindered by the O2 works; providing good access, cover and protection to the surveyors, and making movement through the survey more time-consuming whilst physically over-coming multiple components of scaffold

Anecdotal information pertaining to the history of the Station Hotel Building development and particularly the apparent presence of a drainage culvert below basement level was provided by the [REDACTED]. The information was provided during a discussion regarding apparent settlement of foundations on the east elevation of the building adjacent to station platform 3. Mott MacDonald considers this information in the detailed assessment presented in section 7 of the IR.

Additionally, it was noted [REDACTED] that a pilaster had detached from a window at the third-floor level on the west of the south section of the building. Falling from a perimeter wall below the clocktower, on the west/east elevation, there was apparently no one in the area at the time.

Due primarily to safety concerns over the condition of suspended floor structure and to the perceived presence of asbestos, a general embargo was imposed by SAC in the early stage of the external survey on access to the internal areas of the building.

Mott MacDonald worked closely with SAC to mitigate this key constraint to the survey and development of the report. A 'work-around' was established where a suitably qualified and experienced specialist surveyor was mobilised to support Mott MacDonald surveyors. The specialist surveyor working securely in a controlled and limited area, was guided by Mott MacDonald to recover salient information – refer section 2.2 for details.

Of note is the limitation imposed by SAC on the extent of 'intrusive' survey undertaken due to risk of floor collapse and presence of asbestos. The consequence of this was to constrain the information available to Mott MacDonald and so Mott MacDonald's ability to fully assess pertinent matters based on fact.

SAC sought to assure themselves that the Construction Design and Management Regulations as part of SAC's client and Principal Designer roles and responsibilities was fully covered. Mott MacDonald was duly commissioned (under a separate appointment) as CDM Co-ordinator to provide support to SAC during the works by both CPMS and sub-contractor Zenith.

The key areas (and components) of the Grade Listed building affected by the limited access are listed for information, in section 1.6.

1.5 Limitations and Exclusions

1.5.1 General

- 1.5.1.1 This report is limited to the requirements of the technical brief only.
- 1.5.1.2 We have reported on any obvious Health & Safety hazard only to the extent that it was apparent from the elements of the property considered as part of the survey and inspection.
- 1.5.1.3 We have not commented or advised on any matter the significance of which, in relation to the property, was not apparent at the time of the inspection or from the inspection itself.

1.5.2 Accessibility

- 1.5.2.1 Mott MacDonald have not completed external surveys of soils and sub-grade to hard-standings but have reviewed and commented upon external survey information completed by other consultants.
- 1.5.2.2 We have not opened or inspected those parts of the structure which were not exposed or were/are inaccessible. An embargo placed on access to the internal areas of building by South Ayrshire Council (SAC) was the reason for the limited survey. The embargo was intended to protect the surveyors from areas that SAC deemed to unsafe from damaged ceilings and floors and from the potential presence of Asbestos. We are therefore unable to confirm such parts are free from defective concrete, corrosion, condensation, wet rot, dry rot, woodworm or any other defects.
- 1.5.2.3 We have not lifted floorboards in every area nor have we lifted any ply, hardboard, fitted carpets or other fixed floor coverings.
- 1.5.2.4 We have not moved any obstruction during the inspection, including but not limited to furniture, fixtures, fittings or equipment.
- 1.5.2.5 We were unable to fully inspect roof voids, plant rooms, lift rooms or water tanks.

1.5.3 Areas and items not inspected

- 1.5.3.1 Structural Foundations.
- 1.5.3.2 Structural Iron used in the suspended floors at ground, first, second and third floors.
- 1.5.3.3 Structural Iron used above apertures in walls at basement, ground, first, second and third floors.
- 1.5.3.4 Structural iron used for columns between ground and first floors.
- 1.5.3.5 Structural masonry for load bearing partition and 'dwarf' walls, pilasters and piers.
- 1.5.3.6 Lift shaft and other lift support structures.
- 1.5.3.7 Perimeter and cross wall structure (presumed formed in modular sandstone and/or modular brick) between basement and ground floor level particularly with reference to vertical structural

cracks observed on the outside face of the east elevation.

1.5.4 Building Services

1.5.4.1 We have not carried out any survey or inspection of building services, including but not limited to; gas, electric, fire, water and drainage installations.

1.5.5 Environmental Issues

1.5.5.1 Our survey and report have not taken into account the energy performance of the building.

1.5.6 Hazardous Materials

1.5.6.1 This report cannot be relied upon to confirm the presence or otherwise of asbestos containing materials. Whilst asbestos sampling and testing was undertaken during the period that Mott MacDonald attended for inspection and survey of the building, the work, tests and results were undertaken and acted upon by others. If South Ayrshire Council are unaware of the presence of such materials, a suitably qualified specialist should be engaged to carry out a specific asbestos survey.

1.5.6.2 Unless otherwise expressly stated in the report, we assume no deleterious or hazardous materials or techniques have been used in the construction or maintenance of the property.

1.5.7 Ground Conditions

1.5.7.1 We have not commented on the possible existence of radon, noxious substances, landfill or mineral extraction implications, or any other forms of contamination.

1.5.7.2 We have not reviewed the ground conditions or soils underlying the building or considered the detail that may be contained in any local borehole or other records.

1.6.7.3 We have not reviewed or monitored any vibration or ground movement data.

1.5.8 Rot and Dampness

1.5.8.1 This aspect of condition was excluded from the survey and inspection – refer section 5.

1.5.9 Consent, Approvals and Searches

1.5.9.1 We have assumed the building is only subject to the Dangerous Building notices referenced in the report and is not subject to any other unusual or onerous restrictions, obligations or covenants which apply to the property.

1.5.9.2 We have assumed that all planning, building regulations and other consents required in relation to the property had been obtained and that duly applied prior to the closure of the Hotel business in 2013.

1.5.10 Previous Condition Surveys

1.5.10.1 Mott MacDonald understands that at least one other condition survey of the property was commissioned, undertaken and completed within the last five years. No sight or access to this

report has been requested by Mott MacDonald or provided by any third party.

2 Survey

2.1 External Area Survey

Precedent to the Mott MacDonald survey and as a direct consequence of the SAC Dangerous Building Notice (DBN) served in March 2018, was a 'tactile' survey undertaken by specialist surveyor Zenith.

Zenith were commissioned by principal contractor CPMS in accordance with SAC requirements to identify, dismantle and remove loose or unstable items of building fabric. Zenith's 'tactile' survey included de-vegetation and netting of areas of the building perimeter walls that were deemed to present a safety concern. The tactile survey was completed in advance of Mott MacDonald deploying teams to site.

Two survey teams comprising lead Surveyors, each with an assistant surveyor, and Bryan Mackay attended the site to survey the subject property.

The teams were inducted firstly by SAC and then by CPMS (including for working within a live railway environment). Mott MacDonald Risk Assessment and Method Statements (RAMS) were presented at the time of induction fully demonstrating that all risks had been considered and each surveyor had sufficient training (as required including harness restraint) and adequate PPE.

Observations were made from both ground level and scaffold platform (erected around the building's perimeter to provide local structural stability and support to O2 works) at each storey. The surrounding development infrastructure including hard-standing, car-park, roadways, over-bridge and railway were noted but not surveyed or inspected – refer to exclusions in section 1.6.

Due to a number of issues arising on site impacting on progress, the survey of the external areas (EAS) of the building was undertaken over four site visits. Survey visit 1 (SE1) was in July 18, visit 2 (SE2) was August 2018, and over two visit(s) 3 (SE3) and 4 (SE4) in January 19. SE3 and SE4 were undertaken from within a PVC envelope installed to 'encapsulate' and protect the south section of the subject building.

The weather varied over the period of the surveys from sunny to wet, mild to cold and calm to windy. Significant rain fell during the period of SE3, with surveyors reporting that rain water was largely excluded from all areas of the building within the O2 PVC envelope. This was recognised by all as an indication of the success of the O2 system.

SAC along with scaffold contractor CPMS and their specialist sub-contractor Zenith were in attendance for part of SE1, SE2, SE3 and SE4. As Principal Contractor responsible for the site, CPMS attended with Mott MacDonald team guiding and showing SAC and the Mott MacDonald team key access points to scaffold at ground and other platform levels erected around the perimeter of the building.

The teams completed the EAS comprising SE1, SE2, SE3 and SE4 over a total of 7 days.

Survey of the 4-storey north section of the building was limited due to insufficient scaffold access. Access was provided to the external area of windows immediately adjacent to a single scaffold tower (rising from external ground level to eaves) located some 10m south of the pre-existing escape stair. Otherwise the survey of the remaining areas of the 4 storey and two and single storey Grade Listed buildings on both the west and the north, was conducted from ground level. A zoom camera was used insofar as possible to visually access areas and detail of interest and concern.

The Internal Area Survey (IAS) was undertaken in March, April and May 2019, with the basement area being the last completed. The IAS was completed over a total of 24 days.

Access was unavailable to all internal areas of the two and single storey Grade Listed buildings in the north section.

Areas of the building that were physically and/or visually inaccessible at the time of survey are highlighted on the plan in Appendix A.

2.2 Internal Area Survey

Due to difficulties posed by the O2 scaffolding system that encapsulates the entire south section of the Grade listed building, the physical survey (and inspection) was undertaken at each level from behind the handrailing of the external scaffold walkways.

The Mott MacDonald teams were supported by two operatives from specialist surveyor Zenith provided with suitable training, PPE, and camera equipment, who accessed the internal floor areas on the following basis:

2.2.1 Ground and Upper Suspended Floor Surveys

Working in the south section of the building in a rolling sequence from south to north and from roof to ground level, the Zenith survey 'team' accessed the internal area through selected window apertures and inspected each room in turn.

Access was based on a rolling sequence of 5 to 6 windows (and roof hatches) to be open at any one time. No windows (or roof hatches) were left open over-night or at weekends

Roof

Access to the roof void(s) used existing skylights/hatches or where necessary a 500x500mm aperture/access point was created on the sloping and flat 'trapezoidal' roof areas to view/ sample roof joists.

Also, similar 500x500mm apertures were opened on the lower mansard roof at a minimum of three locations on both the East and West elevations.

Floor

Upon access to rooms, three sample floor areas on both east and west sides of the building, 500x500mm were identified on each floor level. Each area had the timber floor boards removed to reveal floor joist ends immediately adjacent to selected sample windows.

Timber samples were taken from the joists, the sample locations were staggered on each floor.

Ceiling

Similarly, to above, suspended ceiling bulkheads were taken down to expose a minimum of 1000x1000mm of the floor soffit and supporting joist ends from below.

The survey of the 4-storey north section of the building was limited due to insufficient scaffold access. Access was provided to windows immediately adjacent to a single scaffold tower (rising from external ground level to eaves) located some 10m south of the pre-existing escape stair. Zenith Operatives (ZO) under Mott MacDonald direction made tethered access to the inside area of available rooms at each level on the west. Selected access was achieved by the ZO to areas on the east of the building and a limited number of roof voids.

2.2.1 Basement Area Survey

Two Zenith Operatives (ZO) under Mott MacDonald Surveyor direction and with suitable training, PPE and task lighting, and camera equipment entered and surveyed the basement areas and recorded defects – a limiting period of 1.5 hours was set for any person being in the basement at any one time. This time limit was set to make the survey of items and the recording of findings, and the direction to ZO as efficient and productive as possible.

After each period the ZO' returned to the site cabin where the Mott MacDonald surveyor was based to de-brief and take further direction.

The Mott MacDonald Surveyor recorded details of progress, findings and reviewed the photographs taken by the ZO.

The Internal Area Survey (IAS) was undertaken in March, April and May 2019, with the basement area being the last completed.

3 Observations – External Area Survey (EAS)

3.1 General

The architectural and key structural fabric of the roof and perimeter walls was observed to be generally in poor to very poor condition in east and south areas of the south section and reasonable to good (apart from a number of localised areas) condition in the north section of the Grade listed building. Significant evidence of defects, damage, movement and structural distress, were found in the perimeter and cross wall structures, as well as elements of secondary structure. Defects were also evident throughout the west side however generally both less in number and in more reasonable condition than the east side.



Photo 2: Roof Eaves Beam – East Elevation

Source: Mott MacDonald

Constructed from modular sandstone blocks cut to various dimensions ranging from some 150x200x420-600mm to 300x600x420-600mm thick throughout, both perimeter and cross-walls (at and above roof level) form the principal vertical and horizontal load bearing structure of both the south and the north sections of the building.

The plan shape of the building extends from the south (adjacent to the roadway over-bridge) as a 'long' rectangle, approximately 11m wide and 62m long. At the north end, the plan 'cranks' (dog-legs) over approx. 26.5m from east to west. The Clocktower and adjacent feature chimney, some 8.5m high, are located on the west side of the 'crank'. The north section of the building starts from the tower continues to the north by for approx. 120m. The north section of the building is the same 11m width.

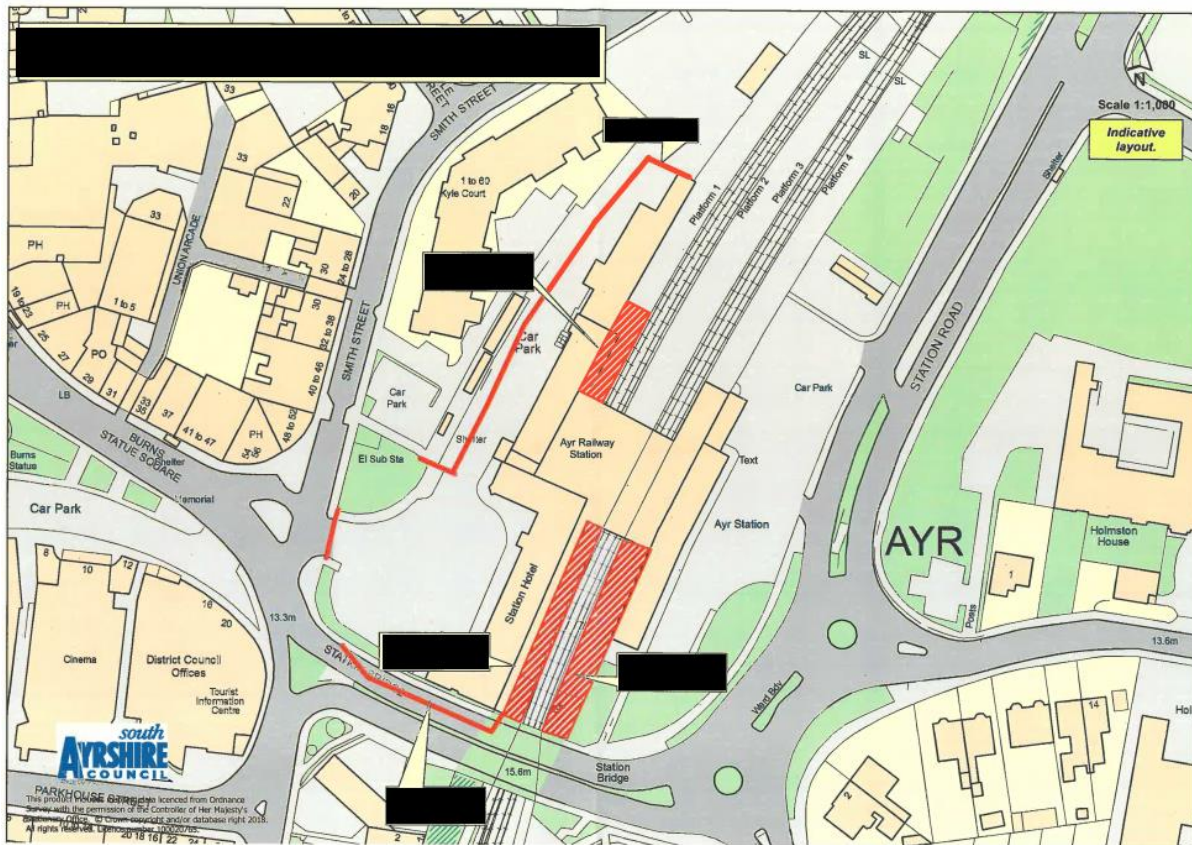


Figure 1: Indicative Site Layout Plan

Source: South Ayrshire Council

Replicating the south section height and appearance, the north section of the building reduces in height and architectural configuration at a point some 60m north of the clocktower. Beyond this the building steps-down in three stages to a single storey structure, forming three partial gables all of which were surveyed and inspected.

The principal foundation structure is formed from corbelled sand stone blocks bearing directly onto indigenous soils. Period buildings of the subject type were commonly designed and constructed on this basis. A detailed examination of the original architectural drawings was undertaken in Commission Stage 2 to reconcile structural form and function.

A mansard type roof structure formed in timber with a steeply sloping bottom section and shallow pitch top section, and formed between the cross-walls, provides support to sarking and slate tiles.

The roof is highly architecturally detailed and formed at various finished lines and levels. There are many junctures forming return and re-entrant type corners, edges and valleys. Lead flashing has been used extensively to form rain water exclusion and management systems directing the flow towards gutters at eaves and various other building levels and locations.

Similar in both plan and vertical geometry, both the north and south sections of the building are formed in the same materials and the same architectural and structural configuration.

A significant number of defects affecting the building's architectural and structural fabric appear to relate directly to ingress of water. Rainwater appears to have breached barriers and management systems to access and ingress beyond the surface layers, penetrating through the roofline and perimeter walls,

accessing areas inside the building and into the sandstone and timber structural fabric. Lead flashing is extensively damaged and/or missing, as are large lengths of both gutters and rain water downpipes.

In addition, extensive deterioration and damage were evident that appeared to be as a direct result of wind action. A limited number of other defects such as vertical, horizontal, diagonal and radial cracking affecting the building and structural fabric were also recorded.

Significant localised vertical cracks apparent on both the south and east evaluations, appear indicative of settlement at the building foundation level. Road traffic and train rolling stock movements on adjacent rail and road over-bridge are likely a contributory factor. Settlement at foundation level may also be linked to an apparent historical water culvert underlying the building.

Evidence of deterioration includes dislodged sandstone blocks and fractured and broken, and detached parts of sandstone. Defects of this kind are evident throughout the upper levels of perimeter and exposed (at or above roof line) cross-walls and extend to areas throughout the chimney stacks. Feature 'arches' span over the roof ridge line, separating but connecting stacks that service apartments on both east and west areas of the building.

Concentrated structural cracking is apparent around historic metal inserts (likely in wrought iron) at various points on perimeter and cross-walls and chimney stacks. The metal inserts are typically at an advanced stage of decay, with both corrosion and delamination of the metal evident.



Photo 3: Historic Metal Insert - South Gable

Source: Mott MacDonald

Features such as sandstone corbels and detailed stonework are highly weather eroded and appear in many locations to be in deteriorated and fragile condition.

In the south section of the building the level of efflorescence 'white bloom' appears consistent with age, and consistent for a building that has had little or no maintenance for some 6 years. The commensurate walls in the north section of the building appears generally less affected, except for an area at eaves level on the east elevation adjacent to platform 1.

The following sub-sections provide a commentary of observations, with the condition of key components of building fabric categorised by Mott MacDonald to be; good, reasonable, poor, or hazardous. A description of each category is provided in the glossary for further information.

3.1.1 Components of Architectural and Structural Fabric

To assist the reader and provide focus for the survey, inspection record, and findings in sections 3 and 4, and the assessment section 7, Mott MacDonald has listed the items that constitute the buildings component parts.

Each component of structure is structurally significant, to a greater or lesser extent. This is important when considering the impact of any evident deterioration, damage, movement or structural distress evident and therefore sustained by individual components that then impacts on overall structural performance and longevity.

List of External Area elements

South, West, East and North Elevations and Roof Area components surveyed include:

Architectural

1. Architraves
2. Cornice and Corbels
3. Metalwork finishes
 - i. Finials
 - ii. Pediments
 - iii. Mansard
 - iv. Top-hat
 - v. Eaves
4. Timber window frames
5. Valley and eaves gutters and rainwater downpipes, and associated rainwater flashings
6. Flat roof materials including parapets over modern extensions

Structural (Building Envelop above finished external ground level)

7. Clocktower roof support
8. Trapezoidal Roof support
9. Mansard roof support
10. Flat roof supports and parapets over modern extensions
11. Perimeter walls
12. Cross walls
13. External Lintels
14. Clocktower Chimney (stack)
15. Cross Wall Chimneys
 - I. Stacks and feature arches
16. Dormers
 - I. Stone double and triple Mullions
 - II. Pediments
17. Lintels over apertures for windows and doorways
 - I. Metal
 - II. stone

3.2 Building Perimeter Walls

Based on a limited amount of legible information contained in original architectural drawings, the perimeter walls appear detailed as single 'leaf' construction, with the 'head' of wall mostly at eaves level. The south elevation gable wall, and the 'cross-walls' all extend above the roof line. The single 'leaf' detail comprises a course of 420mm sandstone block, with inner face appearing to be finished formed from lath and plaster unless in a location where modern interventions have been added. The detail shown on the original architectural drawings indicates timber battens nailed to the inner face of the sandstone wall supporting the lath and plaster work.

The perimeter walls along with the cross-walls form a significant part of the Principal structure of the building.

A prominent feature cornice styled ledge has been formed at the outside edge of the 'header' stones at eaves level as part of the period architectural detail. The cornice geometry is tapered on a stepped curved profile that makes the outer finished edge fragile and more susceptible to wind type erosion. Similar architectural features of less pronounced geometry are formed in the sandstone perimeter walls, particularly at cill levels and between storeys throughout from ground to eaves level. The details are formed in 'bands' that are set out and continued around the full perimeter of the building. Defects were recorded throughout on the external face of the perimeter wall structure within the south section of the building. Defects observed were lesser in number on the north section.

The south 'gable' elevation of the building appears to have been designed with enhanced architectural detailing. Panelling framed by 'Doric' styled columns and detailed pediments are 'centred' on the elevation at each storey. In some cases, the panel appears to include a modern infill, as the remnants of metal inserts indicate both historic platform and winch structures that no longer exist. These could have been required for moving goods or materials from ground to upper levels through doorways or apertures in the former days of the hotel. The inserts and the detailing have fared badly over time, with damage to sandstone in the form of swelling, erosion and cracking adversely affecting many areas.

Of particular note is evidence of localised settlement of foundations assumed from the presence of significant vertical cracks observed in localised areas on the east elevation. The cracks were measured in-situ and in the worst case were found to be some 5mm wide and some 3500mm (above existing external finished ground level). Significantly, the cracks appear to emanate from a point somewhere below existing ground level.

Other defects observed and recorded include; depletion of sandstone apparently through various naturally occurring mechanisms (yet to be fully established) resulting in a breakdown of both finished face and/or substrate and loss of surface material and/or loss of section.

Cracks in sandstone blocks and/or sandstone components of varying width, length and direction were observed and recorded. In some cases, the cracks appear to have propagated through the entire section of 'parent' material.

Appearing to radiate from historic metal inserts, cracks were evident in several locations on the south elevation, but also on the west elevation and on chimney stacks rising from the east side of the roof within the south section of the building. These are covered in more detail in sections 3.4 and 3.7.

Surface discoloration of the sandstone in the form of efflorescence (commonly known as 'white bloom') appears to be widespread on the elevations of the south section of the building, and particularly in two locations on the west perimeter wall. Firstly at mid-height below the clocktower, and secondly at and below eaves level, above the two-storey modern extension.

Appearing more developed and extensive on the east elevation the efflorescence is more obvious along the line of the feature cornice at eaves level in two locations adjacent to platforms 1 and 3.



Photo 4: Efflorescence – East Elevation

Source: Mott MacDonald

Efflorescence is also apparent on both the east and west elevations of the Grade Listed building's north section.

Of note is an area of wall in the north section adjacent to the escape stairway and raised walkway described in section 3.7.3, where extensive mould is evident. The mould appears to a very localised area that rises continuously as a band of some 1m from ground level to eaves. The wall in this location is in poor condition.

There are also numerous examples of 'erosion', 'blistering' and 'delamination' of sandstone as further evidence of defective sandstone material. Loss of mortar bedding between sandstone blocks appeared significant throughout the external survey areas.

Evidence of extensive de-vegetation as a result of the 'tactile' survey was observed and obvious throughout, however, with localised impacts from root expansion in the form of damage to sandstone from movement observed and recorded.

The sandstone material in the perimeter walls where it is visible appeared on the south and east elevations of the south section of the building to be generally to be in poor condition. In some location's defects identified as cracks and/or dislodged and broken stones were deemed by Mott MacDonald to be very poor and/or hazardous condition. Where significant defects exist, they have been categorized by Mott MacDonald as Primary defects.

3.3 Dormer Structures

Highly architecturally detailed sandstone dormer windows are supported directly from the 'head' of the perimeter walls. The prominent feature cornice styled ledge forms the baseline and cill to the dormer windows. The principal structural components are formed from decorative sandstone pilasters and mullions, and arching pediments (in various period styles). The dormers 'frame' timber 'sash and case' type windows. The window frames appear to be original throughout, apart from one or two exceptions and are recessed within the dormer and so set back from the edge of the feature cornice type corbel.

Defects were recorded throughout the dormer structures in most locations in the south section of the building, and less so in the north section. Of particular note is evidence of lateral movement (both in east/west and north/south directions) that has caused mortar to de-bond and joints between component parts of the dormer to open-up.

In at least one case the east/west lateral movement, for example on the east elevation adjacent to platform 3, appears as a 'rotation' of sandstone pilasters and mullions about a base point at cill level. This rotation has resulted in the dormer 'leaning' forward at the head point, or pediment apex level. The out-of-plumb at the top-most point was measured in-situ at a significant 10mm to 15mm.

In a number of other locations notably on the west elevation, south from the clocktower, the dormer pilaster has fractured vertically (on the inside face) and the pilasters and pediments appear to have moved outwards. Where these occur the dormer structure is in a very poor to hazardous condition.

The sandstone material in the dormer components where they were visible appeared generally to be in a poor, to very poor condition. Where significant defects exist, they have been categorised by Mott MacDonald as Primary defects.

3.4 Historic (and other types of) Metal Inserts

Items observed were more numerous on the south (gable) elevation, with each appearing to be dating from the original design and construction. Wrought iron appears to have been used in most cases, affixed it appears by inserting items to pre-drilled pockets in the sandstone blocks. Most of the inserts appear to be the remnants of 'angle' iron sections used either as supports to cantilevered service platforms (and/or emergency stairways) or to lifting brackets. In each case the original wrought iron appears to have been sawn or cut back to the surface line of the wall, leaving the inserted length within the wall. The insert has since corroded and delaminated and in most cases is in an advanced stage of deterioration.

Whether from expansion of the metal during the corrosion process or from the action of an external force, or both, during the original period of use, the sandstone around each insert has fractured and cracked. Cracking in most cases is multi-directional, radiating from the pre-drilled pocket - the resulting defects are in Mott MacDonald's view significant.

Metal inserts were also observed in other locations, with defects comparable to that described above. located for example in the sandstone perimeter walls adjacent to the escape stair on the north/west elevation. And various chimney stack walls above either the roof line or the ridge line over the south section of the building.

Other metal inserts in the form of lintels or vertical posts forming apparent replacement components of structure framing window apertures were observed. These were largely in poor condition, with corrosion and delaminating and depletion of 'parent' material evident.

3.5 Cross walls, Chimney Stacks and architectural feature arch structures

In conjunction with perimeter walls, the cross walls and chimney stacks are principal structures incorporated within the building that sustain lateral stability load.

The cross walls are formed from modular sandstone blocks and located at intervals throughout the length of both the south and the north sections of the buildings. The cross walls run across the width of the building, parallel with the gable walls. Appearing on the plan sections of the original architect drawings, the cross walls rise from foundation level through each floor level to a final level above the pitched roof line and roof ridge height. Chimney stacks are supported on the middle-third of the cross walls, with chimney flues incorporated in the walls to distribute flues to fireplaces throughout the building.

Only a small section of each cross wall is visible above the roofline where it forms a low 'parapet'.

Defects were recorded throughout the cross-wall and chimney structures, where these were accessible for inspection during the survey. In most locations throughout the south section of the building, and less so in the north section, there was also evidence of the physical movement of individual sandstone blocks.

There was little evidence of efflorescence on the visible areas of cross-wall or on the chimney stacks and connecting arch structures. De-lamination and blistering of the surface layer of the sandstone were evident in places, although not extensive.

The sandstone material in the cross walls where they were visible appeared generally to be in reasonable condition. However, in some locations defects identified as cracks and/or dislodged stones were deemed by Mott MacDonald to be significant. Where significant defects exist, they have been categorized by Mott MacDonald as Primary defects.

3.6 Roof Structure

3.6.1 General

The fabric covering the roof was observed to be generally in poor to very poor condition throughout the south section of the building, with significant evidence of defect, damage (due to depletion of the section) and structural distress. Observations made on the external area of the north section confirm that the roof fabric is in significantly better condition than the south. There were no visible breaks in the roof covering and no roof support timber exposed. The roof structure in the north was only accessible to survey and inspection from inside the building insofar as this was practically achievable. Thus, the timber roof structure was less accessible/visible to inspection in the north that it was in the south section.

3.6.2 Mansard

Comprising an upper and lower section, with the latter steeply sloping and with integrated sandstone framed dormer type windows, the entire mansard is covered in slate tiles.

Covering the largest area of roof over both the south and the north sections of the building, the mansard is formed between gable and cross walls throughout. The longest section of mansard between cross walls measured from record drawings, is some 12m.

Hatch type apertures are apparent on the upper section of the mansard on the east side in each case providing access to the roof void below. The hatches are generally in very poor condition and do not appear to be functional in any location.

Damaged and missing slates, where these appear in medium to large areas, on the east side of the lower mansard section, have exposed sarking that has deteriorated significantly over time. Consequently, rain water has accessed timber rafter beams and trussed sections of roof support on both the upper (presumed in locations where lead flashing has failed or is missing) and lower mansards. Significant damage and deterioration of timber was in evidence throughout, particularly on the lower mansard.

Where areas of roof covering the lower mansard have disintegrated and largely disappeared on the east side of the building, random rubble infill has been exposed. The purpose of rubble infill is unclear however the defect is reported and considered by Mott MacDonald in more detail in the Internal Area report.

Feature metal trimming used to bridge across joints, for example between the upper and lower mansard roofs, used for both cosmetic and rain water-exclusion purposes have been mostly removed, damaged and/or loosened over time. Whilst these items have been largely removed by Zenith to make safe during the tactile survey, rain water accessing the joints has caused significant deterioration of underlying structural fabric.

Lead flashing designed to exclude rain water is largely intact around dormers and other apertures however areas of damaged, failing and missing flashing were recorded.

The materials that constitute the external components of the mansard where they were visible appeared, on the east side of the building, to be generally to be in a poor, to very poor condition.



Photo 5: Lower mansard – east elevation

Source: Mott MacDonald

Components of principal structure such as timber rafter and eaves beams, and timber trusses that were exposed and visible on the south section (particularly on the east side) of the Grade Listed Building appeared to be in a poor, to very poor and/or hazardous condition. The components of structure in the west (in the south section) by comparison, were observed to be in a reasonable to good condition, with only a few localised exceptions. Where significant defects exist, they have been categorised by Mott MacDonald as Primary defects.

3.6.3 Trapezoidal (top-hat) type

The trapezoidal roofs are formed on the north and south ends of the southern building. Like the mansard, these items comprise an upper and lower section, however, forming a flat type raised area that tapers upwards and spans the building width. Steeply sloping side-panel areas that form the perimeter rise to an eaves level commensurate with a large flat roof area. Covered in lead sheeting, the 'flat' roof is laid to falls from a nominal ridge line set east to west. The roof area was previously bounded on all four sides with a feature architectural metal balustrade, before this item was deemed by the 'tactile' surveyors as a safety risk and so removed.

The original architect drawings show the detail of a system of timber truss, beam and rafter structure underlying the trapezoidal roof supporting the sloping perimeter and flat roof areas.

Slate tiles are typically loose or missing particularly in areas of the mid-to-lower sloping sections of roof on the east. Otherwise feature metal trimming used to bridge across joints, for example at eaves lines have been largely removed by the 'tactile' surveyors to make the area safe.

The materials that constitute the external components of trapezoidal roof, where they are visible, appeared generally to be in a reasonable condition.

3.6.4 Clock-Tower (including feature chimney structure)

In the same form of construction and architectural shape and style, as both the mansard and the trapezoidal roofs, the clocktower has the highest roof level and was once topped-off with a feature flagpole.

The steeply sloping side panels are punctured at a level approximately half-height by circular window apertures on all 4 sides. A more steeply sloping duo-pitched roof intersects the clocktower on the north

side, the ridge of which is approximately half the clocktower height. This roof provides cover to and extends the void within the clocktower enclosure. The extended space is closed at the north end by a feature chimney that extends upwards from the steeply duo-pitched roof ridge line by some 5.5m. The full height of the feature chimney, on the south side, where it rises above the roof ridge is estimated at some 8.5m.

Established in the tactile survey undertaken by Zenith to be unstable and unsafe, the upper section of the chimney stack was dismantled down to the level of the adjacent roof ridge line. The chimney structure that remained at this level was deemed by Zenith to be stable and safe. It appears that a horizontal 'structural tie' existing between the timber structure of the adjacent roof and the chimney remains intact. However, the mortar bed between sandstone blocks adjacent to the ridge line appears to have failed. Vertical structural 'tying' as a result would have been lost at the subject level de-stabilising the upper section. The remaining (lower) section of the chimney has been left and presumed to be stable under gravity and self-weight. There may however be a residual risk of future instability unless rectification works are undertaken the short to medium term.

The remaining components of the chimney fabric appear to be in a poor condition.

Slate tiles provide the finished covering to the roovescape, with a feature capping piece in ornate architectural style formed in timber and covered in lead flashings. Slate tiles on the lower section of east roof panel were in places loose, damaged or missing.

The materials of fabric that constitute the external components of the clocktower where they were visible appeared generally to be in a reasonable condition.

3.7 Ancillary External Structures

3.7.1 Flat roof extension at south/west corner of the south section of the building

Constructed as Warrantable Work (refer Appendix E) the two-storey extension appears formed in cavity wall sandstone block outer leaf and concrete block inner leaf. A flat roof formed from a proprietary Ruberoid type water proof material (likely laid over insulation) appears supported from roof structure formed in timber rafter beams. A masonry parapet wall extends above the roof line by some 500mm that is capped by sandstone coping. The roof covering and parapet wall appear to be functional and in reasonable condition, however, two parapet coping stones are loose on the south side adjacent to the road bridge. This defect should be made good at the earliest as currently there is a moderate risk to pedestrians and road users.

As represented in the contemporary building warrant information, the north section of the extension is constructed on reinforced concrete strip foundations supporting three external walls projecting beyond the curtilage of the south section of the original Grade listed building.

Apertures in the walls provide for doors and a limited number of windows on both ground and first floor. The architectural style is modern however appearing to have been designed to blend with the style of the south section of the original building. A sloping roof joining the original and extended building appears to cover a stairway connecting the internal spaces. The roof material appears consistent with the flat roof area being in a Ruberoid sheet formed in sections over and fixed to timber battens below the joints.



Photo 6: Loose Capping Stone – south/west corner

Source: Mott MacDonald

Surveyed and inspected and found to be in reasonable condition, the extended building was observed to have only a limited number of structural and cosmetic type defects. Of note in addition to the two dislodged sandstone coping stones on the south/east corner of the parapet wall described above, are diagonal cracks in the mortar beds propagating from the corners of the ground and first floor window apertures on the west elevation. The cracks are indicative of horizontal and/or vertical movement that could emanate from foundation level.

3.7.2 Railway Station Concourse Enclosure

Station operations including ticketing and automatic ticket gates, to facilitate the through-put of passengers, are located in the ground floor of the Grade listed building's north section. A small number of retail units are also accommodated within the tiled ground bearing floor enclosure.

Appearing to be formed from painted period cast iron, the beam and column frame supporting a contemporary Perspex roof, is connected to the south section of the building. The columns are supported from some unknown form of foundation underlying the finished floor level. The roof support beams also span the railway tracks, where both beams and roof are connected to the feature sandstone wall bounding station platform 4, that forms the east elevation of the enclosure. The sandstone walls, beams and roof beyond the curtilage of the enclosure were not surveyed or inspected.

Whilst there was evidence of metal corrosion at the connection of beams to building, the rate of deterioration is deemed to be limited. Overall the iron structures that were visible appeared to be in a reasonable condition.

The sandstone structure exposed and visible within the enclosure was limited to a horizontal band at first floor level, some 1000mm deep. Observations were limited due to proprietary over-cladding boards used extensively on the walls within the enclosure. The sandstone where it was visible appeared to be in reasonable to good condition.

3.7.3 Escape Stairway (and raised walkway) Gantry West Elevation

Appearing as an access structure installed over at least three distinct periods in time, the stair and walkway comprise structural steel stringer beams, steps and balustrading that spans from ground level to landing platforms supported by a frame comprising structural steel beams and posts. It is presumed that the posts and bottom flight stringers are supported on reinforced concrete pad foundations below finished ground level.



Photo 7: Escape Stair – west elevation

Source: Mott MacDonald

Lateral structural stability, to some extent inherent within the structural frame, is fully provided by bolted fixings mechanically anchored to the sandstone walls of the north section of the building.

Remnants of metal wall anchors from what appears to be an installation in a period after the original 1860 construction, and presumed to be fixings for an original stair gantry are apparent in cracked and damaged areas of the sandstone perimeter wall.

In some locations the sandstone has fractured and broken, and small sections have become detached. The condition of the sandstone in these locations is poor to very poor.

Metal used in the original raised walkway structure in some locations is at an advanced stage of corrosion. Particularly the case at connections between stringer beams and column posts, parent section metal would need to be replaced. The condition of the subject metal in these locations is very poor and/or hazardous.

The affected and damaged sandstone in one case is immediately adjacent to a 2m long pilaster supporting a lintel, appears to need priority remedial action. The pilaster appears to have been mechanically impacted from a horizontal external force that has caused the pilaster to shift laterally (north) at mid-height. Consequently the pilaster has fractured and broken, removing support to the lintel i.e. the lintel is at risk, Rectification should be addressed with some urgency to this and to other fractured sandstone, particularly if the current stairway is required to meet legislative operational needs in a re-occupied building. The subject pilaster is poor, to very poor and/or hazardous condition.

Significant damage and degradation are evident where wide cracking and tearing has occurred immediately adjacent to pilasters on feature windows. The defect is vertical running from ground floor level over some 3m in length.

The sandstone pilasters framing window apertures in close proximity to the escape stairway appeared generally to be in a poor, to very poor and/or hazardous condition.

4 Observations - Internal Area Survey (IAS)

4.1 General

Dark staining from what appears to be dampness on the face of finished walls and ceilings was observed in localised areas throughout the basement and upper floor levels. The dampness appears to result from water ingress; in the form of rising in walls from basement level, or from leaks around pre-formed apertures such as windows in perimeter walls, or from leaks from storage tanks at roof level.

In the worst cases water ingress from what appears to be leaks at roof level has caused the partial collapse of ornate architecturally detailed ceilings repeating on the floors below. Where these were observed, the collapsed materials were in piles and/or strewn across the surface of the floor immediately below.

Modern interventions to lower ceilings for building services such as heating, and ventilation pipework have required 'bulkheads' to be formed that appear to be suspended from the underside of the original floor.

The bulkhead structure adopted for floor levels 2 and 3 has been formed in timber studs, with the ceiling and vertical side material fixed to the timber frame. Suspended from the underside of first floor level, a proprietary type metal framing system has been used.

In some locations for example the ground floor 'drawing' room, localised water ingress more likely, due to the volume required, from broken pipe joints and/or fractured pipes appears to have caused a local collapse of the ceiling

Deterioration and degradation of is particularly evident in timber used for structure in the suspended floors. Joists in localised areas of suspended floor on the east side of the south section of the Grade Listed Building level 3. Similarly, localised areas of the floor on level 1 on the east and the north/east on all levels (in the south section) were found to be significantly degraded.

Timber in the roof voids within the upper mansard roof were accessed and inspected, with the timber generally found to be unaffected by water. However, the exception being the connection point of the truss top and bottom chords that join of the upper and lower mansard roof line. At this location the chord-ends where they were accessible to inspection were typically degraded

4.1.1 Components of Architectural and Structural Fabric

To assist the reader and provide focus for the survey, inspection record, and findings in the FR and the assessment section of the IR Mott MacDonald has listed the items that constitute the buildings component parts.

Each component of structure is structurally significant, to a greater or lesser extent. This is important when considering the impact of any evident deterioration, damage, movement or structural distress evident and therefore sustained by individual components that then impacts on overall structural performance and longevity.

4.1.2 Components List of Internal Area elements

Surveyed from accessible ground and/or within Option 2 PVC Wrapping Envelope and the internal curtilage line of the roof, and accessible scaffold platform levels:

Building fabric on all floors between existing basement, ground level, first, second, third and fourth floor and roof levels

South, West, East and North Sections and Roof Void components surveyed include:

Architectural

1. Suspended ceilings
 - i. Architraves
 - ii. Cornice and Corbels
2. Feature Apertures - Archways in large open areas
 - i. Dining Room
 - ii. Ballroom
 - iii. Basement
3. Feature Supports
 - i. Columns
4. Metal work finishes -Feature and Service Stairways
 - i. balusters
 - ii. Handrails
5. Vertical Transportation - Lifts
 - i. Lift enclosures
 - ii. Lift Door
6. Timber Finishes
 - i. Window/Door Framing

Structural (within the Building Envelope above finished external ground level)

1. Clocktower roof support
2. Trapezoidal Roof support
3. Mansard roof support (including dormer window framing)
4. Flat roof supports and parapets over modern extensions
5. Perimeter walls (including basement)
 - i. Pilasters
6. Cross walls (including basement)
 - i. Pilasters
7. Internal columns
 - i. Iron
8. Suspended slabs
 - i. timber joists
9.
 - ii. iron joists and beams Basement
 - i. masonry piers
 - ii. masonry foundations
 - iii. Ground bearing slabs
 - iv. suspended slabs
10. Vertical Transportation - Lifts
 - i. Lift enclosures
 - ii. Lift Doors
 - iii. Lift cables
11. Large Apertures (including Archways and Internal Lintels)
12. Internal Chimneys
 - i. Stacks and Breasts

Secondary Structures in External Walls (including Bressummer beams and Lintels over apertures for windows and doorways)

13. Miscellaneous Metal
14. Miscellaneous stone
15. Miscellaneous Brickwork

4.2 Components of Architectural and Structural Fabric

4.2.1 Building Perimeter and Cross Walls

The perimeter and cross walls are described as principal structural elements in some detail in the external area observation section 3.2 above. To compliment the description and complete the overall picture from an internal area perspective, would be to add information on the proportions of the walls and the apertures that are formed within them throughout the building.

Reception and other large public rooms such as dining, and ballroom are typically formed into large open plan spaces, bounded by perimeter walls on the east and west elevations and cross walls to the north and south. Ceiling heights have been maximised as was popular in the time of the period architecture. Creating a voluminous space was the trend, however, that therefore results in high structurally unrestrained walls effectively spanning floor to floor.

Bedroom spaces on the upper floors have fewer high walls and are typically set either side of a central north/south corridor, with feature lift enclosures and feature and service stairways. The lift and stair apertures are formed in the floor plates at intervals to accommodate circulation of both hotel patrons and workers.

Survey and inspection of the inside face of structural walls revealed water stained areas throughout, including evidence of mould, indicative of dampness to finishes that is reasonable to assume is transferred, in some cases at least, from the underlying walls. Otherwise localised concentrated water ingress appearing to be initiated at roof (top floor) level has impacted on perimeter walls, exacerbating levels of dampness where they appear at worst.

Water damage is evident on the timber cills inside windows that are likely linked to failed water exclusion materials for example 'putty' on the outside fabric. Rainwater would in these circumstances ingress thus over time accessing and degrading substrate materials such as sandstone and timber (and metal nails connecting timber components).

Where metal lintels have been used above apertures in perimeter walls, they appear where (partially) visible to have suffered from corrosion. In the worst cases corroded metal appears to be in a poor condition

Cracks that are largely hairline and typically of limited length are evident in plaster finishes in localised areas throughout the south section of the building. These could be indicative of movement in underlying structure and so this matter will be considered in this context in the assessment stage of the commission.

Upper sections of cross walls were accessed by the survey team for inspection from within the roof voids. In the north section of the building apertures some 1200mm square had been cut through the modular brickwork to form what appears to be passageways between roof voids. There were no lintels installed and therefore the brickwork is effectively 'arching' across the aperture, a matter considered by Mott MacDonald at assessment stage. In addition, there was no evidence of firestopping materials having been installed to effect fire compartmentation – see also section 8 Building Standards compliance in the IR.

Long spanning structural metal beams likely formed in cast or wrought iron are presumed to form the support that enables the feature archways between the large open plan public rooms on the ground and first floors. The archways in turn form large apertures through the cross walls. There is no evidence to indicate that the structural beams have suffered a loss of performance, although it is assumed that like other partially visible metal structures in internal areas, the archway beams will have sustained a degree of corrosion.

As discussed in section 4.2.2 'suspended floors' below; pockets created at the time of construction in the walls to 'support and fix' timber floor joists, were observed and appear to have degraded, in some cases significantly. The condition of the sandstone in close proximity to the majority of the joist pockets for suspended floors on first, second, third and fourth levels on the east side of the south section of the building is poor to very poor.

By comparison on the west side of the south section and over all floor levels, the joist pockets are generally in a reasonable to good condition. Where floor areas affected by water induced collapsed ceilings exist, as they do in four distinct locations on first, second, third and fourth levels, the condition of the timber joists and the cast iron beams and the sandstone joist pockets are presumed to be considerably worse. In these locations Mott MacDonald assumes the condition of the timber at the joist-ends to be poor to very poor.

Observations in the north section of the Grade listed building established that perimeter and cross-walls were generally in reasonable to good condition.

4.2.2 Suspended Floors (ground, first, second, third and fourth floor)

Formed at the time of construction from what appears to have been good quality period structural class softwood timber, the joists in the accommodation spaces on levels 2, 3 and 4 comprise 'grids' of 50x250mm timber. The joists within these small to medium sized rooms are directly supported on perimeter sandstone and masonry cross, and corridor walls. Within the large open plan rooms on levels 1 and 2 the 50x250mm timber joists are supported on a grid of cast or wrought iron joists and beams. The beams are in turn supported on perimeter and cross walls. Typically, at 400mm centre to centre, the timber joists were observed to be in a widely variable condition throughout the Grade listed building.

Timber tongue and groove (T&G) floor-boards are used to form the finished surface throughout the building, with final covering in carpet and other materials used as required for functional purposes

Except for the basement area, the structure of the suspended floors at ground level are shown on the record drawings to be formed in timber joists spanning onto both perimeter and intermediate 'dwarf' walls in turn formed in masonry on corbelled foundations. This form of construction creates voids below finished floor level that are normally utilised for beneficial air flow.

Observations confirm that joist ends are supported within the perimeter wall structure in pre-formed pockets. The joist ends that support first, second, third and fourth suspended (levels 1, 2, 3 and 4) floors on the east elevation perimeter wall in the south section of the building are in very poor to hazardous condition.

In the worst cases the joist ends are degraded to the point that the entire timber section has disintegrated, leaving the joist effectively unsupported.

Cast or wrought iron joists and beams used in combination with timber joists to form the structure of suspended floors in open plan public areas on floor levels 1 and 2 were not accessible to survey. However, survey information from observations on iron in the basement areas along with assumptions made by Mott MacDonald were combined by Mott MacDonald to speculate on the condition in the text below.

Of note is the depth of the floors, with level 1 being some 900mm and level 2 being some 1200mm; the greater depth shown on the record drawings to accommodate what appears to be and often referred to as 'deafening' material likely for noise attenuation and so comfort levels for the bedrooms on level 3. Deafening material that typically comprises small stones and ash can be extremely dense and heavy causing the cast iron structure to be commensurately deeper.

The survey of the basement area revealed the soffit of the ground suspended floor and so identified the materials and the structure that it comprises. Popular during the period the structure of the floor(s) in the

large open plan public areas appear to be formed in a 'grid' of cast or wrought iron joists, beams and vaulted infill concrete. The concrete soffits in the basement are shaped to form a barrel-vaulted type ceiling, utilising the concrete in its stronger compressive state.

Dimensionally the size and extents of the iron joists, (secondary) beams and the concrete infill was established from limited legibility detail shown on record copies of the original architect's drawings to be: joists – 5.5m long, 178x80 Ironwork; infill concrete – 0.6m long, varying in depth from 3000mm at the point of support to 200mm at the centre of span.

The reference in section 4.2.1 above to the impact of water ingress that appears to have caused the collapse of ceilings (in upper floor levels 4, 3 and 2) applies as stated also to observations on materials and structures recorded in this section. Thus, it is very likely that cast or wrought iron used in floor structure on levels 1, 2 and 3, where inaccessible to direct inspection and exposed to medium to long term water ingress with supports formed by pockets in the sandstone perimeter walls is locally in poor to very poor condition.

Inspections were undertaken to the soffit of the suspended floor in the basement area revealing the cast or wrought iron structure that in places displayed evidence of surface corrosion and/or delamination. Where these defects were observed the cast or wrought iron was deemed to be in a reasonable condition.

By comparison to the east side, observations on the west (of the south section) in areas of floor not impacted by water ingress, both timber and 'pockets' in sandstone walls were found to be in a reasonable condition.

The suspended floors in the north section of the building where inspected on levels 1, 2, 3 and 4, were found to be in a good condition, with the exception of one location on the east.

Evidence of both wet and dry rot was observed – refer to section 5.

4.2.3 Roof Support Structure (including roof void below ridge level)

The roof support structure comprising the upper and lower mansard trusses, rafters and beams, and post timbers, and as described in significant detail in section 3.6 and partially described in section 4.1.1 was found, in numerous locations on the east (south section) of the building to be in an extremely poor to hazardous condition, the following comments relate to these eastern areas.

Extensive areas of degraded timber structure supporting the mansard roof was observed on the east side in the south section of the Grade Listed Building. Vertical, triangulated trusses formed with raking rafter beams support the lower level of the mansard, in with in some locations the raking 'member' of the truss being at best degraded and worst disintegrated 'gone', leaving only a nominal amount of the original timber section.

In a significant number of cases in the east area of the south section of the Grade Listed Building, the entire section of raking, vertical and horizontal members that constitute the mansard, were found to be either moist/spongy or dry and disintegrating to the touch.

Similarly, horizontal 'header' beams supporting the lower vertical trusses and the upper horizontal truss beam supporting the pitched upper section of the mansard, in some locations the 'header' beam was found to be significantly degraded and largely 'gone', leaving only a nominal amount of the original timber section intact. In some cases the entire section of 'header' beam, was found to be either moist/spongy or dry and disintegrating to the touch.

On the truss supporting the pitched upper section of the mansard, only the sawn ends of the top and bottom 'chords', at the connection/support to the 'header' beam, could be accessed to touch using a metal 'podger' rod. In most cases a section inboard from the end of length of some 100mm was found to be either moist/spongy or dry and disintegrating to the touch.

Timber framing that laterally ties and supports the sandstone components of the dormer windows, was expected but not found – a small number of timber ‘chocks’ or ‘packers’ were observed and found in every case to be either moist/spongy or dry and disintegrating to the touch.

By comparison the timber roof support structure on the west of the south section of the building was found generally to be in a reasonable condition.

Access to the voids below the two trapezoidal roofs in the south section of the building was limited, however, evidence recovered from observation confirmed that the timber support structure was in a reasonable condition.

Circular apertures on the steeply sloping face of the clocktower allowed access to view the void below the roofline. Timber structure comprising rafter beams and bracing, were inspected and due to load bearing requirements imposed by Option 2 works the timber was also strength tested – refer section 1.5. The timber support structure was found to be in reasonable to good condition.

The roof support structure on the north section of the Grade listed building was generally in a reasonable to good condition, with the exception of an area on the south/east where rain water ingress has impacted to degrade the timber over time. The timber in this location was found to be in a poor condition.

4.2.4 Cast or Wrought Iron Columns

A single feature cast or wrought iron column appearing to be constructed as part of the original Grade listed building exists between first and second floor levels in what was originally the station ticket office. The ticket office space has since been re-designated as the drawing room. The column structure, not repeated in any other space within the building creates a large open area and carries load from the first floor through ground to the basement foundation level. The load carried by the column constitutes the weight of some 33% of the open plan floor area.

The structure of the column was not accessible to inspection during the survey; however, Mott MacDonald assumes that moisture from water ingress will have impacted to cause surface corrosion. As such Mott MacDonald considers the iron material to be in a poor condition and so requires at least some level of rectification.

4.2.5 Load Bearing Masonry Pilasters and Partition Walls

There is evidence of hairline cracking in walls throughout the floor levels that albeit in the finishing materials, is indicative of underlying structural movement. However, the architectural (and underlying structural fabric) of load bearing walls throughout the building appeared to be generally in reasonable **condition**. Account must be made for dampness and mould that is evident as this can affect the durability and structural performance of affected materials – this matter is covered in the assessment in section 5.0 of the IP.

4.2.6 Feature (and ancillary) Stairway Structures

Formed and located in the reception area on the ground floor of the south section, adjacent to the main entrance, the feature stairway is a wide, open structure, rising from ground to first floor. A less wide and less ornate structure is formed to access the corridors and bedrooms on the second and upper floors.

The structure appears to be formed from a inclined spanning cast or wrought iron ‘stringer’ beam on the outside, supporting treads spanning horizontally to a load bearing wall on the inside of the stairway. The structure appears to be clad in timber finishes to the stringer beam and lathe and plaster to the stairway soffit.

Architecturally ornate balustrades provide protection to the outside line of the stairway within the open stairwell.

Appearing from the original construction, ancillary service and escape-way stairs appear to be formed in cast iron modular 'stringer' and 'tread' support, with finished stone steps and. The baluster uprights appear to be form iron with a timber handrail to finish. Modern interventions have been made to introduce additional access stairs that appear to be formed entirely in mild steel.

Observation and inspection of both feature and ancillary stairways indicate that the structures are in a reasonable to good condition.

4.2.7 Lift Enclosure and Lift Support Structures

The lift enclosure formed in metal framing with metal mesh infill along with the concertina type folding door appear to date from the original construction. However, the lift control panel, lift carriage and lifting cables and gear all appear to be of a modern style, type and configuration.

Limited observation and inspection indicate that the lift and lift support structures are in a reasonable to good condition.

4.2.8 Ground Bearing Floor slabs

Appearing on record drawings that show the original architectural detail to be formed likely from unreinforced concrete at formation level in the basement in the south section of the building, the ground slab was only visible where there are no floor finishes.

Where the slab was accessible to survey and inspection, hairline cracks and impacts from presumed historic mechanical damage were visible. However, in general terms throughout the structure of the slab appeared to be in a reasonable condition.

It was not clear if waterproofing presumed to include either external or internal (or both) applied tanking is in place and functional. Ponded water was in evidence throughout the basement area presumed to come from either ground water, or water leaking from services pipes and/or water storage tanks. Rainwater ingress through the building envelope is another possible source.

4.2.9 Foundations

components of foundations as depicted on the architectural record drawings were inaccessible to survey and inspection throughout the Grade listed and the extended building. However, structural cracks that were observed on the external face of the perimeter walls on the east and on the south elevations of the Grade listed building and on the west elevation of the two-storey extension on the south/west of the south section of the Grade listed building indicate that there could be defects at foundation level. This matter is examined at the assessment stage and the detail covered in section 7.

Mott MacDonald has assumed otherwise that the foundation structures are in a reasonable condition.

5 Dampness and Rot

5.1 General

No rot and dampness surveys were undertaken as part of the survey and inspection, however, there is evidence of rising damp and of elevated moisture levels in the internal atmosphere. There is also evidence of both wet and dry rot on elements of structural timber that supports the upper mansard roof.

In the event that the building is to be restored back to viable condition, it is recommended that a basic damp and rot survey is undertaken ahead of any works to establish levels of dampness and rot in the affected materials.

6 Causation

6.1 Primary and Secondary Defects Categorisation

This section of the report presents in sequence; the details of the primary and secondary defects that have been determined by assessment, and then the details of the background, cause and effect.

Defects found during the survey and investigation have been recorded and categorised as Red, Amber and Green (RAG) – this process is explained in more detail below. A number of the defects were deemed to be so severe that they were considered to be hazardous and so immediate action was required.

The authority categorised the hazardous defects as Safety Priority 1 (SP1) issues - the SP1 issues (along with mitigation) are as follows:

- Compromised Timber Roof Structure – south section (**Option 2 Encapsulation works installed**)
- Compromised Timber Suspended Floor Structure - south section (**access to building prohibited**)
- Unstable upper section of feature Clocktower Chimney (**upper section of chimney dismantled**)
- Fragile elements of architectural detail – north and south façades (**nylon netting installed**)

Set out below is Mott MacDonald's view, at the end of the assessment in commission Stage 2, on the causes of Primary and Secondary defects observed in the External Area and Internal Area surveys. Each defect is listed along with the cause and the residual risk and the timeframe the risk is controlled by.

To provide context to the defects, Mott MacDonald has determined the level (category) of severity of each and included the colour-coded outcome in the Defects Tables. Severity is rated by colour-coding; Red, Amber and Green. The codes along with a definition of each are shown in Table 1.

Category	Definition
RED (Severe defect)	Structural item significantly failed and/or at risk of compounding damage to other building components. Defect requires addressed in the current to short term.
AMBER (Major defect)	Structural item at/near end of normal service life, major defects, isolated failures. Defect requires addressed in the short to medium term.
GREEN (Minor defect)	architectural/structural item that is largely cosmetic that requires attention in the medium to long term.

Table 1: Severity Categorisation

It is of significant note that the grade listed building's south section is in a far more degraded condition when compared to the north. Mott MacDonald's view on this is covered in sections 9 and 10.

The principal causes of the primary defects are presented in section 6. Each primary defect is a direct result of one of the following sources:

- Environmental wind, rain and temperature
- Failed and/or missing Water Exclusion systems
- Inactive Building Management System and Maintenance regime
- Concentration of stress at susceptible points of structure

Vibration generated by adjacent rail and road traffic is considered by Mott MacDonald to be a factor that has added to the degradation of the subject buildings.

Primary defects are those deemed to have had to date and likely in future to have the greatest impact (risk) on condition and on current and short to medium term structural performance – these defects are recorded and rated in the defects tables as Red.

Matters that give cause for concern and so considered to be a risk, are listed below each Primary Defect in the following narrative. Each risk is presented along with the period (term) considered to be when the risk will become a cause for concern. A 'Risk Log' to assist the authority to manage concerns going forward is recommended in Section 10.

The word 'likely' is used in the definition of a defect, where the aspect being defined has not been visually observed and so, for good reason, it has to be conjectured.

Longevity is defined by Mott MacDonald as terms (periods of time) and referenced throughout this report as being; current, immediate, short, medium and long-term. Each period is deemed for the purposes of this report to be:

- Current term (within the last 12 months to date)
- Immediate term (within 1 to 3 months)
- Short term (within the next 1 to 2 years)
- Medium term (within the next 2 to 5 years)
- Long term (within the next 5 to 10 years)

Secondary Defects are those deemed by Mott MacDonald to be reportable as being medium, or long-term maintenance issues and/or being the matter of some concern if not dealt with accordingly.

Primary Defects

Hazardous condition of principal components of timber structure

- Vertical and horizontal Waterproof barriers incorporated in the building envelope missing or breached:
 - Structural roof support timber impacted by rain water penetration has degraded over time (in some locations significantly) resulting in a reduction in structural capacity
 - Physical connection (formed by metal nails or by friction) between structural components and supports also adversely affected
 - Over time structural timber in suspended floors impacted by water has degraded (in some locations significantly) resulting in a reduction in structural capacity (in the worst locations to zero):
 - Physical connection (assumed formed originally by metal nails or by friction) between structural components and supports also adversely affected
 - Over time the surface of sandstone 'pockets' formed to support structural timber joists and impacted by water have degraded, due to the continual presence of water and the wet/dry cycle
- **Current/Short Term Risk**

Local failure of timber to timber connections

Local failure of timber to sandstone connections

Local failure of timber components

Local collapse of sections of roof support structure

Section(s) of roof detach and become airborne falling to ground

Section(s) of suspended floor detach falling to floor below

Localised failure or collapse leading potentially to progressive (floor-on-floor) collapse of suspended floors

Hazardous condition of the external Escape Stairway on the west of the north section

- Vertical and horizontal Waterproof barriers incorporated in the building envelope missing or breached:
 - Metal structure including stair gantry and raised walkways impacted by rain water penetration and a lack of maintenance has corroded over time (in some locations significantly) resulting in a reduction in structural capacity
 - Stair gantry post and beam frame appears unstable due largely to absence of a physical connection (assumed best formed by resin-anchors) to the building and levels 1, 2 and 3
 - Raised walkway stringer beams and connection plates
 - Physical connections (formed by rivets and bolts) between structural components and supports also adversely affected
- **Current/Short Term Risk**
 - Local failure of connections leading to local collapse
 - Instability leading to a fall if accessed and used

Damaged Pilaster adjacent to external Escape Stairway on the west of the north section

- Pilaster to LHS of feature window in perimeter wall is significantly damaged at mid-height appearing to be as a result of vehicular impact
 - Local failure of pilaster/lintel leading local collapse of lintel/wall
 - Instability leading to a fall if accessed and used
- **Current/Short Term Risk**
 - Any further impact or de-stabilising event could lead to collapse

Vandalised Parapet structure on extended two-storey building located at the south/west

- external structure of the extended two-storey building located at the south/west corner of the south section of the grade listed building
Dislodged capping stones at roof level likely due to vandalism is presently loose and liable to further acts of vandalism
- **Current/Short Term Risk**
 - Capping stones can be readily pushed and fall onto the adjacent public footpath

Wrought Iron principal column and beam (and joist) grillage components of structure

- Vertical and horizontal Waterproof barriers incorporated in the building envelope missing or breached coupled with collapsed ceilings at floor levels 1, 2, 3 and 4:
 - Likely over time cast iron impacted by water (and dampness caused by the presence of water) has degraded the 'parent' material resulting in a reduction in structural capacity:
 - Physical connection (formed by bolts and/or rivets, metal nails or by friction) between structural components and supports likely also negatively impacted
- Water accessing basement from upper and potentially lower (sub-slab) levels:
 - Probable rainwater from ingress through the building envelope
 - Possible ground water ingress through retaining walls or ground bearing slab
 - Probable potable water from fractured or broken pipes and/or storage tanks

- Likely over time cast iron impacted by water (and dampness caused by the presence of water) has degraded the 'parent' material resulting in a reduction in structural capacity
- Physical connection (formed by metal rivets or bolts) between structural components and supports likely adversely affected

- **Short/Medium Term Risk**

Local failure of iron to iron connections

Local failure of iron to sandstone connections

Local failure of iron to timber connections

Section(s) of suspended floor detach falling to floor below

Localised leading potentially to progressive (floor-on-floor) collapse of suspended floors

Wrought Iron lintels (conjectured to be) above feature apertures (windows and doors) secondary structure

- Vertical and horizontal Waterproof barriers incorporated in the building envelope missing or breached coupled with collapsed ceilings at floor levels 1, 2, 3 and 4:
 - Likely over time cast iron impacted by water (and dampness caused by the presence of water) has degraded the 'parent' material resulting in a reduction in structural capacity:
 - Physical connection (formed by bolts and/or rivets, metal nails or by friction) between structural components and supports likely also adversely affected

- **Short/Medium Term Risk**

Local failure of iron to sandstone connections

Local failure of iron to façade stone connections

Localised progressive, course-to-course, cracking/failure of supported blocks

Concentration of stress evidenced by significant structural cracks in perimeter walls

- Significant vertical cracks propagating from above existing ground level on south and east elevations:
 - Sustained localised lateral (north/south) type directional movement of the south gable wall extending from above existing ground to third floor level, due to loss of structural tying of suspended floors, that has caused damage to the gable wall in the form of stress cracking;
 - Sustained localised lateral (east/west) type directional movement of the east elevation wall extending from above existing ground to third floor level that has caused damage to the gable wall, due to loss of structural tying of suspended floors, in the form of stress cracking;
 - Deemed to be linked to and compounded by vibration and capacity of underlying rock strata/soils
 - Potentially linked also to failure and leakage from underlying water culvert

- **Medium Term Risk**

Local failure of foundation

Local collapse of wall section

Dislodged, dislocated and/or cracked and broken sandstone blocks

- Vertical, lateral and rotational movement of sandstone blocks in perimeter and cross walls and structural architectural features such as pilasters and lintels around Dormer and other large windows and doors deemed due to:
 - Expanding roots from vegetation
 - Corroding and expanding historic metal inserts
 - loss of structural connection to adjacent principal structure (timber framing)
 - loss of structural connection to adjacent secondary structure (lintels)
 - deteriorated and/or missing mortar in perp-end joints and bedding
 - deemed to be linked to and compounded by vibration and capacity of underlying rock strata/soils

- **Medium Term Risk**

Falling objects

distribution of load to adjacent structure - overloading

Option 2 Structure loading from wind compounding Primary (and Secondary) defects

- Temporary load (force action) on chimney section of cross walls imposed by Option 2 works
 - structure is in depleted condition with less capacity to sustain loading
 - dislodged sandstone blocks susceptible to further movement/de-stabilisation
 - cracked/broken sandstone blocks susceptible to further loss of capacity
- Temporary load (force action) on chimney clocktower roof imposed by Option 2 works
 - structure is dependent upon condition with less capacity to sustain loading
 - dislodged sandstone blocks susceptible to further movement/de-stabilisation
 - cracked/broken sandstone blocks susceptible to further loss of capacity
- Absence of physical structural connection between key components of structure
 - Load cannot be adequately shared or transferred between structural components
 - Structural components become susceptible to movement/local de-stabilisation
 - Load cannot be transferred in pre-determined sequence so risk to global structural stability of Option2 frame
- Depletion of sandstone section generally due to exposure factors:
 - highly detailed architectural thin and fragile sections and/or edges:
 - particle/bond breakdown sandstone/depletion of fragile material under wind action
 - cracks in sandstone exposed to wind erosion and freeze/thaw cycle

- **Medium Term Risk**

Local failure of chimney structure

Local failure of transfer structure (6 nr. Locations, 1 nr on each chimney stack)

Re-distribution of load to adjacent chimney structure(s) – overloading

Local failure of Option 2 structure

Sections or components of Option 2 structure detach and become airborne falling to ground

Degraded Masonry Principal piers and Cross-Walls including perimeter retaining walls and corbelled foundation components of structure in basement

- Vertical and horizontal waterproof barriers incorporated in the building envelope missing or breached, and fractured or broken water supply pipework, coupled with collapsed ceilings at floor levels 1, 2, 3 and 4:
 - Over time masonry impacted by water (and dampness caused by airborne moisture) has degraded the 'parent' material resulting in a reduction in structural capacity:
 - Physical connection (formed by bolts and/or rivets) between structural components and supports likely negatively impacted
 - deemed to be linked to and compounded by vibration and capacity of underlying rock strata/soils
- Potential undermining of foundations due to running water from possible conjectured broken culvert underlying (east to west direction) the south section of the building:
 - Scouring of underlying sands and gravels
 - De-stabilising foundations locally
 - Local collapse of foundations
 - Local collapse of perimeter and/or cross walls
 - Local collapse of ground and first level suspended floor(s) due to loss of support to iron column
- Potential compounding effects on principal structure due to vibration from adjacent rail and road:
 - Compounding effects on sub strata underlying grade listed building adversely affecting existing stress cracks, fractures and broken and dislodged brickwork
 - Compounding effects on sub strata underlying concrete foundations below extended building at south/west adjacent to distributor road overbridge adversely affecting existing diagonal stress cracking in sandstone blocks

● **Medium Term Risk**

Localised failure of masonry structure

Local failure of support to primary beam framing to masonry structure

Re-distribution of load to adjacent masonry structure(s) – overloading

Degraded/Damaged Unreinforced Concrete Basement Area structure

- Vertical and horizontal Waterproof barriers incorporated in the building envelope missing or breached, and fractured or broken water supply pipework, coupled with collapsed ceilings at floor levels 1, 2, 3 and 4:
 - Over time unreinforced concrete structure formed between iron beams in the suspended ground floor has degraded by mechanical impact and movement damage has been impacted by water (and dampness caused by the presence of water) further degrading the 'parent' material resulting in a minor reduction in structural capacity and durability:
 - Stress cracking at various locations typically propagating from acute corners or cold joints
 - Water accessing cracks likely carrying deleterious substances eroding parent material
 - Over time unreinforced concrete structure ground bearing floor has degraded by mechanical impact and movement damage has been impacted by water (and dampness caused by the presence of water) further degrading the 'parent' material resulting in a minor reduction in structural capacity and durability:
 - Stress cracking at various locations typically propagating from acute corners or cold joints
 - Water accessing cracks likely carrying deleterious substances eroding parent material

- **Medium Term Risk**

Localised failure of unreinforced concrete infill structure to suspended floor

Local buckling failure of secondary iron beam (potential loss of lateral tying from infill concrete)

Re-distribution of load to adjacent secondary/primary beams – overloading

Settlement of foundations evidenced by structural stress cracks in perimeter walls

- Significant vertical cracks conjectured to propagate below existing ground level (refer also IAS below):
 - deemed to be linked to and compounded by vibration and capacity of underlying sub strata/soils
 - potentially also linked to failure and leakage from underlying water culvert

- **Medium to Long Term Risk**

Local failure of foundation

Collapse of wall section

Secondary Defects

- Stress Cracking in mortar beds and pointing in loadbearing sandstone block walls
 - prevailing and/or leeward (suction) wind and/or vertical, horizontal or rotational movement due to other mechanisms cause removal of mortar in the **medium to long-term**
- Break down and failure of water exclusion systems servicing the roof and walls
 - further ingress of rain water causing general degradation in the **medium to long-term**
- Missing rainwater downpipes providing drainage to roofscape
 - ingress of rain water causing general degradation in the **medium to long-term**
- Efflorescence on sandstone block walls
 - break down of the surfaced layer of sandstone causing a loss of section in the **long-term**
- Airborne debris deposited in re-entrant corners, joints and other ‘closed’ locations
 - Build-up sufficient to allow vegetation to take hold resulting in root expansion in the **medium to long-term**
- Stress cracking in sandstone blocks
 - Ingress of rainwater resulting in damage from cyclical Freeze/thaw resulting in loss of section in the **medium to long-term**
- Degradation of metal Inserts in sandstone walls and chimney stacks
 - Expansion causing further cracking allowing ingress of rainwater resulting in compounded damage from cyclical Freeze/thaw resulting in loss of section in the **medium to long-term**
- Degraded timber where exposed to direct (windward or vortex type wind)
 - Causing further drying allowing ingress of rainwater resulting in damage from cyclical Freeze/thaw resulting in loss of section in the **medium to long-term**
- Defects evident on the external structure of the extended two-storey building located at the south/west corner of the south section of the grade listed building
 - Diagonal cracking in mortar beds emanating from corners of windows indicative of vertical movement due to later deflection and/or minor settlement of foundations in the **medium to long-term**
 - Dislodged capping stone at roof level likely due to vandalism is a concern in **current term**
- Stress Cracking in mortar beds and pointing in modular brick load bearing internal walls

- Internal areas of cross-walls and other load bearing walls suffer vertical, horizontal or rotational movement due to various mechanisms linked to external structures cause breakdown of mortar in the **medium to long-term**
- Stress Cracking in finishes on walls and ceilings
 - ingress of rainwater resulting in damage from water in the **medium to long-term**
- Dampness staining on finishes indicative of rising damp in load bearing substrate walls, where mortar and/or sandstone and brick may deteriorate
 - Internal areas of brick and mortar deteriorate with structural capacity and local stability diminishing over time in the **medium to long-term**
- Wet rot in structural timber
 - high moisture content will lead to a significant weakening of the timber fibre and therefore loss of structural capacity in the **medium to long term**
- Dry rot in structural timber
 - Fungal growth that attacks timber and masonry lead to a significant weakening of the timber fibre and therefore loss of structural capacity in the **medium to long term**

7 Mechanisms that have Caused Structural Distress in the Building

7.1 Concentrations of stress and vertical settlement

The building has an extensive basement that is formed below the ground floor in the south section.

Configured over a large area of the footprint of the ground floor, the basement (according to record information) is some 4m floor to ceiling, extending to the full width of the building east to west, and to a line some 15m north of the south gable. The basement extends to the north by some 50m, being finally curtailed some 5m beyond the north gable at the clocktower.

Three areas of vertical and diagonal 'pattern-type' cracking: one on the south and two on the east elevations of the south section of the building were established that are considered to be significant. Figure 2 shows the pattern-type cracking on the east elevation.

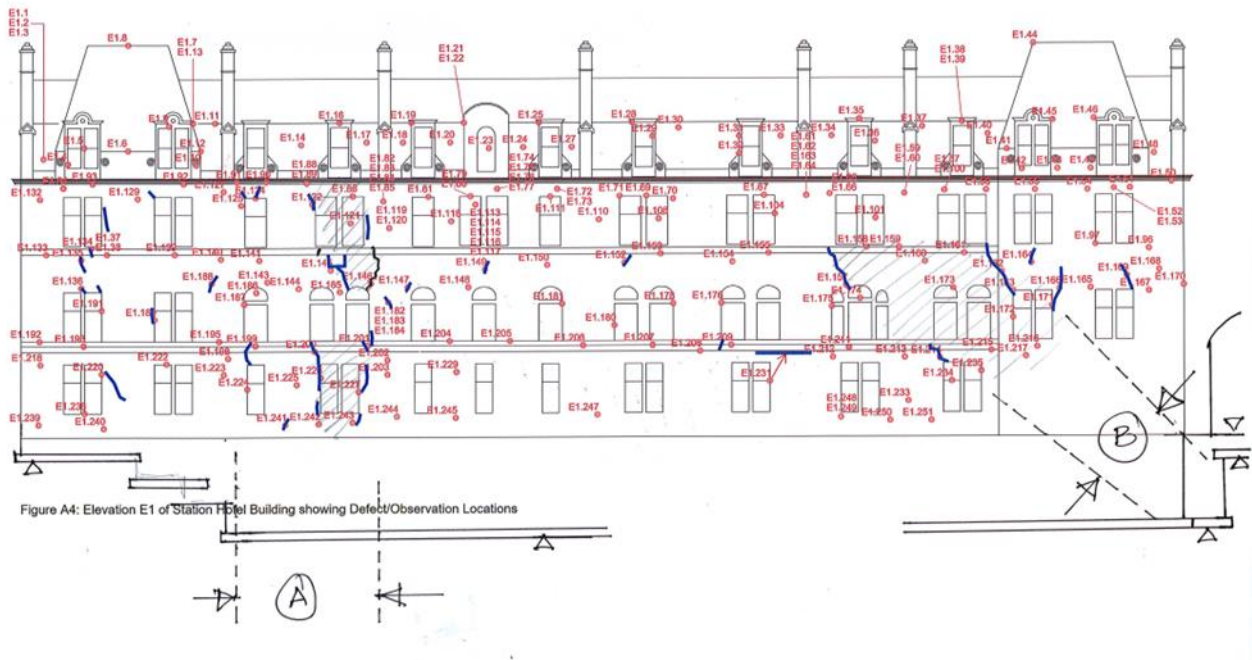


Figure 2: East Elevation showing 'patter-type' cracking in areas A and B

Source: Mott MacDonald

In both cases the cracks are assumed to have propagated through the entire thickness (section) of the perimeter wall. Information sufficient to allow a full assessment to determine the cause of the cracks was not available at the time of writing. However, the available evidence indicates that the cracks are due to a combination of causes; concentrations of stress due to stepped foundations, and minor settlement.

Established to be above the stepped foundation to the south of the basement and the single-point step to the north; the two areas of cracks on the east elevation tend to emanate somewhere between external ground and foundation level.

In the case of cracks towards the south, it is considered that in most cases they originate from a single-point stress fracture in the sandstone, that then reflects and propagates upwards (to eaves level) and through the wall section.

The cracks to the north are more diagonal appearing to emanate from below ground level, again propagating to eaves level. The pattern of cracking abruptly breaks around first floor level, however, the perimeter wall appears to have been rebuilt in this area to infill apertures for historic windows and doors. The apertures are shown on record drawings and the reason for the infill appears to be to accommodate a wall-mounted war memorial.

Importantly, there is no evidence of a repeat of the pattern-type cracking that was observed on the east elevation, on the west. Thus, it appears that mechanisms of force exist on the east that do not exist on the west. This matter is addressed in the conclusions in section 9.

The pattern-type cracking on the south (gable) elevation was observed to emanate between a point some 2.5m above ground level propagating vertically for some 5.5m. As such the cracks do not appear to emanate from below ground and therefore foundation level. The crack type is more likely to be related to the absence of lateral structural tying between the suspended floors and the gable wall.

7.2 General Deterioration of Structural Fabric

Both the external and internal areas of the north section of the Grade Listed building were observed to be generally in reasonable to good condition with very little sign of structural degradation internally. The main exceptions to this were observed on two localised external areas of the west and one external area of the east elevations.

On the east, defects were observed near the northern most point of the south section. Whilst on the west most defects on the building being in proximity to and including the escape stair. Components of the stair structure, including the stair gantry and the raised walkways being significantly degraded by corrosion.

At these locations the deteriorated condition of the sandstone in the north section is evidenced by open joints, surface and deeper cracks, extensive white staining and wind erosion. In addition to environmental sources, mechanical impact damage has caused serious localised degradation of a pilaster structure.

In contrast to the reasonable to good condition of the north section, the condition of the south section of the Grade Listed building was found to be poor to hazardous.

Observations from the survey have identified a significant breakdown of structural fabric, particularly in the mortar bedding supporting and positionally fixing the sandstone blocks, and the deterioration of sandstone 'parent' material in the form of loss of section.

Mortar where it has disintegrated partially or in full, from the underside or between blocks will allow the block to shift downwards and/or sideways. This in turn may cause a cracked or fractured block to split/fragment, with elements detaching and falling to ground.

In addition to issues with concentrations of stress and settlement discussed above, cracks in sandstone have been caused by various other mechanisms ranging from natural fractures in sandstone to a local failure in support from underlying sandstone structure. The latter can be seen in sandstone blocks above windows, where the lintel appears to have failed, causing in turn the sandstone facing to the lintel to stress, crack (fail). The stress is then transferred to the sandstone blocks above causing the crack to propagate.

Load carried by failed blocks will then distribute to adjacent blocks, which could lead to over-loading and consequent compounding damage.

Further cracks due to ongoing corrosion of historic metal inserts in perimeter walls and chimney stacks present loss of structural capacity, maintenance and safety issues. These predominate defects on the surface of the south gable wall and the west elevation of north section adjacent to escape stairs.

On external faces of perimeter walls, localised sandstone blocks were observed to be degraded by weather erosion. Wind action on the sharp, exposed edges of cracks causes natural 'wear and tear', which allows moisture to access and cause delamination and 'spalling' of surface layers that may later detach and fall to ground.

Localised vertical and horizontal movement of sandstone blocks on external elevations is in evidence throughout the building's façade and feature chimney stacks. Cracking and breakdown of mortar in bedding and pointing for the blocks is extensive. Mortar where missing and the consequent movement of sandstone blocks is considered to be largely due to natural environmental action - wind (driving rain) and cyclical freeze/thaw expansion of water, removing fragmented mortar, as well as the expansion of roots from vegetation.

Vegetation was more obvious on the east elevation(s) despite the prevailing wind blowing from the west.

Prevailing winds would prevent airborne dirt and debris, and seeds from vegetation deposited in 'nooks and crannies' to remain for long. Thus, the wind prevailing on the west elevation would prevent seeds taking root and growing to any extent. Contrary to this, the lesser wind (more acting as a suction) on the east would allow seed to take hold and to develop (grow) and if left unattended over a long period, the roots to expand.

Plant growth on the east elevation was observed to have been at an extreme level before removal in the tactile survey. Roots in some cases were almost small-tree-like in size, with diameters being in the worst cases up to 20 to 50mm. In these locations affected sandstone blocks have physically shifted by similar amounts, causing some of the worst defects observed.

Vegetation on the east appears to have become predominant in the absence of general maintenance so internal areas were viewed from outside.

As recorded above, access to survey and inspect areas inside the buildings was significantly limited.

Cracks observed inside the building, on the upper floors were largely hairline on finishes and so considered to be cosmetic. There was little or no evidence that cosmetic cracks were reflective of movement or distress in underlying structural cracking.

Structural supports formed in masonry in the basement such as piers and walls are placed to support vertical chimney stacks and primary beams in suspended floors. With five storeys of vertical dead load and lateral wind load there are high concentrations of stress on these supports that over time inevitably produce stress cracks.

Where cracks in masonry were visible, the locations and form, and patterns of cracking, and the level of degradation of structure was largely as expected for a building of the subject type and age.

Damage to the concrete ground slab in the basement from structural cracking, as is likely to be as a result of drying shrinkage at the time of placement coupled with some likely localised vertical settlement of structural make-up and/or soils underlying the ground slab.

Mott MacDonald considers the cracks that were visible and observed in the basement to be of limited structural significance and largely inactive.

7.3 Structural configuration and performance; Stability and Load Transfer

In order to determine the consequence and impact of the primary defects it is first necessary to define the principal and secondary structure that was designed to sustain the building against force action.

To provide focus for the following explanative text, we list the principal structural systems in the south section of the building that have been or likely to have been significantly impaired by the defects:

- **Super Structure**
 - Timber Roof
 - Upper and lower mansard frames
 - Longitudinal structure (north/south); cross-bracing, ridge and eaves beams
 - Transverse structure (east/west); trusses and A-frames
 - Sandstone Walls
 - Perimeter and Cross-Walls
 - Longitudinal structure (north/south); vertical shear wall
 - Transverse structure (east/west); vertical shear wall
 - Suspended Timber Floors
 - Levels 1, 2, 3
 - Longitudinal structure (north/south); horizontal shear plate
 - Transverse structure (east/west); horizontal shear plate
- **Sub Structure and Foundation**
 - Sandstone Walls
 - Perimeter and Cross Walls (in south section)
 - Longitudinal structure (north/south); vertical shear wall
 - Transverse structure (east/west); vertical shear wall
 - Longitudinal structure (north/south); ground bearing corbelled foundation
 - Transverse structure (east/west); ground bearing corbelled foundation

Working together in unison the component parts of structure must act as one and be sufficiently 'substantial and robust' to provide the necessary structural stability and load-transfer.

Stability of the structure is the primary requirement and is the means by which the structure (and building) remains upright and intact, and safe in all conditions and events.

In structural engineering terms, primary structure acts with the 'assistance' of secondary to 'capture' the force (load) imparted by the environment in the form of wind, snow and temperature. These loads act in combination with the 'self-weight' (dead load) produced in turn by the materials used to construct the building. The total of all the combined loads 'captured' are then transferred in a pre-determined (by the structural engineer) controlled and safe manner to the building's foundation.

The roof support structure formed entirely in structural grade timber comprises two structural frames. The top frame is formed by timber trusses, that are positionally 'fixed' by ridge and eaves beams, that along with sarking form the upper mansard. The bottom frame formed by timber rafter and framing posts, supported on the 'head' of the perimeter wall and by the eaves beam, faced with sarking forms the lower mansard. Bracing boards connected by nails to the top and bottom frames provide longitudinal (north/south) stability, with the top and bottom frames providing lateral (east/west) stability.

Lateral (east/west) 'thrust' force produced by the self-weight of and gravity acting on the roof is normally sustained within the structural frame supporting the roof. A common solution for roof support (and framing) is the truss, with the bottom chord of the truss sustaining the thrust force.

Functional framing and load transfer are provided by the timber roof frames and modular masonry walls formed in the east/west and north/south orientations. Described in section 3 as perimeter and cross-walls these structures, act in combination with the roof support and suspended floor structures to provide load transfer and overall (global – 360 degree) stability.

Loads 'imposed' by human activity must also be accounted for, including self-weight and the dynamic effect of movement (walking and dancing in large numbers). Modern design standards define this type of loading as 'serviceability', with controlling parameters (such as the factoring of loads, vertical and horizontal deflection limits and vibration of suspended floors) set to protect levels of comfort and avoid damage to 'brittle' finishes (such as glass).

Dynamic effects oblige the structural engineer to account for any other (abnormal) loading such as extreme (hazard) wind effects and from other natural phenomena, such as earthquakes. Vibration emanating from large machinery (where it exists) and/or heavy vehicles such as those using rail and road would also be considered. Codes of practice for engineering design also increasingly refer structural designers to climate resilience (mostly flooding and extreme wind) as a contemporary compounding key consideration.

The capacity of geological 'strata' underlying the building's foundation are assessed in the early design stage and the foundations designed accordingly to limit vertical settlement.

Primary and secondary structure are configured and designed by the structural engineer to ensure that the building 'performs' in a serviceable, durable and safe manner over the required (specified) design 'life' of the building.

It is essential therefore that the key structural functions (structural components, materials, connections and fixings) are routinely monitored and fully maintained.

It is essential therefore that the key structural functions (structural components, materials, connections and fixings) are routinely monitored and fully maintained.

7.4 Consequential Impact of Defects on Structural Performance and serviceability

Normal operations relating to the adjacent rail and road infrastructure may have routinely produced 'damaging levels' of vibration.

The levels of vibration within the strata underlying the building is likely to have had an effect on the building fabric. It is unlikely even in the more susceptible types of fabric that the level of vibration imparted to the building would be the cause of the damage. However, if a structure was in a pre-damaged condition then it is likely that a force action consequent to vibration could exacerbate the damage.

7.5 Passive and Reactive (and Care and) Maintenance

Long term 'serviceability' of the building structure requires comprehensive maintenance.

In modern times 'passive' and 'reactive' maintenance would form part of a robust Building Management System, with the former being implemented by regular planned, routine action and the latter by regular monitoring and intervention type action as required.

It is clear that neither passive or reactive maintenance regimes have been implemented for some time, perhaps as much as 6 to 10 years or more. As a consequence, rain water ingress from defective sources such as gutters and downpipes and roof flashings, has been facilitated such as to access susceptible items and components of structure.

Compounding the effects of rain water, is water from broken and failed water supply systems such as pipes and storage tanks.

We have established that the whole of the south section of the building along with the bedroom accommodation (on first, second and third floor) in the north section ceased to be occupied in 2013. In normal circumstances where a building becomes unoccupied a level of 'care and maintenance' is established and operated. Thus, the very basic functions of the building including wind and watertight, security, structural stability and safety, are attended to and maintained.

A number of historic repairs to structural cracks (stitching) and replacement of sandstone blocks (indenting) are apparent on walls in the grade listed building that are examples of reactive maintenance that has been undertaken. These appear to date from quite some time ago, perhaps 30 - 50 years or more.

Fire so far as the risk of an event such as accident and/or arson is possible, is considered in this report on the basis only of the combustibility of structural material such as timber. In the event that a spark or naked flame were to be presented to defective accessible timber in the south section roof, rated RED, a fire would be deemed inevitable. A fire in the circumstances would likely spread rapidly due to the extremely dry nature of defective timber that exists in the roof since it has been protected from rain by Option 2 works.

The risk of fire is otherwise presently being considered in a separate risk and mitigation assessment by the authority.

Whilst the ground floor area of the north section was occupied and used daily by both Network Rail and Scot Rail, it is obvious that even the basics of 'care and maintenance' were absent in the south and upper areas of the north sections.

The partial occupation of the north section goes some way to explain the reasonable to good condition the north compared to the poor to hazardous condition of the south.

8 Compliance with Building Standards (Scotland)

The Scottish Building Standards (BS) set out applicable minimum requirements that, by law, must be applied to all new buildings, alterations and conversions to existing buildings, within the Scotland.

In the case of the Station Hotel buildings, the category of the BS' that (where appropriate) applies is titled in the BS document as 'Non-Domestic'.

As a general rule, BS only apply to new work and as such there is no absolute requirement to upgrade existing buildings to meet the standards.

It is only a requirement to ensure that if alteration works are undertaken, where a building did not comply with the regulations before any alteration work, it is only a requirement to ensure that it is no more unsatisfactory than was the case beforehand. The exception to this is power, heating and ventilation, plumbing, fire and water supply systems.

As a historic Grade Listed building, the original Ayr Station Hotel will not be explicitly required to comply with BS requirements, however, under this premise it is understood that the failure to fall within the requirements, does not necessarily result in non-compliance.

As such, the subject building(s) have been assessed against building standards in this section, however, due to the building construction predating most of the regulatory requirements the assessment will consider the requirements but will note where suitability is implied or where it is not necessarily required.

This compliance check is presented against the background of undertaking remedial and rectification works to restore the building back to a baseline level of viability – this is deemed by South Ayrshire Council Building Standards Services to be an interim stage pending a decision on future planning. Therefore, there are no points of reference in this section to conservation or restoration of historic features.

A definition for the interim stage has been developed thus:

Restore to viability Baseline Building Standards (Scotland):

Rectifications required to restore the building's **basic** structural, architectural and building services performance; in essence a fully supported, stable and connected and/or anchored structure and wind and watertight and insulated envelope; and minimum connected and functioning services providing heat (frost protection system), small power, lighting (emergency type only) and water.

Included are:

- Basic design and/or minimum operational life for:
 - Architectural and structural fabric
 - Minimum M&E including emergency lighting and Utility services for power
 - Fire suppression
 - Fire stopping
 - Fire alarm

Excluded are:

- Fit-out and any rectification to finishes
- Conservation/restoration of both external and internal architectural features

- Any exceptions will be identified
- Full power and lighting
- Potable water
- Telecommunications
- Lift systems
- Corridor and stairway widths
- Fire strategy
- Future proofing

The BS clauses numbers deemed applicable for review are stated for reference purposes.

- **Section 0.8.5 - Fitness of material 0.8.5:**

Being of an extended age the hotel has not utilised elements with CE marking to confirm the fitness of materials. The hotel construction predates the use of CE marking and therefore cannot comply with this unless remedial/restoration works are carried out. The building however is generally of conventional standard construction and utilises standard materials for the age and likely conforms with fitness of materials (when considering past-experience per 0.8.5 allowances).

- **Section 0.8.7 - Materials susceptible to change in their properties:**

Certain materials used in the construction of the hotel such as structural timber roof elements are susceptible to degradation given certain environmental conditions. This is demonstrated through the poor state of roof timbers at the hotel due largely to water ingress. As such the materials no longer perform to the standard expected at the time of design/construction.

- **Section 0.8.8 - Ways of establishing the suitability of workmanship:**

The construction of the hotel predates CE marking and national standards however the work methods, materials and construction are common for the time and are therefore deemed acceptable based on past-experience of similar buildings.

- **Section 1.1 Structure:**

- 1.1.2 Loading – The construction of the building predates the requirement for compliance with BS/Eurocodes however is considered to be designed to comply with the regulatory standards of the time.
- 1.1.4 Nature of the ground – Generally the foundations appear to be functioning adequately. There are a number of cracks identified during the surveys which may indicate differential settlement of the building. This is still to be determined.
- 1.2 Disproportionate collapse – A detailed assessment has not been carried out however it is unlikely that the building will comply with these requirements. It should be noted that the construction of the building predates requirements for disproportionate collapse and as such there is no general requirement to upgrade the building to comply with this requirement – unless suspended floors are replaced or where defects are due to lack of structural tying.

- **Section 1.A.1 Structural Design Standards:**

The building predates the use of the noted building design standards however is considered to be constructed commensurate with good practice and complying with the regulatory standards at the time.

- **Section 2.0 Fire:**

Compliance with fire regulations is excluded from this assessment. It is noted that a number of non-compliant elements such as non-closure of fire compartments was noted during the survey. A full assessment will be required to assess compliance with fire regulations, including for the external escape stairway on the west elevation.

- **Section 3.0 Environment:**

The building is an existing structure therefore compliance against environmental conditions has not been assessed. Due to the age of the building predating the requirement to comply with modern standards it is likely that elements may not comply. However, it is assumed that the building design took cognisance of external environmental factors pertinent to the time.

- **Section 3.4 Moisture from the ground:**

Basement and ground floor out-with basement areas is understood to be a ground bearing concrete slab. It is unlikely that the construction of the slab complies directly with modern standards however it is assumed they are compatible with building requirements of the age. NB: The building inspection did not reveal major areas of water ingress through the slabs.

- **Section 3.4.5-3.4.7 Walls, floors at or near ground level, structures below ground:**

The building does not comply with building regulation codes however is assumed to have complied with building standards of the day. The building inspection did not reveal major water ingress to the lower floors and basements at ground level.

- **Section 3.6.1 Surface water drainage:**

The building drainage system is noted to be defective in a number of areas. This has resulted in and continues to result in degradation of the building fabric.

- **Section 3.6.4 SUDS:**

Due to the age of the building it is highly unlikely that the building utilises SUDS approach to surface water drainage. It is likely that runoff is directly routed to external drains/sewers

- **Section 3.7 Wastewater drainage:**

Wastewater drainage systems have not been explicitly reviewed however they are assumed to have complied with requirements at the time. The building was utilised as a business until fairly recently therefore it seems likely that the system was functional at the time of closure.

- **Section 3.10 – Precipitation:**

The building is of traditional stone construction of the age. It does not possess cavity wall construction as per current best practice however the sandstone/masonry single leaf construction is common for the time of construction and generally was effective in preventing water ingress. However, the building survey identified numerous areas where water has penetrated the building fabric due to defective elements such as degraded roof structure and finishes, window framing and sealing, cracking to sandstone blocks, missing mortar causing deterioration of the structure. As such the building is considered to be non-compliant in this aspect.

- **Section 3.18.1 Chimneys:**

The building possesses numerous chimneys evidenced by the chimney stacks at roof level. These are believed to be out of service and blocked up internally as they are not visible generally from internal spaces.

- **Section 3.27.1 Water use:**

The building is unoccupied and water points are no longer in use. From the survey it would appear that water supply has not been fully disconnected evidenced by the water tank leaking water through the building in the south block. The building was occupied until recently and has had renovations undertaken during its operation therefore it is possible that water fittings are relatively modern. Compliance with current building regulations cannot be confirmed.

- **Section 4.0 Safety:**

- **Section 4.1 Access to buildings:**

The building survey has identified numerous defects internally and externally. A number of these have resulted in the structure being deemed unsafe for access. This is evidenced by the building notice placed on the building by SAC. As such there is a number of required works to attain safe access for the building.

- **Section 4.1.3 Accessible routes:**

The access to the building is from ground level.

- **Section 4.2 – Access within buildings;**

The regulations state that a proportion of rooms to be used as bedrooms must be accessible for wheelchair users. Being an old building it is unlikely that access to the upper floors would satisfy this requirement. It is noted that the regulations state a limitation on this requirement whereby access to the ground floor bedrooms is acceptable.

- **Section 4.3 – Stairs and ramps:**

Stairs within the building are generally from the original building construction. The stairs are generally functional and fulfil their purpose however it is unlikely they presently comply directly with current building regulations, for example the external escape stair on the west elevation.

- **Section 4.8 Danger from accidents:**

The building will not comply with a number of the requirements relating to maintenance access and safety from accidents. For examples elements related to cleaning of windows without requirements for access equipment and safe access to the roof. Being a historic building, it is assumed that the regulation requirements will not explicitly apply to this structure.

- **Section 5.0 Noise:**

The building has some level of noise reduction measures including floor deafening, insulation internally etc however it will not explicitly comply with noise reduction measures stated within the regulations.

- **Section 6.0 Energy:**

The building is very unlikely to comply with the current building regulation requirements for energy and, being a historic building, this is not necessarily required.

9 Conclusion

The key matter identified by the Mott MacDonald survey and the structural assessment that followed, is the critical level of severity of a number of the primary defects and the impact on serviceability in the short to long term.

Structural damage sustained to date by the Grade Listed Station Hotel Building is as a direct of prevailing environmental conditions and the absence of any meaningful maintenance undertaken on the building's architectural, and structural fabric and service systems.

Vibration from the adjacent rail and road traffic may also have contributed to or exacerbated some of the defects.

The absence of maintenance over a significant period has allowed water to impact extensively to degrade roof coverings and primary structure. Also impacting extensively is the growth of vegetation and expansion of corroding metal causing stress cracking and in turn physical movement of blocks in load bearing external walls.

Damage from water has caused areas of the roof and suspended floor structure to come close to the point of collapse.

There have been little or no repairs or restoration to eroded and depleted decorative architectural detailing.

To contextualise and baseline the level of severity, each defect has been categorised with a rating of Red, Amber and Green (RAG). RAG detail and criteria is tabulated in Table 1 in section 6.

In summary, the areas of concern are:

- Sustained commonly occurring local environmental wind (erosion) and water induced (freeze/thaw) loading that has caused lateral (horizontal) and limited vertical (and limited rotational) movement and erosion (deterioration) of component parts of structural fabric;
- Sustained water ingress that in localised areas of roof and suspended floor timber structure that has caused hazardous levels of deterioration that has reduced the structural capacity in the worst cases to zero, particularly in the east areas of the south section;
- It is likely that sustained water ingress has caused corrosion to internal wrought iron structural columns and beams, reducing the structural capacity of these members;
- Sustained loss of structural connection between adjacent structural components, such as sandstone dormers, pilasters and lintels and timber framing that has caused local instability;
- In the case of the perimeter wall on the south gable elevation, sustained a significant amount of (lateral-north/south) type directional movement of the centre section of the wall that has caused damage to principal structure in the form of stress cracking;
- In the case of the perimeter walls on the south and the east elevations, sustained an amount of (lateral-east/west) type directional movement of the wall likely extending from basement to third floor level that has caused damage to principal structure in the form of stress cracking;
- In the case of localised foundations below the east elevation, sustained a limited amount of settlement that has caused damage to principal structure in the form of stress cracking;
- Sustained damage induced from pressure due directly to the expansion of corroding historic metal inserts;
- Sustained damage due to the expansion of roots from plant and vegetation.

The degradation of the dormer and perimeter walls, particularly in the south section of the building has been ongoing for many years. Evidence such as the growth of mould on the surface of certain dislocated

stones that form the wall structure and vegetation rooted in joints, confirms that the stones have been dislodged and dislocated for some considerable time.

In addition, the building's perimeter walls, dormers and feature architectural details adjacent to the rail and road ways could have been affected by vibration. As previously described, the walls in the building's south section (particularly on the east and south elevations) are typically in a degraded state, with extensive stress cracking and dislodged and broken sandstone blocks. In the worst affected locations, broken parts of the sandstone have detached and fallen to ground level.

Whilst Mott MacDonald considers in the balance of probability that vibration is likely to have agitated substrata underlying perimeter walls and foundations, we conclude that this action would have contributed to a small amount to the total degradation of structure to date.

Any business case proposing to restore the Grade Listed building back to a baseline level of viability must consider the practicality and the cost of the works. Whilst the survey and assessment addressed in this report has been thorough, limitations placed upon access to inspect components inside the building has caused Mott MacDonald to make assumptions. These assumptions could cause the costs to vary from the budget. The cost assessment in appendix F includes a 20% contingency. It should be possible to refine the assessment if further investigation is carried out.

Option 2 Encapsulation works installed to protect the south section of the building, along with netting of both roof and building façade in the north section are understood to be temporary safety measures. These actions were instigated by South Ayrshire Council to mitigate the dangerous building matters arising since 2015.

Consideration of the key issues affecting viability has led Mott MacDonald to assess and determine the point in time when the south section of the building is likely to have degraded to the extent that demolition would be considered as the only option.

In this regard and notwithstanding any ruling by Historic Environment Scotland or any other stakeholder or third party, we conclude that the structural fabric of the south section of the building will:

- In the event that Option 2 Encapsulation is removed as planned in May 2020, and that none of the rectifications recommended by Mott MacDonald in this report are implemented within the next 3 years:
 - Continue to degrade and the cost of rectification to rise, increasingly over time;
 - Reach a point in the medium to long term that a substantial demolition of the south section is required for viability and safety reasons;
 - Any decision to remove the encapsulation would have to be subject to a rigorous risk assessment. This process would likely conclude that further structural consideration and significant rectification work is required to assure safety.

We also conclude that:

- Where cracks are considered by the Mott MacDonald to have propagated wholly through components of building structure such as the vertical cracks on the east and south elevations of the south section (highlighted as primary defects in section 6.0 of this report); the affected structure will not (in the short term) suffer any further loss of load transfer or stability provided that the proposed rectification works are undertaken. In this case the structures would be safe and serviceable;
- The only exception to the foregoing bullet point of current concern are:
 - cracks in the pilaster (LHS window at ground floor level at the RHS of the escape stairway) west elevation of north section
 - Pilasters in large feature and on dormer windows on the west below the clocktower and on the east elevation adjacent to rail platform 1;

- Degradation from rot (where it has been identified as affecting structure) has contributed little to date to the reduction in structural capacity. However, unless rectification work is implemented as recommended in this report, rot will in the short, medium and long-term adversely affect structural capacity.

Finally, it is Mott MacDonald's view that in all cases the defective structural fabric will continue to degrade.

If there is no intervention to prevent further degradation, then it is inevitable that areas of the roof in the south section of the building will in time collapse.

In addition, there will be local collapse of areas of suspended floor and items of masonry detaching and falling to ground. Cracking in masonry will continue due to root growth, causing sandstone on external walls to fracture, break and become loose.

Proposals to mitigate the matters raised above are provided in the recommendation section of this report.

10 Recommendations

Mott MacDonald has concluded that the degraded condition of the building is due to a combination of age and a lack of appropriate levels and types of maintenance.

Listed below are recommendations that should be considered for implementation. Timescales that Mott MacDonald consider to be reasonable for implementation of rectifications are provided in the following paragraphs.

Rectification works identified in this section of the report are deemed to be a combination of priority (reasonably urgent) and durability dependent (non-urgent) type. Works that are deemed to be reasonably urgent, would in Mott MacDonald's view be undertaken within the current to short term and non-urgent undertaken either in the medium to long term.

In terms of RAG rating, the works deemed by Mott MacDonald to reasonably urgent would include defects colour-coded red and amber, and the non-urgent works colour-coded green.

Otherwise cosmetic type defects such as damage to the finer external and internal architectural detail such as, broken/diminished items, hairline cracks on external structure and finishes, surface mould, efflorescence and water staining would be dealt with if required, in a conventional manner, say by using specialist light repair methods and readily available proprietary systems. The property owners may decide to engage experienced and/or specialist contractors as required.

We recommend that:

- A Risk Log is created that will allow Primary Defects and all other risks to be monitored and controlled.
- A Building Management System (Care and Maintenance Regime) is established:
 - Consider Bi-Annual Fabric inspections for inclusion
- A full Asbestos Survey is undertaken as soon as possible to bolster engineering assumptions made and costs ascertained and conveyed in this report.
- A full Rot survey and interpretative report is undertaken and provided as soon as possible to bolster engineering assumptions made and costs ascertained and conveyed in this report.
- A full Building Services and interpretative report is undertaken and provided as soon as possible to bolster costs ascertained and conveyed in this report.
- All historic metal inserts are removed from sandstone and the sandstone made good by specialist repairs.
- Specialist investigation:
 - Trial Pits and/or Bore Holes (or rotary probing) to determine sub strata conditions at and below foundation level at three locations, two on the east elevation adjacent to rail platform 3, and one on the south gable adjacent to road bridge foundation.
 - CCTV, Radar and hand-digging to determine the existence or not of any culverts underlying the building.
 - Tell-tale monitoring in three areas, two on the east elevation adjacent to rail platform 3 (on three existing cracks, one at each of three levels), and one on the south gable adjacent to road bridge foundation (on three existing cracks, one at each of three levels).
 - Access to inside the grade listed building to inspect lintels over windows and door apertures where primary defects have been recorded and rectifications (either permanent or temporary) implemented as required.

- Access to inside the grade listed building basement to inspect the sandstone on the inside face in two areas of wall to ascertain if the cracks evident on the outside face have propagated through the entire section of wall.
- Access to inside the grade listed building upper floors and basement to inspect the structural iron beams and joists to ascertain condition.
- Establish vibration monitoring equipment at ground level at three locations adjacent to the east elevation adjacent to rail platform 3, and one on the south gable adjacent to road bridge foundation.
- A design study is undertaken to evaluate and assess the short to medium term impact of vibration on the grade listed building.
- A Review of ground conditions is undertaken to review the potential impact on the building in the short to medium term impact of vibration on the grade listed building.
- A detailed design study is undertaken to assess the structure for the risk of 'progressive collapse' based upon the requirements of Building Standards (Scotland).
- Rectification work is implemented to restore the building back to the basic level of viability defined in section 8.0:
 - Refer to the schedule in appendix E for details of the rectifications proposed to the grade listed and the extended buildings.
 - Note that works scheduled in appendix E refer to general areas and locations of the building and do not refer to itemised defects tabulated in appendix B and C.
- Develop the priority and sequencing of rectification works to establish a works scope and programme
 - Consult with key stakeholders

11 Cost Report

The summary page below is to be found in the Cost Report annexed at appendix F.

A full suite of detailed documents that support the summary, including assumptions and exclusions, is incorporated within the Cost Report.

2. Level 1 Summary

	GROUP ELEMENT / ELEMENT		COST / m ² GIFA	TOTAL COST OF ELEMENT (TARGET COST)
BUILDING WORKS			£	£
1	Internal repair works - South block		447	2,443,151
2	Internal repair works - North block 1		140	763,875
3	Internal repair works - North block 2		50	274,838
4	External façade/ roof repair works - South Block		213	1,163,936
5	External façade/ roof repair works - North Block		114	621,822
SUB-TOTAL: BUILDING WORKS			964	5,267,622
6	Main contractor's preliminaries	25%	241	1,316,905
SUB-TOTAL: BUILDING WORKS (incl. prelims)			1205	6,584,527
7	Main contractor's overheads and profit	10%	120	658,453
BUILDING WORKS ESTIMATE			1325	7,242,980
PROJECT / DESIGN TEAM FEES AND OTHER DEVELOPMENT / PROJECT COSTS			£	£
8.1	Professional/ Design Team Fees	15%		1,086,447
8.2	Other development / project costs			Excluded
TOTAL: PROJECT / DESIGN TEAM FEES AND OTHER DEVELOPMENT / PROJECT COSTS				
BASE COST ESTIMATE			1524	8,329,427
RISK ALLOWANCE			£	£
9	Risk allowance	20%	305	1,665,885
COST LIMIT (excluding inflation)			1829	9,995,312
INFLATION			£	£
10.1	Tender inflation			Excluded
10.2	Construction inflation			Excluded
TOTAL: INFLATION ALLOWANCE				
COST LIMIT (excluding inflation and VAT assessment)			1829	9,995,312

12 Glossary

Angle Sections

A structural member with an L-shaped cross section

Arching

A component or components structural reaction to spanning and aperture in a wall

Architrave

A moulded door or window surround

Balustrade/Baluster

Balusters are those vertical, vase-like posts or legs on railings that can be made of wood, iron, stone, or other materials. The balustrade consists of several balusters spaced evenly and connected to form a decorative railing supported by baluster posts

Barrel-vaulted

A semi-cylindrical shaped ceiling

Beam Grillage

Multiple layers of beams, typically used to support a column

Blistering

With regards to sandstone; flaking and damage to the surface of the stone

Bressummer Beam

Like a lintel – a large horizontal supporting member across the top of an aperture on the front of a building

Building Fabric

components that are used in the construction of the building

Buckling in Compression

When a structural member is subjected to compressive stresses at certain levels, it deflects outward (similar to bending)

Bulkhead

A boxed partition used to separate or conceal

Cast Iron

Used for structural elements such as columns and beams that were prior to the 1800' often load tested before being used in a building due to questionable tensile strength. CI was also brittle because of the amount of carbon it contained (about 4%)

Cantilevered

A beam supported only at one end

Cavity Wall

A wall which consists of two layers of masonry with void between them

Chord

Structural element or member in a trussed frame, normally located either at the top or bottom of the frame

Connection

Structural design and detailing terminology used to describe/define the joining of two or more structural components

Corbel

A piece of material that projects from the wall to support the horizontal structure above, similar to a bracket or a stepped profile in a foundation

Cornice

Ornamental moulding at the internal wall-ceiling connection

Cranks

Similar to dog-leg, a bend formed by two right angled turns

Cross Walls

Primary structural element designed to sustain lateral wind loading and typically the load from connected roof and suspended floor structures. Walls, which are not perimeter walls, used to divide an area

Culvert

A channel, which typically allows the flow of water

Curtilage

The perimeter of a given area of a space (building) or material

Delamination

The fracturing of a material in to layers

Doric

Ornate round columns with ridged moulding, and square sections at the top and bottom

Dormer

A window that projects vertically from a sloping roof

Duo-pitched

A roof with slopes on either side which meet at a central ridge

Dwarf Wall

A low-rise wall normally used at foundation level in building to support inner walls

Dynamic Load

Any load that is not static, e.g. wind

Dynamic Force

Force action consequent to a moving mass

Eaves

The part of a roof that meets or overhangs the walls of a building

EGL

Excavated Ground Level

Envelope Wall

A load bearing wall that normally forms part of the perimeter of the building

Finial

A distinctive section or ornament at the apex or ridge of a roof or canopy on a building

FFL

Finished Floor Level

FGL

Finished Ground Level

Framing

The fitting together of pieces to give a structure support and shape

Gable Wall

A wall that has a triangular shape at the top as a result of a duo-pitched roof

Hard-standing

Hard ground surfacing material, typically for the use of vehicles

Indigenous Soils

Soils which are typical to the region

Joist

A structural member, typically used to support a floor or ceiling, arranged in parallel series

Lintel

A horizontal supporting member across the top of an aperture

Mansard

A roof with four sloping sides, the slopes become steeper about halfway down

Masonry Pier

A section of masonry wall which is thicker than the rest, usually used for stiffening purposes

Mechanical damage

Damage caused by mechanical tools or equipment

Modular

Formed or constructed with standardized units or dimensions for flexibility and variety in use

Mortar

A lime or cement mixture used to bond masonry or stone bricks or blocks

Mullion

A vertical bar that separates panes of glass in a window

Pad Foundation

Shallow foundation, squarer in plan, than a strip foundation, typically used to support a singular column

Parapet

A low protective wall along the edge of an elevated area

Parent Material

The underlying material that forms the item

Pediment

Similarly, to a gable, the triangular or semi-circular area of the top of a wall or an aperture that follows the roofline

Pend

A passageway that allows access from the main street through to the rear of the building

Pilaster

A rectangular column usually formed in masonry

Podger Rod

A tool formed of a short bar tapered at one end

Ponded water

Water that has collected in a low area of a flat surface e.g. ground bearing slab

Primary Structure

Designed to provide stability, load transfer and functional framing such to sustain and control the buildings reaction to environmental wind and all other forms of loading

Propagate

Enlargement or extension (as of a crack) in a solid body.

Rafter Beam

One or a series of sloped structural members such as wooden beams that extend from the ridge or hip to the wall plate

Raking

Sloping eave or structural member along a roof pitch

Re-entrant corners

An inside corner; angle of less than 180°

Relative Stiffness

The relative stiffness is the compared stiffness value with respect to other material geometry

Rolling-stock

Any vehicles that move on a railway

Ruberoid

A waterproofing membrane for roofs

Sarking

A felt material fixed across roof rafters, beneath roof tiles

Sash and Case

A window with one or more vertically moveable panels

Secondary Structure

Subordinate but connected (attached) to Primary structure, designed to provide for all other structural requirements

Single Leaf

A wall consisting of just one layer or the construction material

Soffit

The (typically flat) underside of a suspended structure e.g. a floor or slab

Specification

A detailed description of the design, components and materials used to construct a building

Stress Cracking

Cracking as a result of heavy loading

Stringer beam

A primary structural member in the longitudinal direction

Strip Foundation

Shallow foundation which is long in one direction to provide support to a wall or several columns

Structural Distress

Damage or loss of strength to structural members from movements or over-loading

Structural Frame

A series of connected elements that in combination resist the loads for the whole of the structure

Structural Load

Static or dynamic force imposed (applied) on or to the building (or parts of the building) either externally or by way of self-weight (under gravity)

Structural Tie

A structural member used to resist tension

Structural Wall

A wall which is load-bearing, and therefore integral to the building's stability

Sub Strata

Underlying rock or soil

Sub-structure

Underlying or supporting structure. In buildings, it is the portion of the structure below ground level, the foundation and basement are part of the sub-structure.

Super-structure

Upward extension of an existing structure above a baseline. In buildings, it is the portion of the structure above ground level, foundation and basement.

Suspended Floor

A floor, or floor slab, that is supported at its perimeters by structural members or walls

Tactile Survey

Inspection of a building or structure or parts thereof using a method of physically touching with the hand

Tanking

A form of barrier waterproofing normally used inside or outside a basement

The Authority

South Ayrshire Council

Timber Chocks/Packers

Small cuboids of timber, typically used to elevate material above

Top-hat (trapezoidal) roof

A 'hat shaped' structure used to elevate another material, typically to prevent dampness

Unrestrained Wall

A wall without additional supports between top and bottom to prevent buckling

White bloom/Efflorescence

The migration of salt to the surface of stone, typically due to contact with water, forming a white coating

Wind suction

When wind flows around a building it can produce some very high suction pressures

Wrought (rolled) Iron

Used for structural elements such as columns and beams prior and beyond the 1800's, with compressive strength less than cast iron, but tensile strength is considerably higher. The carbon content of WR is around 0.15%

A. Defects/Observations Location Drawings

Fig A1: Plan of Station Hotel Building showing Roof and Elevation Location References

Fig A2: North Elevation (N1) Defect/Observation Locations

Fig A3: North Elevation (N2, N3, N4) Defect/Observation Locations

Fig A4: East Elevation (E1) Defect/Observation Locations

Fig A5: East Elevation (E2) Defect/Observation Locations

Fig A6a: South Elevation (S1) Defect/Observation Locations

Fig A6b: South Elevation (S1) Defect/Observation Locations

Fig A7: West Elevation (W2, W4) Defect/Observation Locations

Fig A8: West Elevation (W3) Defect/Observation Locations

Fig A9: West Elevation (W5) Defect/Observation Locations

Fig A10: West Elevation (W6) Defect/Observation Locations

Fig A11: West Elevation (W7) Defect/Observation Locations

Fig A12: West Elevation (W8) Defect/Observation Locations

Fig A13: West Elevation (W10) Defect/Observation Locations

Fig A14: Roof Plan (R1, R2, R3) Defect/Observation Locations

Fig A15: Roof Plan (R4) Defect/Observation Locations

Fig A16: Plan of Station Hotel Building South Block 2nd Floor and 3rd Floor/Mansard Roof showing Internal Survey Defect/Observation Locations

Fig A17: Plan of Station Hotel Building South Block 1st Floor, 2nd Floor and 3rd Floor/Mansard Roof showing Internal Survey Floor Openings Defect/Observation Locations

Fig A18: Plan of Station Hotel Building North Block 1st Floor, 2nd Floor and 3rd Floor/Mansard Roof showing Internal Survey (via cherry picker) Defect/Observation Locations

Fig A19: Plan of Station Hotel Building North Block 1st Floor, 2nd Floor and 3rd Floor/Mansard Roof showing Internal Survey Floor Openings (via scaffold) Defect/Observation Locations

Fig A20: Plan of Station Hotel Building South Block Ground Floor showing Internal Survey Floor Openings Defect/Observation Locations

Fig A21: Plan of Station Hotel Building South Block showing Internal Survey Defect/Observation Locations of Roof Space and Roof Openings

Fig A22: Plan of Station Hotel Building South Block Basement showing Internal Survey Defect/Observation Locations

Fig A23: North Block Ground Level Plan of Station Hotel Building showing Defect/Observation Locations

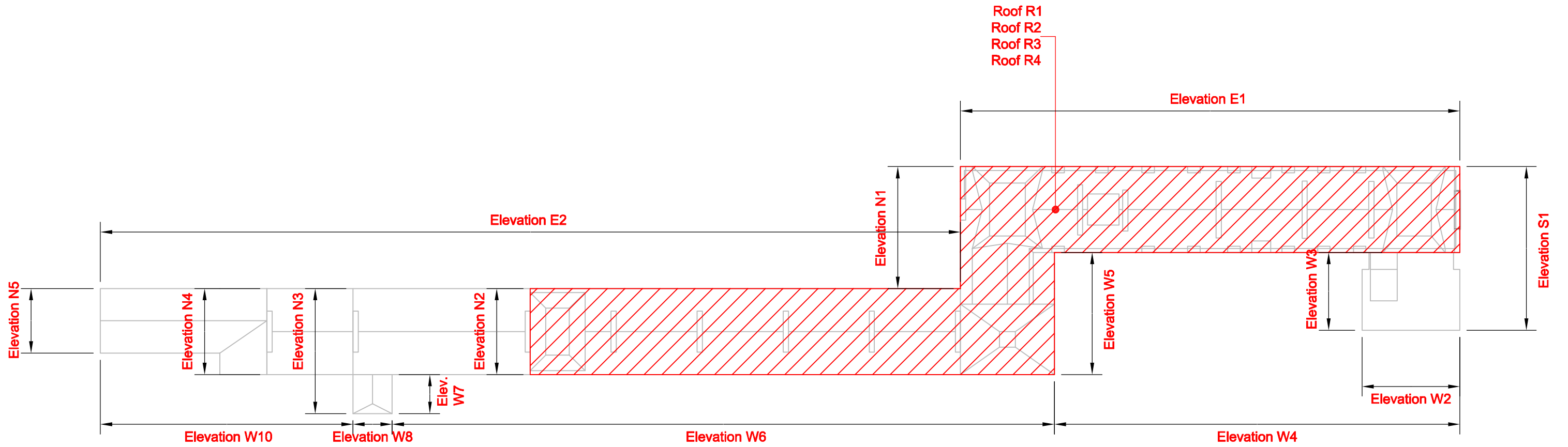
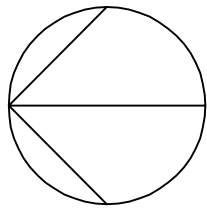


Figure A1: Plan of Station Hotel Building showing Roof and Elevation Location References

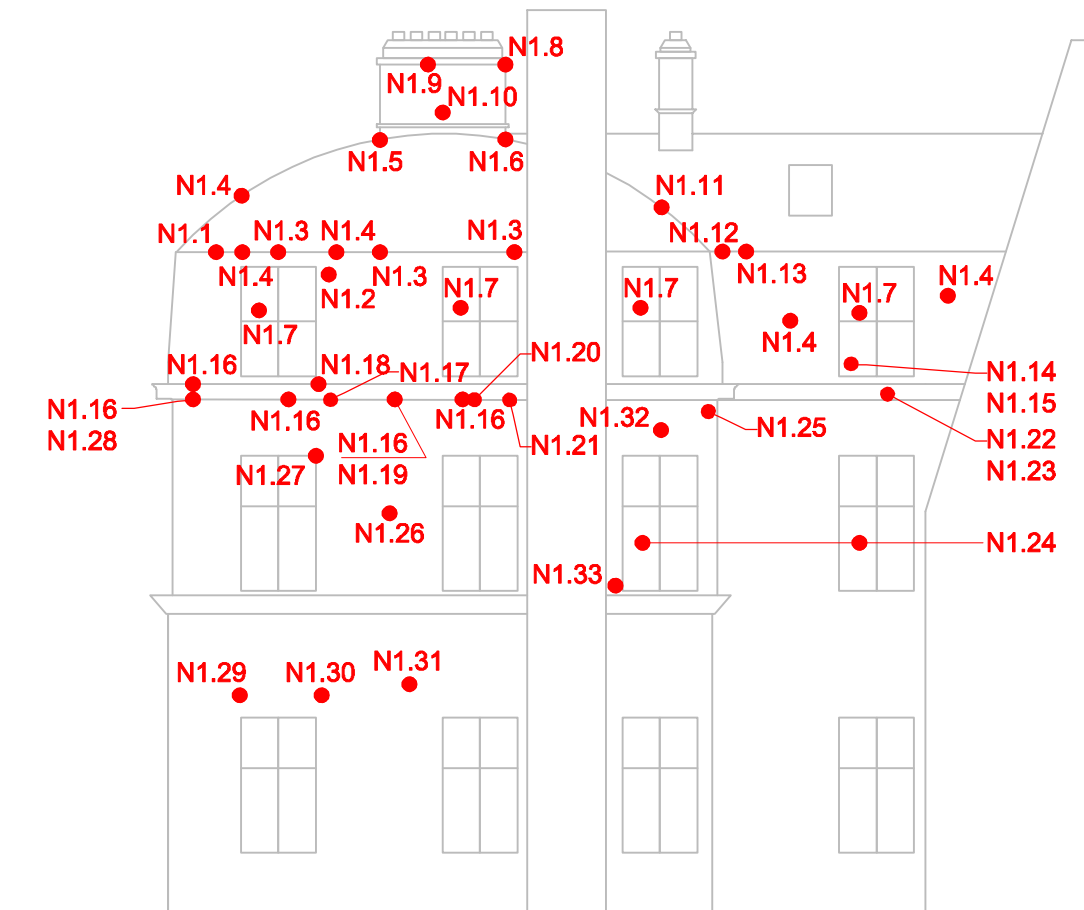


Figure A2: Elevation N1 of Station Hotel Building showing Defect/Observation Locations

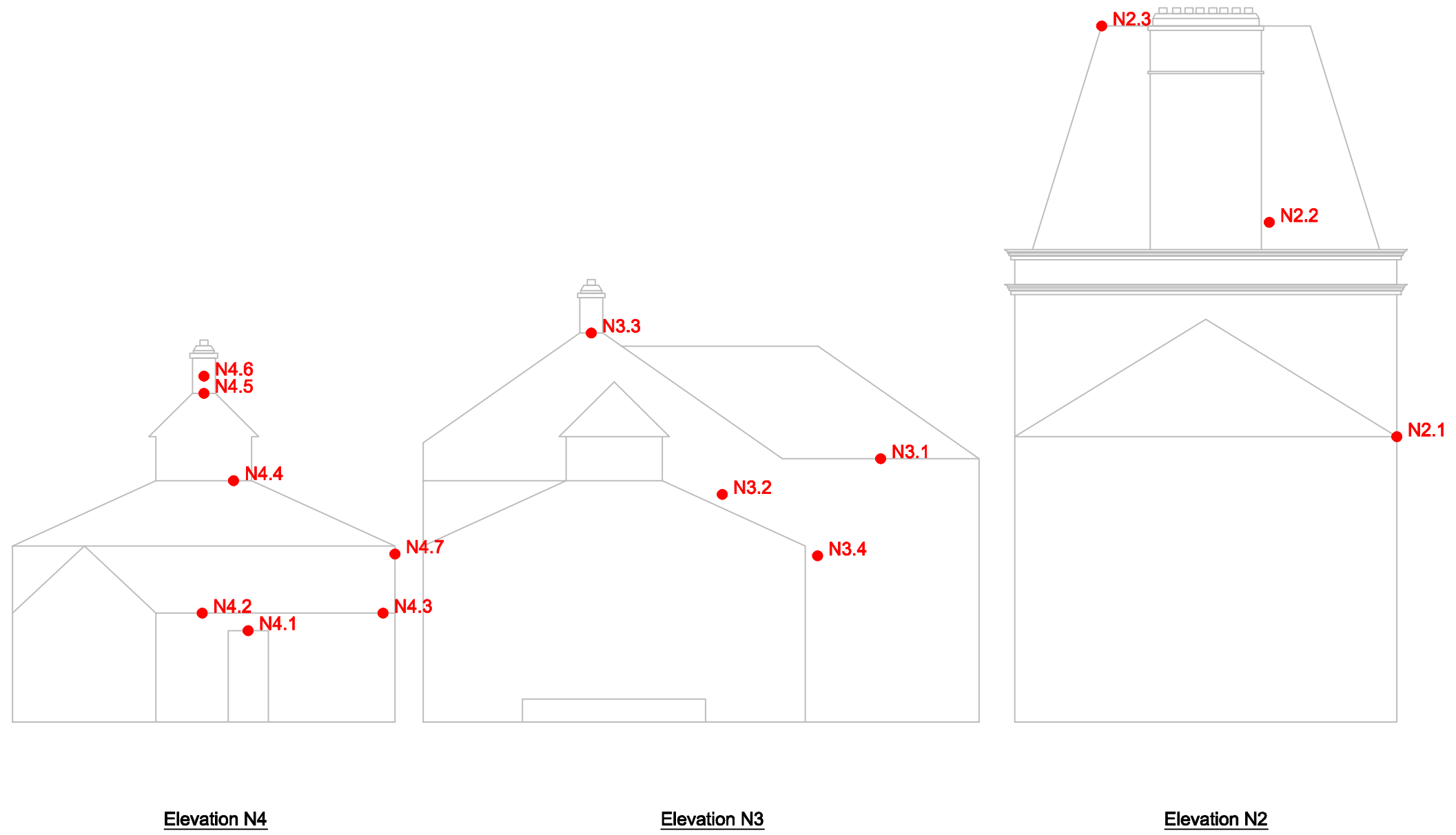


Figure A3: Elevation N2, N3, N4 of Station Hotel Building showing Defect/Observation Locations

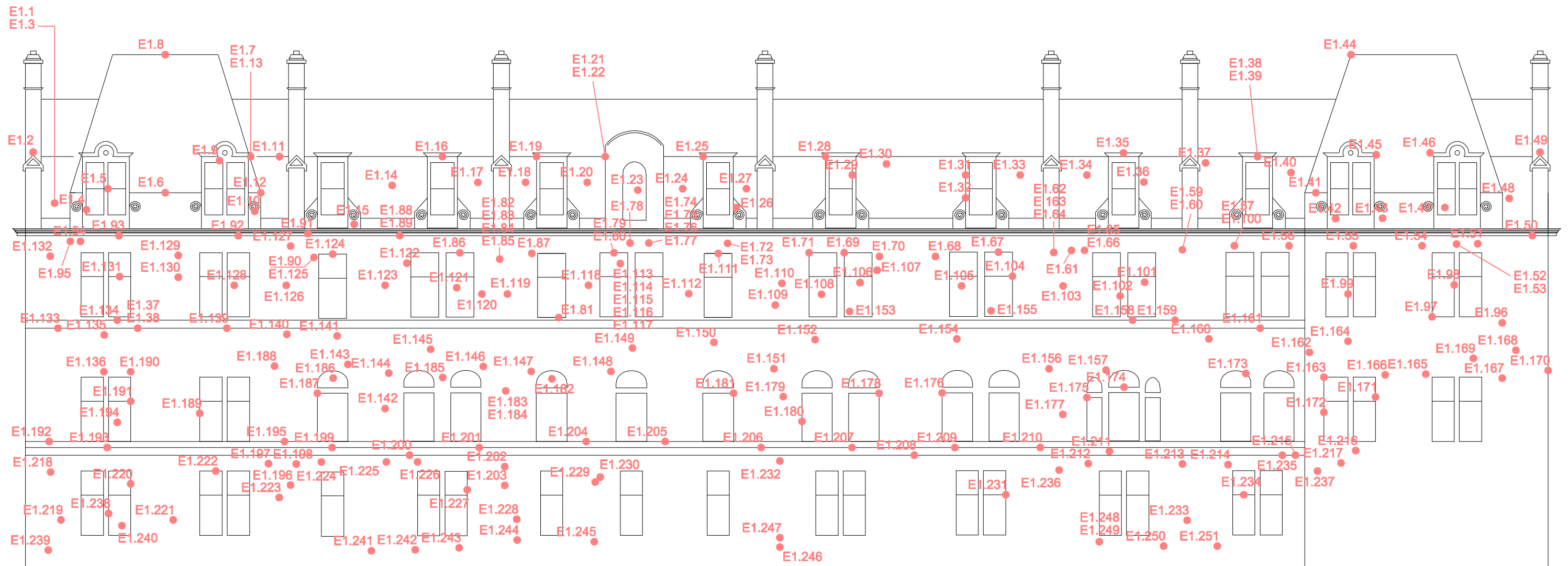


Figure A4: Elevation E1 of Station Hotel Building showing Defect/Observation Locations



Figure A5: Elevation E2 of Station Hotel Building showing Defect/Observation Locations

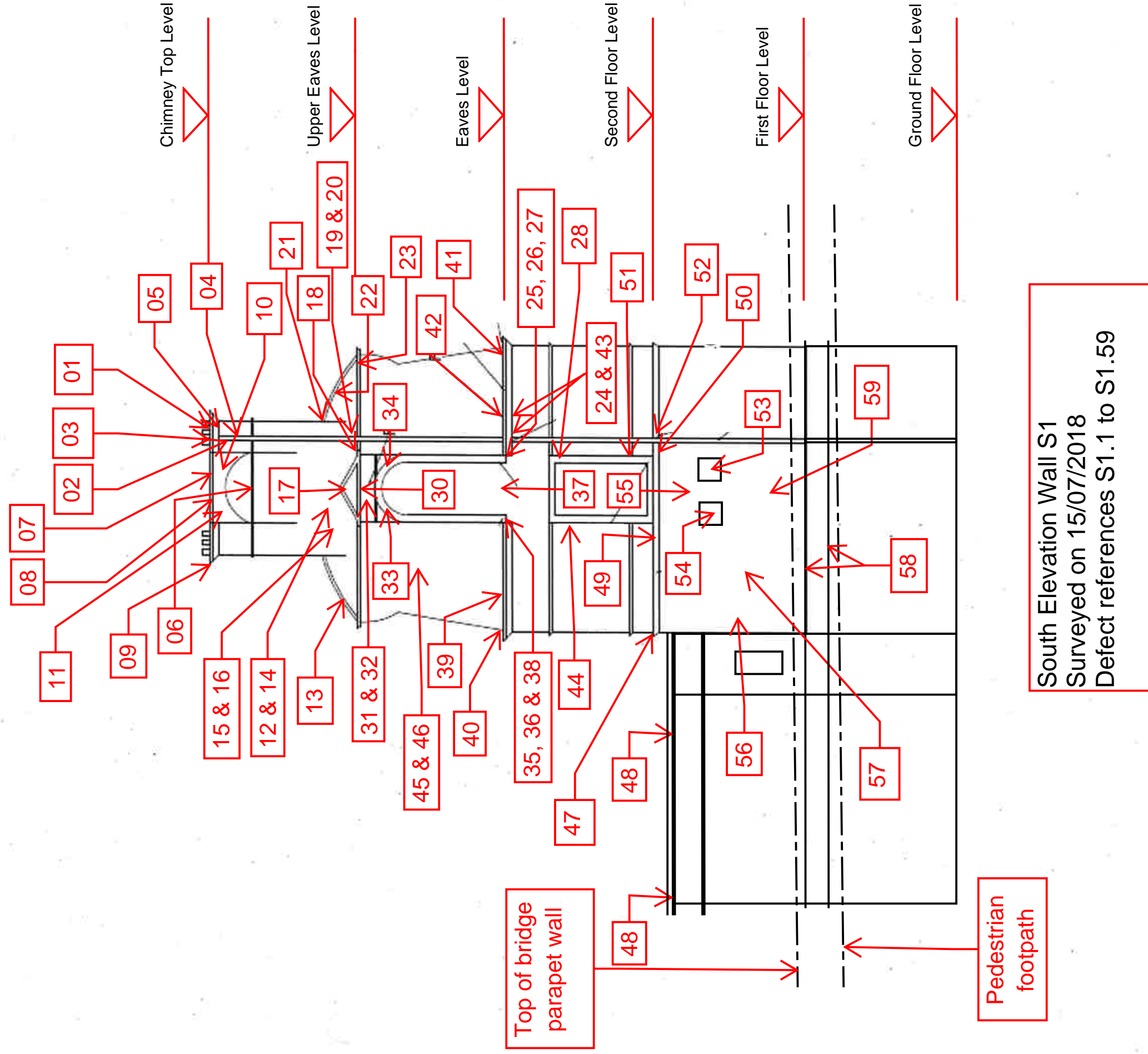
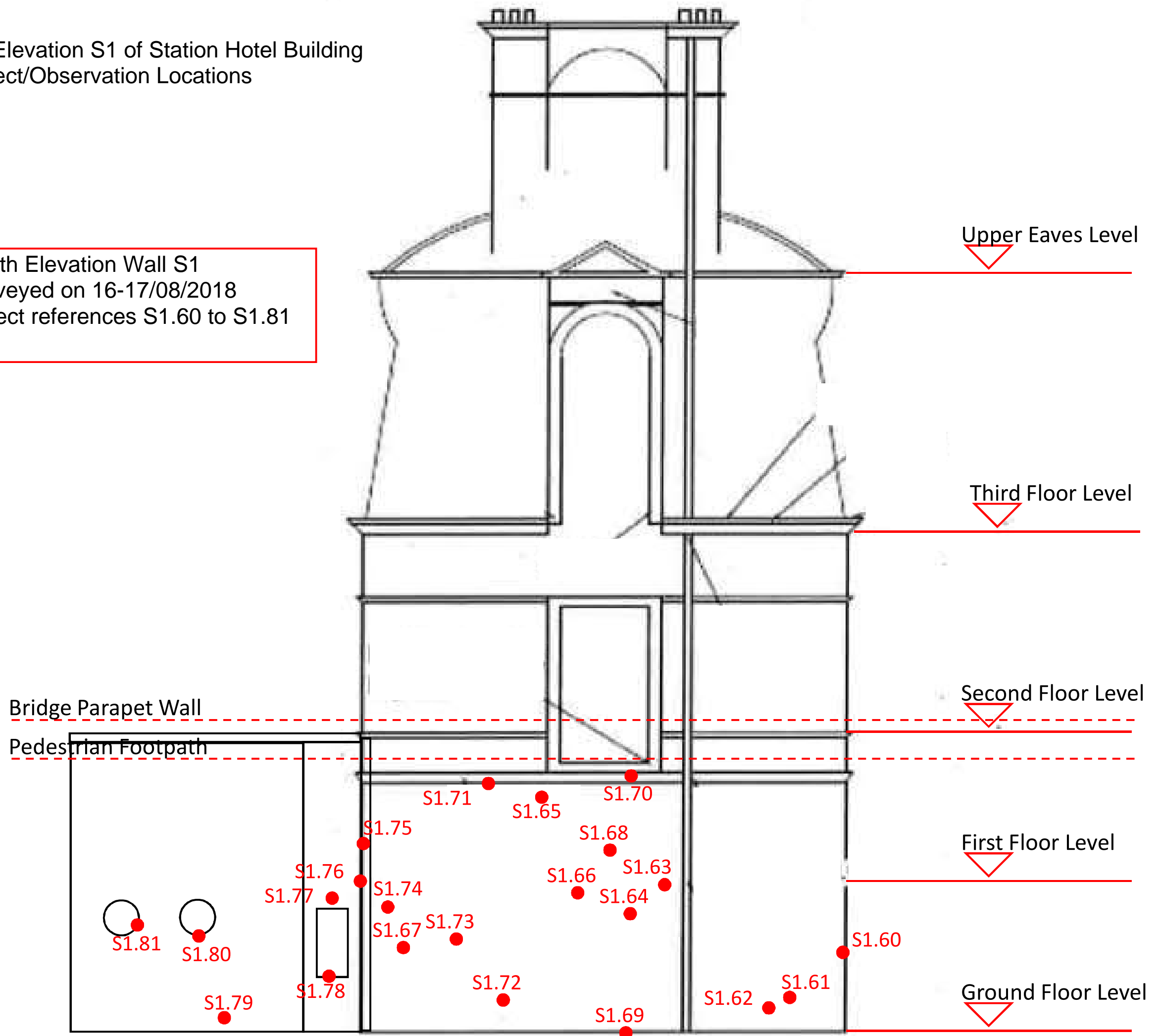


Figure A6a: Elevation S1 of Station Hotel Building showing Defect/Observation Locations

Figure A6b: Elevation S1 of Station Hotel Building showing Defect/Observation Locations

South Elevation Wall S1
Surveyed on 16-17/08/2018
Defect references S1.60 to S1.81



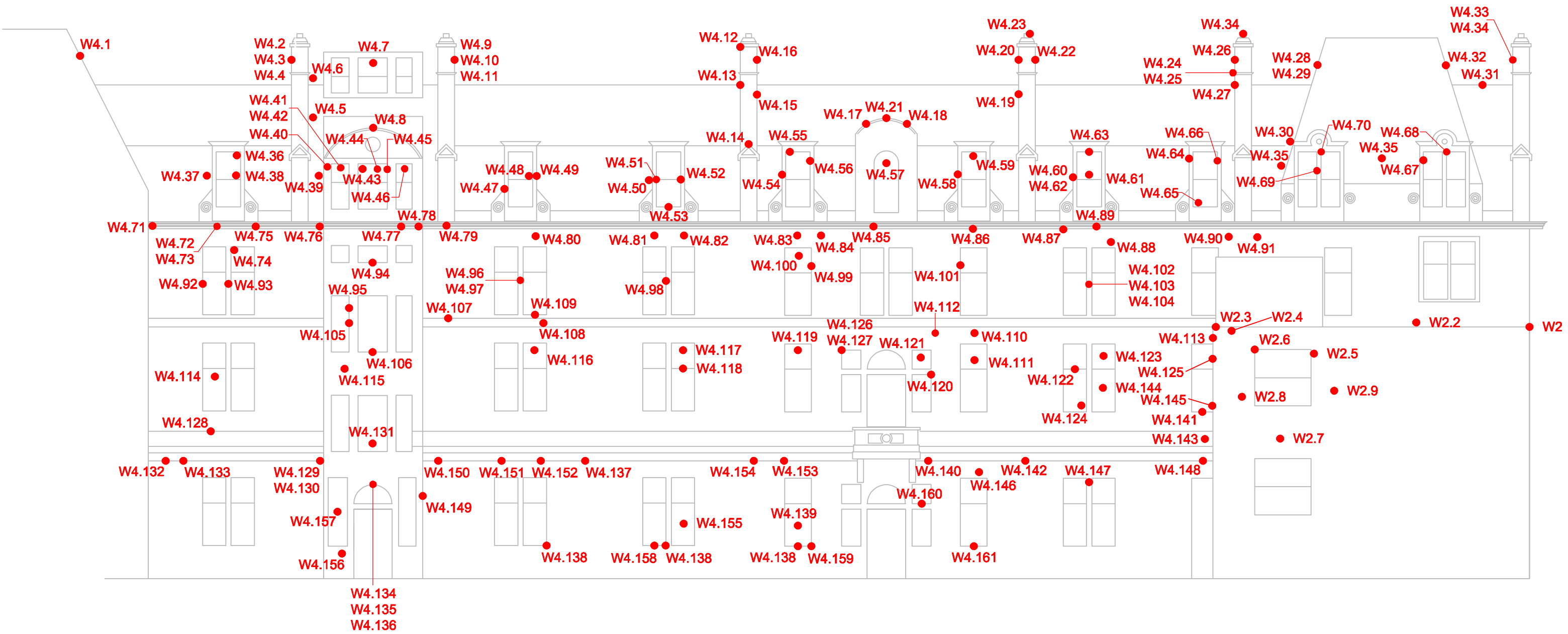
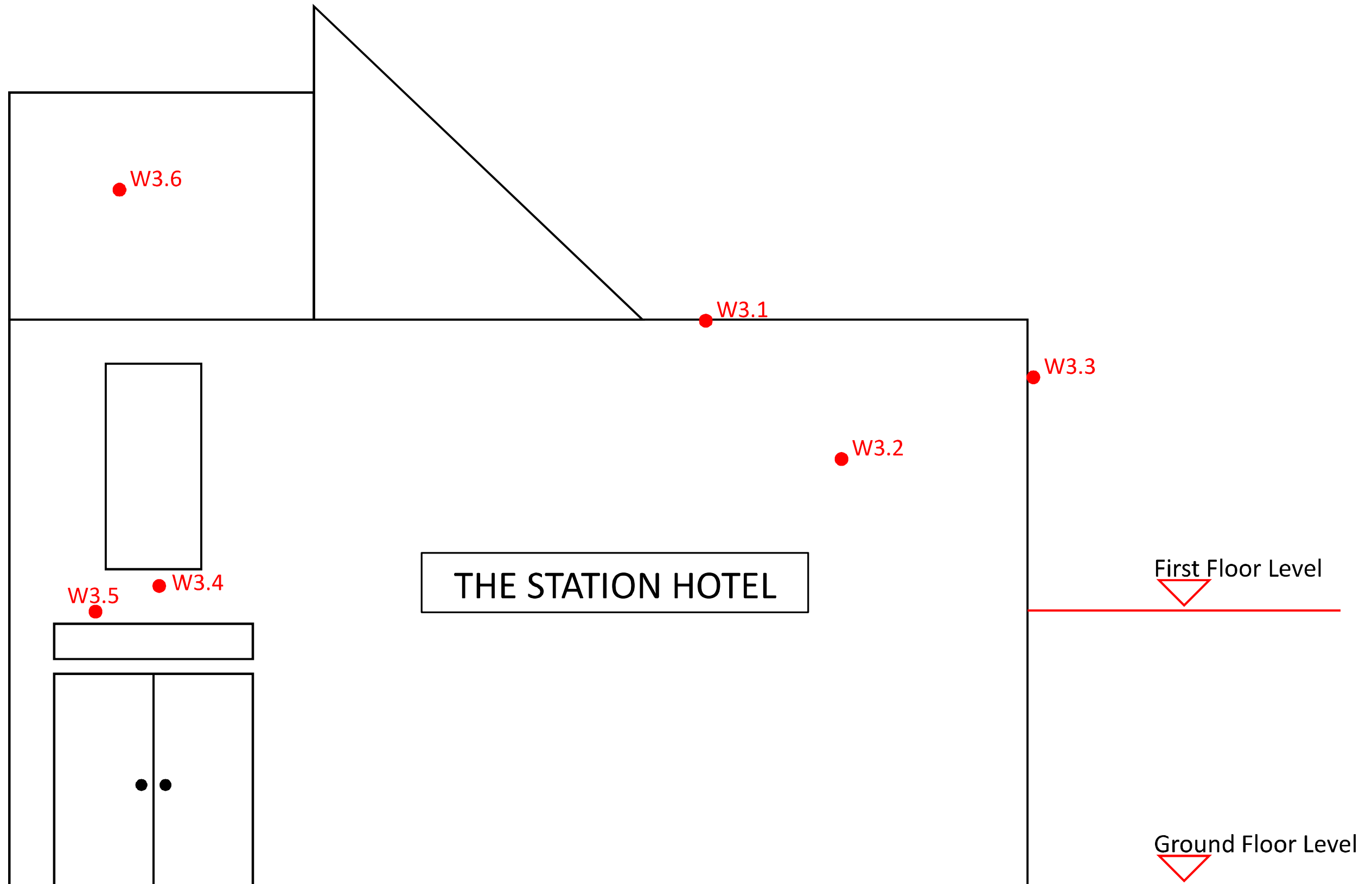
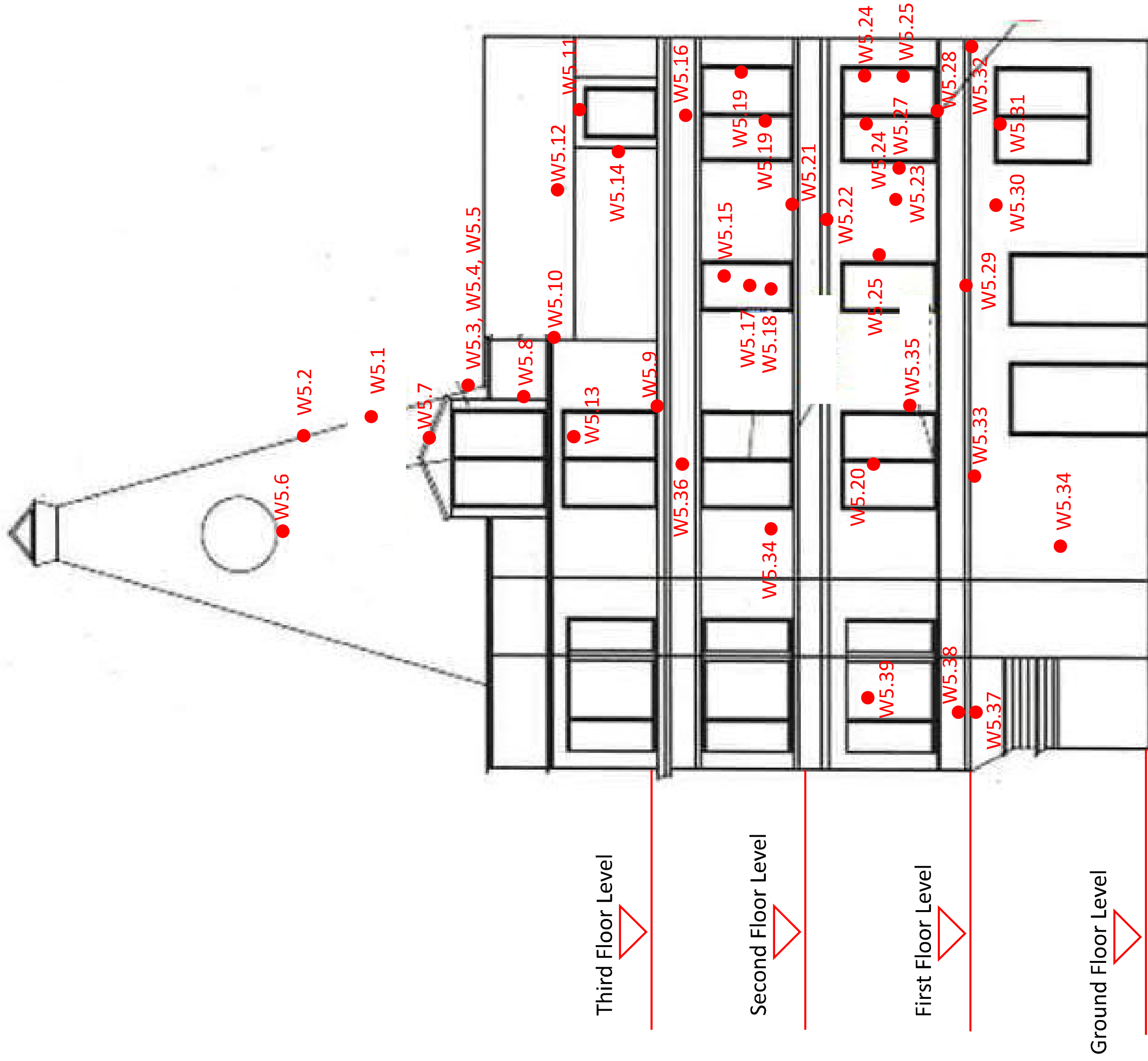


Figure A7: Elevation W2 and W4 of Station Hotel Building showing Defect/Observation Locations

Figure A8: Elevation W3 of Station Hotel Building showing Defect/Observation Locations





Elevation W5
 Surveyed on 23-28/01/2019
 Defect references W5.1 to W5.39

Figure A9: Elevation W5 of Station Hotel Building showing Defect/Observation Locations

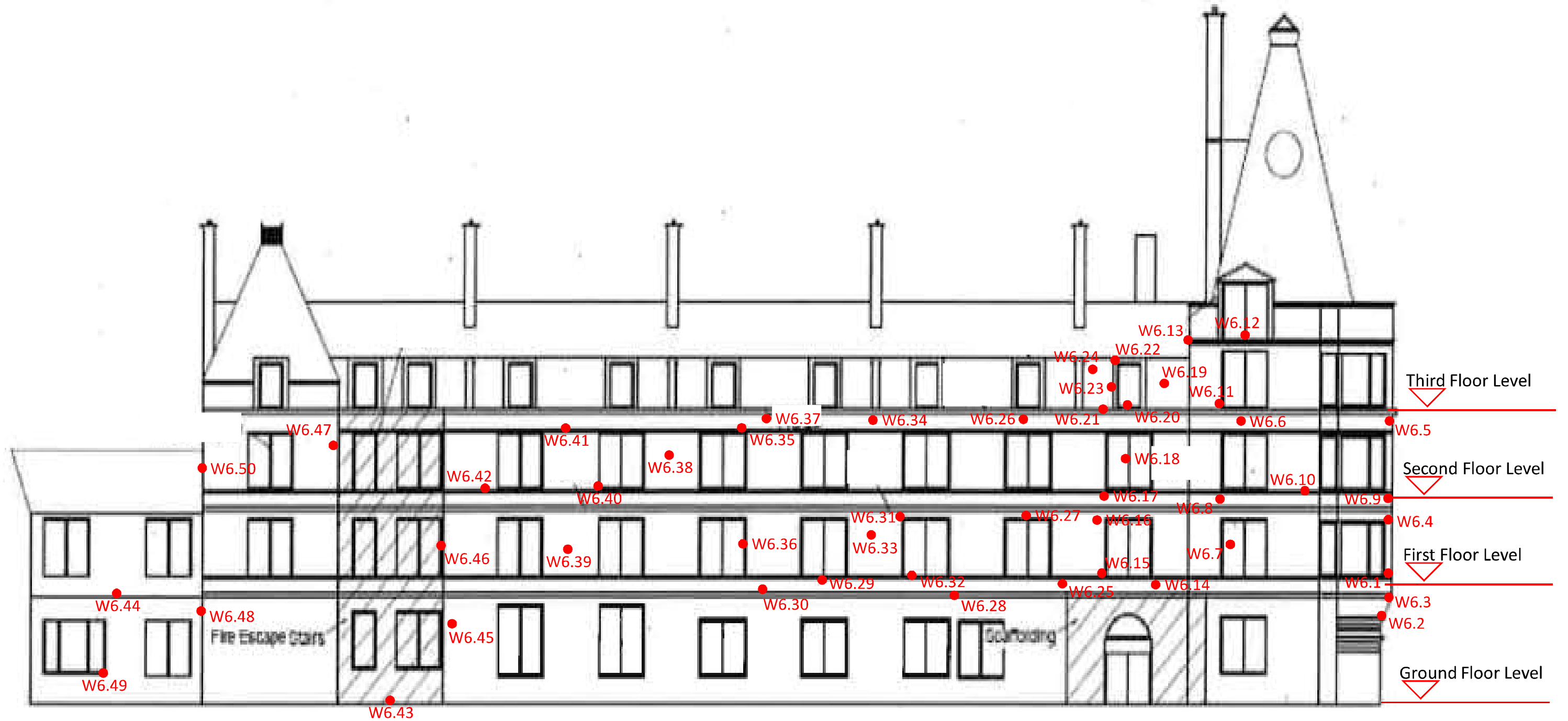


Figure A10: Elevation W6 of Station Hotel Building showing Defect/Observation Locations

Figure A11: Elevation W7 of Station Hotel Building showing Defect/Observation Locations

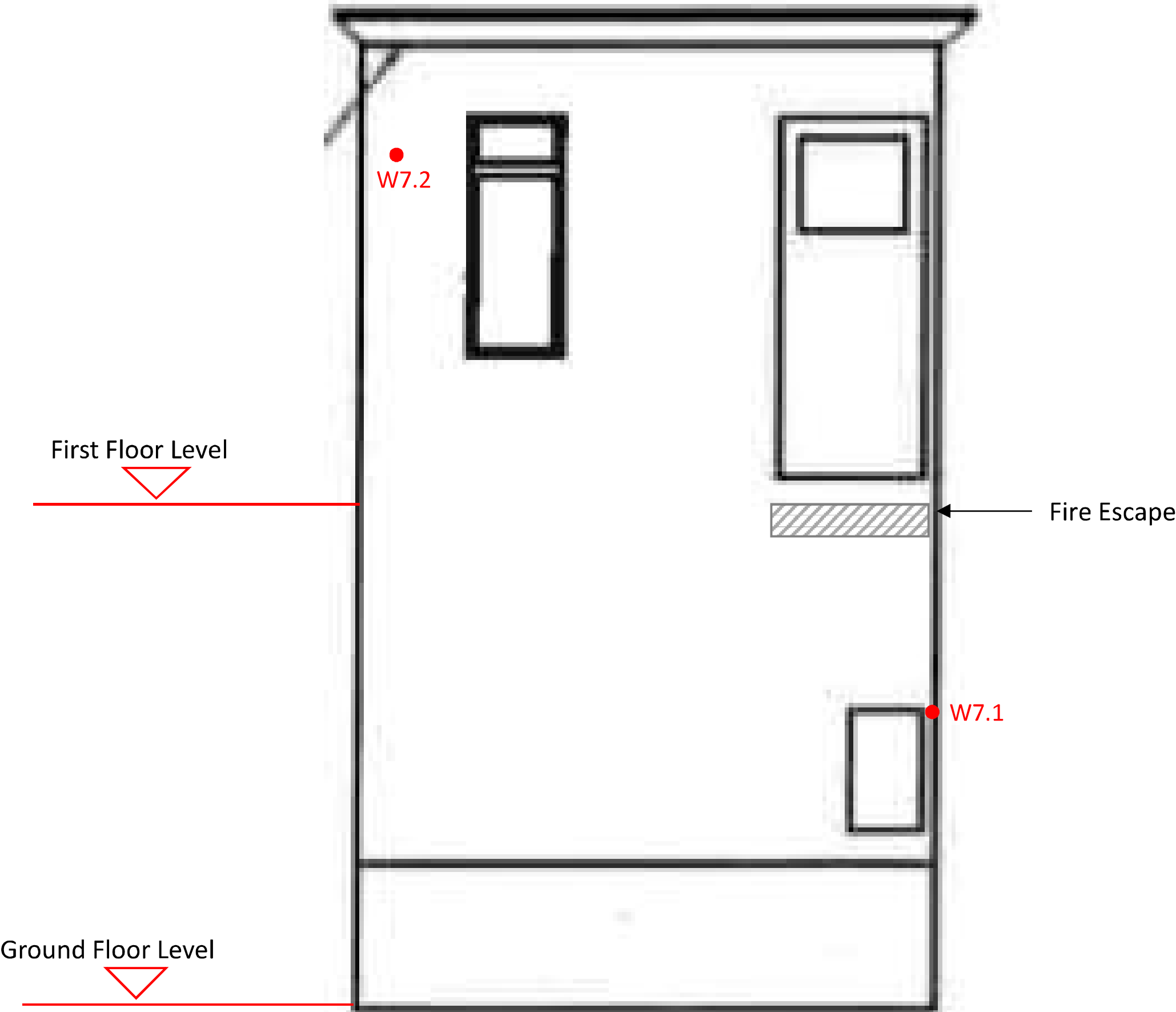


Figure A12: Elevation W8 of Station Hotel Building showing Defect/Observation Locations



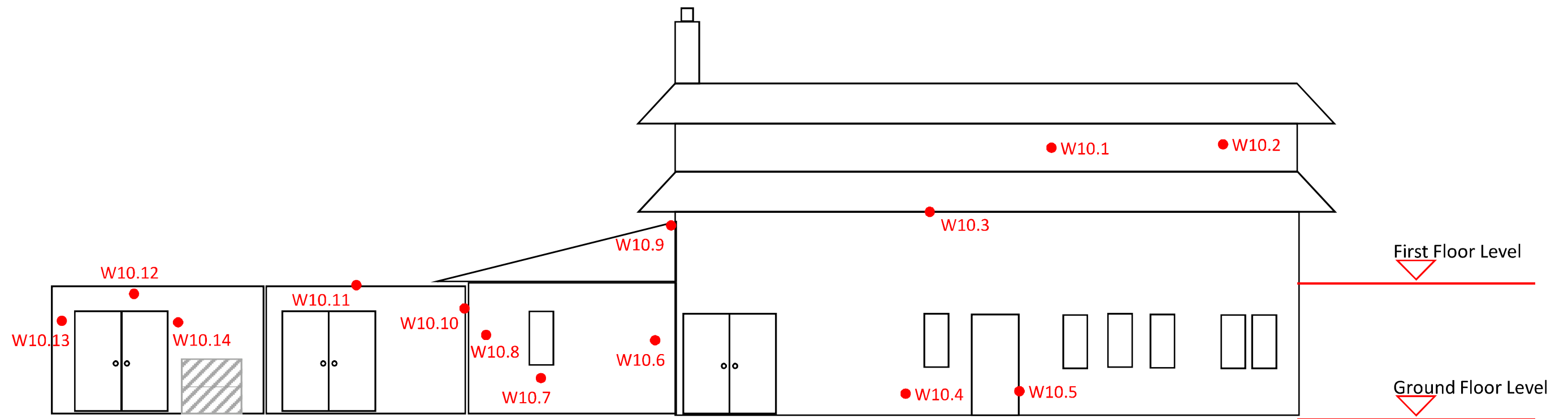


Figure A13: Elevation W10 of Station Hotel Building showing Defect/Observation Locations

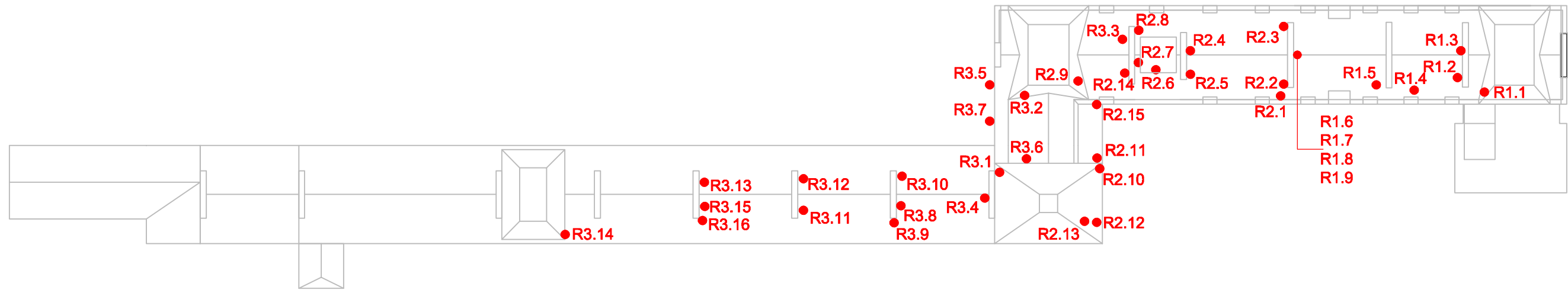
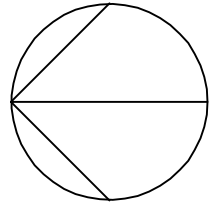


Figure A14: Plan R1/R2/R3 of Station Hotel Building showing Defect/Observation Locations

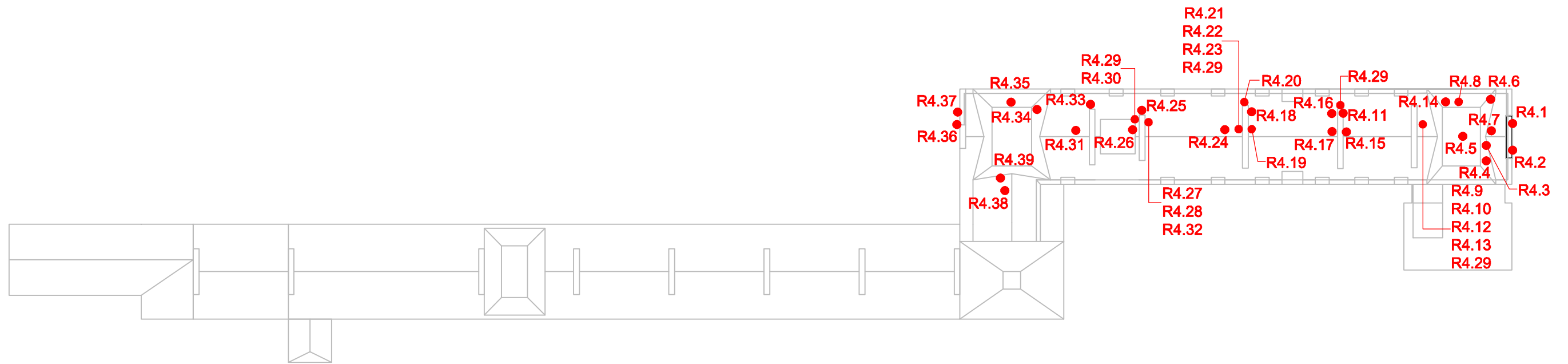
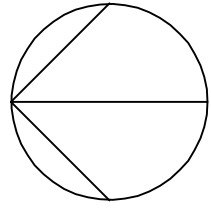


Figure A15: Plan R4 of Station Hotel Building showing Defect/Observation Locations

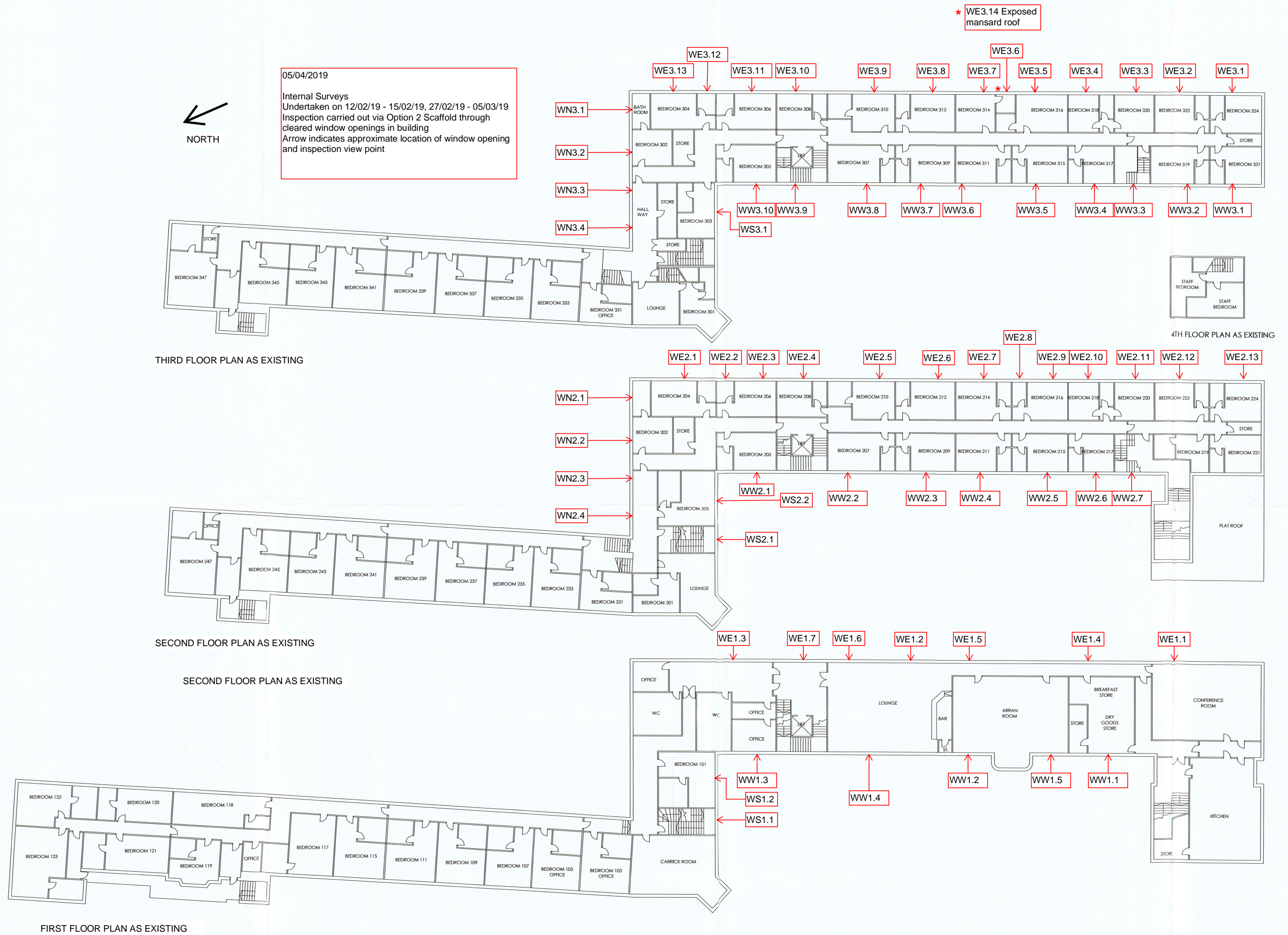
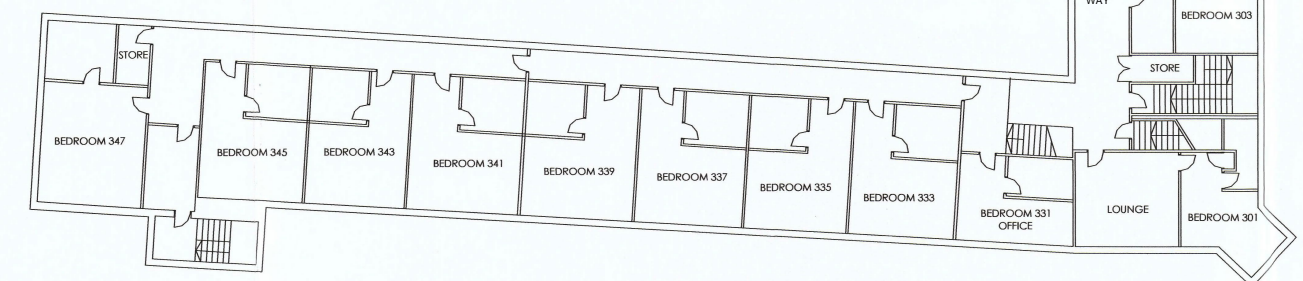


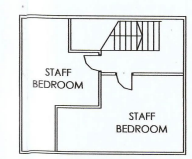
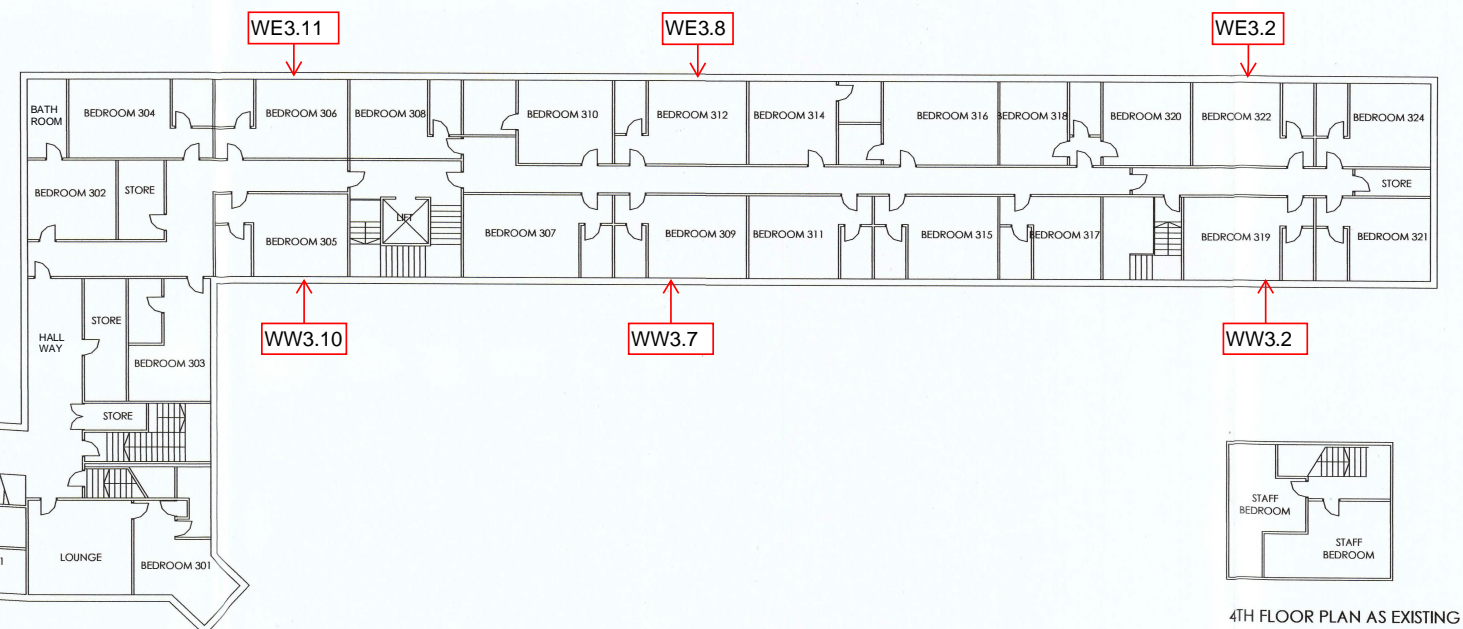
Figure A16: Plan of Station Hotel Building South Block 1st Floor, 2nd Floor and 3rd Floor/Mansard Roof showing Internal Survey Defect/Observation Locations



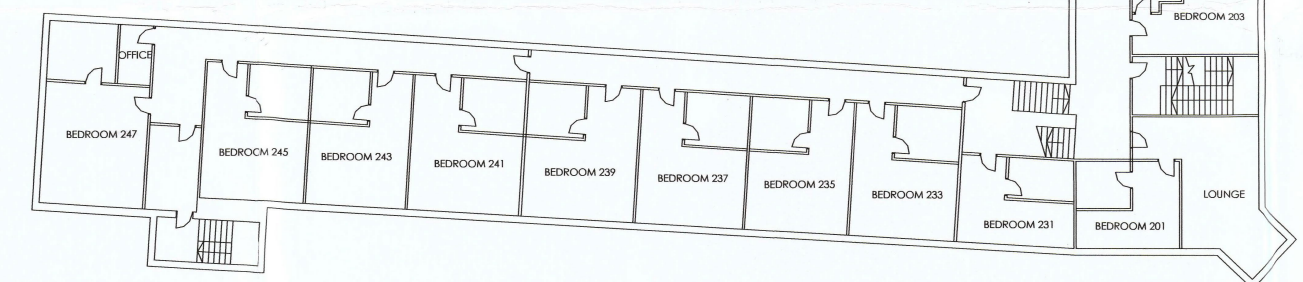
02/05/2019
Internal Surveys Floor Openings at South Block
undertaken on 28/03/19, 02/04/19, 03/04/2019 and 12/04/19
Inspection carried out via Option 2 Scaffold through cleared window
openings in building
Arrow indicates approximate location of window opening and inspection
view point
Floors opened up by CPMS/Zenith



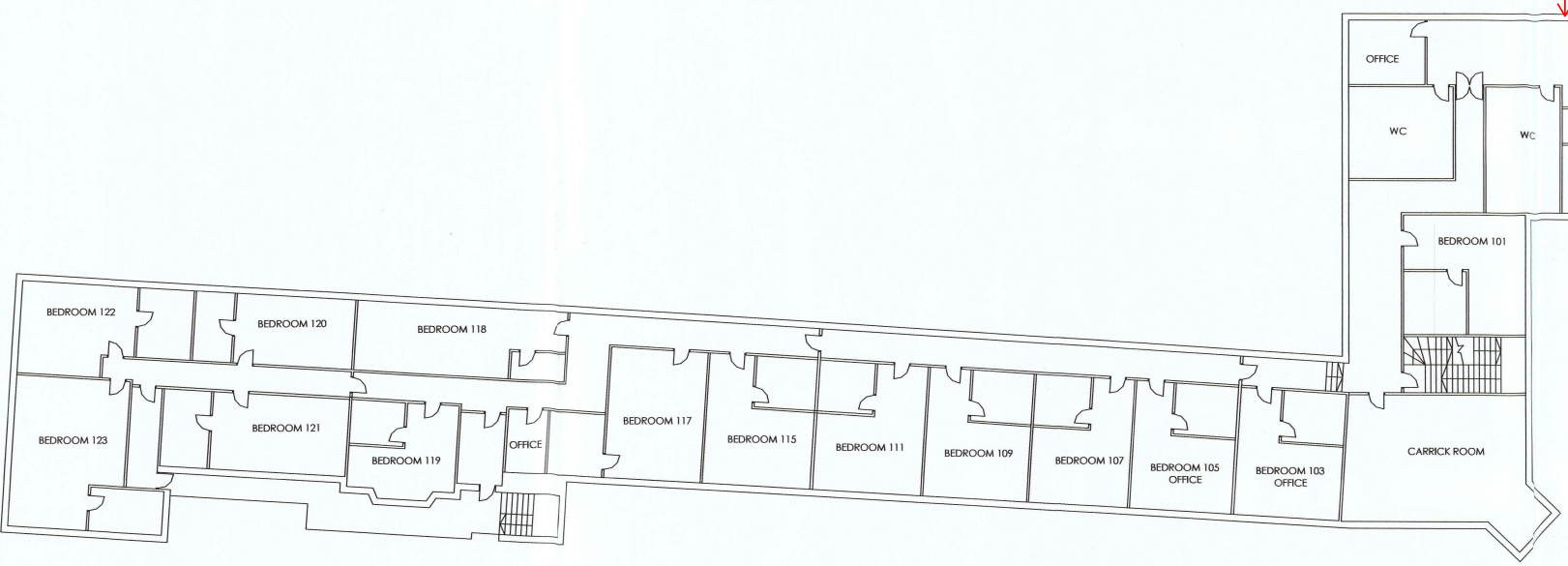
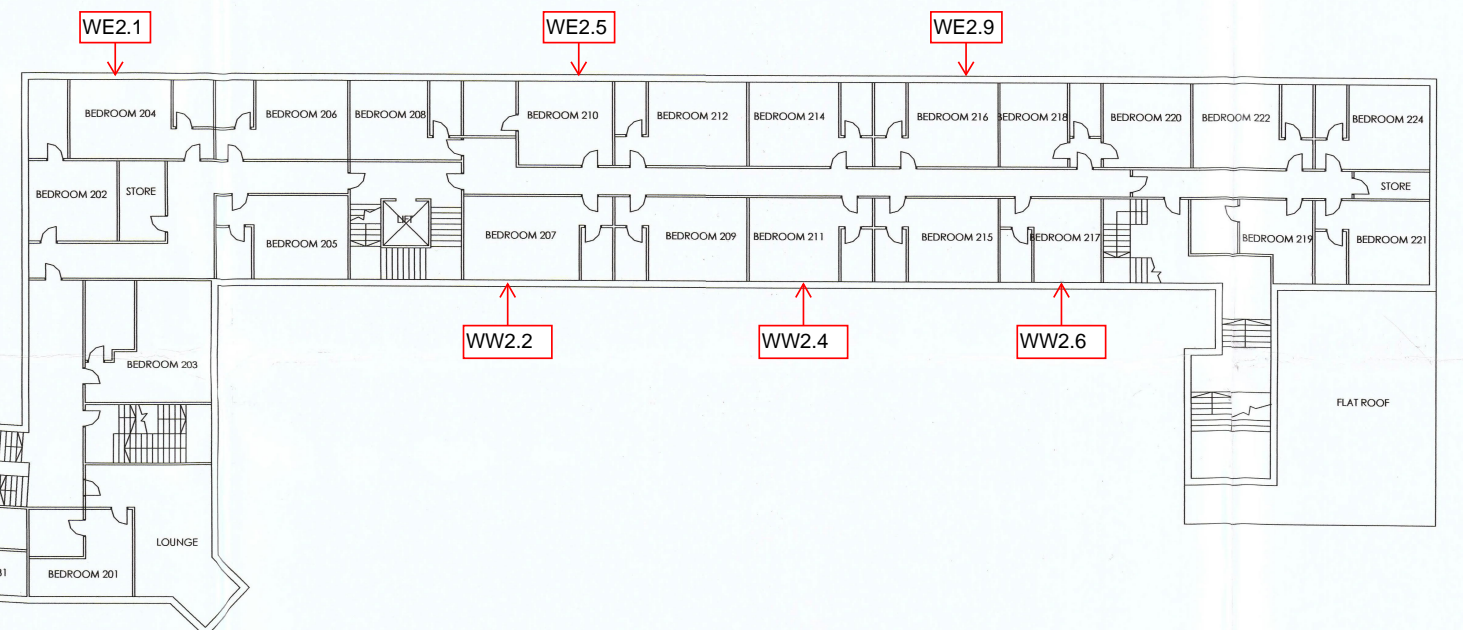
THIRD FLOOR PLAN AS EXISTING



4TH FLOOR PLAN AS EXISTING



SECOND FLOOR PLAN AS EXISTING

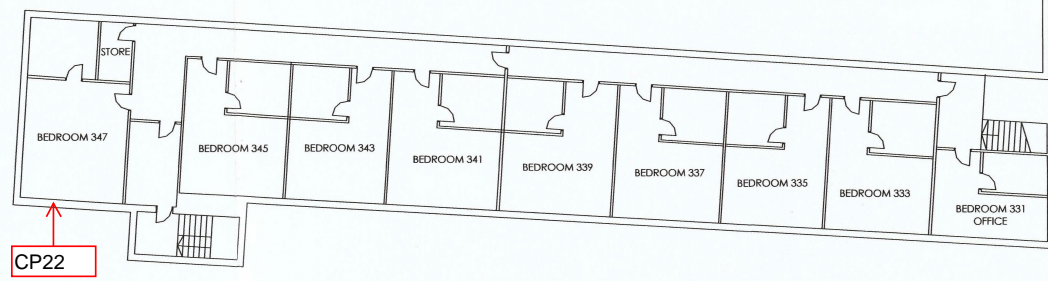


FIRST FLOOR PLAN AS EXISTING

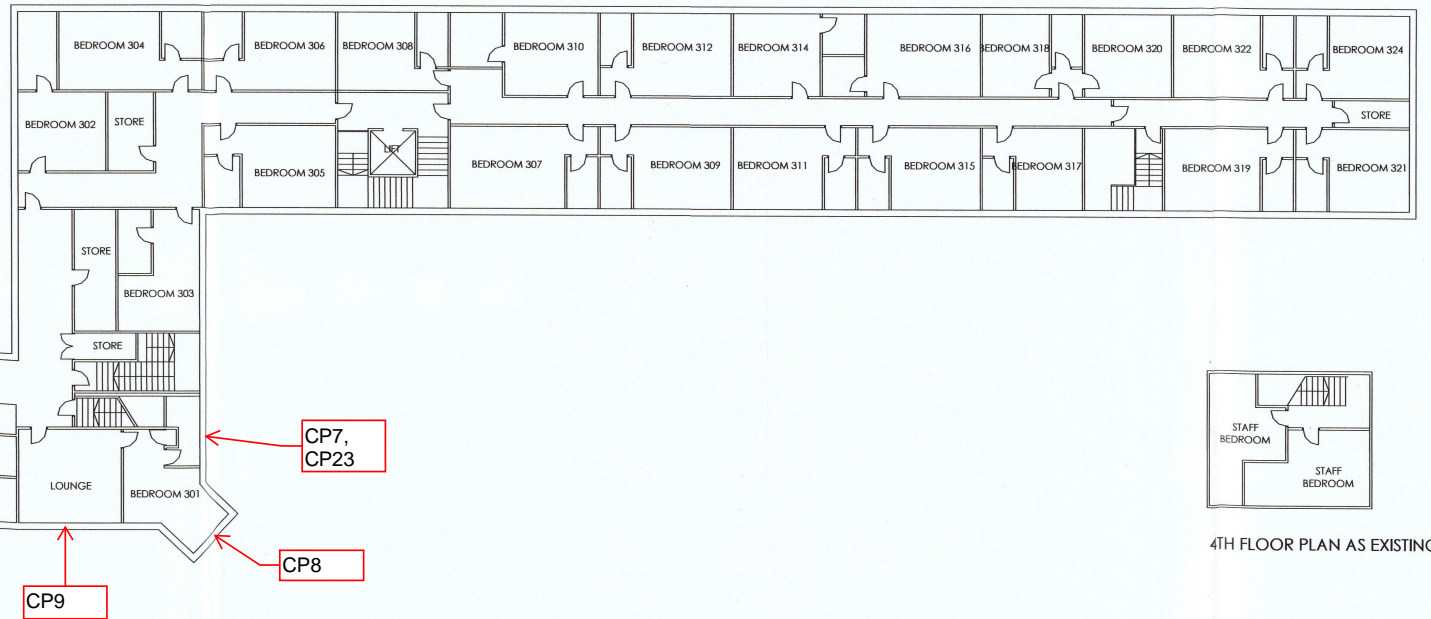
Figure A17: Plan of Station Hotel Building South Block 1st Floor, 2nd Floor and 3rd Floor/Mansard Roof showing Internal Survey Floor Openings Defect/Observation Locations



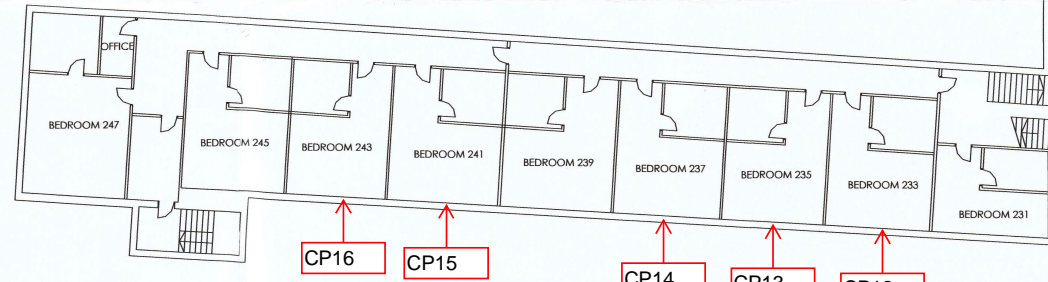
02/05/2019 Rev0
Internal Surveys undertaken on 05/04/19
Inspection carried via cherry picker platform and uncleared/unbroken windows openings.
Arrow indicates approximate location of window opening and inspection view point



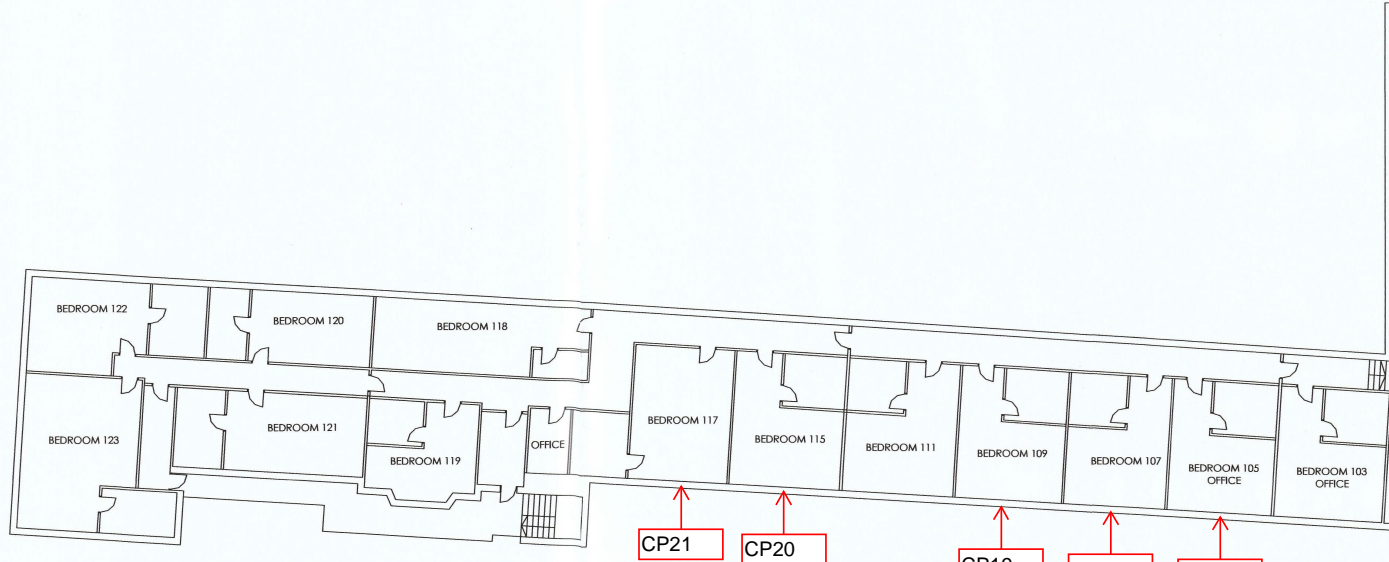
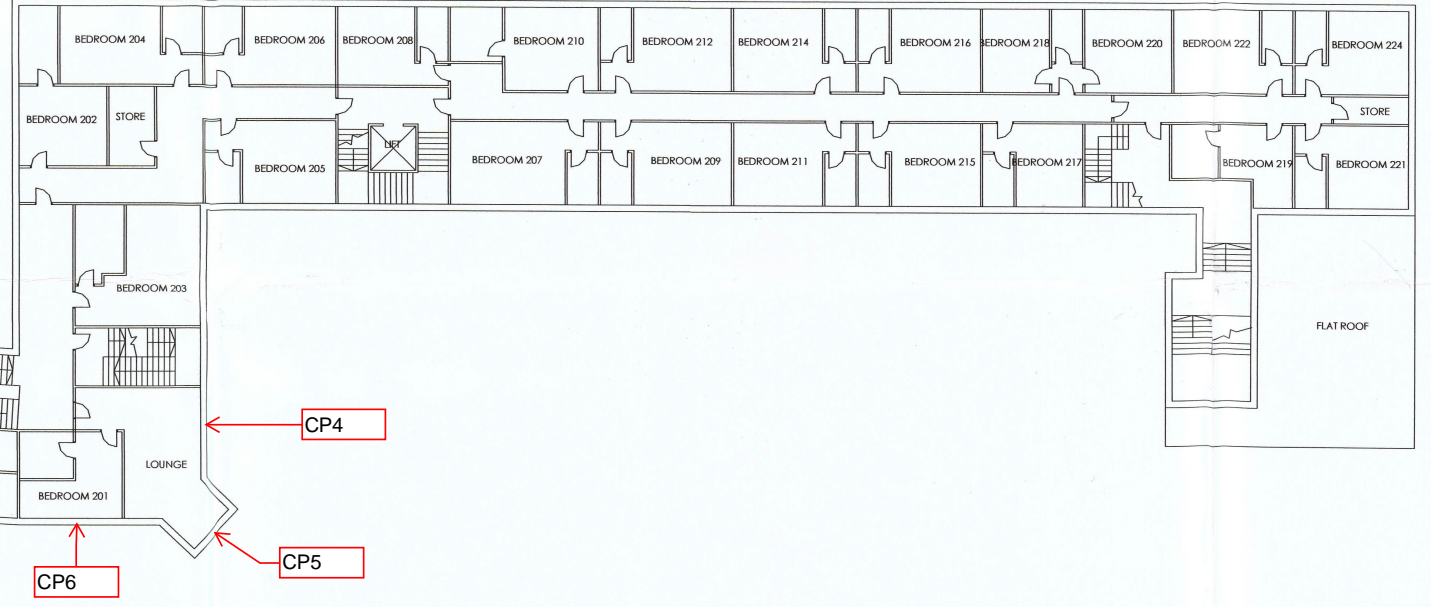
THIRD FLOOR PLAN AS EXISTING



4TH FLOOR PLAN AS EXISTING



SECOND FLOOR PLAN AS EXISTING



FIRST FLOOR PLAN AS EXISTING

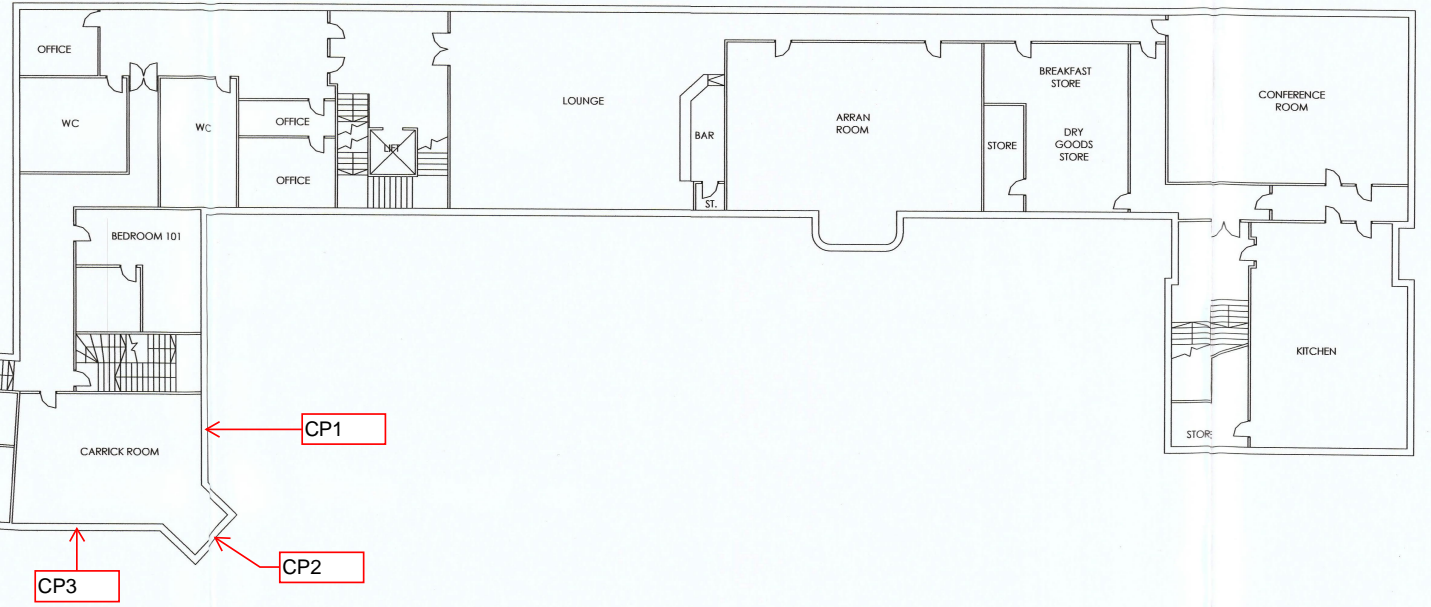


Figure A18: Plan of Station Hotel Building North Block 1st Floor, 2nd Floor and 3rd Floor/Mansard Roof showing Internal Survey (via cherry picker) Defect/Observation Locations

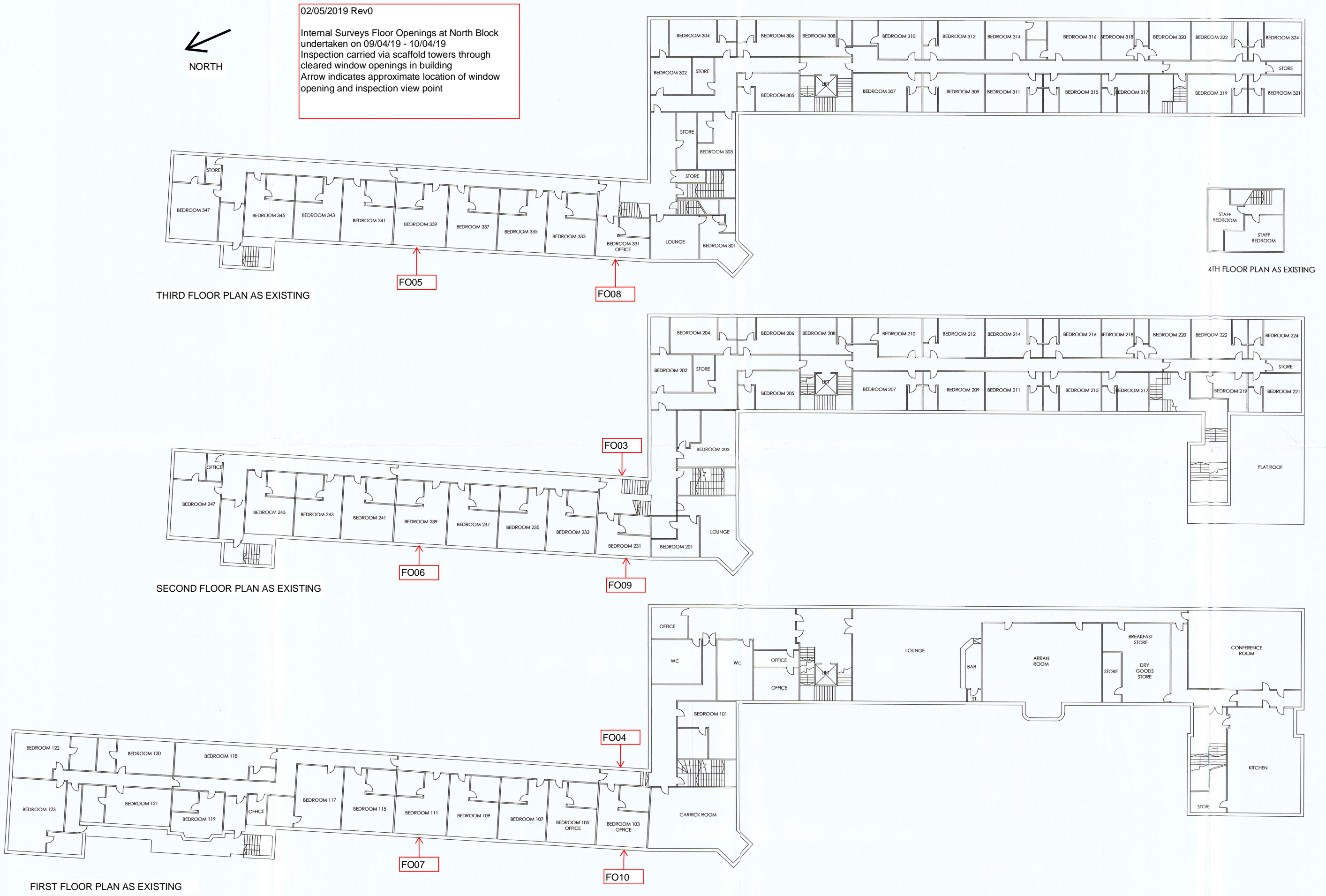
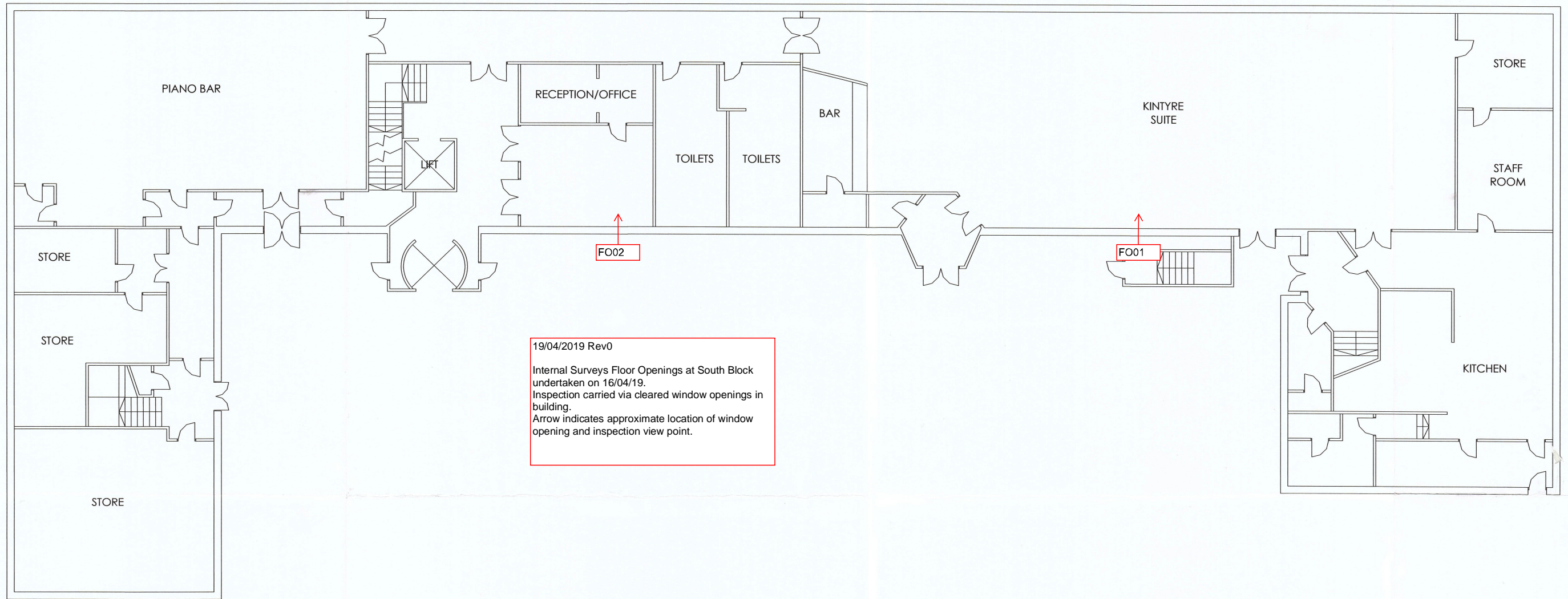


Figure A19: Plan of Station Hotel Building North Block 1st Floor, 2nd Floor and 3rd Floor/Mansard Roof showing Internal Survey Floor Openings (via scaffold towers) Defect/Observation Locations



GROUND FLOOR PLAN AS EXISTING

Figure A20: Plan of Station Hotel Building South Block Ground Floor showing Internal Survey Floor Openings Defect/Observation Locations

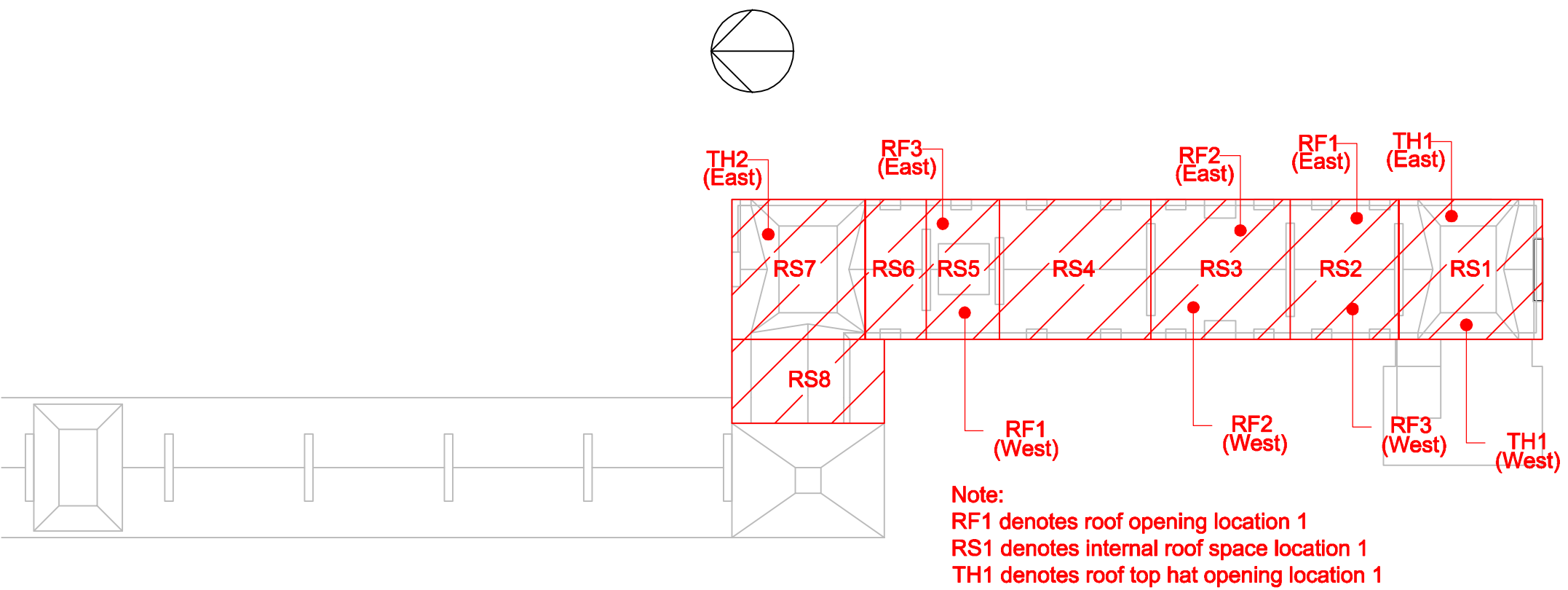


Figure A21: Plan of Station Hotel Building South Block showing Internal Survey Defect/Observation Locations of Roof Space and Roof Openings

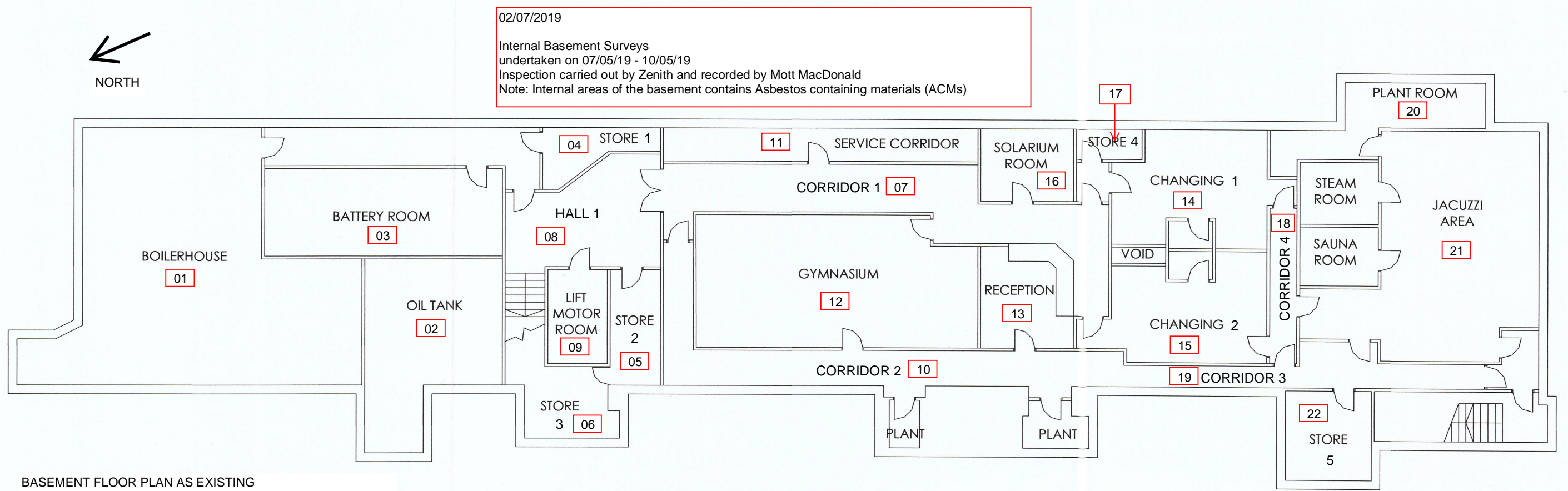


Figure A22: Plan of Station Hotel Building South Block Basement showing Internal Survey Defect/Observation Locations

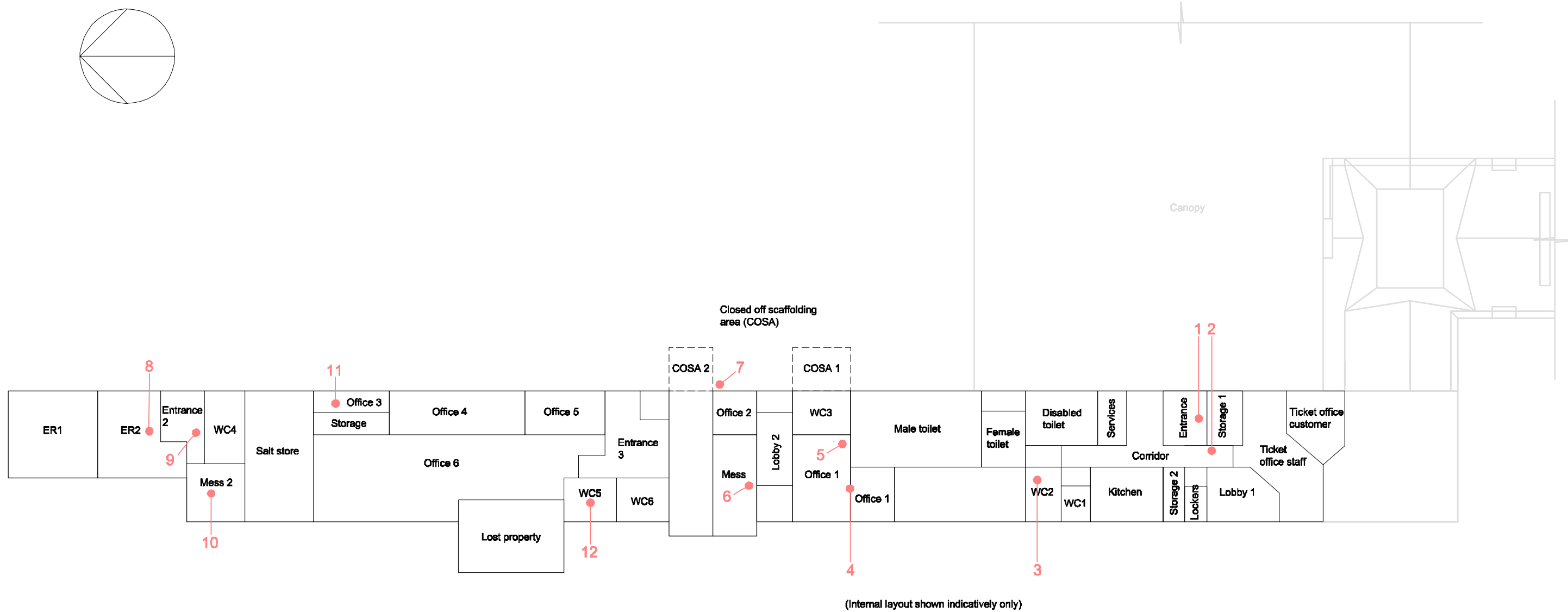


Figure A23: North Block Ground Level Plan of Station Hotel Building showing Defect/Observation Locations

B. External Defects Tables

North Elevation (N1) Defects and Observations

North Elevation (N2) Defects and Observations

North Elevation (N3) Defects and Observations

North Elevation (N4) Defects and Observations

North Elevation (N5) Defects and Observations

East Elevation (E1) Defects and Observations

East Elevation (E2) Defects and Observations

South Elevation (S1) Defects and Observations

West Elevation (W1) Defects and Observations

West Elevation (W2) Defects and Observations

West Elevation (W3) Defects and Observations

West Elevation (W4) Defects and Observations

West Elevation (W5) Defects and Observations

West Elevation (W6) Defects and Observations

West Elevation (W7) Defects and Observations

West Elevation (W8) Defects and Observations

West Elevation (W10) Defects and Observations

Roof Plan (R1) Defects and Observations


Roof Plan (R2) Defects and Observations


Roof Plan (R3) Defects and Observations

Roof Plan (R4) Defects and Observations

B.1 North Elevation (N1)



Table 1: Elevation N1 Defects and Observations



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
N1.1	P1200200	Missing/damaged pointing	North Elevation N1, Wall	n/a	n/a	n/a	-		Amber
N1.2	P1200201	Cracking to sandstone	North Elevation N1, Wall	Diagonal	1	100	Crack on sandstone block adjacent window		Green
N1.3	P1200202	Spalled/damaged sandstone	North Elevation N1, Wall	n/a	n/a	n/a	Delamination and flaking of sandstone to cornice feature		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
N1.4	P1200203, 204	Water staining efflorescence	North Elevation N1, Wall	n/a	n/a	n/a	General water staining and vegetation growth/staining noted on wall face		Green
N1.5	P1200206	Cracking to sandstone	North Elevation N1, Wall	Diagonal	3	300	Crack on sandstone block, appears to have been repaired/infilled		Amber
N1.6	P1200207, 208	Spalled/damaged sandstone	North Elevation N1, Wall	n/a	n/a	n/a	Spalled/cracked/broken sandstone below coping		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
N1.7	P1200213, 220	Spalled/damaged sandstone, Other	North Elevation N1, Wall	n/a	n/a	n/a	Delaminated sandstone around window. Timber window frame in in poor condition		Green
N1.8	P1200209	Cracking to sandstone	North Elevation N1, Wall	Diagonal	3	200	Crack on sandstone block below chimney cornice, vegetation growth/staining on cornice		Red



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
N1.9	P1200210, 211	Cracking to sandstone, Other	North Elevation N1, Wall	Horizontal	2	200	Crack on sandstone block emanating from downpipe fixing, fixing partially detached from wall		Amber
N1.10	P1200214	Other	North Elevation N1, Wall	n/a	n/a	n/a	Downpipe fixing to wall broken/damaged		Amber
N1.11	P1200215 - 219	Spalled/damaged sandstone	North Elevation N1, Wall	n/a	n/a	n/a	Missing pointing to sandstone coping block at roof		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
N1.12	P1200221	Missing/damaged tiles/roof	North Elevation N1, Wall	n/a	n/a	n/a	Missing/dislodged roof tiles		Red
N1.13	P1200222, 0223	Spalled/damaged sandstone, Cracking to sandstone	North Elevation N1, Wall	Diagonal	1	150	Crack on sandstone block, appears to have been repaired/infilled		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
N1.14	P1200224	Other	North Elevation N1, Wall	n/a	n/a	n/a	Missing window pane		Amber
N1.15	P1200225	Spalled/damaged sandstone	North Elevation N1, Wall	n/a	n/a	n/a	Deterioration of sandstone pilaster at side of window		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
N1.16	P1200226, 227, 231, 232	Spalled/damaged sandstone ledge	North Elevation N1, Wall	n/a	n/a	n/a	Spalled/cracked/broken off sandstone to ledge feature at 5 locations		Green
N1.17	P1200228	Cracking to sandstone	North Elevation N1, Wall	Diagonal	2	100	Crack on sandstone block of window lintel		Amber
N1.18	P1200229	Cracking to sandstone	North Elevation N1, Wall	Vertical	2	150	Crack on sandstone block adjacent to window cill		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
N1.19	P1200230	Spalled/damaged sandstone	North Elevation N1, Wall	n/a	n/a	n/a	Deterioration to sandstone block at pipe penetration		Green
N1.20	P1200233, 234	Missing/damaged pointing	North Elevation N1, Wall	n/a	n/a	n/a	Deterioration and loss of mortar joints below window		Green
N1.21	P1200235	Spalled/damaged sandstone	North Elevation N1, Wall	n/a	n/a	n/a	Deterioration to sandstone block, appears to be weathered		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
N1.22	P1200236	Other	North Elevation N1, Wall	n/a	n/a	n/a	Damaged flashing below window		Amber
N1.23	P1200237, 238, 239	Damaged/defective gutter/drainage	North Elevation N1, Wall	n/a	n/a	n/a	Gutter appears to be defective and not draining		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
N1.24	P1200313, 315	Other	North Elevation N1, Wall	n/a	n/a	n/a	Deterioration of timber framing to windows		Green
N1.25	P1200314	Spalled/ damaged sandstone	North Elevation N1, Wall	n/a	n/a	n/a	Cracked/broken off sandstone to gutter/downpipe feature		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
N1.26	P1200316	Damaged/defective gutter/drainage	North Elevation N1, Wall	n/a	n/a	n/a	Surface corrosion to downpipe, appears quite extensive		Green
N1.27	P1200317, 318	Cracking to sandstone	North Elevation N1, Wall	Diagonal	4	300	Cracked window lintel, 2no. separate cracks on lintel observed		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
N1.28	P1200319	Spalled/damaged sandstone	North Elevation N1, Wall	n/a	n/a	n/a	Spalling/delamination of sandstone blocks on and adjacent ledge feature		Green
N1.29	P1200428, 430	Missing/damaged pointing, Cracking to sandstone	North Elevation N1, Wall	Stepped / Diagonal	3	2000	Crack between upper and lower windows. Crack travels mostly along mortar joint and extends on a sandstone block		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
N1.30	P1200429	Cracking to sandstone	North Elevation N1, Wall	Diagonal	1	300	Crack on lintel		Green
N1.31	P1200431, 432	Spalled/damaged sandstone	North Elevation N1, Wall	n/a	n/a	n/a	Sandstone ledge feature appears to exhibit delamination/erosion with loss of section observed		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
N1.32	P1200433	Water staining efflorescence	North Elevation N1, Wall	n/a	n/a	n/a	-		Green
N1.33	P1200434	spalled/damaged sandstone	North Elevation N1, Wall	n/a	n/a	n/a	Deterioration to sandstone block at window cill		Green

Source: MM (Surveyed on 23-28/01/2019, Surveyed from Option 2 Scaffold Enclosure)

Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A1-A15 for location of defects/observation.

B.2 North Elevation (N2)

Table 2: Elevation N2 Defects and Observations

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
N2.1	P1190486	Spalled/damaged sandstone	Elevation N2, Wall	n/a	n/a	n/a	Cracked/broken off sandstone to ledge feature		Green
N2.2	P1190488	Missing/damaged tiles/roof	Elevation N2, Roof	n/a	n/a	n/a	-		Red
N2.3	P1190492	Other	Elevation N2, Roof	n/a	n/a	n/a	Cast iron feature piece broken/missing		Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
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Source: MM (Surveyed on 16-17/08/2018, Surveyed from ground level)

Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A1-A15 for location of defects/observation.

B.3 North Elevation (N3)

Table 3: Elevation N3 Defects and Observations

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
N3.1	P1190481	Spalled/damaged sandstone	Underside gutter support	n/a	n/a	n/a	Sandstone ledge feature appears to exhibit delamination/erosion		Green
N3.2	P1190482	Cracking to sandstone	Wall	Vertical	1	750	-		Green
N3.3	P1190483	Spalled/damaged sandstone	Underside chimney	n/a	n/a	n/a	Sandstone blocks appears to exhibit delamination/erosion		Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
N3.4	P1190484	Spalled/damaged sandstone	Elevation N3, Wall	n/a	n/a	n/a	Sandstone blocks appears to exhibit weathering/erosion		Green




Source: MM (Surveyed on 16-17/08/2018, Surveyed from ground level)


Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A1-A15 for location of defects/observation.

B.4 North Elevation (N4)

Table 4: Elevation N4 Defects and Observations

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
N4.1	P1190472	Cracking to lintel	Door lintel	Horizontal	2	750	Horizontal crack through lintel and vertical through sandstone block joints		Red
N4.2	P1190473	Spalled/damaged sandstone	Underside of gutter	n/a	n/a	n/a	Cracked/broken off sandstone block forming gap below gutter		Amber
N4.3	P1190474	Spalled/damaged sandstone	Underside of gutter	n/a	n/a	n/a	Cracked/broken off sandstone block adjacent downpipe		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
N4.4	P1190476	Spalled/damaged sandstone	Sandstone ledge feature	n/a	n/a	n/a	Cracked/broken off sandstone to ledge feature		Green
N4.5	P1190477	Spalled/damaged sandstone	Sandstone ledge feature below chimney	n/a	n/a	n/a	Sandstone ledge feature appears to exhibit delamination/ erosion		Green
N4.6	P1190477	Other	Chimney	n/a	n/a	n/a	Metal strapping on chimney stack noted. Evidence of possible past movement of stack		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
N4.7	P1190478	Spalled/damaged sandstone	Elevation N4, Wall	n/a	n/a	n/a	Cracked/broken off sandstone block		Red

Source: MM (Surveyed on 16-17/08/2018, Surveyed from ground level)

Notes: Severity Category to be confirmed in Stage 2 Report

B.5 North Elevation (N5)

Table 5: Elevation N5 Defects and Observations

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
N5.1	n/a	Other	Elevation N5, Wall	n/a	n/a	n/a	No defects or observations noted	n/a	n/a

Source: MM (Surveyed on 16-17/08/2018, Surveyed from ground level)

Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A1-A15 for location of defects/observation.



B.6 East Elevation (E1)

Table 6: Elevation E1 Defects and Observations



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.1	P1200099/100	Missing/damaged tiles/roof	Mansard roof	n/a	n/a	n/a	Approx. defect area 0.5m x 1m		Red
E1.2	P1200101/102	Spalled/damaged sandstone	Coping	n/a	n/a	n/a	Cracked/broken off sandstone to triangular coping		Green
E1.3	P1200103	Damaged/defective gutter/drainage	Gutter	n/a	n/a	n/a	Gutters generally blocked and filled with debris. Common defect visible in majority of gutters on Elevation E1		Red




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.4	P1200104/105	Spalled/damaged sandstone	Window	n/a	n/a	n/a	Delamination/weathered erosion to framing stonework around window		Green
E1.5	P1200106	Other	Window	n/a	n/a	n/a	Deterioration of timber framing to windows; common defect visible in majority of window frames		Green
E1.6	P1200107	Damaged/defective gutter/drainage	Gutter	n/a	n/a	n/a	Broken gutter/debris in downpipe		Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.7	P1200112	Other	Coping above window	n/a	n/a	n/a	Missing mortar between stonework, possibly loose block		Amber
E1.8	P1200113-115	Other	Roof ridge	n/a	n/a	n/a	Missing/dislodged tiles exposing damaged/rotted timber. Roof void also exposed		Red
E1.9	P1200116	Spalled/damaged sandstone	Above window	n/a	n/a	n/a	Cracked/broken off sandstone around CPMS fixing point		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.10	P1200117	Spalled/damaged sandstone	Feature stonework	n/a	n/a	n/a	General delamination/erosion to feature sandstone block		Green
E1.11	P1200118	Other	Mansard roof	n/a	n/a	n/a	Missing/dislodged tiles exposing damaged/rotted timber. Roof void also exposed		Red




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.12	P1200119	Missing/damaged tiles/roof	Mansard roof	n/a	n/a	n/a	Approx. defect area 0.5m x 1m		Red
E1.13	P1200120	Spalled/damaged sandstone	Above window	n/a	n/a	n/a	Cracked/broken off sandstone. Missing mortar, possibly loose block		Amber
E1.14	P1200123-124	Other	Mansard roof	n/a	n/a	n/a	Missing tiles exposed and damaged/rotted timber. Roof void exposed		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.15	P1200125	Vegetation growth	Roof and wall	n/a	n/a	n/a	General vegetation growth observed on elevation E1 building face		Amber
E1.16	P1200126-128	Spalled/damaged sandstone	Above window	n/a	n/a	n/a	Cracked/broken off sandstone. Missing mortar, possibly loose block		Amber
E1.17	P1200129-132	Other	Mansard roof	n/a	n/a	n/a	Missing tiles and exposed damaged/rotted timber. Roof void exposed. Broken cast iron feature		Red



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.18	P1200133	Other	Mansard roof	n/a	n/a	n/a	Missing tiles exposed and damaged/rotted timber. Roof void exposed. Broken cast iron feature		Red
E1.19	P1200136	Spalled/damaged sandstone	Above roof	n/a	n/a	n/a	Cracked/broken off sandstone. Missing mortar, possibly loose block		Amber
E1.20	P1200137-138	Other	Mansard roof	n/a	n/a	n/a	Missing tiles and exposed damaged/rotted timber. Roof void exposed. Broken cast iron feature		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.21	P1200139	Spalled/damaged sandstone	Above window	n/a	n/a	n/a	Delamination/erosion of sandstone. Missing mortar, possibly loose block		Red
E1.22	P1200140-141	Cracking to sandstone	Roof	Diagonal	3	200	-		Amber
E1.23	P1200142	Other	Window	n/a	n/a	n/a	Smashed window pane		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.24	P1200143-144	Other	Mansard roof	n/a	n/a	n/a	Full roof section removed (timbers, tiles, etc) and sheeted		Red
E1.25	P1200145	Spalled/damaged sandstone	Above window	n/a	n/a	n/a	Cracked/broken off sandstone. Missing mortar, possibly loose block		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.26	P1200146	Other	Window	n/a	n/a	n/a	Smashed window pane		Red
E1.27	P1200147-152	Other	Mansard roof	n/a	n/a	n/a	Missing tiles exposed and damaged/rotted timber. Roof void exposed. Damaged flashing		Red
E1.28	P1200153	Spalled/damaged sandstone	Above window	n/a	n/a	n/a	Cracked/broken off sandstone. Missing mortar, possibly loose block		Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.29	P1200154	Spalled/damaged sandstone	Window pilaster	n/a	n/a	n/a	Delamination/erosion of sandstone around window framing		Green
E1.30	P1200155-157	Other	Mansard roof	n/a	n/a	n/a	Missing tiles exposed and damaged/rotted timber. Roof void exposed. Damaged flashing		Red
E1.31	P1200158	Other	Mansard roof	n/a	n/a	n/a	Missing tiles. Damaged flashing		Red



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.32	P1200159	Cracking to sandstone	Feature stonework	Diagonal	2-3	150	-		Amber
E1.33	P1200160-163	Other	Mansard roof	n/a	n/a	n/a	Missing tiles exposed and damaged/rotted timber. Roof void exposed		Red
E1.34	P1200164-166	Other	Mansard roof	n/a	n/a	n/a	Missing tiles exposed and damaged/rotted timber. Roof void exposed		Red

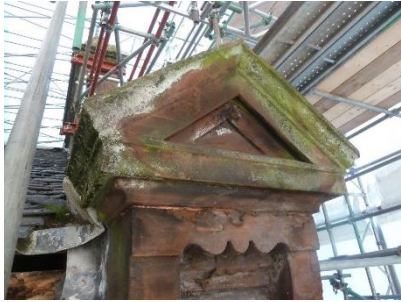
Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.35	P1200167	Spalled/damaged sandstone	Above window	n/a	n/a	n/a	Delamination/erosion of sandstone. Missing mortar, possibly loose block		Red
E1.36	P1200168	Spalled/damaged sandstone	Window pilaster	n/a	n/a	n/a	Cracked/broken off sandstone around window framing		Green
E1.37	P1200169-175	Other	Mansard roof	n/a	n/a	n/a	Missing tiles exposed and damaged/rotted timber. Roof void exposed		Red



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.38	P1200176	Spalled/damaged sandstone	Above window	n/a	n/a	n/a	Delamination/erosion of sandstone. Missing mortar, possibly loose block		Amber
E1.39	P1200177	Cracking to sandstone	Above window	Diagonal	1	50	Cracking to sandstone at bolt fixing		Green
E1.40	P1200178-181	Other	Mansard roof	n/a	n/a	n/a	Missing tiles exposed and damaged/rotted timber. Roof void exposed		Red



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.41	P1200182	Damaged/defective gutter/drainage Displaced tiles/slates	Mansard roof	n/a	n/a	n/a	Damaged gutter		Red
E1.42	P1200183	Spalled/damaged sandstone	Mansard roof	n/a	n/a	n/a	Delamination/erosion of sandstone to feature stonework		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.43	P1200186	Missing/damaged tiles/roof	Mansard roof	n/a	n/a	n/a	Missing tiles		Red
E1.44	P1200187-188	Damaged cast iron fittings	Roof tower	n/a	n/a	n/a	Missing cast iron feature piece		Amber
E1.45	P1200189	Spalled/damaged sandstone	Above roof	n/a	n/a	n/a	Delamination/erosion of sandstone. Missing mortar, possibly loose block		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.46	P1200190194	Spalled/damaged sandstone	Above roof	n/a	n/a	n/a	Delamination/erosion of sandstone. Missing mortar, possibly loose block		Amber
E1.47	P1200191	Other	Window	n/a	n/a	n/a	Broken window pane		Red



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.48	P1200193	Other	Mansard roof	n/a	n/a	n/a	Missing tiles exposed and damaged/rotted timber. Roof void exposed		Red
E1.49	P1200196	Water staining efflorescence	Sandstone	n/a	n/a	n/a	General defect - water staining to building face		Green
E1.50	P1200240-242	Spalled/damaged sandstone Unattached gutter bracket.	Wall	n/a	n/a	n/a	Cracked/broken off sandstone		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.51	P1200243	Other	Gutter	n/a	n/a	n/a	Damage to temporary gutters		Red
E1.52	P1200244-245	Cracking to sandstone	Wall	Diagonal	6	700	Substantial crack to lintel which extends into sandstone wall		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.53	P1200246	Other	Wall	n/a	n/a	n/a	Delamination/erosion of sandstone. Missing mortar, possibly loose block		Amber
E1.54	P1200247	Spalled/damaged sandstone	Wall	n/a	n/a	n/a	Cracked/broken off sandstone		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.55	P1200248-250	Water staining efflorescence	Wall	n/a	n/a	n/a	General defect - water staining to building face		Green
E1.56	P1200251-252	Spalled/damaged sandstone	Wall	n/a	n/a	n/a	Missing mortar, possibly loose block		Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.57	P1200253-254	Cracking to sandstone	Lintel	Diagonal	2	100	Crack to sandstone lintel above window		Red
E1.58	P1200255	Damaged/defective gutter/drainage	Gutter	n/a	n/a	n/a	General defect - Debris in gutter. Common defect visible in majority of gutters		Red




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.59	P1200257	Spalled/damaged sandstone	Wall	n/a	n/a	n/a	Cracked/broken off sandstone due to broken rainwater pipe		Amber
E1.60	P1200257	Damaged/defective gutter/drainage	Downpipe	n/a	n/a	n/a	Missing section of downpipe		Red




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.61	P1200258-259	Cracking to sandstone	Wall	Vertical	2	300	Crack to sandstone adjacent to window		Red
E1.62	P1200260	Spalled/damaged sandstone	Wall	n/a	n/a	n/a	Missing mortar, possibly loose block		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.63	P1200261-262	Spalled/damaged sandstone	Wall	n/a	n/a	n/a	Cracked/broken off sandstone		Green
E1.64	P1200263-264	Damaged/defective gutter/drainage Spalled/damaged sandstone	Downpipe	n/a	n/a	n/a	Missing section of downpipe		Red
E1.65	P1200265-266	Other	Flashing	n/a	n/a	n/a	Defective flashing		Red



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.66	P1200267	Spalled/damaged sandstone	Wall	n/a	n/a	n/a	Cracked/broken off sandstone		Green
E1.67	P1200269	Spalled/damaged sandstone	Wall	n/a	n/a	n/a	Cracked/broken off sandstone		Green
E1.68	P1200270	Other	Flashing	n/a	n/a	n/a	Defective flashing		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.69	P1200271	Cracking to sandstone	Wall	Diagonal	1	100	Crack to sandstone		Green
E1.70	P1200272	Cracking to sandstone	Lintel	Vertical/ Diagonal	2	100	Crack to sandstone at corner of window/lintel		Amber
E1.71	P1200273-277	Other	Flashing	n/a	n/a	n/a	Defective flashing, missing mortar		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.72	P1200278-280	Other	Flashing	n/a	n/a	n/a	Defective flashing		Red
E1.73	P1200281	Damaged/defective gutter/drainage	Downpipe	n/a	n/a	n/a	Damaged downpipe		Red
E1.74	P1200282-283	Spalled/damaged sandstone	Feature stonework	n/a	n/a	n/a	Cracked/broken off sandstone		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.75	P1200284	Spalled/damaged sandstone	wall	n/a	n/a	n/a	Delamination/erosion of sandstone along ledge feature		Green
E1.76	P1200285	Spalled/damaged sandstone	wall	n/a	n/a	n/a	Cracked/broken off sandstone to underside of ledge feature		Green
E1.77	P1200286-287	Spalled/damaged sandstone	wall	n/a	n/a	n/a	Cracked/broken off sandstone to underside of ledge feature		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.78	P1200288	Water staining efflorescence	Wall	n/a	n/a	n/a	Water staining generally noted to building face of elevation E1		Green
E1.79	P1200289-290	Cracking to sandstone	Wall	Horizontal	1	500	Crack to sandstone lintel. Delamination/erosion with cracked/broken off section noted		Green
E1.80	P1200291-292	Spalled/damaged sandstone	Wall	n/a	n/a	n/a	Delamination/erosion of sandstone		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.81	P1200293	Spalled/damaged sandstone	Cill	n/a	n/a	n/a	Delamination/erosion of sandstone to window cill		Green
E1.82	P1200294-295	Other	Wall	n/a	n/a	n/a	Missing mortar, possibly loose sandstone block. Probable water ingress from defective rainwater downpipe		Green
E1.83	P1200296	Cracking to sandstone	Wall	Diagonal	2	100	Crack to sandstone block emanating from possible metal insert		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.84	P1200297-298	Cracking to sandstone	Wall	Vertical	3	600	Crack to sandstone blocks at side of window		Amber
E1.85	P1200299-300	Other	Wall	n/a	n/a	n/a	Missing mortar, possibly loose block		Amber
E1.86	P1200301	Other	Flashing	n/a	n/a	n/a	Defective flashing		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.87	P1200302-303	Cracking to sandstone	Wall	Vertical	2	200	Crack to sandstone at corner of window/lintel		Amber
E1.88	P1200304	Water staining efflorescence	Wall	n/a	n/a	n/a	General defect - water staining to building face		Green
E1.89	P1200305	Cracking to sandstone	Lintel	Diagonal	1	200	Crack to sandstone lintel		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.90	P1200306	Spalled/damaged sandstone	Wall	n/a	n/a	n/a	Cracked/broken off sandstone to vertical side of window. It appears lintel has reduced bearing		Red
E1.91	P1200307-308	Damaged/defective gutter/drainage	Wall	n/a	n/a	n/a	General defect – Corrosion noted on downpipes		Red
E1.92	P1200309-311	Damaged/defective gutter/drainage	Gutter	n/a	n/a	n/a	Missing section of gutter		Red



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.93	P1200312	Spalled/damaged sandstone	Sandstone ledge feature	n/a	n/a	n/a	Cracked/broken off sandstone to sandstone ledge feature		Red
E1.94	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used
E1.95	P1200322	Spalled/damaged sandstone	Sandstone ledge feature	n/a	n/a	n/a	Cracked/broken off sandstone to sandstone ledge feature		Green


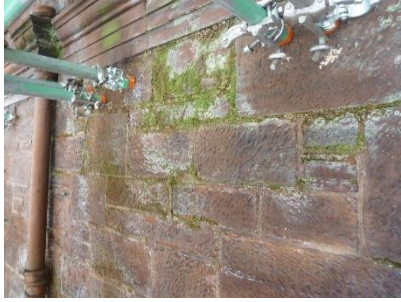
Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.96	P1200323, 421,424, 425	Cracking to sandstone	Wall	Vertical	3-5	1200	Crack extends downwards from side of window, above cill crossing through blocks and travels along mortar joint		Amber
E1.97	P1200324, 420	Spalled/damaged sandstone	Sandstone	n/a	n/a	n/a	Cracked/broken off sandstone to vertical window edge		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.98	P1200325	Other	Window	n/a	n/a	n/a	Deterioration of timber framing to windows - Common defect visible in majority of window frames		Green
E1.99	P1200326	Other	Window	n/a	n/a	n/a	Deterioration of timber framing to windows - Common defect visible in majority of window frames		Green
E1.100	P1200327	Cracking to sandstone	Lintel	Diagonal	5	100	Crack to window lintel near support		Red



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.101	P1200328	Other	Window	n/a	n/a	n/a	Crack to window pane		Amber
E1.102	P1200329	Other	Window	n/a	n/a	n/a	Deterioration of timber framing to windows - Common defect visible in majority of windows		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.103	P1200330	Water staining efflorescence	Sandstone	n/a	n/a	n/a	Water staining and vegetation growth/staining to building face		Green
E1.104	P1200331	Cracking to sandstone	Window	Diagonal	2	100	Crack to sandstone at vertical window surround		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.105	P1200332	Other	Window	n/a	n/a	n/a	Deterioration of timber framing to windows - Common defect visible in majority of windows		Green
E1.106	P1200333	Other	Window	n/a	n/a	n/a	Missing window pane		Red



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.107	P1200334	Cracking to sandstone	Lintel	Diagonal	6	100	Crack to window lintel		Amber
E1.108	P1200335	Other	Window	n/a	n/a	n/a	Deterioration of timber framing to windows - Common defect visible in majority of windows		Green
E1.109	P1200336	Water staining efflorescence	Wall	n/a	n/a	n/a	Water staining to building face		Green

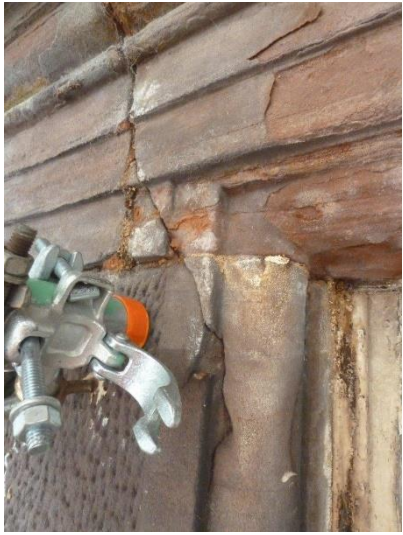

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.110	P1200337	Damaged/defective gutter/drainage	Gutter	n/a	n/a	n/a	Missing gutter fixing		Amber
E1.111	P1200338	Spalled/damaged sandstone	Lintel	n/a	n/a	n/a	Delamination/erosion of sandstone to underside of window lintel		Green
E1.112	P1200339	Water staining efflorescence	Sandstone	n/a	n/a	n/a	Water staining to building face		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.113	P1200341, 342	Other	Lintel	n/a	n/a	n/a	Corroded steel lintel		Green
E1.114	P1200343	Spalled/damaged sandstone	Lintel	n/a	n/a	n/a	Sections of sandstone appear to have cracked/broken off the window lintel		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.115	P1200344	Other	Window	n/a	n/a	n/a	Crack to window pane		Green
E1.116	P1200345	Spalled/damaged sandstone	Window	n/a	n/a	n/a	Cracked/broken off sandstone		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.117	P1200347	Cracking to sandstone	Window	Diagonal	2	50	Cracked/broken off sandstone at bearing location of steel lintel, which is exhibiting surface corrosion		Amber
E1.118	P1200348	Cracking to sandstone	Wall	Vertical	1	400	Cracked sandstone block		Green
E1.119	P1200349	Cracking to sandstone	Wall	Diagonal	2	75	Cracked sandstone block		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.120	P1200350	Cracking to sandstone	Window	Vertical	8	500	Crack to sandstone blocks at vertical window surround		Amber
E1.121	P1200351	Other	Window	n/a	n/a	n/a	Deterioration of timber framing to windows - Common defect visible in majority of window frames		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.122	P1200352	Cracking to sandstone	Window	Diagonal	3	200	Crack to sandstone window vertical framing		Amber
E1.123	P1200353	Water staining efflorescence	Wall	n/a	n/a	n/a	Water staining to building face		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.124	P1200354	Cracking to sandstone	Lintel	Diagonal	2	200	Crack to lintel, likely due to lost lintel support (see below E1.125)		Green
E1.125	P1200355-357	Spalled/damaged sandstone	Wall	n/a	n/a	n/a	Cracked/broken off sandstone to vertical window framing/support to lintel. Evidence of lintel movement. Danger of lintel failure if left untreated		Red



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.126	P1200359	Water staining efflorescence	Wall	n/a	n/a	n/a	Water staining and vegetation growth/staining to building face		Amber
E1.127	P1200360	Damaged/defective gutter/drainage	Wall	n/a	n/a	n/a	Defective gutter fixing		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.128	P1200361	Other	Window	n/a	n/a	n/a	Deterioration of timber framing to windows - Common defect visible in majority of windows		Green
E1.129	P1200362	Cracking to sandstone	Wall	Diagonal	1	100	Crack in sandstone to window frame		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.130	P1200363	Water staining efflorescence	Wall	n/a	n/a	n/a	Water staining to building face		Green
E1.131	P1200364	Other	Window	n/a	n/a	n/a	Deterioration of timber framing to windows - Common defect visible in majority of windows		Green
E1.132	P1200365	Spalled/damaged sandstone	Wall	n/a	n/a	n/a	Cracked/broken off sandstone to gutter framing		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.133	P1200366	Spalled/damaged sandstone	Wall	n/a	n/a	n/a	Cracked/broken off sandstone to ledge feature		Green
E1.134	P1200367	Cracking to sandstone	Wall	Diagonal	3	200	Cracked sandstone to cill		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.135	P1200368-369	Spalled/damaged sandstone	Wall	n/a	n/a	n/a	Cracked sandstone block		Green
E1.136	P1200370-371	Cracking to sandstone	Wall	Diagonal	6	200	Crack to window lintel		Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.137	P1200372	Cracking to sandstone	Wall	Vertical	1	1000	Crack to sandstone block adjacent to window		Amber
E1.138	P1200373	Spalled/damaged sandstone	Wall	n/a	n/a	n/a	Cracked/broken off sandstone to underside of ledge feature		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.139	P1200375	Spalled/damaged sandstone	Wall	n/a	n/a	n/a	Cracked/broken off sandstone to top of sandstone ledge feature		Green
E1.140	P1200376	Spalled/damaged sandstone	Wall	n/a	n/a	n/a	Delamination/erosion of sandstone to gutter framing – Common defect throughout		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.141	P1200378-380	Cracking to sandstone	Wall	Stepped / Diagonal	1	2000	Large crack along mortar joint below window frame with missing/poor condition mortar		Amber
E1.142	P1200377	Water staining efflorescence	Wall	n/a	n/a	n/a	Water staining to building face		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.143	P1200381	Spalled/damaged sandstone	Window arch	n/a	n/a	n/a	Delamination/erosion of sandstone window arch		Green
E1.144	P1200382	Cracking to sandstone	Wall	Vertical	1	400	Crack along mortar joint and through sandstone block		Green

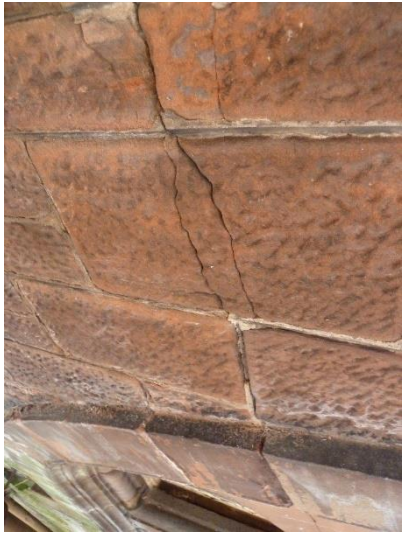
Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.145	P1200383-387	Cracking to sandstone	Wall	Vertical	2-10	2000	Large crack travelling vertically between window frame and arch below. Mortar loss around sandstone block		Amber
E1.146	P1200388	Spalled/damaged sandstone	Wall	n/a	n/a	n/a	Cracked/broken off sandstone to gutter framing – Common defect throughout		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.147	P1200389	Cracking to sandstone	Wall	Diagonal	1	100	Crack to corner of sandstone block		Green
E1.148	P1200390	Other	Wall	n/a	n/a	n/a	Corroded downpipe		Green
E1.149	P1200391	Cracking to sandstone	Wall	Vertical	5	100	Crack to sandstone cill. Cill stonework also exhibiting delamination/erosion with stonework section cracked/broken off		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.150	P1200392	Spalled/damaged sandstone	Wall	n/a	n/a	n/a	Delamination/erosion of sandstone to cill		Green
E1.151	P1200393	Water staining efflorescence	Wall	n/a	n/a	n/a	Water staining to building face		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.152	P1200394	Cracking to sandstone	Wall	Vertical	5	100	Crack to sandstone cill		Amber
E1.153	P1200395	Spalled/damaged sandstone	Window mullion	n/a	n/a	n/a	Delamination/erosion of sandstone to mullion		Green
E1.154	P1200396	Cracking to sandstone	Wall	Diagonal	1	100	Crack to sandstone block		Green

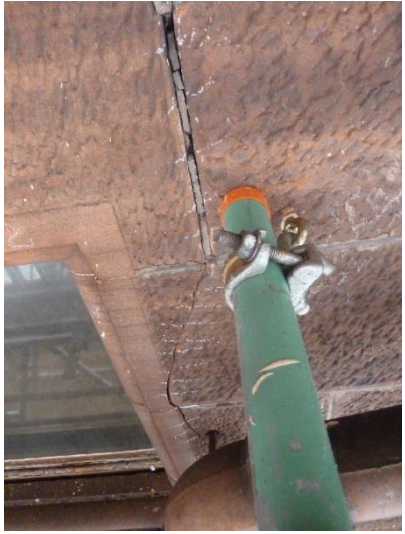
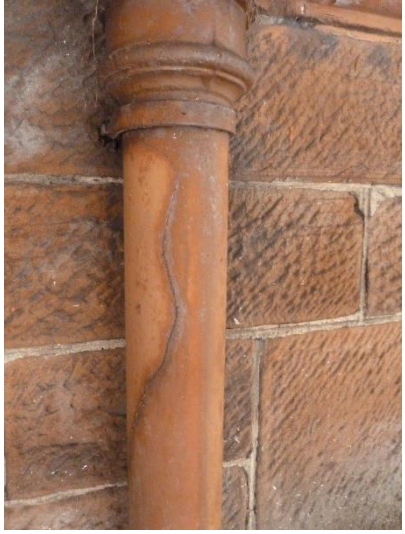
Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.155	P1200397	Spalled/damaged sandstone	Window mullion	n/a	n/a	n/a	Delamination/erosion of sandstone to mullion		Green
E1.156	P1200398	Water staining efflorescence	Wall	n/a	n/a	n/a	Water staining to building face		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.157	P1200399-404	Cracking to sandstone	Wall	Vertical	10	3000	Large crack running vertically between window frames		Amber
E1.158	P1200405	Spalled/damaged sandstone	Window mullion	n/a	n/a	n/a	Delamination/erosion of sandstone to mullion		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.159	P1200406	Spalled/damaged sandstone	Sandstone ledge feature	n/a	n/a	n/a	Delamination/erosion of sandstone to sandstone ledge feature		Green
E1.160	P1200407	Spalled/damaged sandstone	Downpipe	n/a	n/a	n/a	Cracked/broken off sandstone to downpipe framing		Green
E1.161	P1200408	Spalled/damaged sandstone	Wall	n/a	n/a	n/a	Spalled/cracked/broken off sandstone block. Deterioration of mortar joint		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.162	P1200409-411	Cracking to sandstone	Window	Vertical	2	500	Crack to sandstone to side of window framing, crack extends below cill level		Amber
E1.163	P1200412-413	Cracking to sandstone	Wall	Vertical	1	1000	Crack to sandstone block. Crack appears to emanate from metal/anchor insert		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.164	P1200416	Cracking to sandstone	Sandstone	Diagonal	5	100	Crack to sandstone block at cill		Amber
E1.165	P1200417	Spalled/damaged sandstone	Sandstone ledge feature	n/a	n/a	n/a	Cracked/broken off sandstone to underside of ledge feature		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.166	P1200418-419	Cracking to sandstone	Sandstone	Vertical	1-3	1000	Crack spans vertically from sandstone ledge feature above to side of window framing. Crack travels through mortar joint and blocks. Deterioration of mortar joint noted		Amber
E1.167	P1200422	Other	Downpipe	n/a	n/a	n/a	Crack to downpipe		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.168	P1200423	Spalled/damaged sandstone	Sandstone	n/a	n/a	n/a	Cracked/broken off sandstone to gutter framing		Amber
E1.169	P1200426	Cracking to sandstone	Lintel	Diagonal	2	300	Crack to window lintel		Green
E1.170	P1200427	Spalled/damaged sandstone	Sandstone ledge feature	n/a	n/a	n/a	Delamination/erosion of sandstone to ledge feature at framing around downpipe		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.171	P1200435-436	Cracking to sandstone	Window transom	Vertical	2	300	Spalled/cracked/broken off sandstone to window transom and side frame. Evidence of movement to transom		Red
E1.172	P1200437-438	Spalled/damaged sandstone	Window transom	n/a	n/a	n/a	Cracked/broken off sandstone to window side frame. Evidence of movement to transom		Red



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.173	P1200441	Spalled/damaged sandstone	Arch	n/a	n/a	n/a	Spalled/delamination/erosion of sandstone to arch		Amber
E1.174	P1200442	Cracking to sandstone	Arch lintel	n/a	n/a	n/a	Crack to sandstone block below sandstone arch window lintel. Gap/missing mortar joint to between arch lintel blocks noted		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.175	P1200443	Other	Window	n/a	n/a	n/a	Timber window frame debonding from sandstone surround and showing signs of deterioration		Amber
E1.176	P1200445	Spalled/damaged sandstone	Window	n/a	n/a	n/a	Delamination/erosion of sandstone to vertical window frame		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.177	P1200444	Other	Wall	n/a	n/a	n/a	Water staining to building face		Green
E1.178	P1200446	Spalled/damaged sandstone	Window	n/a	n/a	n/a	Cracked/broken off sandstone to vertical window frame		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.179	P1200447	Other	Wall	n/a	n/a	n/a	Water staining to building face		Green
E1.180	P1200448	Spalled/damaged sandstone	Window	n/a	n/a	n/a	Delamination/erosion of sandstone at connection between window transom and vertical frame with cracked/broken off stonework noted. Water/mineral staining efflorescence noted		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.181	P1200449-451	Spalled/damaged sandstone	Window	n/a	n/a	n/a	Delamination/erosion of sandstone to window transom		Amber
E1.182	P1200452	Other	Window	n/a	n/a	n/a	Deterioration of timber framing to arch window		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.183	P1200454-455	Damaged/defective gutter/drainage	Downpipe	n/a	n/a	n/a	Missing downpipe		Red
E1.184	P1200456	Cracking to sandstone	Wall	Diagonal	1	300	Crack to sandstone block		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.185	P1200457-458	Spalled/damaged sandstone	Arch lintel	n/a	n/a	n/a	Cracked/broken off sandstone to arch lintel		Amber
E1.186	P1200459-460	Spalled/damaged sandstone	Arch lintel	n/a	n/a	n/a	Delamination/erosion of/cracked/broken off sandstone to arch lintel		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.187	P1200461-464	Spalled/damaged sandstone	Window	n/a	n/a	n/a	Delamination/erosion of sandstone to window transom. Evidence of movement to transom, risk of failure		Red
E1.188	P1200465, 466	Cracking to sandstone	Wall	Diagonal	1	400	Crack to sandstone block adjacent arch lintel		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.189	P1200468	Spalled/damaged sandstone	Window	n/a	n/a	n/a	Delamination/erosion of/cracked/broken off sandstone to window transom. Visible gap/loss of mortar between transom and vertical frame, risk of movement to transom		Red
E1.190	P1200469	Cracking to sandstone	Window	Diagonal	5	200	Crack to sandstone window lintel		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.191	P1200470-472	Other	Window	n/a	n/a	n/a	Delamination/erosion of sandstone to window transom. Visible gap/loss of mortar between transom and vertical frame. Evidence of movement to transom, risk of failure		Red
E1.192	P1200473-474	Spalled/damaged sandstone	Downpipe	n/a	n/a	n/a	Delamination/erosion of/cracked/broken off sandstone to ledge feature framing around downpipe		Amber
E1.193	P1200475-477	Spalled/damaged sandstone	Window cill	n/a	n/a	n/a	Delamination/erosion of/cracked/broken off sandstone to window cill		Amber

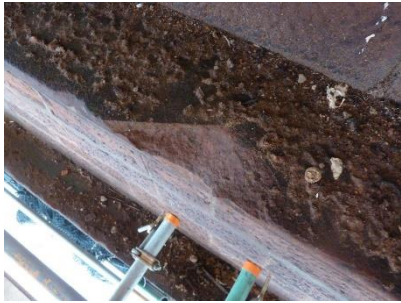

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.194	P1200478	Other	Window	n/a	n/a	n/a	Deterioration of timber framing to windows - Common defect visible in majority of window frames		Green
E1.195	P1200479-480	Damaged/defective gutter/drainage	Downpipe	n/a	n/a	n/a	Missing downpipe section		Red



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.196	P1200481	Water staining efflorescence	Wall	n/a	n/a	n/a	Water staining to building face		Green
E1.197	P1200482-483	Spalled/damaged sandstone	Sandstone ledge feature	n/a	n/a	n/a	Delamination/erosion of sandstone to sandstone ledge feature at downpipe		Green
E1.198	P1200484	Damaged/defective gutter/drainage	Downpipe	n/a	n/a	n/a	Corroded pipe bracket		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.199	P1200485-486	Cracking to sandstone	Window	Vertical	1	200	Crack to sandstone at window cill		Amber
E1.200	P1200487-489	Cracking to sandstone	Wall	Vertical	3	1000	Crack to sandstone block		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.201	P1200490-491	Cracking to sandstone	Window	Vertical	1	200	Crack to sandstone at window cill		Green
E1.202	P1200492-493	Cracking to sandstone	Wall	Vertical	2	1000	Crack to sandstone block at vertical window frame		Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.203	P1200494	Damaged/defective gutter/drainage	Downpipe	n/a	n/a	n/a	Missing downpipe and localised vegetation growth/staining on wall		Amber
E1.204	P1200495	Spalled/ damaged sandstone	Sandstone ledge feature	n/a	n/a	n/a	A localised section of sandstone has been removed from the sandstone ledge feature		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.205	P1200496	Spalled/damaged sandstone	Sandstone ledge feature	n/a	n/a	n/a	Cracked/broken off sandstone to sandstone ledge feature		Green
E1.206	P1200497	Damaged/defective gutter/drainage	Downpipe	n/a	n/a	n/a	Defective downpipe		Red


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.207	P1200498	Cracking to sandstone	Window	Vertical	2	100	Crack to sandstone at window cill ledge		Green
E1.208	P1200499	Damaged/defective gutter/drainage	Downpipe	n/a	n/a	n/a	Missing downpipe section		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.209	P1200500	Cracking to sandstone	Window	Vertical	1	200	Crack to sandstone at edge of vertical window framing		Green
E1.210	P1200501	Water staining efflorescence	Wall	n/a	n/a	n/a	Water staining and vegetation growth/staining to building face		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.211	P1200502	Spalled/damaged sandstone	Cill	n/a	n/a	n/a	Delamination/erosion of sandstone to window cill		Amber
E1.212	P1200503	Cracking to sandstone	Wall	Vertical	1	450	Crack to sandstone block		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.213	P1200504	Damaged/defective gutter/drainage	Downpipe	n/a	n/a	n/a	Missing downpipe section		Red
E1.214	P1200505	Cracking to sandstone	Wall	Vertical	1	300	Crack to sandstone block		Amber
E1.215	P1200506	Spalled/damaged sandstone	Cill	n/a	n/a	n/a	Delamination/erosion of sandstone to window cill		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.216	P1200507	Spalled/damaged sandstone	Cill	n/a	n/a	n/a	Delamination/erosion of sandstone to window cill		Amber
E1.217	P1200508	Cracking to sandstone	Cill	Vertical	3	300	Crack to sandstone of window cill with loss of section noted		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.218	P1200509	Spalled/damaged sandstone	Sandstone ledge feature	n/a	n/a	n/a	Cracked/broken off sandstone to ledge feature adjacent downpipe		Red
E1.219	P1200510	Water staining efflorescence	Wall	n/a	n/a	n/a	Water staining and vegetation growth/staining to building face		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.220	P1200511-512	Cracking to sandstone	Sandstone ledge feature	Diagonal	1	1000	Crack to sandstone block above sandstone ledge feature		Green
E1.221	P1200513-514	Water staining efflorescence	Wall	n/a	n/a	n/a	Water staining to building face		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.222	P1200515	Spalled/damaged sandstone	Sandstone ledge feature	n/a	n/a	n/a	Cracked/broken off section of sandstone to underside of ledge feature		Amber
E1.223	P1200516-518	Damaged/defective gutter/drainage	Sandstone ledge feature	n/a	n/a	n/a	Delamination/erosion of sandstone to sandstone ledge feature at downpipe		Red



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.224	P1200519	Cracking to sandstone	Sandstone ledge feature	Vertical	1	150	Crack to sandstone ledge feature. Delamination of sandstone also noted		Amber
E1.225	P1200520	Spalled/damaged sandstone	Sandstone ledge feature	n/a	n/a	n/a	Cracked/broken off sandstone to underside of ledge feature adjacent to downpipe		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.226	P1200521-522	Cracking to sandstone	Sandstone ledge feature	Vertical	1-3	1200	Crack to sandstone blocks, crack spans vertically and intersects the sandstone ledge feature		Amber
E1.227	P1200523	Cracking to sandstone	Lintel	Diagonal	2	400	Crack to sandstone block of window lintel		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.228	P1200524	Water staining efflorescence	Wall	n/a	n/a	n/a	Water staining and vegetation growth/staining to building face		Green
E1.229	P1200525	Spalled/damaged sandstone	Downpipe	n/a	n/a	n/a	Cracked/broken off sandstone to underside of sandstone ledge feature adjacent downpipe		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.230	P1200526	Vegetation growth/staining	Wall	n/a	n/a	n/a	-		Amber
E1.231	P1200527	Cracking to sandstone	Wall	Horizontal	1	2000	Crack to plaster render at void filling. Risk of failure if untreated		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.232	P1200528	Water staining efflorescence	Wall	n/a	n/a	n/a	Water staining and vegetation growth/staining to building face		Green
E1.233	P1200529	Damaged/defective gutter/drainage	Downpipe	n/a	n/a	n/a	Pipe bracket not attached to wall		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.234	P1200531	Cracking to sandstone	Lintel	Vertical	1	300	Crack to sandstone at window lintel		Amber
E1.235	P1200532	Spalled/damaged sandstone	Sandstone ledge feature	n/a	n/a	n/a	Cracked/broken off sandstone to sandstone ledge feature		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.236	P1200533	Water staining efflorescence	Wall	n/a	n/a	n/a	Water staining and vegetation growth/staining to building face		Green
E1.237	P1200534	Water staining efflorescence	Wall	n/a	n/a	n/a	Water staining and vegetation growth/staining to building face		Green
E1.238	P1200886	Other	Window	n/a	n/a	n/a	Missing/deterioration of mortar joints between sandstone blocks adjacent window		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.239	P1200887	Spalled/damaged sandstone	Downpipe	n/a	n/a	n/a	Delamination/erosion of sandstone		Green
E1.240	P1200888	Spalled/damaged sandstone	Window	n/a	n/a	n/a	Delamination/erosion of sandstone		Green
E1.241	P1200889	Cracking to sandstone	Wall	Vertical	1	300	Crack to sandstone		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.242	P1200890	Cracking to sandstone	Window	Vertical	1	300	Crack to sandstone		Green
E1.243	P1200891	Cracking to sandstone	Cill	Vertical	1	300	Crack to sandstone		Green
E1.244	P1200892	Vegetation growth	Downpipe	n/a	n/a	n/a	Plant growth and water staining to wall		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.245	P1200893	Vegetation growth	Downpipe	n/a	n/a	n/a	Plant growth and water staining to wall		Amber
E1.246	P1200894	Vegetation growth	Downpipe	n/a	n/a	n/a	Plant growth and water staining to wall		Amber
E1.247	P1200895	Spalled/damaged sandstone	Downpipe	n/a	n/a	n/a	Delamination/erosion of/cracked/broken off sandstone at downpipe		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.248	P1200896	Spalled/damaged sandstone	Cill	n/a	n/a	n/a	Delamination/erosion of/cracked/broken off sandstone at cill		Green
E1.249	P1200897	Cracking to sandstone	Wall	Vertical	1	300	Crack to sandstone block		Green
E1.250	P1200898	Other	Wall	Vertical	1	300	Missing mortar. Corroded and damaged louvred vent		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E1.251	P1200899	Spalled/damaged sandstone	Downpipe	n/a	n/a	n/a	Delamination/erosion of/cracked/broken off sandstone at downpipe		Green




Source: MM (Surveyed on 23-28/01/2019, Surveyed from Option 2 Scaffold Enclosure)


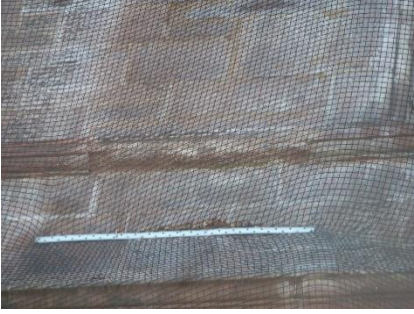

Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A1-A15 for location of defects/observation.


B.7 East Elevation (E2)




Table 7: Elevation E2 Defects and Observations



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E2.1	P1190455	Spalled/damaged sandstone	Elevation E2, Wall	n/a	n/a	n/a	General defect to East and North elevations – minor delamination/erosion of/cracked/broken off sandstone to sandstone faces, generally to ledge features and other sandstone features		Amber
E2.2	P1190455	Water staining efflorescence	Elevation E2, Wall	n/a	n/a	n/a	General defect to East and North elevations – water staining/efflorescence to sandstone faces		Green
E2.3	P1190455	Other	Elevation E2, Wall	n/a	n/a	n/a	General defect to East and North elevations - deteriorated timber framing to windows		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E2.4	P1190455	Damaged/defective gutter/drainage	Elevation E2, Wall	n/a	n/a	n/a	General defect to East and North elevations - gutters/downpipes showing signs of degradation/corrosion		Red
E2.5	P1190456	Other	Elevation E2, Wall	n/a	n/a	n/a	General defect to East and North elevations - weathered flashing		Red
E2.6	P1190456	Vegetation growth	Elevation E2, Wall	n/a	n/a	n/a	General defect to East and North elevations – vegetation growth to building elevation		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E2.7	P1190448	Cracking to sandstone	Elevation E2, Wall	Vertical	2	300	-		Red
E2.8	P1190447	Spalled/damaged sandstone	Elevation E2, Wall	n/a	n/a	n/a	Cracked/broken off sandstone to sandstone ledge feature section face		Amber
E2.9	P1190446	Spalled/damaged sandstone	Elevation E2, Wall	n/a	n/a	n/a	Cracked/broken off sandstone to sandstone ledge feature section edge		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E2.10	P1190450	Missing/damaged tiles/roof	Elevation E2, Wall	n/a	n/a	n/a	Displaced slates to tower roof, sides & vertical face		Red
E2.11	P1190444	Spalled/damaged sandstone	Elevation E2, Wall	n/a	n/a	n/a	Cracked/broken off sandstone to underside of Sandstone ledge feature		Amber
E2.12	P1190443	Spalled/damaged sandstone	Elevation E2, Wall	n/a	n/a	n/a	Cracked/broken off sandstone to side of Sandstone ledge feature		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E2.13	P1190442	Cracking to sandstone	Elevation E2, Wall	Vertical	2	500	Crack to sandstone block, appears to have been repaired at some point in past		Amber
E2.14	P1190460	Spalled/damaged sandstone	Elevation E2, Wall	n/a	n/a	n/a	Delamination/cracked/broken off sandstone to face of block		Amber
E2.15	P1190459	Spalled/damaged sandstone	Elevation E2, Wall	n/a	n/a	n/a	Cracked/broken off sandstone to side of door frame. appears to have been exacerbated by sandstone fixings		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
E2.16	P1190460	Spalled/damaged sandstone	Elevation E2, Wall	n/a	n/a	n/a	Cracked sandstone & vertical through render		Green
E2.17	P1190461	Spalled/damaged sandstone	Elevation E2, Wall	n/a	n/a	n/a	-		Green

Source: MM (Surveyed on 16-17/08/2018, surveyed from ground floor level)




Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A1-A15 for location of defects/observation.


B.8 South Elevation (S1)

Table 8: Elevation S1 Defects and Observations

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.1	IMG_9561	Fractured, detached and broken sandstone block.	Sandstone ledge feature to U/S of capping stone, at Chimney Top (rear face).	n/a	n/a	n/a	-		Amber
S1.2	IMG_9563	Fractured, detached and broken sandstone block.	Top course corner stone, at Chimney Top (rear face).	n/a	n/a	n/a	-		Amber
S1.3	IMG_9566, IMG_9567	Crack	Near RWP, at Chimney Top.	Diagonal	5-10	400	Crack in sandstone block. The same crack on the rear face appears to have been re-pointed.		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.4	IMG_9569	Loss of pointing	Near RWP, below Chimney Top.	n/a	n/a	n/a	Loss of pointing to the general wall face area.		Green
S1.5	IMG_9569	Vegetation growth	Near RWP, below Chimney Top.	n/a	n/a	n/a	Vegetation growth under Sandstone ledge feature.		Green
S1.6	IMG_9570	Vegetation growth	Top of cill of featured arched aperture, at Chimney Top.	n/a	n/a	n/a	-		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.7	IMG_9573	Fractured, detached sandstone element of block	Above featured arched aperture, at Chimney Top.	n/a	n/a	n/a	-		Amber
S1.8	IMG_9574, IMG_9575	Vegetation growth	On top of promontory stone, at Chimney Top.	n/a	n/a	n/a	Vegetation growth all over promontory stone at U/S of chimney pots.		Green
S1.9	IMG_9576-IMG_9578	Fractured, detached element of sandstone block.	Drip check feature to U/S of capping stone, at Chimney Top.	n/a	n/a	n/a	-		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.10	IMG_9579	Fractured, detached element of sandstone block.	On the edge of arched feature, at Chimney Top (rear face).	n/a	n/a	n/a	-		Green
S1.11	IMG_9579	In general, to the rear face, surface layer peeling and detaching.	On the edge of arched feature, at Chimney Top (rear face).	n/a	n/a	n/a	-		Green
S1.12	IMG_9580	Loss of pointing	Chimney stack, above Upper Eaves Level.	n/a	n/a	n/a	Loss of pointing to the general wall face area.		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.13	IMG_9581, IMG_9582	Crack on vertical face of capping stone	LHS arched capping stone, above Upper Eaves Level.	Diagonal	<1	150	Fracture on sandstone, crack depth TBC.		Amber
S1.14	IMG_9583	Vegetation growth	Chimney stack, above Upper Eaves Level.	n/a	n/a	n/a	-		Green
S1.15	IMG_9584	Crack through sandstone block	Chimney stack, above Upper Eaves Level.	Diagonal	1-3	200	-		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.16	IMG_9585	Crack though sandstone block	Chimney stack, above Upper Eaves Level.	Diagonal	1-2	200	-		Amber
S1.17	IMG_9588- IMG_9590	Deterioration of the pediment stone.	Triangular feature panel, above Upper Eaves Level.	n/a	n/a	n/a	-		Amber
S1.18	IMG_9591	Crack through Sandstone ledge feature stone	RHS of triangular feature panel, at Upper Eaves Level.	Vertical	1	100	-		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.19	IMG_9591	Fractured, detached element of sandstone block.	RHS of triangular feature panel adjacent RWP, at Upper Eaves Level.	n/a	n/a	n/a	-		Amber
S1.20	IMG_9594- IMG_9595	Fractured and cracked sandstone	RHS Chimney wall below curved capping stone.	Diagonal	1-3	400	-		Amber
S1.21	IMG_9595	Fractured, detached element of sandstone block.	RHS arched capping stone, above Upper Eaves Level.	n/a	n/a	n/a	-		Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.22	IMG_9596	Fractured, detached element of sandstone block.	Soffit of RHS arched capping stone, above Upper Eaves Level.	n/a	n/a	n/a	-		Amber
S1.23	IMG_9597	Fractured and broken sandstone block.	Sandstone ledge feature below RHS arched capping stone, at Upper Eaves Level.	n/a	n/a	n/a	-		Green
S1.24	IMG_9598- IMG_9600	7no. Cracks	RHS of feature panel, at Eaves Level.	Radial	1-8	1400 (longest)	Crack propagating from cast/wrought iron insert. Friable, exposed and loose sandstone		Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.25	IMG_9602- IMG_9603	Crack	RHS of feature panel, mullion support stone at Eaves Level.	Vertical	1-5	500	-		Red
S1.26	IMG_9604	Crack	Sandstone ledge feature at RHS of feature panel, at Eaves Level.	Vertical	5-10	400	-		Red
S1.27	IMG_9606	10no. Cracks	RHS of feature panel, at Eaves Level.	Radial	6-15	100 to 150	Cracks propagating from wrought iron insert. Friable, exposed and loose sandstone		Red



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.28	IMG_9641	Crack	Top RHS corner of feature panel, below Eaves Level.	Vertical	<1	150	-		Red
S1.29	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used	Not used
S1.30	IMG_9608	Fractured, detached element of sandstone block.	Sandstone ledge feature below triangular feature panel, at Upper Eaves Level.	n/a	n/a	n/a	-		Amber
S1.31	IMG_9609- IMG_9610	Crack	Lintel stone above arch feature, below Upper Eaves Level.	Horizontal	1-6	2000	-		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.32	IMG_9609- IMG_9610	3no. Cracks	LHS insert to lintel, below Upper Eaves Level.	Radial	<1-3	75-150	Cracks propagating from cast/ wrought iron insert		Amber
S1.33	IMG_9611- IMG_9614	Crack	LHS to arch, below Upper Eaves Level.	Vertical	3-5	200	-		Amber
S1.34	IMG_9615- IMG_9616	Crack	RHS to arch, below Upper Eaves Level.	Vertical	1-3	200	-		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.35	IMG_9617- IMG_9620	4no. Cracks	LHS to feature panel, at Eaves Level.	Radial	<1-2	40-200	Cracks propagating from cast/ wrought iron insert		Amber
S1.36	IMG_9621- IMG_9623	3no. Cracks	Sandstone ledge feature at cill, at Eaves Level.	Radial	<1-3	40-200	Cracks propagating from wrought iron insert. Wrought iron insert has laminated and disintegrated. Sand/cement around insert also cracking. Sandstone breaking off		Amber
S1.37	IMG_9624	Fractured, detached element of sandstone block.	Threshold stone to aperture, at Eaves Level.	n/a	n/a	n/a	-		Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.38	IMG_9627	Detached element of sandstone block	LHS mullion at feature panel, at Eaves Level.	n/a	n/a	n/a	-		Red
S1.39	IMG_9628- IMG_9629	Fractured, detached and broken sandstone block.	Edge to Sandstone ledge feature, at LHS of feature panel, at Eaves Level.	n/a	n/a	n/a	-		Green
S1.40	IMG_9630- IMG_9632	Repair to curled stone feature.	LHS of gable, at Eaves Level.	n/a	n/a	n/a	-		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.41	IMG_9633- IMG_9634	Repair to curled stone feature.	RHS of gable, at Eaves Level.	n/a	n/a	n/a	-		Green
S1.42	IMG_9635	Fractured and detached element of sandstone.	Edge to Sandstone ledge feature, at RHS of feature panel, at Eaves Level.	n/a	n/a	n/a	-		Amber
S1.43	IMG_9636- IMG_9638	2no. Cracks	Soffit of Sandstone ledge feature at RWP, at RHS of feature panel, at Eaves Level.	Radial	<1-2	400	-		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.44	IMG_9642	Crack	LHS of feature panel, below Eaves Level.	n/a	<1-2	150	-		Amber
S1.45	IMG_9643	5no. Cracks	LHS of feature panel, below Upper Eaves Level.	Radial	<1-3	550	Cracks propagating from wrought iron insert		Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.46	IMG_9644- IMG_9645	5no. Cracks	LHS of feature panel, below Upper Eaves Level.	Radial	<1-3	700	Cracks propagating from wrought iron insert		Amber
S1.47	IMG_9646, IMG_9649	Fractured, detached and broken sandstone block.	Side of gable next to RWP, at 2nd Floor Level.	n/a	n/a	n/a	-		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.48	IMG_9647- IMG_9648	Dislodged capping stones.	Roof of 2 storey extension building at LHS of gable.	n/a	n/a	n/a	3no. Capping stones dislodged at 2no. Locations.		Red
S1.49	IMG_9651	5no. Cracks & Damage to Sandstone ledge feature	LHS of rectangular panel, at 2nd Floor Level.	Radial	<1-4	900 (longest)	Cracks propagating from wrought iron insert. Damage to U/S of Sandstone ledge feature - fractured and broken with elements detached		Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.50	IMG_9652- IMG_9659, IMG_9671	Multiple cracks	RHS corner of rectangular panel, at 2nd Floor Level.	Vertical and diagonal	<1-10	1000 (longest)	Cracks propagating from wrought iron insert		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.51	IMG_9660- IMG_9667, IMG_9671	4no. Cracks & loss of section	RHS of rectangular panel, above 2nd Floor Level.	Radial and vertical	10-20	1300 (vertical)	Cracks propagating from wrought iron insert. Loss of section - fractured, broken and loose		Red
S1.52	IMG_9668- IMG_9669, IMG_9671	Fractured, detached and broken sandstone block.	Adjacent RWP, at 2nd Floor Level.	n/a	n/a	n/a	Approx. 300mm section of sandstone missing on LHS of RWP.		Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.53	IMG_9672- IMG_9677	5no. Cracks	Around RHS opening, below 2nd Floor Level.	Vertical and diagonal	<1-3	700 (longest)	-		Amber
S1.54	IMG_9681- IMG_9684	7no. Cracks	Around LHS opening, below 2nd Floor Level.	Vertical	<1-1	125-950	-		Amber
S1.55	IMG_9678	Crack	Between LHS and RHS openings, below 2nd Floor Level.	Vertical	1	250	-		Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.56	IMG_9685- IMG_9687	4no. Cracks	LHS of gable, below First Floor Level.	Radial	<1-12	125-300	Cracks propagating from wrought iron insert		Red

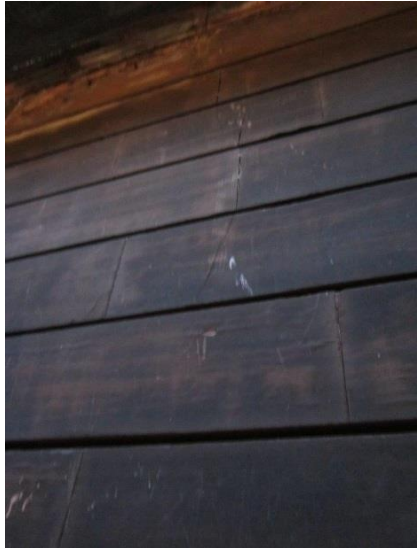

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.57	IMG_9688- IMG_9689	3no. Cracks	LHS of 2no. openings, below First Floor Level.	Radial	<1-2	200	Cracks propagating from wrought iron insert		Amber
S1.58	IMG_9690- IMG_9691	Multiple broken and detached elements of sandstone.	Along the edges of the 2no. Sandstone ledge feature lines, below First Floor Level.	n/a	n/a	n/a	Multiple points of erosion and likely damage from debris falling from above.		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.59	IMG_9679- IMG_9680	2no. Cracks	Between Ground Level and First Floor Level.	Vertical	1-10	4000	Visibility limited by the bridge parapet wall. However, cracks appear to propagate from foundation level.		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.60	IMG_2040	Vegetation staining	Elevation S1, Wall	n/a	n/a	n/a	Near corner on wall facing tracks		Green
S1.61	IMG_2027	Spalled/damaged sandstone	Elevation S1, Wall	n/a	n/a	n/a	Cracked/broken off sandstone block, four blocks up from base		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.62	IMG_2028	Spalled/damaged sandstone	Elevation S1, Wall	n/a	n/a	n/a	Delamination/erosion of/cracked/broken off sandstone to ledge feature		Green
S1.63	IMG_2023	Crack	Elevation S1, Wall	Horizontal	1-5	800	Behind down pipe near tracks		Green
S1.64	IMG_2017	Crack	Elevation S1, Wall	Vertical	1-3	600	Ten blocks up from wall base		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.65	IMG_2011	Staining	Elevation S1, Wall	n/a	n/a	n/a	-		Green
S1.66	IMG_2010	Crack	Elevation S1, Wall	Diagonal	1-3	200	Crack through block		Green
S1.67	IMG_2000	Spalled/damaged sandstone	Elevation S1, Wall	n/a	n/a	n/a	Delamination/erosion of and minor spalling occurring at multiple locations		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.68	IMG_1998	Crack	Elevation S1, Wall	Vertical	3-5	1500	From block 8 to ledge projection. It is likely that the crack extends upwards above bridge parapet		Amber
S1.69	IMG_1994	Spalled/damaged sandstone	Elevation S1, Wall	n/a	n/a	n/a	Deterioration of sandstone blocks with delamination/erosion of/cracked/broken off sandstone noted. Surface of blocks crumble on light contact		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.70	IMG_1992	Spalled/damaged sandstone	Elevation S1, Wall	n/a	n/a	n/a	Delamination/erosion of/cracked/broken off sandstone to underside of ledge feature at road level		Amber
S1.71	IMG_1988	Crack	Elevation S1, Wall	Vertical	-	-	Possible crack near down pipe		Amber
S1.72	IMG_1976	Loss of section, Vegetation staining	Elevation S1, Wall	n/a	n/a	n/a	-		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.73	IMG_1980	Exposed metal work	Elevation S1, Wall	n/a	n/a	n/a	Local spalling due to corrosion of wrought iron insert		Amber
S1.74	IMG_1979	Spalled/damaged sandstone	Elevation S1, Wall	n/a	n/a	n/a	Locally cracked/broken off sandstone and spalling due to corrosion of wrought iron insert		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.75	IMG_1972	Spalled/damaged sandstone	Elevation S1, Wall	n/a	n/a	n/a	Delamination/spalling to sandstone near down pipe and corners		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.76	IMG_1966, 1967	Corrosion of down pipe & staining	Elevation S1, Wall	n/a	n/a	n/a	Large hole in down pipe		Red
S1.77	IMG_1964	Crack	Elevation S1, Wall	Diagonal	<1	200	Hairline fracture through block		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.78	IMG_1962	Deteriorating timber frame	Elevation S1, Wall	n/a	n/a	n/a	-		Green
S1.79	IMG_1950	Vegetation growth	Elevation S1, Wall	n/a	n/a	n/a	-		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
S1.80	IMG_1949	Vegetation staining	Elevation S1, Wall	n/a	n/a	n/a	-		Green
S1.81	IMG_1947	Loss of section	Elevation S1, Wall	n/a	n/a	n/a	-		Green




Source: MM (Surveyed from cherry picker platform on 15/07/2018 and surveyed from ground level on 16-17/08/2018)




Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A1-A15 for location of defects/observation.

B.9 West Elevation (W2)

Table 9: Elevation W2 Defects and Observations

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W2.1	IMG_1842	Detached capping stone	Elevation W2, Wall	n/a	n/a	n/a	Far right corner of building at roof level		Red
W2.2	IMG_1844	Spalled/damaged sandstone	Elevation W2, Wall	n/a	n/a	n/a	Delamination/erosion of/cracked/broken off sandstone to capping stones at roof level		Amber
W2.3	IMG_1846	Displaced capping stone	Elevation W2, Wall	n/a	n/a <td n/a	-		Amber	

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W2.4	IMG_1847	Loss of pointing	Elevation W2, Wall	n/a	n/a	n/a	-		Amber
W2.5	IMG_1849	Cracking to sandstone	Elevation W2, Wall	Vertical	1.0-5.0	300	-		Amber
W2.6	IMG_1851	Cracking to sandstone	Elevation W2, Wall	Diagonal	1.0-5.0	800	Stepped crack		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W2.7	IMG_1856	Cracking to sandstone	Elevation W2, Wall	Diagonal	1.0-3.0	1500	Stepped crack		Amber
W2.8	IMG_1859	Loss of pointing	Elevation W2, Wall	n/a	n/a	n/a	-		Green
W2.9	IMG_1861	Cracking to sandstone	Elevation W2, Wall	Diagonal	1.0-3.0	300	-		Green

Source: MM (Surveyed on 16-17/08/2018, Surveyed from ground level)



Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A1-A15 for location of defects/observation.

B.10 West Elevation (W3)

Table 10: Elevation W3 Defects and Observations

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W3.1	IMG_1865	Vegetation growth/staining	Elevation W3, Wall	n/a	n/a	n/a	-		Red
W3.2	IMG_1866	Vegetation growth/staining	Elevation W3, Wall	n/a	n/a	n/a	-		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W3.3	IMG_1868	Cracking to sandstone, Loss of pointing	Elevation W3, Wall	Radial	1-5	200	-		Amber
W3.4	IMG_1870	Vegetation growth & staining	Elevation W3, Wall	n/a	n/a	n/a	-		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W3.5	IMG_1873	Cracking to sandstone	Elevation W3, Wall	Horizontal	20-30	1500-2000	-		Red
W3.6	IMG_1876	Vegetation growth/staining	Elevation W3, Wall	n/a	n/a	n/a	-		Amber

Source: MM (Surveyed on 16-17/08/2018, Surveyed from ground level)

Notes: Severity Category to be confirmed in Stage 2 Report

B.11 West Elevation (W4)

Table 11: Elevation W4 Defects and Observations


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.1	IMG_0133	Missing / Dislodged / damaged tiles	Elevation W4, Roof	n/a	n/a	n/a	-		Red
W4.2	IMG_0132, 0135, 0136	Missing / Dislodged / damaged tiles	Elevation W4, Roof	n/a	n/a	n/a	-		Red
W4.3	IMG_0137	Spalled/damaged sandstone	Elevation W4, Roof Cross wall	n/a	n/a	n/a	Delamination/erosion of sandstone blocks to chimney stack		Red




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.4	IMG_0138	Vegetation growth/staining	Elevation W4, Roof Cross wall	n/a	n/a	n/a	Vegetation growth/staining on sandstone blocks		Red
W4.5	IMG_0140	Damaged cast iron fittings	Elevation W4, Roof	n/a	n/a	n/a	-		Red
W4.6	IMG_0142	Loss of pointing	Elevation W4, Roof Cross wall	n/a	n/a	n/a	Missing pointing, slight erosion of sandstone to chimney		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.7	IMG_0144	Other	Elevation W4, Roof Dormer	n/a	n/a	n/a	Timber frame of dormer window in poor condition, damage to flashing, missing glass pane		Red
W4.8	IMG_00145, 0146	Gap between sandstone blocks	Elevation W4, Roof	n/a	n/a	n/a	Third floor arch feature		Red
W4.9	IMG_00153, 0154	Cracking to sandstone	Elevation W4, Roof Cross wall	Diagonal	1-5	300	Cracking to sandstone block on chimney stack		Red




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.10	IMG_00153, 0154	Spalled/damaged sandstone	Elevation W4, Roof Cross wall	n/a	n/a	n/a	Delamination/cracked/broken off to corner of sandstone block, chimney stack		Red
W4.11	IMG_00153, 0154	Dislodged sandstone block	Elevation W4, Roof Cross wall	n/a	n/a	n/a	-		Red
W4.12	IMG_0149, 0150, 0156	Cracking to sandstone	Elevation W4, Roof Cross wall	n/a	n/a	n/a	Possible crack on arch feature		Red




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.13	IMG_0157	Vegetation growth	Elevation W4, Roof Cross wall	n/a	n/a	n/a	At roof ridge		Green
W4.14	IMG_0160, 0268	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Architectural feature, metal insert		Amber
W4.15	IMG_0162	Cracking to sandstone	Elevation W4, Roof Cross wall	Vertical / Diagonal	1-2 / 1-3	300	Chimney stack		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.16	IMG_0164	Cracking to sandstone	Elevation W4, Roof Cross wall	Diagonal	1-3	200-300	Chimney stack		Red
W4.17	IMG_0167	Cracking to sandstone	Elevation W4, Roof Arch feature	Vertical / Diagonal	1	-	Arch feature capping stone		Red
W4.18	IMG_0168, 0169	Vegetation growth, gap	Elevation W4, Roof Arch feature	n/a	n/a	n/a	Separation/gap between sandstone blocks to arch, vegetation growth		Red




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.19	IMG_0171	Spalled/damaged sandstone	Elevation W4, Roof	n/a	n/a	n/a	Chimney stack		Amber
W4.20	IMG_0173	Vegetation growth	Elevation W4, Roof Cross wall	n/a	n/a	n/a	-		Green
W4.21	IMG_0174-0176	Missing / Dislodged / damaged tiles	Elevation W4, Roof Arch feature	n/a	n/a	n/a	General dislodged / missing roof tiles		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.22	IMG_0180	Cracking to sandstone	Elevation W4, Roof Cross wall	Diagonal	1-2	300	Chimney stack		Amber
W4.23	IMG_0182	Vegetation growth	Elevation W4, Roof Cross wall	n/a	n/a	n/a	Top of chimney stack		Green
W4.24	IMG_0185	Cracking to sandstone	Elevation W4, Roof Cross wall	Horizontal	3-5	300-400	Chimney stack. Crack emanating from metal insert		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.25	IMG_0186	Cracking to sandstone	Elevation W4, Roof Cross wall	Vertical	3-5	300	Chimney stack		Red
W4.26	IMG_0187	Spalled/damaged sandstone	Elevation W4, Roof Cross wall	n/a	n/a	n/a	Delamination/erosion of sandstone to chimney		Red
W4.27	IMG_0188	Vegetation growth	Elevation W4, Roof Cross wall	n/a	n/a	n/a	Staining and vegetation growth on chimney stack		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.28	IMG_0191, 0192	Vegetation growth	Elevation W4, Roof	n/a	n/a	n/a	-		Green
W4.29	IMG_0191, 0192	Missing / Dislodged / damaged tiles	Elevation W4, Roof	n/a	n/a	n/a	-		Red
W4.30	IMG_0197	Damaged cast iron fittings	Elevation W4, Roof	n/a	n/a	n/a	Damage to cast iron/metal feature		Red


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.31	IMG_0201	Missing / Dislodged / damaged tiles	Elevation W4, Roof	n/a	n/a	n/a	-		Amber
W4.32	IMG_0204	Other	Elevation W4, Roof	n/a	n/a	n/a	Roof window/access hatch in poor condition		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.33	IMG_0206, 0207	Spalled/damaged sandstone	Elevation W4, Roof South gable wall	n/a	n/a	n/a	-		Amber
W4.34	IMG_0208, 0209	Spalled/damaged sandstone	Elevation W4, Roof South gable wall	n/a	n/a	n/a	Cracked/broken off sandstone to arch feature		Amber
W4.35	IMG_0210, 0211	Vegetation growth	Elevation W4, Roof	n/a	n/a	n/a	Vegetation growth blocking gutters		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.36	IMG_0219-0221	Vegetation growth	Elevation W4, Wall	n/a	n/a	n/a	Window frame damaged and poor condition		Green
W4.37	IMG_0222	Vegetation growth/staining	Elevation W4, Wall	n/a	n/a	n/a	-		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.38	IMG_0223, 0226	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Delamination/erosion of sandstone block to window		Amber
W4.39	IMG_0227, 0229	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Delamination/erosion of sandstone to side face of window pilaster		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.40	IMG_0230-0232	Spalled/damaged sandstone	Elevation W4, Wall Dormer window	n/a	n/a	n/a	Surface of sandstone crumbles on light contact		Red
W4.41	IMG_0233	Other	Elevation W4, Wall Dormer window	n/a	n/a	n/a	Visible gap between window frame and stonework circa 10-20mm		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.42	IMG_0235	Spalled/damaged sandstone	Elevation W4, Wall Dormer window	n/a	n/a	n/a	Delamination/erosion of sandstone to soffit of window lintel, surface of sandstone crumbles on light contact		Red
W4.43	IMG_0236, 0237	Other	Elevation W4, Wall Dormer window	n/a	n/a	n/a	Sandstone block appears to be separating outwardly away from window frame		Red


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.44	IMG_0238-0239	Other	Elevation W4, Wall Dormer window	n/a	n/a	n/a	Timber frame in poor condition - surface finish crumbles on light contact		Red
W4.45	IMG_0241-0243	Spalled/damaged sandstone	Elevation W4, Wall Dormer window	n/a	n/a	n/a	-		Red


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.46	IMG_0244-0246	Spalled/damaged sandstone	Elevation W4, Wall Dormer window	n/a	n/a	n/a	Sandstone surface layer crumbles on light contact. Notably gap between sandstone blocks and timber window frame		Red
W4.47	IMG_0249-0250	Spalled/damaged sandstone	Elevation W4, Wall Dormer window	n/a	n/a	n/a	Delamination/erosion of sandstone to side face of window pilaster		Red
W4.48	IMG_0251-02555	Spalled/damaged sandstone	Elevation W4, Wall Dormer window	n/a	n/a	n/a	Delamination/erosion of/loss of section to sandstone blocks to vertical window frame		Red


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.49	IMG_0256-0257	Spalled/damaged sandstone	Elevation W4, Wall Dormer window	n/a	n/a	n/a	Sandstone appears to be delaminating		Red


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.50	IMG_0258	Spalled/damaged sandstone	Elevation W4, Wall Dormer window	n/a	n/a	n/a	Delamination/erosion of sandstone and vegetation growth to side face of window pilaster		Amber
W4.51	IMG_0259-0260	Cracking to sandstone	Elevation W4, Wall Dormer window	Vertical	1-2	250	-		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.52	IMG_0261-0263	Spalled/damaged sandstone	Elevation W4, Wall Dormer window	n/a	n/a	n/a	Sandstone appears to be delaminating, surface of sandstone crumbles on light contact		Red
W4.53	IMG_0265	Cracking to sandstone	Elevation W4, Wall Dormer window	Diagonal	1-2	100	-		Amber

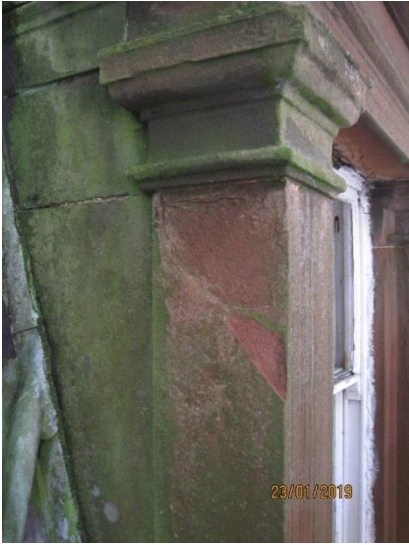
Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.54	IMG_0270	Spalled/damaged sandstone	Elevation W4, Wall Dormer window	n/a	n/a	n/a	Sandstone pilaster appears to be delaminating		Red
W4.55	IMG_0271	Cracking to sandstone	Elevation W4, Wall Dormer window	Diagonal	1	100-150	Crack emanating from metal insert / anchor fixing		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.56	IMG_0272-0273	Spalled/damaged sandstone	Elevation W4, Wall Dormer window	n/a	n/a	n/a	-		Amber
W4.57	IMG_0274-0277	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Mild delamination/erosion of sandstone to circular architectural feature		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.58	IMG_0278-0279	Spalled/damaged sandstone	Elevation W4, Wall Dormer window	n/a	n/a	n/a	-	 A photograph showing a close-up of a stone wall, likely a dormer window, with significant spalling and damage to the sandstone. The date '25/01/2019' is visible in the bottom right corner of the photo.	Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.59	IMG_0280-0281	Other	Elevation W4, Wall Dormer window	n/a	n/a	n/a	Timber window frame in poor condition. Missing window pane		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.60	IMG_0282-0284	Other	Elevation W4, Wall Dormer window	n/a	n/a	n/a	Vertical joint/gap between sandstone blocks, gap appears to be widening towards the top end		Red
W4.61	IMG_0288-0289	Spalled/damaged sandstone	Elevation W4, Wall Dormer window	n/a	n/a	n/a	Soffit of sandstone window lintel appears to be delaminating		Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.62	IMG_0285-0286	Spalled/damaged sandstone	Elevation W4, Wall Dormer window	n/a	n/a	n/a	Sandstone pilaster appears to be delaminating		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.63	IMG_0290	Other	Elevation W4, Wall Dormer window	n/a	n/a	n/a	Timber window frame in poor condition. Missing window pane	 A photograph showing a close-up of a white-painted timber window frame. The frame is set into a wall and appears to be in poor condition, with some peeling paint and a missing window pane. The date '23/01/2019' is visible in the bottom right corner of the photo.	Red




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.64	IMG_0292-0293	Vegetation stain	Elevation W4, Wall Dormer window	n/a	n/a	n/a	Vegetation stain and dampness		Green
W4.65	IMG_0296-0297	Other	Elevation W4, Wall Dormer window	n/a	n/a	n/a	Timber window frame damaged		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.66	IMG_0298-0299	Spalled/damaged sandstone	Elevation W4, Wall Dormer window	n/a	n/a	n/a	-		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.67	IMG_0301-0302	Spalled/damaged sandstone	Elevation W4, Wall Dormer window	n/a	n/a	n/a	-		Amber
W4.68	IMG_0303-0305	Other	Elevation W4, Wall Dormer window	n/a	n/a	n/a	Timber window frame in poor condition. Loss of paint finish		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.69	IMG_0308-0310	Spalled/damaged sandstone	Elevation W4, Wall Dormer window	n/a	n/a	n/a	Sandstone pilaster at side of window appears to be delaminating. Surface layer of sandstone crumbles on light contact.		Red
W4.70	IMG_0311-0314	Other	Elevation W4, Wall Dormer window	n/a	n/a	n/a	Timber window frame in poor condition. Peeling paintwork		Green
W4.71	IMG_0323	Water staining efflorescence	Elevation W4, Wall	n/a	n/a	n/a	Staining and dampness		Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.72	IMG_0330	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Minor delamination/spalling of sandstone		Amber
W4.73	IMG_0329	Cracking to sandstone	Elevation W4, Wall	Horizontal	1-2	200-300	-		Amber
W4.74	IMG_0331-0333	Other	Elevation W4, Wall	n/a	n/a	n/a	Gap between sandstone ledge feature and gutter varies circa 5-25mm		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.75	IMG_0338-0339	Loss of section	Elevation W4, Wall	n/a	n/a	n/a	-		Amber
W4.76	IMG_0340-0341	Damaged/defective gutter/drainage	Elevation W4, Wall	n/a	n/a	n/a	Section of gutter removed for installed scaffold		Red
W4.77	IMG_0342-0343	Loss of section	Elevation W4, Wall	n/a	n/a	n/a	-		Red



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.78	IMG_0345-0346	Damaged/ defective gutter/drainage	Elevation W4, Wall	n/a	n/a	n/a	Downpipe with poor fitting narrower section attachment		Red
W4.79	IMG_0347-0348	Spalled/ damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Loss of section/broken off section to sandstone roof cornice feature		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.80	IMG_0349-0350	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	-		Amber
W4.81	IMG_0351-0354	Spalled/damaged sandstone. Vegetation growth. Water staining efflorescence	Elevation W4, Wall	n/a	n/a	n/a	-		Amber
W4.82	IMG_0355-0356	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Along sandstone ledge feature		Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.83	IMG_0360-0361	Water staining efflorescence	Elevation W4, Wall	n/a	n/a	n/a	-		Green
W4.84	IMG_0362, 0365	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Delamination/erosion of sandstone at eaves/edge		Amber
W4.85	IMG_0366, 0367	Vegetation growth	Elevation W4, Wall	n/a	n/a	n/a	Along sandstone ledge feature		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.86	IMG_0368, 0370	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Delamination/erosion along sandstone ledge feature with loss of section/broken off sections noted		Amber
W4.87	IMG_0372, 0374	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Delamination/erosion along sandstone ledge feature		Amber
W4.88	IMG_0375, 0377	Cracking to sandstone	Elevation W4, Wall	Horizontal	1-2	400-500	-		Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.89	IMG_0378, 0379	Water staining efflorescence	Elevation W4, Wall	n/a	n/a	n/a	Along sandstone ledge feature. Appears damp		Green
W4.90	IMG_0380, 0381	Vegetation growth, staining	Elevation W4, Wall	n/a	n/a	n/a	Vegetation growth, staining adjacent down pipe		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.91	IMG_0382, 0385	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	-		Amber
W4.92	IMG_0399, 0403	Other	Elevation W4, Wall	n/a	n/a	n/a	Timber window frame in poor condition. Peeling paintwork		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.93	IMG_0404, 0406	Loss of section	Elevation W4, Wall	n/a	n/a	n/a	-		Green
W4.94	IMG_0409, 0411	Loss of section	Elevation W4, Wall	n/a	n/a	n/a	-		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.95	IMG_0413, 0414	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Sandstone mullion appears to be delaminating		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.96	IMG_0416, 0418	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	-		Green
W4.97	IMG_0419, 0422	Other	Elevation W4, Wall	n/a	n/a	n/a	Timber window frame in poor condition. A small hole in window pane		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.98	IMG_0425, 0436	Other	Elevation W4, Wall	n/a	n/a	n/a	Timber window frame in poor condition. Gaps between sandstone blocks and timber window frame		Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.99	IMG_0436, 0438	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Sandstone pilaster at side of window appears to be delaminating with loss of section noted		Green
W4.100	IMG_0441	Other	Elevation W4, Wall	n/a	n/a	n/a	Cracked window pane		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.101	IMG_0442, 0443	Cracking to sandstone	Elevation W4, Wall	Horizontal	1-2	100	-		Amber
W4.102	IMG_0444, 0445	Other	Elevation W4, Wall	n/a	n/a	n/a	Delamination/erosion of sandstone. Vertical scaffold leg fitted within window opening		Amber
W4.103	IMG_0446, 0453	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Delamination/erosion of sandstone. Notable gap between sandstone blocks and timber window frame		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.104	IMG_0454, 0456	Cracking to sandstone	Elevation W4, Wall	Diagonal	1	200-300	-		Amber
W4.105	IMG_0472-0476	Loss of section	Elevation W4, Wall	n/a	n/a	n/a	Delamination/erosion of/loss of section to vertical sandstone block of window frame		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.106	IMG_0477-0483	Other	Elevation W4, Wall	n/a	n/a	n/a	Timber window frame in poor condition. Peeling paintwork. Appears damp		Green
W4.107	IMG_0484-0485	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Cracked/broken off Sandstone to ledge architectural feature		Red
W4.108	IMG_0490-0491	Cracking to sandstone	Elevation W4, Wall	Diagonal	1	50	-		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.109	IMG_0492-0494, 0498	Vegetation growth/staining	Elevation W4, Wall	n/a	n/a	n/a	Along the length of the ledge architectural feature		Green
W4.110	IMG_0499-0501	Loss of section	Elevation W4, Wall	n/a	n/a	n/a	Loss of section to underside of ledge architectural feature		Green
W4.111	IMG_0503	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Cracked/broken off sandstone to top of window transom		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.112	IMG_0505	Damaged/ defective gutter/ drainage	Elevation W4, Wall	n/a	n/a	n/a	Possible defective drainage outlet		Red
W4.113	IMG_0510-0511	Cracking to sandstone	Elevation W4, Wall	Diagonal	1	50	Crack emanating from metal insert/hole		Green
W4.114	IMG_0536	Other	Elevation W4, Wall	n/a	n/a	n/a	Windows boarded up		Red


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.115	IMG_0537, 0538	Water staining efflorescence. Vegetation growth	Elevation W4, Wall	n/a	n/a	n/a	Along the length of the ledge architectural feature		Green
W4.116	IMG_0539	Other	Elevation W4, Wall	n/a	n/a	n/a	Windows partially boarded up		Red
W4.117	IMG_0543	Other	Elevation W4, Wall	n/a	n/a	n/a	Windows partially boarded up		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.118	IMG_0544	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Delamination/cracked/broken off sandstone to window transom		Green
W4.119	IMG_0556	Other	Elevation W4, Wall	n/a	n/a	n/a	Windows partially boarded up		Red


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.120	IMG_0560, 0561	Cracking to sandstone	Elevation W4, Wall Circular bay window	Diagonal	0-1	200	-		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.121	IMG_0562-0567	Cracking to sandstone	Elevation W4, Wall Circular bay window	n/a	n/a	n/a	Crack appears to have been repaired/filled in		Amber
W4.122	IMG_0568, 0570	Loss of section	Elevation W4, Wall	n/a	n/a	n/a	Loss of section to underside of window ledge		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.123	IMG_0578, 0579	Other	Elevation W4, Wall	n/a	n/a	n/a	Missing window pane, boarded up		Red
W4.124	IMG_0571, 0572	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Delamination/cracked/broken off sandstone to window transom		Green
W4.125	IMG_0580-0584	Water staining efflorescence Other	Elevation W4, Wall	n/a	n/a	n/a	Vegetation staining, window appears damp. Window pane missing		Red




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.126	IMG_0586, 0588	Cracking to sandstone, Spalled/damaged sandstone	Elevation W4, Wall Circular bay window	Diagonal	n/a	300-400	Crack appears to have been repaired/filled in		Amber
W4.127	IMG_0591, 0593	Cracking to sandstone	Elevation W4, Wall Circular bay window	Vertical	n/a	400	Crack appears to have been repaired/filled in		Amber
W4.128	IMG_0606-0611	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Minor cracked/broken off sandstone along sandstone ledge feature and window ledge		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.129	IMG_0615, 0618	Vegetation growth/staining	Elevation W4, Wall Balcony feature	n/a	n/a	n/a	Vegetation growth/staining on balcony feature		Green
W4.130	IMG_0616, 0617, 0620	Cracking to sandstone	Elevation W4, Wall Balcony	Diagonal	n/a	n/a	Minor crack to capping stone		Green
W4.131	IMG_0621, 0625	Other	Elevation W4, Wall Balcony	n/a	n/a	n/a	Pooling of water on balcony flat roof		Amber

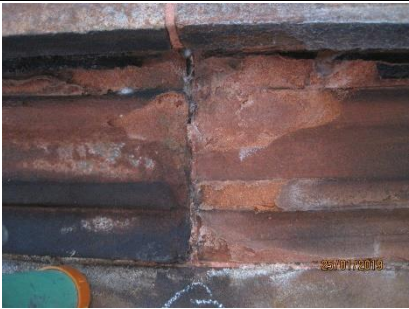


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.132	IMG_0640, 0645	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Delamination/erosion of sandstone along sandstone ledge feature		Green
W4.133	IMG_0654, 0656	Loss of section	Elevation W4, Wall	n/a	n/a	n/a	Delamination/erosion of/loss of section to underside of sandstone ledge feature		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.134	IMG_0646, 0647	Cracking to sandstone	Elevation W4, Wall	Diagonal	n/a	n/a	Crack/defect appears to have been repaired/filled in		Amber
W4.135	IMG_0648, 0649	Damaged/defective gutter/drainage	Elevation W4, Wall Outside of Balcony	n/a	n/a	n/a	Possible defective drainage outlet		Amber
W4.136	IMG_0650, 0652	Spalled/damaged sandstone	Elevation W4, Wall Outside of Balcony	n/a	n/a	n/a	-		Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.137	IMG_0658-0667	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Delamination/erosion of/cracked/broken off sandstone along sandstone ledge feature		Green
W4.138	IMG_0668-0676	Other	Elevation W4, Wall	n/a	n/a	n/a	Timber frame windows in poor condition – General defect to a number of windows		Green
W4.139	IMG_0676, 0679	Other	Elevation W4, Wall	n/a	n/a	n/a	Cracked window pane		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.140	IMG_0681, 0682	Vegetation growth	Elevation W4, Wall	n/a	n/a	n/a	Vegetation growth on sandstone ledge feature		Amber
W4.141	IMG_0683-0690, 0703, 0704	Other	Elevation W4, Wall	n/a	n/a	n/a	Timber frame windows in poor condition		Green
W4.142	IMG_0707, 0711	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Minor delamination/cracked/broken off sandstone along sandstone ledge feature		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.143	IMG_0693, 0694	Cracking to sandstone	Elevation W4, Wall	Diagonal	n/a	600	Crack/defect appears to have been repaired/filled in		Amber
W4.144	IMG_0705, 0706	Other	Elevation W4, Wall	n/a	n/a	n/a	Cracked window pane		Green
W4.145	IMG_0697, 0707	Other	Elevation W4, Wall	n/a	n/a	n/a	Timber frame windows in poor condition		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.146	IMG_0712, 0715	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Delamination/erosion of/cracked/broken off sandstone along sandstone ledge feature. Sandstone surface layer crumbles on light contact.		Red
W4.147	IMG_0717-0722	Cracking to sandstone	Elevation W4, Wall	n/a	n/a	n/a	Crack/defect appears to have been repaired/filled in		Amber
W4.148	IMG_0723, 0724, 0725, 0730, 0731	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Cracked/broken off sandstone to sandstone ledge feature due to anchor fixing		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.149	IMG_0732-0734	Cracking to sandstone	Elevation W4, Wall	Radial	1-3	100	Cracks emanating from metal inserts		Amber
W4.150	IMG_0736	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	-		Amber
W4.151	IMG_0738, 0739	Loss of section	Elevation W4, Wall	n/a	n/a	n/a	-		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.152	IMG_0740-0742	Vegetation growth/staining	Elevation W4, Wall	n/a	n/a	n/a	Vegetation growth/staining along sandstone ledge feature		Green
W4.153	IMG_0745-0748	Loss of section	Elevation W4, Wall	n/a	n/a	n/a	Loss of section to underside of sandstone ledge feature above window		Green
W4.154	IMG_0749-0751	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Cracked/broken off sandstone to sandstone ledge feature due to anchor fixing		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.155	IMG_0754, 0756	Other	Elevation W4, Wall	n/a	n/a	n/a	Windows boarded up with masonry imitation boards. Boards are loosely fixed		Red
W4.156	IMG_0759, 0761	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Minor delamination/erosion of sandstone		Amber
W4.157	IMG_0762, 0763	Cracking to sandstone	Elevation W4, Wall	Diagonal	n/a	300	Crack/defect appears to have been repaired/filled in		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.158	IMG_0784, 0787	Cracking to masonry	Elevation W4, Wall	n/a	n/a	n/a	Cracking to masonry of external box out/louvre		Amber
W4.159	IMG_0789, 0790	Cracking to masonry	Elevation W4, Wall	n/a	n/a	n/a	Cracking to masonry of external box out/louvre		Amber
W4.160	IMG_0797, 0798	Spalled/damaged sandstone	Elevation W4, Wall	n/a	n/a	n/a	Minor delamination/erosion of sandstone to window transom		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W4.161	IMG_0796, 0799	Spalled/damaged masonry	Elevation W4, Wall	n/a	n/a	n/a	Masonry section detached from external box out/louvre		Amber




Source: MM (Surveyed on 23-28/01/2019, Surveyed from Option 2 Scaffold Enclosure)




Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A1-A15 for location of defects/observation.




B.12 West Elevation (W5)



Table 12: Elevation W5 Defects and Observations



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W5.1	IMG_0108	Other	Elevation W5, Roof	n/a	n/a	n/a	Roof tiles removed to allow for scaffold tie connection		Amber
W5.2	IMG_0109	Vegetation	Elevation W5, Roof	n/a	n/a	n/a	-		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W5.3	IMG_0113	Cracking to sandstone	Elevation W5, Roof	Diagonal	1-2	150	-		Amber
W5.4	IMG_0114	Cracking to sandstone	Elevation W5, Roof	Diagonal	1-3	300-400	Crack emanating from metal insert		Amber
W5.5	IMG_0113	Other	Elevation W5, Roof	n/a	n/a	n/a	Loss of pointing / approx. 10mm vertical gap between masonry blocks.		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W5.6	IMG_0116	Staining	Elevation W5, Roof	n/a	n/a	n/a	Corrosion staining and damage to roof flashing.		Green
W5.7	IMG_0117	Vegetation	Elevation W5, Roof	n/a	n/a	n/a	Vegetation on roof capping stone		Green
W5.8	IMG_0118	Other	Elevation W5, Roof	n/a	n/a	n/a	Timber frame windows in poor condition. Vegetation growth along window frame noted		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W5.9	IMG_0120	Spalled/damaged sandstone	Elevation W5, Wall	n/a	n/a	n/a	Delamination/erosion of/cracked/broken off sandstone to ledge feature noted		Amber
W5.10	IMG_0123	Cracking to sandstone	Elevation W5, Wall	Horizontal	3-5	400-500	-		Green
W5.11	IMG_0124	Missing/damaged tiles	Elevation W5, Roof	n/a	n/a	n/a	-		Red


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W5.12	IMG_0128	Dislodged/damaged tiles	Elevation W5, Roof	n/a	n/a	n/a	-		Amber
W5.13	IMG_0214-0216	Spalled/damaged sandstone	Elevation W5, Wall	-	-	-	Sandstone lintel appears to be delaminating		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W5.14	IMG_0218	Vegetation staining	Elevation W5, Wall				-		Green
W5.15	IMG_0319	Spalled/damaged sandstone	Elevation W5, Wall	n/a	n/a	n/a	Minor erosion to sandstone ledge feature		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W5.16	IMG_0321	Cracking to sandstone	Elevation W5, Wall	Vertical	3-5	300	Crack appears to have been repaired/filled in		Amber
W5.17	IMG_0387, 0388	Spalled/damaged sandstone	Elevation W5, Wall	n/a	n/a	n/a	-		Green
W5.18	IMG_0389, 0390	Other	Elevation W5, Wall	n/a	n/a	n/a	Timber window frame in poor condition. Peeling paintwork		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W5.19	IMG_0391, 0396	Other	Elevation W5, Wall	n/a	n/a	n/a	Timber window frame in poor condition. Peeling paintwork		Green
W5.20	IMG_0462, 0463	Spalled/damaged sandstone	Elevation W5, Wall	n/a	n/a	n/a	Delamination/erosion of/cracked/broken off sandstone to transom of window frame		Amber
W5.21	IMG_0464, 0465	Spalled/damaged sandstone	Elevation W5, Wall	n/a	n/a	n/a	Delamination/spalling to ledge architectural feature		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W5.22	IMG_0467	Spalled/damaged sandstone	Elevation W5, Wall	n/a	n/a	n/a	Cracked/broken off sandstone to ledge architectural feature		Green
W5.23	IMG_0517-0519	Cracking to sandstone	Elevation W5, Wall	Horizontal	0-1	50	-		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W5.24	IMG_0520-0525	Spalled/damaged sandstone	Elevation W5, Wall	n/a	n/a	n/a	Delamination/erosion of sandstone to window mullion		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W5.25	IMG_0526-0534	Other	Elevation W5, Wall	n/a	n/a	n/a	Timber window frame in poor condition.		Green
W5.26	IMG_0594, 0595	Spalled/damaged sandstone	Elevation W5, Wall	n/a	n/a	n/a	Minor delamination/erosion to sandstone		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W5.27	IMG_0598, 0599	Cracking to sandstone	Elevation W5, Wall	Diagonal	n/a	300	Crack appears to have been repaired/filled in		Green
W5.28	IMG_0600-0605	Cracking to sandstone	Elevation W5, Wall	Diagonal	n/a	300	Crack located on window cill. Crack appears to have been repaired/filled in		Green
W5.29	IMG_0627-0634	Spalled/damaged sandstone	Elevation W5, Wall	n/a	n/a	n/a	Delamination/erosion of/cracked/broken off sandstone along sandstone ledge feature. Surface of sandstone crumbles on light contact		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W5.30	IMG_0635, 0636	Cracking to sandstone	Elevation W5, Wall	Diagonal	n/a	400	Possible crack repair		Green
W5.31	IMG_0637, 0638	Cracking to sandstone	Elevation W5, Wall	Horizontal	n/a	200	Crack/defect appears to have been repaired/filled in		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W5.32	IMG_0639, 0640	Vegetation growth	Elevation W5, Wall	n/a	n/a	n/a	Vegetation growth/staining at wall corner adjacent downpipe		Green
W5.33	IMG_0816-0818	Spalled/damaged sandstone	Elevation W5, Wall	n/a	n/a	n/a	Minor delamination/erosion of sandstone to sandstone ledge feature		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W5.34	IMG_0830, 0831	Vegetation growth/staining	Elevation W5, Wall	n/a	n/a	n/a	Vegetation growth/staining along full length of downpipe		Green
W5.35	IMG_0819-0821	Spalled/damaged sandstone	Elevation W5, Wall	n/a	n/a	n/a	Cracked/broken off sandstone to window transom		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W5.36	IMG_0822, 0825	Spalled/damaged sandstone	Elevation W5, Wall	n/a	n/a	n/a	Cracked/broken off sandstone to sandstone ledge feature		Amber
W5.37	IMG_0835-0838	Spalled/damaged sandstone	Elevation W5, Wall	n/a	n/a	n/a	Cracked/broken off sandstone to underside of sandstone ledge feature		Amber
W5.38	IMG_0839-0842	Loss of section	Elevation W5, Wall	n/a	n/a	n/a	Loss of section to window ledge		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W5.39	IMG_0845-0850	Loss of section	Elevation W5, Wall	n/a	n/a	n/a	Loss of section to vertical sandstone block adjacent window		Green




Source: MM (Surveyed on 23-28/01/2019, Surveyed from Option 2 Scaffold Enclosure)




Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A1-A15 for location of defects/observation.


B.13 West Elevation (W6)




Table 13: Elevation W6 Defects and Observations

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.1	IMG_2095 to 2098	Crack	Elevation W6, Wall	Vertical	1-3	300	-		Green
W6.2	IMG_2102	Spalled/damaged sandstone	Elevation W6, Wall	n/a	n/a	n/a	Minor delamination/erosion of/cracked/broken off sandstone to architectural feature		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.3	IMG_2104	Crack	Elevation W6, Wall	Horizontal	1-5	800	-		Green
W6.4	IMG_2106	Other	Elevation W6, Wall	n/a	n/a	n/a	Deteriorating timber window frame and delamination/erosion of sandstone		Green
W6.5	IMG_2105	Vegetation growth	Elevation W6, Wall	n/a	n/a	n/a	-		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.6	IMG_2119	Mineral staining efflorescence	Elevation W6, Wall	n/a	n/a	n/a	-		Green
W6.7	IMG_2118	Other	Elevation W6, Wall	n/a	n/a	n/a	Deteriorating timber window frame and delamination/erosion of/cracked/broken off sandstone		Green
W6.8	IMG_2116	Spalled/damaged sandstone	Elevation W6, Wall	n/a	n/a	n/a	Cracked/broken off sandstone to corner of sandstone block		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.9	IMG_2114	Mineral staining efflorescence	Elevation W6, Wall	n/a	n/a	n/a	-		Green
W6.10	IMG_2112	Loss of section	Elevation W6, Wall	n/a	n/a	n/a	Loss of projected feature		Amber
W6.11	IMG_2110	Loss of section	Elevation W6, Wall	n/a	n/a	n/a	Projected feature between 2nd and 3rd floor windows		Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.12	IMG_2109	Vegetation growth	Elevation W6, Wall	n/a	n/a	n/a	-		Green
W6.13	IMG_2107	Displaced corner block	Elevation W6, Wall	n/a	n/a	n/a	Left corner of 4th floor window		Amber
W6.14	IMG_2328	Crack	Elevation W6, Wall	Diagonal	1-3	200	-		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.15	IMG_2326	Crack	Elevation W6, Wall	Vertical	1-3	300	-		Green
W6.16	IMG_2343	Crack and loss of mortar joints	Elevation W6, Wall	Step Crack	1-5	800	-		Amber
W6.17	IMG_2342	Crack and loss of mortar joints	Elevation W6, Wall	Step Crack	1-5	400	-		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.18	IMG_2346	Missing section	Elevation W6, Wall	n/a	n/a	n/a	-		Green
W6.19	IMG_2356	Vegetation growth	Elevation W6, Wall	n/a	n/a	n/a	Walls on roof slates		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.20	IMG_2355	Poor timber window frame	Elevation W6, Wall	n/a	n/a	n/a	-		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.21	IMG_2357	Vegetation growth	Elevation W6, Wall	n/a	n/a	n/a	In gutters	 A photograph showing a concrete gutter on a building's exterior wall. The gutter is filled with dark, wet debris and has some small green plants growing from it. To the left, there is a metal structure, possibly a utility pole or part of a lift. The background shows a street with buildings and a clear sky.	Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.22	IMG_2360	Mortar loss, possible crack and Spalled/damaged sandstone	Elevation W6, Wall	n/a	n/a	n/a	Significant delamination/erosion of sandstone to side face of window pilaster		Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.23	IMG_2352 & 2353	Spalled/damaged sandstone	Elevation W6, Wall	n/a	n/a	n/a	Delamination/erosion of sandstone to side face of window pilaster		Amber
W6.24	IMG_2354	Significant vegetation growth	Elevation W6, Wall	n/a	n/a	n/a	-		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.25	IMG_2130	Loss of section	Elevation W6, Wall	n/a	n/a	n/a	Loss of section on projected feature		Amber
W6.26	IMG_2132	Mineral staining efflorescence	Elevation W6, Wall	n/a	n/a	n/a	-		Green
W6.27	IMG_2134	Loss of section	Elevation W6, Wall	n/a	n/a	n/a	Loss of section on projected feature		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.28	IMG_2168	Missing section	Elevation W6, Wall	n/a	n/a	n/a	Hole in block behind down pipe and under projected feature		Amber
W6.29	IMG_2136	Loss of section	Elevation W6, Wall	n/a	n/a	n/a	-		Green
W6.30	IMG_2137	Vegetation staining	Elevation W6, Wall	n/a	n/a	n/a	-		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.31	IMG_2139	Deteriorating timber frames	Elevation W6, Wall	n/a	n/a	n/a	-		Green
W6.32	IMG_2141	Loss of section	Elevation W6, Wall	n/a	n/a	n/a	Minor loss of stonework on all 1st floor windows		Green
W6.33	IMG_2145	Loss of section	Elevation W6, Wall	n/a	n/a	n/a	-		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.34	IMG_2147	Mineral staining efflorescence	Elevation W6, Wall	n/a	n/a	n/a	On projected blocks, extending 1.5-2 metres		Green
W6.35	IMG_2151 & 2152	Mineral staining efflorescence	Elevation W6, Wall	n/a	n/a	n/a	Vegetation staining at down pipe. Heavy mineral staining on top window cills.		Green
W6.36	IMG_2155	Minor cracks	Elevation W6, Wall	Horizontal	1	200	-		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.37	IMG_2158	Possible loss of section	Elevation W6, Wall	n/a	n/a	n/a	-		Green
W6.38	IMG_2159	Possible loss of pointing	Elevation W6, Wall	n/a	n/a	n/a	-		Green
W6.39	IMG_2161	Loss of section	Elevation W6, Wall	n/a	n/a	n/a	-		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.40	IMG_2162	Loss of section	Elevation W6, Wall	n/a	n/a	n/a	-		Green
W6.41	IMG_2165	Mineral staining efflorescence	Elevation W6, Wall	n/a	n/a	n/a	Staining on 2nd floor window cills		Green
W6.42	IMG_2164	Loss of section	Elevation W6, Wall	n/a	n/a	n/a	-		Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.43	IMG_2169 to 2175	Other	Elevation W6, Wall	n/a	n/a	n/a	Deterioration of paint finish, vegetation growth and localised surface corrosion to steelwork. Missing platform grating.		Red
W6.44	IMG_2180 & 2183	Corrosion	Elevation W6, Wall	n/a	n/a	n/a	Surface corrosion to end plate connection of outrigger		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.45	IMG_2184	Vegetation staining	Elevation W6, Wall	n/a	n/a	n/a	Looks to be caused by back-up of rainwater downpipe, and water seeping/flowing from joint. Below ground drainage issue	 A photograph showing a wooden wall with a vertical downpipe. A yellow warning sign with a triangle and the text 'DANGER' is attached to the wall. The ground in front of the wall is dark and appears to have some vegetation or staining.	Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.46	IMG_2187	Loss of section & missing section	Elevation W6, Wall	n/a	n/a	n/a	Cracking caused by corrosion of wrought iron insert		Red
W6.47	IMG_2191	Mineral staining efflorescence	Elevation W6, Wall	n/a	n/a	n/a	Heavy staining on projections and walls		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.48	IMG_2194 to 2196	Vegetation staining	Elevation W6, Wall	n/a	n/a	n/a	-		Green
W6.49	IMG_2213	Crack	Elevation W6, Wall	Zigzag	1-2	400	-		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.50	IMG_2215 & 2216	Vegetation growth & staining	Elevation W6, Wall	n/a	n/a	n/a	-		Green
W6.51	P1000430	Cracking to sandstone	Elevation W6, Wall	Radial	n/a	n/a	Cracking caused by corrosion of wrought iron insert		Red
W6.52	P1000435	Cracking to sandstone	Elevation W6, Wall	Radial	n/a	n/a	Cracking caused by corrosion of wrought iron insert		Red



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W6.53	P1000465	Spalled/damaged sandstone	Elevation W6, Wall	n/a	n/a	n/a	-		Amber
W6.54	P1000487	Spalled/damaged sandstone	Elevation W6, Wall	n/a	n/a	n/a	-		Amber
W6.55	P1000494	Spalled/damaged sandstone	Elevation W6, Wall	n/a	n/a	n/a	-		Red

Source: MM (Surveyed on 16-17/08/2018 and 06/02/2019, Surveyed from ground level)

Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A1-A15 for location of defects/observation.

B.14 West Elevation (W7)

Table 14: Elevation W7 Defects and Observations



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W7.1	IMG_2206	Spalled/damaged sandstone, Mineral staining efflorescence	Elevation W7, Wall	n/a	n/a	n/a	Minor delamination/erosion of sandstone blocks		Green
W7.2	IMG_2205	Vegetation growth/staining	Elevation W7, Wall	n/a	n/a	n/a	Vegetation growth travelling along pointing. It appears pointing is missing and have been replaced with vegetation. Vegetation expands both floors		Green




Source: MM (Surveyed on 16-17/08/2018, Surveyed from ground level)



Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A1-A15 for location of defects/observation.

B.15 West Elevation (W8)

Table 15: Elevation W8 Defects and Observations

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W8.1	IMG_2236	Spalled/damaged sandstone, Vegetation growth/staining	Elevation W8, Wall	n/a	n/a	n/a	-		Amber
W8.2	IMG_2240	Missing section	Elevation W8, Wall	n/a	n/a	n/a	-		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W8.3	IMG_2242	Spalled/damaged sandstone, Mineral staining efflorescence	Elevation W8, Wall	n/a	n/a	n/a	-		Amber
W8.4	IMG_2244	Missing section	Elevation W8, Wall	n/a	n/a	n/a	Near timber panelling under window		Green
W8.5	IMG_2238	Spalled/damaged sandstone	Elevation W8, Wall	n/a	n/a	n/a	Minor delamination/erosion of sandstone on window mullion		Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W8.6	IMG_2247	Missing section	Elevation W8, Wall	n/a	n/a	n/a	-		Red
W8.7	IMG_2251	Spalled/damaged sandstone	Elevation W8, Wall	n/a	n/a	n/a	Underside of upper projected feature		Green




Source: MM (Surveyed on 16-17/08/2018, Surveyed from ground level)




Notes: Severity Category to be confirmed in Stage 2 Report




B.16 West Elevation (W10)

Table 16: Elevation W10 Defects and Observations

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W10.1	IMG_2266	Loose cladding	Elevation W10, Wall	n/a	n/a	n/a	Cladding is in poor condition		Green
W10.2	IMG_2269	Corrosion	Elevation W10, Wall	n/a	n/a	n/a	Gutters are exhibiting corrosion		Green
W10.3	IMG_2270 to 2272	Spalled/ damaged sandstone	Elevation W10, Wall	n/a	n/a	n/a	Localized along the whole length of wall at eaves level		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W10.4	IMG_2279	Spalled/damaged sandstone	Elevation W10, Wall	n/a	n/a	n/a	Spalling/delamination/erosion of sandstone		Amber
W10.5	IMG_2299	Spalled/damaged sandstone	Elevation W10, Wall	n/a	n/a	n/a	Delamination/erosion of sandstone on either side of the timber panelling		Green
W10.6	IMG_2281	Crack	Elevation W10, Wall	Vertical	1-2	400	-		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W10.7	IMG_2283	Crack	Elevation W10, Wall	Horizontal	1-5	800	-		Green
W10.8	IMG_2297	Crack	Elevation W10, Wall	Diagonal	1-3	300	-		Green
W10.9	IMG_2303	Loss of pointing	Elevation W10, Wall	n/a	n/a	n/a	Vegetation growth within the absent pointing		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W10.10	IMG_2308	Cracking to lintel	Elevation W10, Wall	Horizontal	1-5	2000	Crack along lintel with spalling of surface, lintel appears to be a reinforced concrete lintel		Amber
W10.11	IMG_2313	Spalled/damaged sandstone	Elevation W10, Wall	n/a	n/a	n/a	Delamination/erosion of/cracked/broken off sandstone to blocks along roof eaves level, at multiple locations		Amber
W10.12	IMG_2319	Cracking to sandstone	Elevation W10, Wall	Diagonal	1-2	300	-		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
W10.13	IMG_2322	Crack	Elevation W10, Wall	Radial	1-5	150	Radial cracks around metal inserts, left of door frame		Amber
W10.14	IMG_2321	Crack	Elevation W10, Wall	Radial	1-5	150	Radial cracks around metal inserts, right of door frame		Amber



Source: MM (Surveyed on 16-17/08/2018, Surveyed from ground level)



Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A1-A15 for location of defects/observation.



B.17 Roof Plan (R1)

Table 17: Roof R1 Defects and Observations

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R1.1	P1190532	Missing/damaged tiles/roof	North face of tower	n/a	n/a	n/a	Missing slates, exposed/deteriorated timber		Amber
R1.2	P1190533	Spalled/damaged sandstone	Chimney stack	n/a	n/a	n/a			Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R1.3	P1190534	Cracking to sandstone	Chimney stack	Radial	-	-	Cracking to sandstone blocks around deadbolt anchor location		Amber
R1.4	P1190535	Missing/damaged tiles/roof	Pitched roof	n/a	n/a	n/a	-		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R1.5	P1190539	Missing/damaged tiles/roof	Pitched roof	n/a	n/a	n/a	-		Green
R1.6	P1190547	Cracking to sandstone	Chimney stack	Diagonal	2	300	-		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R1.7	P1190548	Cracking to sandstone	Chimney stack	Diagonal	2	300	-		Green
R1.8	P1190547	Cracking to sandstone	Chimney stack	Vertical	3	300	Cracking through chimney coping stone		Green
R1.9	P1190547	Cracking to sandstone	Chimney stack	Horizontal	2	600	Horizontal crack through sides and length of sandstone block		Green




Source: MM (Surveyed on 16-17/08/2018, limited survey from accessible tower platforms)

Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A1-A15 for location of defects/observation.




B.18 Roof Plan (R2)




Table 18: Roof R2 Defects and Observations

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R2.1	P1190565	Missing/damaged tiles/roof	Pitched roof	n/a	n/a	n/a	-		Green
R2.2	P1190566	Cracking to sandstone	Chimney stack	n/a	n/a	n/a	Various cracks to chimney face. Evidence of past repair		Green
R2.3	P1190567	Cracking to sandstone	Chimney stack	n/a	n/a	n/a	-		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R2.4	P1190568	Cracking to sandstone	Chimney stack	Vertical	2	400	-		Amber
R2.5	P1190569	Other	Chimney stack	n/a	n/a	n/a	Mortar loss to sandstone blocks. Evidence of movement to edge blocks and risk of further movement. Evidence of saw cutting to mortar joints/block		Amber
R2.6	P1190570, 0579	Other	Window framing	n/a	n/a	n/a	Degraded timber elements and flashing to dormer structure		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R2.7	P1190571, 0572	Cracking to sandstone	Chimney stack	n/a	n/a	n/a	Crack through arch block		Amber
R2.8	P1190571, 0572	Spalled/damaged sandstone	Chimney stack	n/a	n/a	n/a	Cracked/broken off sandstone. Evidence of former penetration point to block		Amber
R2.9	P1190573	Missing/damaged tiles/roof	Pitched roof	n/a	n/a	n/a	-		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R2.10	P1190574	Spalled/damaged sandstone	Tower	n/a	n/a	n/a	Sandstone edge block dislodged/ loose. Potential for further movement/ failure over time		Amber
R2.11	P1190575, 0580, 0581	Missing/damaged tiles/roof	Tower	n/a	n/a	n/a	Missing slates, exposed timbers		Red
R2.12	P1190576	Spalled/damaged sandstone	Tower	n/a	n/a	n/a	Cracked/broken off sandstone to edge of window arch		Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R2.13	P1190577	Missing/damaged tiles/roof	Tower	n/a	n/a	n/a	Slates missing, and timbers exposed below feature window		Red
R2.14	P1190582	Cracking to sandstone	Chimney stack	n/a	n/a	n/a	Delamination/cracked/broken off sandstone around chimney head		Red
R2.15	P1190585	Other		n/a	n/a	n/a	Damaged/displaced cast iron edging to roof		Red

Source: MM (Surveyed on 16-17/08/2018, limited survey from accessible tower platforms)

Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A1-A15 for location of defects/observation.




B.19 Roof Plan (R3)




Table 19: Roof R3 Defects and Observations


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R3.1	P1190600	Missing/damaged tiles/roof	Tower	n/a	n/a	n/a	Missing slates, exposed timbers		Green
R3.2	P1190601	Missing/damaged tiles/roof	Pitched roof	n/a	n/a	n/a	-		Amber
R3.3	P1190602	Spalled/damaged sandstone	Chimney stack	n/a	n/a	n/a	Delamination/erosion of sandstone blocks to chimney stack		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R3.4	P1190603	Spalled/damaged sandstone	Wall face	n/a	n/a	n/a	Cracked/broken off sandstone to upper section of block		Green
R3.5	P1190605	Spalled/damaged sandstone	Wall face	n/a	n/a	n/a	-		Green
R3.6	P1190608	Other	Roof	n/a	n/a	n/a	Cracked flashing		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R3.7	P1190609	Other	Roof	n/a	n/a	n/a	Hole to flashing		Amber
R3.8	P1190611	Cracking to sandstone	Chimney stack	Diagonal	5	300	Crack around deadbolt anchor penetration		Amber
R3.9	P1190612	Spalled/damaged sandstone		n/a	n/a	n/a	Delamination/erosion of/cracked/broken off sandstone, loss of mortar, evidence of movement. Vegetation growth		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R3.10	P1190613	Spalled/damaged sandstone	Chimney stack	n/a	n/a	n/a	-		Amber
R3.11	P1190614	Cracking to sandstone		Diagonal	3	300	Crack to sandstone block around chimney pot location		Amber
R3.12	P1190615	Spalled/damaged sandstone	Chimney stack	n/a	n/a	n/a	-		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R3.13	P1190616	Cracking to sandstone	Chimney stack	Vertical	4	300	Crack through blockwork Sandstone ledge features tone and block below. Full extent of defect not visible from survey location		Amber
R3.14	P1190617, 0618	Missing/damaged tiles/roof	Roof	n/a	n/a	n/a	-		Green
R3.15	P1190619	Spalled/damaged sandstone	Chimney stack	n/a	n/a	n/a	-		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R3.16	P1190619	Cracking to sandstone	Chimney stack	n/a	n/a	n/a	-		Green




Source: MM (Surveyed on 16-17/08/2018, limited survey from accessible tower platforms)




Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A1-A15 for location of defects/observation.

B.20 Roof Plan (R4)

Table 20: Roof R4 Defects and Observations




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R4.1	P1200539	Cracking to sandstone, Other	Roof chimney	Vertical	4	300	Chimney pot missing, crack in sandstone.		Red
R4.2	P1200540	Cracking to sandstone	Roof chimney	Horizontal	3	1000	Crack on chimney frame.		Amber
R4.3	P1200541	Damaged cast iron fittings	Roof ridge	n/a	n/a	n/a	Cast iron features detaching.		Red


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R4.4	P1200542	Missing/damaged tiles/roof	Roof	n/a	n/a	n/a	Various tiles loose/missing.		Amber
R4.5	P1200543 - 546	Other	Flat roof	n/a	n/a	n/a	Flat roof waterproofing finish shows signs of cracking and fatigue		Red
R4.6	P1200547	Missing/damaged tiles/roof	Roof	n/a	n/a	n/a	Various tiles loose.		Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R4.7	P1200548	Other	Roof access hatch	n/a	n/a	n/a	Damage to door of roof access hatch.		Amber
R4.8	P1200549 - 552	Missing/damaged tiles/roof, Damaged cast iron fittings, Other	Roof ridge	n/a	n/a	n/a	Cast iron features missing. Various tiles loose/missing. Exposed timber rotting.		Red
R4.9	P1200553	Cracking to sandstone	Chimney	Diagonal	3	300	Crack on sandstone.		Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R4.10	P1200554	Other	Chimney	n/a	n/a	n/a	Chimney pot cracked.		Amber
R4.11	P1200555	Cracking to sandstone	Roof, chimney	Diagonal	5	300	Crack on sandstone below chimney pots.		Amber
R4.12	IMG_0856	Other	Roof	n/a	n/a	n/a	Rotten timber on roof.		Red




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R4.13	IMG_0857	Missing/damaged tiles/roof	Roof	n/a	n/a	n/a	Missing/loose tiles.		Red
R4.14	IMG_0858	Missing/damaged tiles/roof, Damaged cast iron fittings, Other	Roof	n/a	n/a	n/a	Cast iron features missing. Rotten roof timber beams. Exposed timber. 6m long horizontally. Loose/missing tiles.		Red
R4.15	IMG_0859	Cracking to sandstone, Spalled/damaged sandstone	Chimney stack	Diagonal	5	300	Crack on sandstone block below chimney pots. Delamination/erosion of/cracked/broken off sandstone at various locations		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R4.16	IMG_0860	Cracking to sandstone	Chimney stack	Diagonal	5	400	Crack through sandstone.		Amber
R4.17	IMG_0861	Spalled/damaged sandstone	Chimney stack	n/a	n/a	n/a	Delamination/erosion of sandstone above arch		Red
R4.18	IMG_0862	Cracking to sandstone	Chimney stack	Diagonal	2	400	Crack on sandstone block.		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R4.19	IMG_0863	Cracking to sandstone	Chimney stack	Diagonal	2	800	Crack on 2 sandstone blocks (> shape).		Green
R4.20	IMG_0864	Spalled/damaged sandstone	Chimney stack	n/a	n/a	n/a	Delamination/erosion of sandstone at last block of wall with gap/loss of section observed		Amber
R4.21	IMG_0865	Cracking to sandstone	Chimney stack	Diagonal	2	400	Repaired cracks on sandstone blocks		Red


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R4.22	IMG_0866	Spalled/damaged sandstone	Chimney stack	n/a	n/a	n/a	Delamination/erosion of/cracked/broken off sandstone above arch		Red
R4.23	IMG_0867	Spalled/damaged sandstone	Pipe	n/a	n/a	n/a	Small area of delamination/erosion of/cracked/broken off sandstone next to pipe		Red
R4.24	IMG_0868	Other	Skylight	n/a	n/a	n/a	Deteriorated timber frame on roof skylight		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R4.25	IMG_0869	Spalled/damaged sandstone	Chimney stack	n/a	n/a	n/a	Cracked/broken off sandstone to chimney stack wall		Amber
R4.26	IMG_0870, 0873	Other	Roof	n/a	n/a	n/a	Skylight window broken		Red
R4.27	IMG_0871	Cracking to sandstone	Chimney stack	n/a	n/a	n/a	Significant cracked/broken off sections of sandstone blocks to chimney		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R4.28	IMG_0872	Spalled/damaged sandstone	Chimney stack	n/a	n/a	n/a	Delamination/erosion of/cracked/broken off sandstone on arch		Red
R4.29	IMG_0874	Water staining efflorescence	Chimney stack	n/a	n/a	n/a	Water staining below chimney pots. General comment for all chimney stacks		Amber
R4.30	IMG_0875	Cracking to sandstone	Chimney stack	Diagonal	3mm	400mm	Diagonal crack on sandstone block		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R4.31	IMG_0876	Missing/damaged tiles/roof, Other	Roof	n/a	n/a	n/a	Skylight window broken. Tiles loose/missing		Red
R4.32	IMG_0877	Cracking to sandstone	Chimney stack	Vertical	5mm	300mm	Repaired crack on sandstone block		Amber
R4.33	IMG_0878	Spalled/damaged sandstone	Chimney stack	n/a	n/a	n/a	Delamination/erosion of/cracked/broken off sandstone to walls and roof coping stone		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R4.34	IMG_0879	Damaged cast iron fittings	Roof	n/a	n/a	n/a	Cast iron features missing.		Amber
R4.35	IMG_0880	Missing/damaged tiles/roof	Roof	n/a	n/a	n/a	Tiles loose/missing.		Amber
R4.36	IMG_0881	Damaged/defective gutter/drainage	Pipe	n/a	n/a	n/a	Broken pipe connection.		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
R4.37	IMG_0882	Cracking to sandstone	Chimney stack	Diagonal	1	300	Repaired crack to sandstone block.		Amber
R4.38	IMG_0883	Spalled/damaged sandstone	Chimney stack	n/a	n/a	n/a	Delamination/erosion of/cracked/broken off sandstone at chimney		Amber
R4.39	IMG_0884	Missing/damaged tiles/roof	Roof	n/a	n/a	n/a	Tiles loose/missing		Red

Source: MM (Surveyed on 23-28/01/2019, Surveyed from Option 2 Scaffold Enclosure)


Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A1-A15 for location of defects/observation.

C. Internal Defects Tables



- C.1 Internal Surveys 14-15/02/19 from Window Openings – East Elevation, Level 2
- C.2 Internal Surveys 14-15/02/19 from Window Openings – North Elevation, Level 2
- C.3 Internal Surveys 14-15/02/19 from Window Openings – South Elevation, Level 2
- C.4 Internal Surveys 14-15/02/19 from Window Openings – West Elevation, Level 2
- C.5 Internal Surveys 14-15/02/19 from Window Openings – East Elevation, Level 3
- C.6 Internal Surveys 14-15/02/19 from Window Openings – North Elevation, Level 3
- C.7 Internal Surveys 14-15/02/19 from Window Openings – South Elevation, Level 3
- C.8 Internal Surveys 14-15/02/19 from Window Openings – West Elevation, Level 3
- C.9 Internal Surveys 27/02/19-05/03/19 from Window Openings – West Elevation, Level 1
- C.10 Internal Surveys 27/02/19-05/03/19 from Window Openings – East Elevation, Level 1
- C.11 Internal Surveys Floor Openings at South Block – West Elevation, Level 1-3
- C.12 Internal Surveys Floor Openings at South Block – East Elevation, Level 1-3
- C.13 Internal Surveys at North Block from MEWP, West Elevation, Level 1-3
- C.14 Internal Surveys Floor Openings at North Block, Level 1-3 and South Block, Ground Level
- C.15 Internal Surveys of South Block Roof Spaces
- C.16 Internal Surveys at South Block, Basement Level
- C.17 Internal Surveys at North Block - Ground Floor - Rail Operator Offices



C.1 Internal Surveys 14-15/02/19 from Window Openings - East Elevation, Level 2


Table 1: Internal Surveys from Window Openings – East Elevation, Level 2 Defects and Observations


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE2.1	P1010 226-243	Collapsed ceiling plaster, Staining	Bedroom 204	n/a	n/a	n/a	Localised collapse of false ceiling and original ceiling above it, approx. defect area 3x4m (25% of ceiling) located adjacent en suite (226, 238) Peeling and bubbling of wallpaper in upper (lighter) areas of walls (241) Possible mould and signs of dampness on lower (red) sections of walls (243)		<p>Green</p> <p>Amber</p> <p>Green</p>




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Green
WE2.2	P1010 202-225	Staining, Other	En suite (adj. Bedroom 206)	n/a	n/a	n/a	Minor peeling and bubbling of wallpaper (0216) Localised bulging to ceiling adjacent to window (0219) Localised tear to ceiling finish adjacent to window (0225)		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Green
									Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Green
WE2.3	P1200 803-812	Evidence of vermin, Dampness/water ingress	Bedroom 206	n/a	n/a	n/a	Evidence of vermin (808) Dampness/water ingress (809-810, 811, 812)		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Green Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE2.4	P1010 177-201	Evidence of vermin, Staining, Other	Bedroom 208	n/a	n/a	n/a	Uneven ceiling with slight bulging noted (200, 201) Evidence of possible vermin (193) Minor staining to wallpaper (190)		Green Green Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE2.5	P1200 787-802	Collapsed ceiling plaster, Timber degradation, Dampness/water ingress, Plaster crack, Evidence of vermin	Bedroom 210	n/a	n/a	n/a	<p>Plaster collapse to suspended ceiling and main ceiling above, approx. 25% area (791, 792)</p> <p>Evidence of timber degradation of suspended floor joists above (793-795) Evidence of timber degradation of suspended floorboards above (796-797)</p> <p>Dampness/water ingress (798)</p> <p>Plaster crack (799)</p> <p>Peeling wallpaper. Possible evidence of dampness behind (800, 801)</p> <p>Evidence of vermin (802)</p>	  	<p>Amber</p> <p>Amber</p> <p>Amber</p>




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE2.6	P1200 775-786	Collapsed ceiling plaster, Dampness/water ingress, Collapsed wall plaster, Dampness/water ingress, Evidence of vermin	Bedroom 212	n/a	n/a	n/a	Bulge to plasterboard ceiling. Possible indication of future collapse (782) Dampness/water ingress (783) Collapsed plaster to wall to right hand side of window (784) Dampness/water ingress (785) Evidence of vermin (786)		Amber Amber Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE2.7	P1010 094-115	Collapsed ceiling plaster, Staining	Bedroom 214	n/a	n/a	n/a	Localised collapse of false ceiling at corner of room (109) Black staining to ceiling, possibly mould (107) Staining to cornice (112) Staining to wall above false ceiling (113) Staining to wall below false ceiling (110, 115)		Amber Amber Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Amber
									Amber
									Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE2.8	P1200 768-774	Dampness/water ingress	En suite (adj. Bedroom 216)	n/a	n/a	n/a	Dampness/water ingress (773, 774)		Amber
WE2.9	P1010 081-090	Other	Bedroom 216	n/a	n/a	n/a	No obvious defects observed		n/a
WE2.10	P1010 068-080	Other	Bedroom 218	n/a	n/a	n/a	Peeling wallpaper to wall (080)		n/a

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE2.11	P1200 750-767	Collapsed ceiling plaster, Collapsed wall plaster, Dampness/water ingress, Plaster crack	Bedroom 220	n/a	n/a	n/a	Plaster collapse to suspended ceiling and main ceiling above, approx. 10% area (755-758) Plaster collapse to side wall. Approx. 0.5m2 (759-760) Dampness/water ingress (763) Collapsed ceiling plaster (764) Dampness/water ingress (765, 766) Plaster crack (767)	  	<p>Amber</p> <p>Amber</p> <p>Amber</p>

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE2.12	P1200 734-747	Collapsed ceiling plaster, Dampness/water ingress, Plaster crack	Bedroom 222	Horizontal	2	300	Plaster collapse to suspended ceiling (738-742) Dampness/water ingress (743) Plaster crack (744-745) Dampness/water ingress (746) Dampness/water ingress (747)	  	Amber Amber Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE2.13	P1010 051-067	Other	Bedroom 224	n/a	n/a	n/a	No obvious defects observed		n/a




Source: MM (Surveyed on 12-15/02/2019, Surveyed from Option 2 Scaffold via window openings)



Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A16 for location of defects/observation.




C.2 Internal Surveys 14-15/02/19 from Window Openings - North Elevation, Level 2




Table 2: Internal Surveys from Window Openings – North Elevation, Level 2 Defects and Observations


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WN2.1	P1200 814-816	Dampness/water ingress, Staining, Other	En suite (adj. bedroom 202)	n/a	n/a	n/a	No obvious defects observed		n/a
WN2.2	P1010 244-270	Dampness/water ingress, Staining, Other	Bedroom 202	n/a	n/a	n/a	Water ingress/visible water dripping from middle of ceiling onto bed (256) Ceiling bulging (270) Black staining to edges of ceiling, likely to be mould (267) Peeling and bubbling wallpaper (262) White staining to wall (264) Room generally very damp/wet, carpet appears to be saturated (260)	 	Green Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Green
									Green
									Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Green
WN2.3	P1010 273-313	Collapsed ceiling plaster, Dampness/water ingress, Staining, Other	Hallway (adj. Bedroom 203)	n/a	n/a	n/a	<p>Approx. 50% of the original ceiling collapsed (298)</p> <p>Patches of dampness on ceiling, possibly mould (282)</p> <p>Water ingress/dripping from soffit and areas of collapsed ceiling (285)</p> <p>Collapsed ceiling plaster adjacent to window (294)</p> <p>Extensive peeling of wallpaper and bulging noted above doorway (292)</p> <p>Evidence of black mould above doorway (304)</p> <p>Floor damp due to constant dripping from ceiling (286)</p>	 	Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Amber
									Red
									Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
								  	<p>Amber</p> <p>Red</p> <p>Red</p>

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WN2.4	P1200 818-837	Collapsed ceiling plaster, Timber degradation, Plaster crack, Dampness/water ingress	Hallway (adj. Bedroom 203)	Diagonal	1	300	Plaster collapse to main ceiling above, approx. 2m2 area (825) Evidence of timber degradation of suspended floor joists above (826-828) Plaster crack (829) Water ingress, loss of plaster to ceiling directly above window (830-834) Dampness/water ingress (835) Dampness/water ingress (836) Dampness/water ingress (837)		<div style="background-color: red; color: white; padding: 5px;">Red</div> <div style="background-color: red; color: white; padding: 5px;">Amber</div> <div style="background-color: red; color: white; padding: 5px;">Amber</div>

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Amber
									Amber
									Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Red




Source: MM (Surveyed on 12-15/02/2019, Surveyed from Option 2 Scaffold via window openings)


Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect.


Refer to Fig A16 for location of defects/observation.

C.3 Internal Surveys 14-15/02/19 from Window Openings - South Elevation, Level 2

Table 3: Internal Surveys from Window Openings – South Elevation, Level 2 Defects and Observations

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WS2.1	P1000 974-993	Crack, Other	Stair well (adj. Bedroom 203)	Diagonal	1	400	Crack (974/979) Spalling to paint finish (988/993) Damage to plaster wall and skirting separating (985) Mild corrosion to metal support beam (981)	  	<p>Amber</p> <p>Green</p> <p>Green</p>

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Green Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WS2.2	P1200 685-693	Plaster crack, Dampness/ water ingress	Bedroom 203	Horizontal	>1	10	Plaster crack (691) Dampness/water ingress (692, 693)	 <p>The first photo shows a bedroom with patterned wallpaper and a red wainscoting. A crack is visible on the wall. The second photo is a close-up of the crack, showing its width and length. The third photo is another close-up of the crack, showing its texture and the surrounding plaster.</p>	<div style="background-color: yellow; height: 100%; width: 100%; display: flex; flex-direction: column; justify-content: space-around; align-items: center;"> Amber Green Green </div>


Source: MM (Surveyed on 12-15/02/2019, Surveyed from Option 2 Scaffold via window openings)




Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A16 for location of defects/observation.




C.4 Internal Surveys 14-15/02/19 from Window Openings – West Elevation, Level 2


Table 4: Internal Surveys from Window Openings – West Elevation, Level 2 Defects and Observations


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW2.1	P1000 994-999 P1010 001-012	Staining, Crack, Evidence of vermin	Bedroom 205	Horizontal	1	3000	Peeling wallpaper and staining on the wall (999, 002) Crack on ceiling/possibly plaster ceiling joint line (011/012) Evidence of vermin (006)	  	Green Green Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW2.2	P1200 694-699	Evidence of vermin, Dampness/ water ingress	Bedroom 207	n/a	n/a	n/a	Evidence of vermin (698) Peeling wallpaper. Possible evidence of dampness behind (699)		<p>Green</p> <p>Green</p>




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW2.3	P1200 700-707	Dampness/ water ingress	Bedroom 209	n/a	n/a	n/a	Peeling wallpaper. Possible evidence of dampness behind (704) Dampness/water ingress (705, 706) Peeling wallpaper. Possible evidence of dampness behind (707)	  	Green Green Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW2.4	P1010 013-033	Evidence of vermin, Staining, Other, Crack	Bedroom 211	Horizontal	<1	1500	Evidence of vermin, Staining (019) Black localised staining on ceiling, possibly mould (020) Crack on ceiling/possibly plaster ceiling joint line (028/033)	  	Green Green Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW2.5	P1010 034-050	Evidence of vermin, Other	Bedroom 215	n/a	n/a	n/a	Peeling wallpaper and slight bulge behind wallpaper noted (034/048) Evidence of vermin (050)	 <p>The first photo shows a bedroom with a bed and a desk. The wallpaper is peeling in several places. The second photo is a close-up of the peeling wallpaper. The third photo shows a desk with a lamp and a small object on the floor, possibly evidence of vermin.</p>	Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW2.6	P1200708-713	Dampness/ water ingress, Evidence of vermin	Bedroom 217	n/a	n/a	n/a	Evidence of pigeon infestation (712) Evidence of damp staining to ceiling behind finishes (713)		<p>Green</p> <p>Green</p>

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW2.7	P1200 714-733	Dampness/ water ingress, Plaster crack, Metal corrosion, Evidence of vermin	Stair well (adj. Bedroom 217)	n/a	n/a	n/a	Dampness/water ingress (719) Dampness/water ingress (720, 721) Dampness/water ingress (722) Plaster crack (723) Plaster crack (724) Plaster crack (725, 726) Mild corrosion to stairwell support beam (727, 728) Dampness/water ingress (729) Evidence of vermin (730) Dampness/water ingress (731) Plaster crack (732) Peeling wallpaper. Possible evidence of dampness behind (733)	  	<p>Green</p> <p>Amber</p> <p>Amber</p>


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Amber
									Amber
									Amber




Source: MM (Surveyed on 12-15/02/2019, Surveyed from Option 2 Scaffold via window openings)




Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A16 for location of defects/observation.

C.5 Internal Surveys 14-15/02/19 from Window Openings – East Elevation, Level 3


Table 5: Internal Surveys from Window Openings – East Elevation, Level 3 Defects and Observations

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE3.1	P1000556-568	Collapsed ceiling plaster, Staining, Other	Bedroom 324	n/a	n/a	n/a	Partial collapse of ceiling plaster (561) Stain noted on wall and ceiling (564, 565) Debris from collapsed ceiling on floor (567)		Amber
									Green
									Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE3.2	P1200609-621	Collapsed ceiling plaster, Dampness/water ingress, Evidence of vermin	Bedroom 322	n/a	n/a	n/a	Plaster collapse to suspended ceiling and main ceiling above (615) Dampness/water ingress (610, 620) Evidence of vermin (621)	  	Amber Amber Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE3.3	P1000569-578	Collapsed ceiling plaster, Evidence of vermin, Dampness/water ingress, Staining	Bedroom 320	n/a	n/a	n/a	Localised collapse of ceiling plaster (573) Staining to ceiling (574) Patch noted on ceiling (572) Staining on wall, and possible dampness (575) Bubbling behind wallpaper indicates possible dampness (575) Evidence of vermin (576)	  	<p>Green</p> <p>Green</p> <p>Green</p>


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE3.4	P1200 622-627	Dampness/water ingress, Evidence of vermin	Bedroom 318	n/a	n/a	n/a	Dampness/water ingress (625, 626) Evidence of vermin (627)		Green
WE3.5	P1000 579-586	Other	Bedroom 316	n/a	n/a	n/a	No obvious defects observed Possible ceiling plaster joint lines noted		n/a


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE3.6	P1200 628-630	Evidence of vermin	En suite (adj. Bedroom 314)	n/a	n/a	n/a	Evidence of vermin (630)		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE3.7	P1000 587-600	Collapsed ceiling plaster, Evidence of vermin, Staining	Bedroom 314	n/a	n/a	n/a	Significant collapse of false ceiling and original ceiling above it (589, 595) Staining to ceiling (598) White staining to wall (600) Evidence of vermin (597)		<p>Amber</p> <p>Amber</p>


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Amber
									Amber
									Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE3.8	P1200 631-640	Collapsed ceiling plaster, Dampness/water ingress, Evidence of vermin	Bedroom 312	n/a	n/a	n/a	Plaster collapse to suspended ceiling and main ceiling above (635) Dampness/water ingress (639) Evidence of vermin (640)		<p>Amber</p> <p>Amber</p> <p>Amber</p>




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE3.9	P1000 601-610	Collapsed ceiling plaster, Deteriorating/rotting timber	Bedroom 310	n/a	n/a	n/a	Localised collapse of ceiling plaster (604) Timber to door frame warped (606)		Amber Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE3.10	P1200 641-647	Collapsed ceiling plaster, Evidence of vermin	Bedroom 308	n/a	n/a	n/a	Collapsed ceiling plaster (647) Evidence of vermin (646)		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE3.11	P1000 611-623	Collapsed ceiling plaster, Evidence of vermin, Staining	Bedroom 306	Horizontal	1	500	Staining at cornices (614) Evidence of vermin (615, 616) Minor ceiling crack (620)		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE3.12	P1200 649-653	Dampness/water ingress, Evidence of vermin	En suite (adj. Bedroom 304)	n/a	n/a	n/a	Dampness/water ingress (651, 652) Evidence of vermin (653)		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE3.13	P1200 654-659	Dampness/water ingress, Evidence of vermin	Bedroom 304	n/a	n/a	n/a	Dampness/water ingress (659) Evidence of vermin (658)		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE3.14	P1000 674-688	Deteriorating/rotting timber, Dampness/water ingress, Other	Exposed section of mansard roof (External inspection)	n/a	n/a	n/a	Vertical roof posts are side fixed to horizontal joists below, but post ends have now rotted away and are no longer connected (674-680). Possible onset of rot/decay Significant deterioration of horizontal timber roof beam (681-688)	  	Red




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Red




Source: MM (Surveyed on 12-15/02/2019, Surveyed from Option 2 Scaffold via window openings)




Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A16 for location of defects/observation.




C.6 Internal Surveys 14-15/02/19 from Window Openings - North Elevation, Level 3

Table 6: Internal Surveys from Window Openings – North Elevation, Level 3 Defects and Observations

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WN3.1	P1000 624-638	Evidence of vermin, Dampness/water ingress, Staining, Collapsed ceiling plaster	Bathroom (adj. Bedroom 302)	n/a	n/a	n/a	Evidence of vermin (628, 629) Water staining and evidence of water ingress (626) Ceiling sagging (634)	  	Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WN3.2	P1200 660-670	Collapsed ceiling plaster, Dampness/water ingress, Evidence of vermin	Bedroom 302	n/a	n/a	n/a	Plaster collapse to ceiling (664) Dampness/water ingress (668, 670) Evidence of vermin (669)	  	<p>Amber</p> <p>Amber</p> <p>Green</p>

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WN3.3	P1000 639-658	Collapsed ceiling plaster, Collapsed wall plaster, Deteriorating/rotting timber, Evidence of vermin, Dampness/water ingress, Staining, Other	Hallway (near Bedroom 302)	n/a	n/a	n/a	Black mould stain and evidence of water ingress to ceiling (642) Significant failure of ceiling, exposed timber joists (645) Dampness/vegetation growth to wall (653) Collapsed section of roof timbers (650) LHS water ingress (647) Evidence of vermin (658)	  	<div style="background-color: red; color: white; padding: 5px; text-align: center;">Amber</div> <div style="background-color: red; color: white; padding: 5px; text-align: center;">Red</div> <div style="background-color: red; color: white; padding: 5px; text-align: center;">Red</div>

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Amber
									Amber
									Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WN3.4	P1200 671-676	Ceiling plaster crack, Dampness/water ingress, Evidence of vermin	Hallway/Store	Horizontal	1	200	Ceiling plaster crack (675) Dampness/water ingress (674) Evidence of vermin (676)		<p>Amber</p> <p>Amber</p> <p>Amber</p>

Source: MM (Surveyed on 12-15/02/2019, Surveyed from Option 2 Scaffold via window openings)

Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A16 for location of defects/observation.

C.7 Internal Surveys 14-15/02/19 from Window Openings - South Elevation, Level 3

Table 7: Internal Surveys from Window Openings – South Elevation, Level 3 Defects and Observations


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WS3.1	P1000 760-773	Collapsed ceiling plaster, Evidence of vermin, Staining and water ingress	Bedroom 303	n/a	n/a	n/a	Missing false ceiling tiles (771, 773) Staining to false ceiling tile (770) Evidence of vermin and damp patch on floor indicating water ingress (764)		<p>Green</p> <p>Green</p> <p>Amber</p>


Source: MM (Surveyed on 12-15/02/2019, Surveyed from Option 2 Scaffold via window openings)

Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A16 for location of defects/observation.


C.8 Internal Surveys 14-15/02/19 from Window Openings – West Elevation, Level 3


Table 8: Internal Surveys from Window Openings – West Elevation, Level 3 Defects and Observations




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW3.1	P1000 941-973	Collapsed ceiling plaster, Evidence of vermin, Staining	Bedroom 321	n/a	n/a	n/a	Significant collapse of false ceiling and original ceiling above it, roof void above visible (949-952) Staining on ceiling (955) Staining on wall (953) Evidence of vermin (947)		<div style="background-color: red; color: white; padding: 5px; text-align: center;">Red</div> <div style="background-color: red; color: white; padding: 5px; text-align: center;">Amber</div> <div style="background-color: red; color: white; padding: 5px; text-align: center;">Amber</div>



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Amber

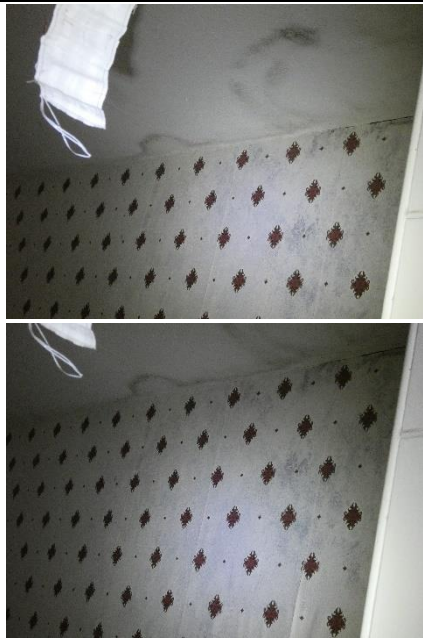
Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW3.2	P1000 732-759	Collapsed ceiling plaster, Evidence of vermin, Staining	Bedroom 319	n/a	n/a	n/a	Significant collapse of ceiling (761) 2x Staining on ceiling (744, 746) 2x Staining on wall (748, 751) Evidence of vermin (754)	  	<div style="background-color: red; color: white; padding: 5px; text-align: center;">Red</div> <div style="background-color: red; color: white; padding: 5px; text-align: center;">Amber</div> <div style="background-color: red; color: white; padding: 5px; text-align: center;">Amber</div>


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW3.3	P1000 896-940	Collapsed plaster on wall, Evidence of vermin, Other	Stairs (adj. Bedroom 319)	n/a	n/a	n/a	Wallpaper on wall to LHS of door (939, 940) Window cill broken with hole (900) 2x Crack to wall of window cill (902) Mould staining on ceiling, wallpaper detached from ceiling (910, 921, 922) Walls appear re-plastered (-) Black stain to wall above light (925, 926) Crack/tear in wall finish to wall at RHS of window (913) Evidence of vermin (928)		Amber Amber Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Amber
									Amber
									Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Amber
WW3.4	P1000 882-895	Other	Bedroom 317	n/a	n/a	n/a	No obvious defects observed		n/a




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW3.5	P1000 868-881	Staining	Bedroom 315	n/a	n/a	n/a	Staining on ceiling (876) Staining on wall, possible water ingress (878)		<p>Green</p> <p>Green</p>



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW3.6	P1000 846-867	Collapsed ceiling plaster	Bedroom 311	n/a	n/a	n/a	Significant collapse of false ceiling and original ceiling above it (862, 867)		<div style="background-color: red; color: white; padding: 5px;">Red</div> <div style="background-color: red; color: white; padding: 5px;">Amber</div>

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW3.7	P1000 831-845	Staining, Possible evidence of dampness, Evidence of vermin	Bedroom 309	n/a	n/a	n/a	Small area of bubbling wallpaper, may indicate dampness (839, 840) Evidence of vermin (843)		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW3.8	P1000 820-830	Other	Bedroom 307	n/a	n/a	n/a	No obvious defects observed		n/a

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW3.9	P1000 787-819	Collapsed ceiling plaster, Collapsed wall plaster, Staining, Bulging/collapsed	Stair well/lift shaft	n/a	n/a	n/a	Partial collapse of ceiling plaster at 3x locations (791, 794, 797) Staining on ceiling (800) Staining on floor (804) Staining on wall (802, 806)		Amber Amber Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Amber
									Amber
									Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Amber
WW3.10	P1000 777-786	Evidence of vermin	Bedroom 305	n/a	n/a	n/a	No obvious defects observed Evidence of vermin (783)		Green




Source: MM (Surveyed on 12-15/02/2019, Surveyed from Option 2 Scaffold via window openings)




Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A16 for location of defects/observation.




C.9 Internal Surveys 27/02/19-05/03/19 from Window Openings – West Elevation, Level 1

Table 9: Internal Surveys 27/02/19-05/03/19 from Window Openings – West Elevation, Level 1 Defects and Observations

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW1.1	P1210 102-109	n/a	Dry goods store	n/a	n/a	n/a	General photos		n/a
									n/a




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW1.1	P1210 110-111	Collapsed ceiling plaster	Dry goods store	n/a	n/a	n/a	-		Amber
WW1.1	P1210 112-114	Plaster crack	Dry goods store	Horizontal	1	1000	Approx. 8no. cracks to ceiling		Green
WW1.1	P1210115	Plaster crack	Dry goods store	Vertical	1	500	Plaster crack to downstand beam		Green



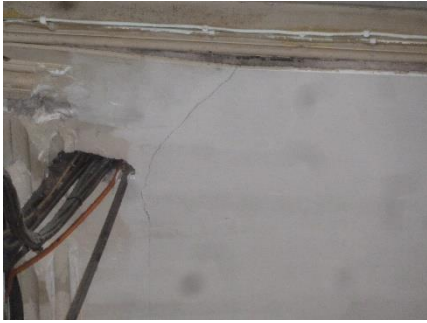
Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW1.1	P1210 116-118	Plaster crack	Dry goods store	n/a	1	2000	Crack to ceiling		Green
WW1.1	P1210 119-120	Dampness/water ingress	Dry goods store	n/a	n/a	n/a			Amber
WW1.2	P1210 070-075	n/a	Arran room	n/a	n/a	n/a	General photos		n/a



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW1.2	P1210076-079	Dampness/water ingress	Arran room	n/a	n/a	n/a	Damp staining to cornicing		Green
WW1.2	P1210080	Dampness/water ingress	Arran room	n/a	n/a	n/a	Damp staining to wall		Green
WW1.2	P1210081	Dampness/water ingress	Arran room	n/a	n/a	n/a			Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW1.2	P1210082	Crack	Arran room	n/a	n/a	n/a	Crack to timber skirting		Green
WW1.3	n/a	n/a	Office	n/a	n/a	n/a	Refer to internal floor opening survey table	n/a	n/a
WW1.4	P1210054-063	n/a	Lounge/ bar area	n/a	n/a	n/a	General photos		n/a

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW1.4	P1210 044-065	Collapsed ceiling plaster	Lounge/ bar area	n/a	n/a	n/a	Collapsed ceiling plaster above window		Amber
WW1.4	P1210 064-069	Plaster crack	Lounge/ bar area	n/a	2	5000	Horizontal crack to ceiling downstand		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW1.5	P1210 094-101	n/a	Arran room	n/a	n/a	n/a	General photos		n/a
WS1.1	P1210 083-085	n/a	Stairwell	n/a	n/a	n/a	General photos		n/a
WS1.1	P1210086	Plaster crack	Stairwell	n/a	n/a	n/a	Crack to ceiling plaster		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WS1.1	P1210087	Metal corrosion	Stairwell	n/a	n/a	n/a	Mild corrosion to metal beams		Green
WS1.1	P1210088	Plaster crack	Stairwell	Vertical	2	1000	-		Green
WS1.1	P1210089	Plaster crack	Stairwell	n/a	n/a	n/a	-		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WS1.2	P1210 090-092	n/a	Bedroom 101	n/a	n/a	n/a	General photos		n/a
WS1.2	P1210093	Dampness/water ingress	Bedroom 101	n/a	n/a	n/a	-		Green



Source: MM (Surveyed on 27/02/2019-05/03/2019, Surveyed from Option 2 Scaffold via window openings)

Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect.



Refer to Fig A16 for location of defects/observation.

C.10 Internal Surveys 27/02/19-05/03/19 from Window Openings – East Elevation, Level 1




Table 10: Internal surveys 27/02/19-05/03/19 from window openings – East Elevation, Level 1 Defects and Observations

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.1	P1200 900-909	n/a	Conference/ dining room	n/a	n/a	n/a	General photos		n/a
WE1.1	P1200 910-912	Collapsed ceiling plaster	Conference/ dining room	n/a	n/a	n/a	Collapsed ceiling plaster. Approx. 2x3m		Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.1	P1200913	Dampness/water ingress	Conference/dining room	n/a	n/a	n/a	Damp staining to ceiling		Green
WE1.1	P1200914-915	Plaster crack	Conference/dining room	Varies	1	100	Numerous small cracks to cornicing		Green
WE1.1	P1200916-917	Plaster crack	Conference/dining room	Vertical	1	200	Vertical cracks to ceiling downstand		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.1	P1200918	Plaster crack	Conference/ dining room	Diagonal	2	800	Diagonal crack to ceiling downstand		Green
WE1.1	P1200919	Plaster crack	Conference/ dining room	Vertical	1	1000			Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.1	P1200920	Plaster crack	Conference/ dining room	Vertical	1	300	Vertical crack to ceiling downstand		Green
WE1.2	P1200980-990	n/a	Lounge/ bar area	n/a	n/a	n/a	General photos		n/a
WE1.2	P1200991-994	Collapsed ceiling plaster	Lounge/ bar area	n/a	n/a	n/a	Collapsed ceiling plaster. Approx. 4x2m		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.2	P1200995	Plaster crack	Lounge/ bar area	Vertical	1	400	Plaster crack to ceiling downstand		Green
WE1.2	P1200996	Plaster crack	Lounge/ bar area	Diagonal	1	500	Plaster crack to ceiling downstand		Green
WE1.2	P1200997	Plaster crack	Lounge/ bar area	Vertical	1	300	Plaster crack to wall		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.2	P1200998	Plaster crack	Lounge/ bar area	Diagonal	1	500	Diagonal crack to ceiling downstand		Green
WE1.3	P1210032-040	n/a	Corridor	n/a	n/a	n/a	General photos		n/a
WE1.3	P1210041-042	Ceiling collapse	Corridor	n/a	n/a	n/a	Large number of collapsed false ceiling tiles		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.3	P1210 043-044	Collapsed ceiling plaster	Corridor	n/a	n/a	n/a	Collapsed plaster from ceiling (above false ceiling)		Green
WE1.3	P1210 045-046	Collapsed ceiling plaster	Corridor	n/a	n/a	n/a	Collapsed plaster from ceiling (above false ceiling)		Green
WE1.3	P1210 047-050	Collapsed ceiling plaster	Corridor	n/a	n/a	n/a	Collapsed ceiling plaster to ceiling downstand		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.3	P1210 051-052	Dampness/water ingress	Corridor	n/a	n/a	n/a	Sound of dripping water audible from room to right of window.		Amber
WE1.3	P12100053	Plaster crack	Corridor	Diagonal	1	500	Crack to downstand beam		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.4	P1200 921-927	n/a	Corridor	n/a	n/a	n/a	General photos		n/a

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.4	P1200928	Dampness/water ingress	Corridor	n/a	n/a	n/a	Peeling wallpaper to ceiling. Possible indication of damp		Green
WE1.4	P1200929-930	Plaster crack	Corridor	Horizontal	1	1000	Cracking to window downstand		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.4	P1200931	Crack	Corridor	n/a	n/a	n/a	Crack to timber skirting		Green
WE1.4	P1200932-933	Dampness/water ingress	Corridor	n/a	n/a	n/a	Mould/damp to floor		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.4	P1200934	Dampness/water ingress	Corridor	n/a	n/a	n/a	Peeling wallpaper to arch. Possible indication of damp		Green
WE1.4	P1200935-937	Plaster crack	Corridor	Varies	1	200-1000	Cracks to arch		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.5	P1200 950-958		Corridor	n/a	n/a	n/a	General photos		n/a
WE1.5	P1200959	Collapsed ceiling plaster	Corridor	n/a	n/a	n/a	Plaster collapse to ceiling downstand		Red
WE1.5	P1200 960-962	Dampness/water ingress	Corridor	n/a	n/a	n/a	-		Red



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.5	P1200963	Dampness/water ingress	Corridor	n/a	n/a	n/a	Mould/damp to floor		Red
WE1.5	P1200964-968	Collapsed ceiling plaster, dampness/water ingress	Corridor	n/a	n/a	n/a	Partial collapse of ceiling plaster and associated evidence of water ingress	 	Red Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.5	P1200969	Dampness/ water ingress	Corridor	n/a	n/a	n/a	-		Amber
WE1.5	P1200970-971	Plaster crack	Corridor	Vertical	1	200-300	Various cracks to downstand beam		Amber
WE1.5	P1200972-974	Collapsed ceiling plaster	Corridor	n/a	n/a	n/a	Large section of collapsed ceiling plaster 3x2m. Timber joists above exposed		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.5	P1200975	Plaster crack	Corridor		2	300	Cracks to plaster around collapsed ceiling		Amber
WE1.5	P1200976-977	Dampness/water ingress	Corridor	n/a	n/a	n/a	-		Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.5	P1200978-979	Dampness/water ingress	Corridor	n/a	n/a	n/a	Peeling wallpaper to ceiling. Possible indication of damp		Amber
WE1.6	P1200999-P1210007	n/a	Lounge / bar area	n/a	n/a	n/a	General photos		n/a

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.6	P1210008	Dampness/water ingress	Lounge / bar area	n/a	n/a	n/a			Green
WE1.6	P1210009-012	Plaster crack	Lounge / bar area	n/a	1	500	Plaster cracks to downstand beam		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.6	P1210013	Dampness/water ingress	Lounge / bar area	n/a	n/a	n/a			Green
WE1.6	P1210014	Plaster crack	Lounge / bar area	n/a	2	400			Green
WE1.6	P1210015	Plaster crack	Lounge / bar area	n/a	1	300	Plaster crack to arch feature		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.6	P1210016	Plaster crack	Lounge / bar area	n/a	1	300			Green
WE1.7	P1210017-024	n/a	Stairwell	n/a	n/a	n/a	General photos		n/a
WE1.7	P1210025-026	Plaster crack	Stairwell	Horizontal	2	5000			Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.7	P1210027	Crack	Stairwell	Horizontal	1	300	Crack to timber		Green
WE1.7	P1210028	Plaster crack	Stairwell	Horizontal	1	50	Crack to feature arch		Green
WE1.7	P1210029-030	Plaster crack	Stairwell	Vertical	1	1200			Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.7	P1210031	Plaster crack	Stairwell	1	100	Crack to feature arch		Green	


Source: MM (Surveyed on 27/02/2019-05/03/2019, Surveyed from Option 2 Scaffold via window openings)

Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect.



Refer to Fig A16 for location of defects/observation.




C.11 Internal Surveys Floor Openings at South Block – West Elevation, Level 1-3




Table 11: Internal Surveys Floor Openings at South Block – West Elevation, Level 1-3 Defects and Observations


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW1.1	P1020 250-262	Other	Dry goods store	n/a	n/a	n/a	Joist timbers in satisfactory condition		Green
WW1.2	n/a	n/a	Lounge (1st floor level)	n/a	n/a	n/a	Not inspected due to window opening inaccessible	-	n/a
WW1.3	n/a	n/a	Office (1st floor level)	n/a	n/a	n/a	Not inspected due to window opening inaccessible	-	n/a




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW2.2	P1020 237-246	n/a	Bedroom 207	n/a	n/a	n/a	General photos		n/a
WW2.2	P1020 243	Evidence of water ingress	Bedroom 207	n/a	n/a	n/a	Joists ends connection to wall. Evidence of water ingress. No timber degradation noted		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW2.4	P1020 224-234	n/a	Bedroom 211	n/a	n/a	n/a	General photos		n/a
WW2.4	P1020 231-236	Evidence of water ingress	Bedroom 211	n/a	n/a	n/a	Joists ends connection to wall. Evidence of water ingress. Minimal section loss noted		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									
WW2.6	P1020 214-222	Other	Bedroom 217	n/a	n/a	n/a	Joist timbers in satisfactory condition	 	Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW3.2	P1010 828-840	n/a	Bedroom 319	n/a	n/a	n/a	General photos		n/a
WW3.2	P1010 841	Degraded timber/loss of section	Bedroom 319	n/a	n/a	n/a	Evidence of water ingress and section loss to timber at connection to wall. Approx. 300mm length and up to 80mm section loss from top of section. Joist notched to allow pipe run through joist.		Amber
WW3.2	P1010 840	Other	Bedroom 319	n/a	n/a	n/a	Evidence of sandstone crumbling behind timber facing panel at window		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW3.7	P1010 819-825	n/a	Bedroom 309	n/a	n/a	n/a	General photos		n/a
WW3.7	P1010 827	Degraded timber/loss of section	Bedroom 309	n/a	n/a	n/a	Evidence of water ingress and section loss to timber at connection to wall. Approx. 300mm length and up to 50mm section loss from top of section. Joist notched to allow pipe run through joist.		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW3.7	P1010 823	Other	Bedroom 309	n/a	n/a	n/a	Evidence of sandstone crumbling behind timber facing panel at window		Amber
WW3.10	P1010 812-816	n/a	Bedroom 305	n/a	n/a	n/a	General photos	 	n/a

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WW3.10	P1010 817	Degraded timber/loss of section	Bedroom 305	n/a	n/a	n/a	Section loss to timber at connection point with wall. Approx. 300mm length and up to 50mm section loss from top of section		Amber
WW3.10	P1010 818	Other	Bedroom 305	n/a	n/a	n/a	Evidence of sandstone crumbling behind timber facing panel at window		Amber


Source: MM (Surveyed on 02/04/2019, 03/04/2019. Surveyed via window openings from Option 2 scaffold)



Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect.




Refer to Fig A17 for location of defects/observation.


C.12 Internal Surveys Floor Openings at South Block – East Elevation, Level 1-3



Table 12: Internal Surveys Floor Openings at South Block – East Elevation, Level 1-3 Defects and Observations



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.1	P1020 675-680	n/a	Conference room	n/a	n/a	n/a	General photos		n/a

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.1	P1020 676	Other	Conference room	n/a	n/a	n/a	Timbers generally in good condition. Joists run North-South (parallel with wall) some signs of water ingress to joist ends. Minimal section loss. Timbers generally in good condition		Green
WE1.2	P1020 699-703	Other	Lounge / Bar area	n/a	n/a	n/a	General room photos. Timbers generally in good condition. Timbers notched to approx. half depth of joist		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE1.3	P1020 681	Other	Corridor	n/a	n/a	n/a	General room photos. Timbers generally in good condition. Joists running north-south supported on intermediate blockwork wall. No section loss		Green
WE2.1	P1020 647-653	Other	Bedroom 204	n/a	n/a	n/a	general room photos. Timbers in good condition. Notched at ends. No signs of degradation		Green
WE2.5	P1020 654-662	Other	Bedroom 210	n/a	n/a	n/a	General room photos. Timbers in good condition. Evidence of water ingress at connection to wall. Minimal section loss to timber.		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE2.9	P1020 663-674	Other	Bedroom 216	n/a	n/a	n/a	General room photos. Timbers generally in good condition. Signs of water ingress at connection to wall. Minimal section loss to timber		Amber
WE3.2	773-776	n/a	Bedroom 322	n/a	n/a	n/a	General photos		n/a
WE3.2	777-780	Other	Bedroom 322	n/a	n/a	n/a	Joist section loss at connection point with perimeter wall, approx. 30-40mm section loss from top surface. Evidence of rot		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE3.2	781-782	Other	Bedroom 322	n/a	n/a	n/a	Ceiling collapse. Refer to previous room survey		n/a
WE3.8	P1010801-806	n/a	Bedroom 312	n/a	n/a	n/a	General photos		n/a
WE3.8	P1010807	Other	Bedroom 312	n/a	n/a	n/a	Degradation of timber joists at connection to wall. Approx. 30mm section loss from top of section. 60-75mm length		Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
WE3.11	P1010808-8011	Other	Bedroom 306	n/a	n/a	n/a	General photos		n/a
WE3.11	P10108010	Other	Bedroom 306	n/a	n/a	n/a	Mild degradation to joists at wall. Minor section loss. Timbers generally in good condition.		Amber


Source: MM (Surveyed on 02/04/2019, 03/04/2019, 12/04/2019. Surveyed via window openings from Option 2 scaffold)



Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect.




Refer to Fig A17 for location of defects/observation.




C.13 Internal Surveys at North Block from MEWP, West Elevation, Level 1-3




Table 13: Internal Surveys at North Block from MEWP, West Elevation, Level 1-3 Defects and Observations




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
CP1	P1020290-291	n/a	Carrick Room adj. Bedroom 103	n/a	n/a	n/a	No defects noted		n/a



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
CP2	P1020300-303	Other	Carrick Room adj. Bedroom 103	n/a	n/a	n/a	Mullion moved position away from frame (external defect)		Red
CP2	P1020295-296	Spalled/damaged sandstone	Carrick Room adj. Bedroom 103	n/a	n/a	n/a	Large piece of sandstone spalled from sill (external defect)		Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
CP3	P1020313-314	n/a	Carrick Room adj. Bedroom 103	n/a	n/a	n/a	No defects noted		n/a
CP4	P1020286	n/a	Lounge adj. Bedroom 201	n/a	n/a	n/a	Curtains drawn, interior not visible. No defects noted		n/a
CP5	P1020282-283	n/a	Lounge adj. Bedroom 201	n/a	n/a	n/a	No defects noted		n/a



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									
CP6	P1020312	n/a	Bedroom 201	n/a	n/a	n/a	No defects noted		n/a
CP7	P1020273-275	n/a	Stairs adj. Bedroom 301	n/a	n/a	n/a	No defects noted		n/a




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
CP8	P1020276-281	n/a	Bedroom 301	n/a	n/a	n/a	No defects noted		n/a
									n/a
CP9	P1020310-311	Other	Lounge adj. Bedroom 301	n/a	n/a	n/a	Evidence of limited ceiling collapse		Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									
CP10	n/a	n/a	n/a	n/a	n/a	n/a	Reference not used	n/a	n/a
CP11	n/a	n/a	n/a	n/a	n/a	n/a	Reference not used	n/a	n/a
CP12	P1020320-329	No internal defects noted, Other	Bedroom 233	n/a	n/a	n/a	No internal defects noted. Separation of outer blockwork and mullion (external defect)	 	Red


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
CP13	P1020330-340	n/a	Bedroom 235	n/a	n/a	n/a	No internal defects noted		n/a
CP14	P1020341-350	n/a	Bedroom 237	n/a	n/a	n/a	No internal defects noted		n/a



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									
CP15	P1020394-409	Other	Bedroom 241	n/a	n/a	n/a	No internal defects noted. Mullion separating from surrounding frame (external defect)	 	<p>n/a</p> <p>Amber</p>


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
CP16	P1020410-417	Other	Bedroom 243	n/a	n/a	n/a	No internal defects noted. Crack in lintel (external defect)		n/a Green
CP17	P1020377-393	Other	Bedroom 105	n/a	n/a	n/a	No internal defects noted. Separation of frame from blockwork to LHS of window (external defect)		n/a

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Green
CP18	P1020366-376	Other	Bedroom 107	n/a	n/a	n/a	No internal defects noted. Cracking/gap to lintel to RHS of window (external defect)	 	n/a
									Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
CP19	P1020351-365	n/a	Bedroom 109	n/a	n/a	n/a	No internal defects noted		n/a
									n/a
CP20	P1020427-438	Other	Bedroom 115	n/a	n/a	n/a	No internal defects noted. Mullion separation to RHS of window (external defect)		n/a

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Green
CP21	P1020418-426	Other	Bedroom 117	n/a	n/a	n/a	No internal defects noted. Separation of lintel from frame (external defect)		n/a Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
CP22	P1020448-462	Other	Bedroom 347	n/a	n/a	n/a	No internal defects noted. Separation of mullion from frame (external defect)		n/a Green
CP23	P1020266-270	Spalled/damaged sandstone	Stairs adj. Bedroom 301	n/a	n/a	n/a	No internal defects noted. Cracked/broken off sandstone to window arch and below ledge feature (external defects)		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									


Source: MM (Surveyed on 05/04/2019, Surveyed via window openings from MEWP)


Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect.




Refer to Fig A18 for location of defects/observation.




C.14 Internal Surveys Floor Openings at North Block, Level 1-3 and at South Block, Ground Level



Table 14: Internal Surveys Floor Openings at North Block, Level 1-3 and at South Block, Ground Level Defects and Observations



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
FO01	P1020 716-727, 742-750	Ceiling bulkhead removed, Mould	South Block, Ground level, Kintyre Suite	n/a	n/a	n/a	<p>Looking into the Kintyre Suite, room generally ok.</p> <p>Ceiling removed within bulkhead, support timbers exposed (742, 743), cannot see joists.</p> <p>Ceiling where not removed appears ok. Walls also ok, painted paper on plaster.</p> <p>Some areas of plaster have black mould (749, 750)</p> <p>Carpet in centre lifted, levelling screed on timber battens.</p> <p>The floorboards span onto timber joists. joists sit onto hard floor – possibly concrete. Not just sound deadening material.</p> <p>Floor opened up at window, joists looked dry, sample taken (746, 747).</p>		<p>n/a</p> <p>Amber</p>


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Green n/a


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
FO02	P1020 731-741	Dampness/water ingress, Other	South block, Ground level, Reception area	n/a	n/a	n/a	<p>Reception area in very good state. Ceiling all intact.</p> <p>Walls also intact – one area of damp (732, 734)</p> <p>Carpet still down on most floor area.</p> <p>Floor opened up, timber boards in good condition. Boards on timber joists on hard floor – possibly concrete (735-739).</p>	  	<p>n/a</p> <p>Green</p> <p>n/a</p>



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
FO03	P1020 463-485	Dampness/ water ingress, Degradation to timbers, Plaster crack, Stain, Other	North block, Staircase (2 nd floor)	n/a	n/a	n/a	<p>General condition of area is fair. Signs of water ingress and cracking to plaster. Floor timbers appear in fair condition. Minor signs of damp/water ingress and degradation to joist timbers. Minimal section loss (463-471)</p> <p>Crack to ceiling plaster (472)</p> <p>Crack to ceiling plaster (473)</p> <p>damp stain to wall (474)</p> <p>ceiling collapse to corridor (475-478)</p> <p>Damp staining to wall. Evidence of water ingress (479-482)</p> <p>damp staining to internal wall above window (483)</p> <p>minor signs of degradation to joist timbers. Minimal section loss (484, 485)</p>	  	<p>Amber</p> <p>Red</p> <p>Red</p>



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
FO04	P1020494-510	Timber degradation, Crack to masonry, Other	North block, Corridor (1 st floor)	n/a	n/a	n/a	<p>Joist timbers in good condition. Beam ends supported on soleplate on wall. Minimal section loss to timbers (494-500)</p> <p>Suspended ceiling tile collapse. Possibly taken down by thieves. Evidence of copper pipes removed (499)</p> <p>Crack to masonry at ceiling arch above false ceiling (509, 5110)</p>	 	<p>Amber</p> <p>Amber</p>


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
FO05	P1020517-525	Timber degradation	North block, Bedroom 339	n/a	n/a	n/a	General condition is good. Timber joists built into sandstone walls (approx. 200mm bearing). Timbers generally in good condition. Section over walls show minor sign of degradation. Section loss to top of timbers (approx. 30-50mm) noted.	 	Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
FO06	P1020532-544	Timber degradation	North block, Bedroom 239	n/a	n/a	n/a	<p>General condition is good. Timber joists built into sandstone walls (approx. 200mm bearing). Timbers generally in good condition. Section over walls show minor sign of degradation. Section loss to top of timbers (approx. 30-50mm) noted (532-544).</p> <p>Section loss to top of timber floor joists, top 30-50mm (523).</p>		<p>Amber</p> <p>Amber</p>

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
FO07	P1020 548-555	Evidence of water ingress, Collapsed ceiling tiles	North block, Bedroom 111	n/a	n/a	n/a	<p>General condition is fair. Evidence of water ingress to ceiling. Collapsed tiles and signs of water damage. Floor joists run North-South (parallel to wall), timber joists in good condition (548-554).</p> <p>Signs of water ingress to ceiling. Isolated area of collapsed tiles (551).</p> <p>Evidence of water ingress at cornice level (555).</p>		<p>Amber</p> <p>Amber</p>

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
FO08	P1020 555-568	Timber degradation, Evidence of water ingress, Damp staining, Collapsed ceiling tiles	North block, Bedroom 331 / office	n/a	n/a	n/a	<p>General condition is fair/ Timber joists built into sandstone walls (approx. 200mm bearing). Timbers generally in good condition. Section over walls show minor sign of degradation. Minimal section loss to timber noted (556-568).</p> <p>Minor signs of water ingress and related degradation to timber floor joists (558).</p> <p>Damp staining to ceiling tiles (564).</p> <p>Collapsed/removed ceiling tiles (567).</p>	 	<p>Amber</p> <p>Amber</p>

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
FO09	P1020 569-577	Other	North block, Bedroom 231	n/a	n/a	n/a	<p>General condition is good. Timber joists built into sandstone walls with cantilever end (approx. 150mm). Timbers generally in good condition. No signs of degradation. Room in good condition (569-574).</p> <p>External defect. Mullion displaced. Evidence of movement away from frame (575-577).</p>	 	<p>Green</p> <p>Amber</p>


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
FO10	P1020 577-591	Other	North block, Bedroom 103 / office	n/a	n/a	n/a	General condition is good. Timber joists built into sandstone walls. Timbers generally in good condition.		Green




Source: MM (North block surveyed on 09/04/2019-10/04/2019 from scaffold towers via window openings. South block surveyed on 16/04/2019 from ground level via window openings)




Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A19 and A20 for location of defects/observation.




C.15 Internal Surveys of South Block Roof Spaces



Table 15: Internal Survey South Block Roof Spaces Defects and Observations



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
RS1	P1020004-024	Other	South block roof space	n/a	n/a	n/a	Timbers generally in fair condition. Evidence of rot to vertical rafters. Horizontal timbers generally in fair/good condition. Some minor mortar loss to masonry walls		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
RS2	P1020049-051, 062, 067, 079	Other	South block roof space	n/a	n/a	n/a	Timbers generally in good condition. Masonry in good condition. Minimal mortar loss. Openings noted in chimney support brickwork with no lintel.		Amber Red
RS3	P1020049-051, 062, 067, 079	Other	South block roof space	n/a	n/a	n/a	Timbers generally in good condition. Masonry in good condition. Minimal mortar loss. Openings noted in chimney support brickwork with no lintel.		Amber Red
RS4	P1020049-051, 062, 067, 079	Other	South block roof space	n/a	n/a	n/a	Timbers generally in good condition. Masonry in good condition. Minimal mortar loss. Openings noted in chimney support brickwork with no lintel.		Amber Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
RS5	P1020049-051, 062, 067, 079	Other	South block roof space	n/a	n/a	n/a	Timbers generally in good condition. Masonry in good condition. Minimal mortar loss. Openings noted in chimney support brickwork with no lintel.		Amber Red
RS6-RS7	P1020029 - 051	Other	South block roof space	n/a	n/a	n/a	Timbers generally in good condition. Masonry in good condition. Minimal mortar loss. Openings noted in chimney support brickwork with no lintel. Existing water tank and pipes cut (thieves) with water actively running from pipe through building.		Amber Red
RS8	P1020029 - 051	Other	South block roof space	n/a	n/a	n/a	Timbers generally in good condition. Masonry in good condition. Minimal mortar loss. Openings noted in chimney support brickwork with no lintel. Existing water tank and pipes cut (thieves) with water actively running from pipe through building.		Amber Red

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
RF1 (West)	P1010842-864	Evidence of water ingress, Metal corrosion, Damage to mortar Other	South block roof	n/a	n/a	n/a	Evidence of water ingress to rafter ends (857) Evidence of vermin (858) Corrosion to support beams for lift gear. Minimal section loss (859-862) Minor mortar loss to masonry wall (863-864)	 	Amber
RF2 (West)	P1010873-874	Staining to timber, Other	South block roof	n/a	n/a	n/a	White staining to roof timbers (873) Local collapse to lathe and plaster ceiling (874)		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
RF3 (West)	P1010882-883	Staining to timber, Other	South block roof	n/a	n/a	n/a	White staining to roof timbers (882) Canisters sitting above ceiling. Risk of ceiling collapse or injury during demolition operations (883)		Amber
TH1 (West)	n/a	n/a	South block roof	n/a	n/a	n/a	Inspection of TH1 was abandoned due to poor access and visibility. Refer to RS1.	n/a	n/a
RF1 (East)	P1010775	Degraded timber/loss of section, Staining to timber, Other	South block roof	n/a	n/a	n/a	Section loss to timber at rafter ends. Section loss to eaves beam (up to 50-60%) (788-790) White staining to timber members. Possible indication of rot (795-796) Timber section loss to ties at edge of the rafter (797) Corroded nails and fixings (798) Minor mortar loss to chimney stack masonry (775-756)		Red


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
RF2 (East)	P1010777-800	Degraded timber/loss of section, Staining to timber, Other	South block roof	n/a	n/a	n/a	Section loss to joists. Loss of support (789) Section loss to vertical posts between eaves and joists below (790-793) White staining to timber generally (794-795) Section loss to rafter ends (796-797) Corroded nails and fixings (798) Section loss to eaves beams support (799) White staining to timber members internally at roof (800)		Red
RF3 (East)	P1010193-205	Degraded timber/loss of section, Other	South block roof	n/a	n/a	n/a	Section loss (approx. 30%) to bottom of timber member (202) Section loss to eaves beam. Approx. 80mm loss from top of member (203-204) Ceiling collapsed internally. Approx. 0.5m2 (205)		Red
TH1 (East)	n/a	n/a	South block roof	n/a	n/a	n/a	Inspection of TH1 was abandoned due to poor access and visibility. Refer to RS1.	n/a	n/a
TH2 (East)	n/a	Other	South block roof	n/a	n/a	n/a	No obvious defects observed from TH2, partly due to poor visibility. Refer to RS7.	n/a	n/a




Source: MM (Surveyed on 02-11/04/2019, Survey carried out by Zenith and recorded by Mott MacDonald)




Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A21 for location of defects/observation.


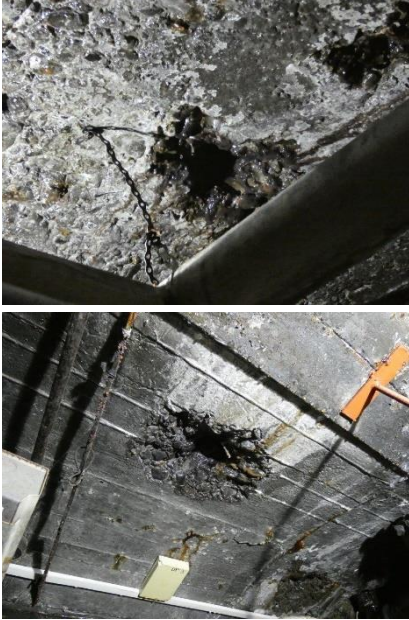
C.16 Internal Surveys at South Block, Basement Level




Table 16: Internal Surveys at South Block, Basement Level Defects and Observations


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
1	P1020909-0921, 0958-0972, 0976-0979	n/a	Boilerhouse	n/a	n/a	n/a	<p>General images. Masonry/stonework walls (painted) concrete slab. Concrete ceiling slab. In-situ concrete arch ceiling supported on secondary and primary metal beams supported on masonry walls.</p> <p>0909-0921 (general photos) 0958-0964 (ceiling arch) 0965-0972 (stone wall) 0976-0979 (ceiling, comparison between arches, rough finish, smooth finish)</p>		<p>Green</p> <p>Green</p>




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
1.1	P1020922-0927	Water ingress	Boilerhouse - ceiling	n/a	n/a	n/a	Water ingress through ceiling. Location of room below leaking tank in roof (likely source of water) water ingress through joints and various spalled/damaged concrete.	 	Amber
1.2	P1020928-0935	Water ingress	Boilerhouse - floor	n/a	n/a	n/a	Standing water on basement floor. Likely source from leaking tank in roof. Floor submerged therefore defects at floor level not visible		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Amber
1.3	P1020912	Mortar loss to masonry	Boilerhouse - ceiling wall	n/a	n/a	n/a	Mortar loss from stonework.		Green
1.44	P1020937	Metal corrosion	Boilerhouse - ceiling	n/a	n/a	n/a	Mild corrosion to main supporting beam (beam supports secondary metal beams and concrete arch) minimal section loss		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
1.5	P1020940	Metal corrosion	Boilerhouse - ceiling	n/a	n/a	n/a	Mild corrosion to secondary supporting beams. Minimal section loss		Green
1.6	P1020941	Missing concrete	Boilerhouse - ceiling	n/a	n/a	n/a	Missing concrete/holes in ceiling. Size varies. 8 no. Locations		Amber




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
1.7	P1020942	Spalled concrete	Boilerhouse - ceiling	n/a	n/a	n/a	Spalling concrete from arched concrete ceiling.		Amber
1.8	P1020954-957	Honeycombing to concrete	Boilerhouse - ceiling	n/a	n/a	n/a	Honeycombing, gaps to concrete where concrete arch meets metal beam. Construction of arch appears to be in-situ concrete cast between web of metal beam		Green
1.9	P1020973-975	Crumbling/recessed masonry wall	Boilerhouse - ceiling	n/a	n/a	n/a	Crumbling/recessed masonry at junction between wall and concrete arch. 6no. Locations		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
1.10	P1020925, 927	Poor quality concrete	Boilerhouse - ceiling	n/a	n/a	n/a	Poor quality concrete to arches. Aggregate and honeycombing evident. No sign of reinforcement at locations where concrete has collapsed		<p>Green</p> <p>Green</p>




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
2	P1020982-989	n/a	Oil Tank	n/a	n/a	n/a	General images – masonry walls. Concrete slab. In-situ concrete arch ceiling supported on secondary and primary metal beams supported on masonry walls. 0982-0989 (general photos)	  	<p>n/a</p> <p>n/a</p> <p>n/a</p>




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
2.1	P1020991-995	Spalled concrete	Oil Tank - ceiling	n/a	n/a	n/a	Spalled concrete to arched roof. 6No. Locations. Approx. 100mm2 each		Green
2.2	P1030016	Metal corrosion	Oil Tank - ceiling	n/a	n/a	n/a	Loose/corroded metal plate to underside of concrete arch. Possible formwork for concrete pour		Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
2.3	P1030008	Metal corrosion	Oil Tank - ceiling	n/a	n/a	n/a	Mild corrosion to metal support beam. Minimal section loss		Green
2.4	P1020985	Poor quality masonry	Oil Tank - walls	n/a	n/a	n/a	Poor quality masonry work to internal walls. Large masonry joints. Loss of mortar.		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
3	P1030024-033	n/a	Battery Room	n/a	n/a	n/a	General images	  	n/a n/a n/a



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
3.1	P1030034-052	Spalled/missing concrete	Battery Room - ceiling	n/a	n/a	n/a	Spalled/missing concrete to arched roof. 12No. Locations. Approx. 100mm2 each		Green
3.2	P1030056-058	Missing/dislodged concrete	Battery Room - ceiling	n/a	n/a	n/a	Missing/dislodged concrete to arched ceiling		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Green
3.3	P1030059-060	Gap in concrete at beam	Battery Room - ceiling	n/a	n/a	n/a	Missing concrete around beam at connection with concrete arch		Green
3.4	P1030061-063	Spalled concrete	Battery Room - ceiling	n/a	n/a	n/a	Spalled concrete patch. No evidence of rebar in concrete		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
3.5	P1030064-065	Spalled concrete	Battery Room - ceiling	n/a	n/a	n/a	Spalled concrete patch. No evidence of rebar in concrete		Green
3.6	P1030066-073	Concrete embedment	Battery Room - ceiling	n/a	n/a	n/a	Wooden wedges embedded in concrete arch. Appears to be left over from construction of arches.	 	Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
3.7	P1030073	Metal corrosion	Battery Room - ceiling	n/a	n/a	n/a	Mild corrosion to metal beam. Minimal section loss		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
4	P1030079-083	n/a	Store 1	n/a	n/a	n/a	General images		n/a
4.1	P1030084	Metal corrosion	Store 1 - ceiling	n/a	n/a	n/a	Moderate corrosion to metal beam. Minimal section loss. Surrounding concrete breaking away from beam.		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
4.2	P1030086-087	Metal corrosion	Store 1 - ceiling	n/a	n/a	n/a	Mild corrosion to metal beam at connection to wall		Green
4.3	P1030088-089 (MP4 file)	Concrete repair	Store 1 - ceiling	n/a	n/a	n/a	Missing concrete patch to ceiling		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
5	P1030153-163	n/a	Store 2	n/a	n/a	n/a	General images		n/a
									n/a
5.1	P1030164-165	Void in wall	Store 2 – wall	n/a	n/a	n/a	Hole knocked through wall to allow service penetrations. No lintel or support from framing noted		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
5.2	P1030166-169	Void in wall	Store 2 – wall	n/a	n/a	n/a	Hole knocked through wall to allow service penetrations. No lintel or support from framing noted		Amber
5.3	P1030170-171	Staining	Store 2 – wall	n/a	n/a	n/a	Staining to wall. Indicative of damp		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
5.4	P1030172-173	Void in wall	Store 2 – wall	n/a	n/a	n/a	Hole knocked through wall to allow service penetrations. No lintel or support from framing noted		Amber
5.5	P1030174-175	Staining	Store 2 – wall	n/a	n/a	n/a	Staining to wall. Indicative of damp		Green
5.6	P1030176-177	Concrete loss	Store 2 – ceiling	n/a	n/a	n/a	Evidence of spalled/missing concrete. Historic concrete repair noted		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
5.7	P1030178-181	Spalled concrete	Store 2 – ceiling	n/a	n/a	n/a	Cracks to concrete. Possible indication of early stages of spalling		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
6	P1030128-137	n/a	Store 3	n/a	n/a	n/a	General images		n/a
6.1	P1030138	Staining	Store 3 - wall	n/a	n/a	n/a	Staining to wall. Indicative of damp		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
6.2	P1030139-140	Staining	Store 3 - wall	n/a	n/a	n/a	Staining to wall. Indicative of damp		Green
6.3	P1030143-144	Metal corrosion	Store 3 - wall	n/a	n/a	n/a	Minor corrosion to metal beam end at connection to wall. Minimal section loss		Green
6.4	P1030145-146	Metal corrosion	Store 3 - ceiling	n/a	n/a	n/a	Minor corrosion to metal beam. Minimal section loss		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
6.5	P1030147-148	Spalled/missing concrete	Store 3 - ceiling	n/a	n/a	n/a	Spalled/missing concrete from ceiling		Green
6.6	P1030151-152	Hole in wall	Store 3 - wall	n/a	n/a	n/a	Void/hole in wall at corner		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
7	P1030234-244	n/a	Corridor 1	n/a	n/a	n/a	General images		n/a
									n/a
7.1	P1030245-250	Damp staining	Corridor 1 - walls	n/a	n/a	n/a	Damp staining to plasterboard walls		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
									Green
7.2	P1030251-254	Collapsed ceiling	Corridor 1 - ceiling	n/a	n/a	n/a	Plasterboard suspended ceiling collapsed. Approx. 2m x 10m.		Amber
7.3	P1030255-256	Plasterboard damage	Corridor 1 - walls	n/a	n/a	n/a	Hole in plasterboard wall. Approx. 300mm x 300mm		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
7.4	P1030257-259	Concrete damage	Corridor 1 - ceiling	n/a	n/a	n/a	Concrete/render collapse from ceiling		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
8	P1030206-215	n/a	Hall 1	n/a	n/a	n/a	General images		n/a
									n/a
8.1	P1030216-219	Plaster crack	Hall 1 - ceiling	Horizontal	>1	3000	Crack to plaster ceiling		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
8.2	P1030220-227	Damp staining	Hall 1 - walls	n/a	n/a	n/a	Damp staining to walls. Wallpaper peeling. Indicative of water ingress		Green
8.3	P1030228-230	Metal corrosion	Hall 1 - ceiling	n/a	n/a	n/a	Mild corrosion to metal support beam. Minimal section loss		Green
8.4	P1030231-233	Damp staining	Hall 1 - walls	n/a	n/a	n/a	Damp staining to walls around staircase		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
9	P1030182-188	n/a	Lift Motor Room	n/a	n/a	n/a	General images		n/a
									n/a
9.1	P1030189-190	Metal corrosion	Lift Motor Room - ceiling	n/a	n/a	n/a	Mild corrosion to metal support beam. Minimal section loss		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
9.2	P1030191-196	Concrete/render failure	Lift Motor Room - ceiling	n/a	n/a	n/a	Concrete/render collapse from ceiling		Green
9.3	P1030197-200	Spalled concrete	Lift Motor Room - ceiling	n/a	n/a	n/a	Spalled/damaged concrete to ceiling		Green
9.4	P1030201-205	Metal corrosion	Lift Motor Room - ceiling	n/a	n/a	n/a	Corrosion to lift support steelwork		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
10	P1030304-321	n/a	Corridor 2	n/a	n/a	n/a	General images		n/a
									n/a
10.1	P1030322-332	Damp staining	Corridor 2 - walls	n/a	n/a	n/a	Damp staining to walls throughout corridor		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
10.2	P1030333-338	Cracked render	Corridor 2 - walls	n/a	n/a	n/a	Cracking to render over stone walls		Green
10.3	P1030339-344	Metal corrosion	Corridor 2 - ceiling	n/a	n/a	n/a	Mild corrosion to steelwork and pipework in corridor		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
11	P1030261-264	n/a	Service Corridor	n/a	n/a	n/a	General images		n/a
11.1	P1030265-266	Metal corrosion	Service Corridor - wall	n/a	n/a	n/a	Damp staining to stonework, mild corrosion to steelwork		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
11.2	P1030267-268	Spalled concrete	Service Corridor - ceiling	n/a	n/a	n/a	Spalled/damaged concrete to ceiling		Green
11.3	P1030269-270	Missing/detached concrete	Service Corridor - roof/beam	n/a	n/a	n/a	Missing/detached concrete from interface between concrete arch and metal beam		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
12	P1030271-280	n/a	Gymnasium	n/a	n/a	n/a	General images		n/a
12.1	P1030281-286	Plaster failure	Gymnasium - ceiling	n/a	n/a	n/a	Missing plasterboard to suspended ceiling		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
12.2	P1030287-293	Damp staining	Gymnasium - ceiling	n/a	n/a	n/a	Damp staining to walls, wallpaper peeling		Green
12.3	P1030294-298	Cracked concrete	Gymnasium - ceiling	n/a	n/a	n/a	Concrete cracking around interface with metal beam		Green
12.4	P1030300	Metal corrosion	Gymnasium - ceiling	n/a	n/a	n/a	Mild corrosion to metal support beam. Minimal section loss		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
13	P1030362-368	n/a	Reception	n/a	n/a	n/a	General images		n/a
13.1	P1030369-373	Plaster failure	Reception - ceiling	n/a	n/a	n/a	Plasterboard ceiling collapse. Approx. 4m x 4m		Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
13.2	P1030374-375	Plaster failure	Reception - ceiling	n/a	n/a	n/a	Plaster board collapse to ceiling at corner of room. Approx. 300mm x 300mm		Amber
13.3	P1030376-379	Damp staining	Reception - ceiling	n/a	n/a	n/a	Damp staining to walls		Green
13.4	P1030380-387	Metal corrosion	Reception - ceiling	n/a	n/a	n/a	Corrosion to metal beams in ceiling		Amber



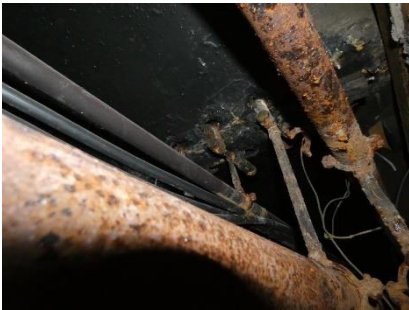
Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
14	P1030429-442, P1030457-464	n/a	Changing room 1	n/a	n/a	n/a	General images		n/a
14.1	P1030443-450	Plaster failure	Changing room 1 - ceiling	n/a	n/a	n/a	Plasterboard ceiling collapsed. Approx. 3m x 6m		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
14.2	P1030451-452	Missing/detached concrete	Changing room 1 - ceiling	n/a	n/a	n/a	Missing/detached concrete from ceiling		Green
14.3	P1030453-454	Missing/detached concrete	Changing room 1 - ceiling	n/a	n/a	n/a	Missing/detached concrete from ceiling		Green
14.4	P1030455-456	Crack	Changing room 1 - ceiling	Horizontal	2-5	1000	Crack to ceiling.		Amber


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
15	P1030465-478, P1030465-482	n/a	Changing room 2	n/a	n/a	n/a	General images		n/a
15.1	P1030479-482	Collapsed plasterboard ceiling	Changing room 2 - ceiling				Plasterboard ceiling collapsed. Approx. 3m x 3m		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
15.2	P1030483-486	Concrete failure	Changing room 2 - ceiling	n/a	n/a	n/a	Crumbling concrete at beam		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
16	P1030388-392	n/a	Solarium	n/a	n/a	n/a	General images		n/a
16.1	P1030393-399	Coating failure	Solarium - ceiling	n/a	n/a	n/a	Roof coating below concrete ceiling delaminating		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
16.2	P1030400-403	Plaster failure	Solarium - ceiling	n/a	n/a	n/a	Plasterboard ceiling collapsed. Approx. 3m x 3m		Amber
16.3	P1030404-410	Damp staining	Solarium - ceiling	n/a	n/a	n/a	Damp staining to walls. Wallpaper peeling. Evidence of water ingress		Green
16.4	P1030411-413	Metal corrosion	Solarium - ceiling	n/a	n/a	n/a	Corrosion to metal around pipes and brackets in ceiling		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
17	P1030414-417	n/a	Store 4	n/a	n/a	n/a	General images		n/a
17.1	P1030418-419	Plaster failure	Store 4 - ceiling	n/a	n/a	n/a	Plasterboard ceiling collapsed. Approx. 1m x 2m		Amber
17.2	P1030420-425	Damp staining	Store 4 - walls	n/a	n/a	n/a	Damp staining to walls		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
17.3	P1030426-428	Metal corrosion	Store 4 - ceiling	n/a	n/a	n/a	Mild corrosion to metal beam in ceiling. Beam obscured by ceiling finishes. Extent of corrosion not clear		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
18	P1030494-499	n/a	Corridor 4	n/a	n/a	n/a	General images		n/a
18.1	P1030500-506	Metal corrosion	Corridor 4 - ceiling	n/a	n/a	n/a	Mild corrosion to metal support beam. Minimal section loss		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
18.2	P1030507-510	Plaster failure	Corridor 4 - wall	n/a	n/a	n/a	Hole in plasterboard wall		Green
18.3	P1030511-516	Damp staining	Corridor 4 - wall	n/a	n/a	n/a	Damp staining to walls		Green


Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
19	P1030518-543	n/a	Corridor 3	n/a	n/a	n/a	General images		n/a
19.1	P1030544-553	Metal corrosion	Corridor 3 - ceiling	n/a	n/a	n/a	Mild corrosion to metal support beam. Minimal section loss		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
19.2	P1030554-560	Damp staining	Corridor 3 - wall	n/a	n/a	n/a	Damp staining to walls throughout corridor		Green
19.3	P1030561-564	Metal corrosion	Corridor 3 - ceiling	n/a	n/a	n/a	Mild corrosion to metal support beam. Minimal section loss		Green
19.4	P1030565-568	Standing water	Corridor 3 - floor	n/a	n/a	n/a	Standing water on floor.		Amber



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
20	P1030569-576	n/a	Plant Room	n/a	n/a	n/a	General images		n/a
20.1	P1030577-580	Damp staining	Plant Room - wall	n/a	n/a	n/a	Damp staining to ceiling and walls		Green




Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
20.2	P1030587-591	Metal corrosion	Plant Room - ceiling	n/a	n/a	n/a	Mild corrosion to metal support beams. Minimal section loss		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
21	P1030595-604	n/a	Jacuzzi	n/a	n/a	n/a	General images		n/a
21.1	P1030605-608	Plaster failure	Jacuzzi - wall	n/a	n/a	n/a	Area of pvc missing and plaster missing behind		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
21.2	P1030609-610	Plaster failure	Jacuzzi - ceiling	n/a	n/a	n/a	Plasterboard ceiling collapsed. Approx. 2m x 2m		Amber
21.3	P1030611-615	Metal corrosion	Jacuzzi - ceiling	n/a	n/a	n/a	Mild corrosion to metal support beams. Minimal section loss		Green
21.4	P1030616-618	Metal corrosion	Jacuzzi - ceiling	n/a	n/a	n/a	Mild corrosion to metal support beams. Minimal section loss		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
21.5	P1030619-625	Timber defect	Jacuzzi - ceiling	n/a	n/a	n/a	Evidence of warping to timber floor		Amber
21.6	P1030626-628	Metal corrosion	Jacuzzi - ceiling	n/a	n/a	n/a	Mild corrosion to metal support beams. Minimal section loss		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
22	P1030636-643	n/a	Store 5	n/a	n/a	n/a	General images		n/a
22.1	P1030644-648	Render failure	Store 5 - ceiling	n/a	n/a	n/a	Localised render collapse		Green



Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
22.2	P1030649-653	Cracking to render	Store 5 - ceiling	n/a	n/a	n/a	Cracking to render on ceiling		Green
22.3	P1030654-655	Missing/detached concrete	Store 5 - ceiling	n/a	n/a	n/a	Missing/detached concrete from ceiling		Green
22.4	P1030656-661	Cracking to render	Store 5 - wall	n/a	n/a	n/a	Cracking to render on wall		Amber



Source: MM (Surveyed on 07-10/05/2019, Surveyed by Zenith with asbestos PPE and recorded by Mott MacDonald)


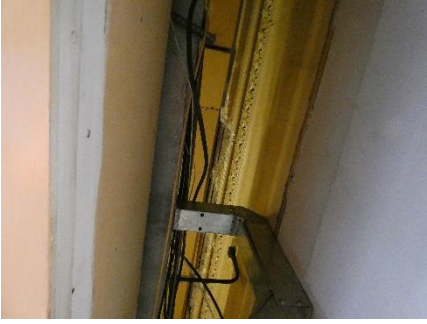
Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A22 for location of defects/observation.




C.17 Internal Surveys at North Block - Ground Floor - Rail Operator Offices



Table 17: Internal Surveys at North Block - Ground Floor - Rail Operator Offices Defects and Observations

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
1	P1020757	Crack to plaster	Entrance - Wall	n/a	n/a	n/a	Vertical plaster crack		Green
2	P1020784	Damp patch	Corridor - Ceiling	n/a	n/a	n/a	Damp patch to ceiling tiles. Evidence of water ingress or leak within ceiling void		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
3	P1020789	Damp patch	WC2 - Ceiling	n/a	n/a	n/a	Damp patch to ceiling tiles. Evidence of water ingress or leak within ceiling void		Green
4	P1020836	Spalled plaster	Office1 - Wall	n/a	n/a	n/a	Spalled plaster on vertical wall. Possibly from minor takedown works		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
5	P1020837	Crack to plaster	Office1 - Wall	n/a	n/a	n/a	Cracking to plaster on wall		Green
6	P1020842	Damaged plaster	Mess - Ceiling	n/a	n/a	n/a	Original plaster to ceiling missing/damaged. Possibly removed as part of refurbishment works. Limited view due to presence of false ceiling		Green
7	P1020850	Water staining	COSA2 - Wall	n/a	n/a	n/a	Water staining and plant growth around downpipe. Indicative of leak to downpipe		Amber

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
8	P1020858	Water ingress	ER2 - Ceiling	n/a	n/a	n/a	Damp patch to ceiling tiles. Evidence of water ingress or leak within ceiling void		Green
9	P1020862	Water ingress	Entrance2	n/a	n/a	n/a	Damp patch to ceiling tiles. Evidence of water ingress or leak within ceiling void		Green
10	P1020867	Water ingress	Mess2 - Ceiling	n/a	n/a	n/a	Damp patch to ceiling tiles. Evidence of water ingress or leak within ceiling void		Green

Defect ID	Photo Source	Defect Description	Defect Location	Crack Orientation	Crack Width (mm)	Crack Length (mm)	Comments	Photo	Severity Category
11	P1020885	Corrosion	Office3	n/a	n/a	n/a	Corrosion to steel angles and spalled plaster to pier behind door		Amber
12	P1020904	Water ingress	WC5	n/a	n/a	n/a	Damp patch to ceiling tiles. Evidence of water ingress or leak within ceiling void		Green

Source: MM (Surveyed on 24/04/2019, Surveyed from ground level)

Notes: Severity Category: GREEN denotes Minor Defect, AMBER denotes Major Defect, RED denotes Severe Defect. Refer to Fig A23 for location of defects/observation.

D. Excluded Survey Areas

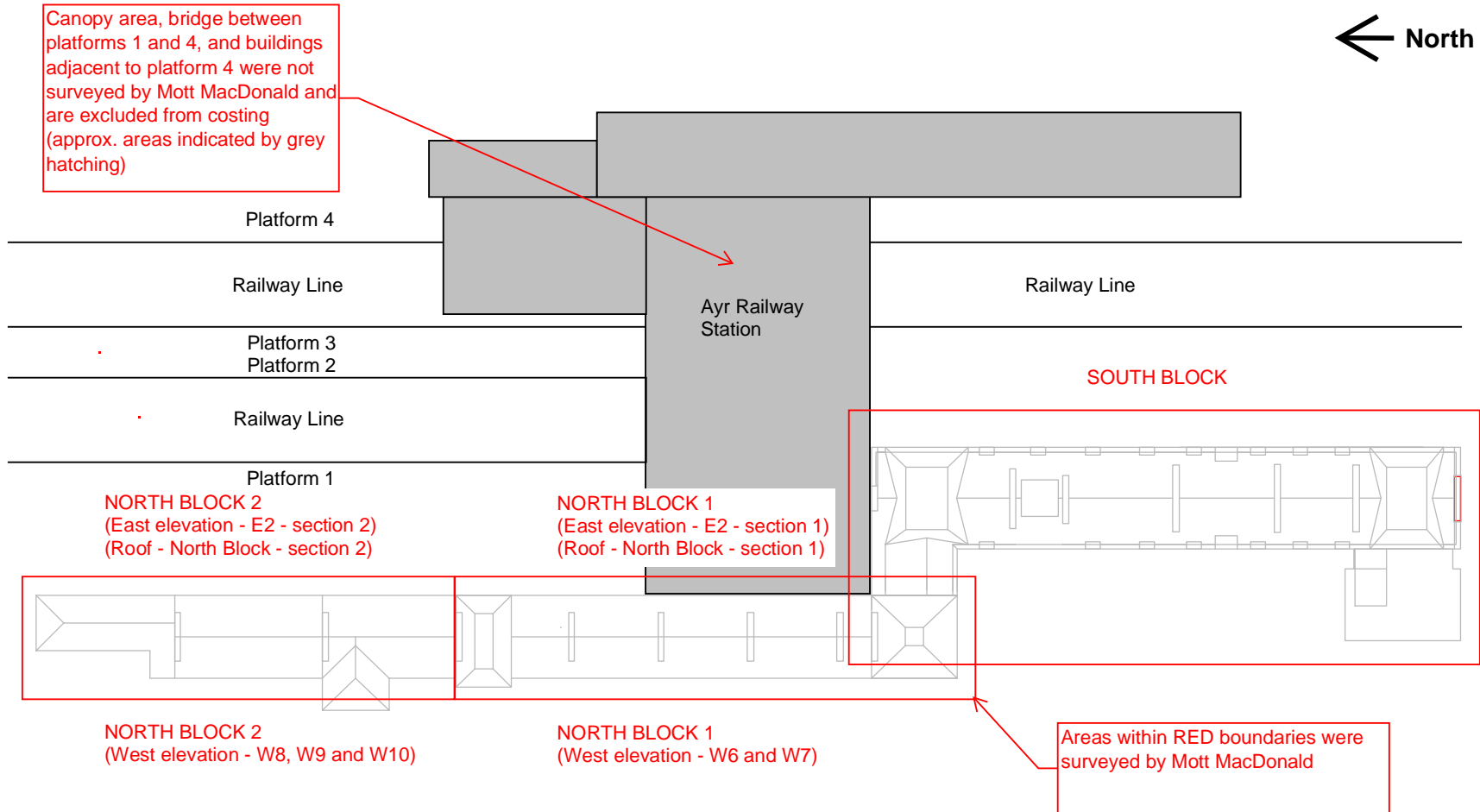


Fig D1: Block Plan of Station Hotel Building showing Areas Surveyed/Not Surveyed by Mott MacDonald

E. Rectification Schedule

399316

Former Ayr Station Hotel Building

Rectification Schedule

Date: 1st August 2019

PART 1: External Works

PART 2: Internal Works South Block

PART 3: Internal Works North Block 1

PART 4: Internal Works North Block 2

Ayr Station Hotel - External face proposed remedial measures - EXTERNAL WORKS

ITEM Number	Element	Location	Most Likely Solution	Quantity (Nr, m, m2, m3)
1.0 - General				
1.1	0 Facilitating works –			
1.1.1	Site set up	General	Contractor site establishment. Note existing site enclosure preestablished including fencing.	
1.1.2	Scaffolding reconfiguration	General	Reconfiguration and partial rebuilding of the existing scaffold to allow remedial works to be undertaken will be required. NB: existing scaffold is in place covering the entire South block however the scaffold needs reconfigured to allow movement of material around building. Will likely include rebuilding the southern section of th escaffold and incorporating lifting platforms and craneage/lifting points around the building	
1.1.3	Proximity to live railway station/line		The building is located adjacent to an active railway line (refer site layout) which will have an impact on access and impose restrictions on the method of working	
1.1.4	Possible off-site Storage / workshop		Restricted site storage / lay-down area. Investigate possibility of local vacant industrial warehouse / facility to sort, process and store reusable materials (from inclement weather) and to accept deliveries of replacement materials for despatch to site. This option would also improve continuity of works (weather considerations)	
1.1.5	Temporary Works			
2.0 - External Defects				
2.1 - Roof				

2.1.1	Roof tiles	Roof - South Block	Remove existing slate tiles from south block roof (all areas-pitched roof, mansard, towers) and set aside for reuse. Suitable slates to be reused. Defective slates to be replaced. Roof to be reroofed on a like for like basis.	- Say 40% of slates will be unsuitable for reuse and will require replacement. - say 60% of slates to be reused
2.1.2	Roof sarking	Roof - South block	Remove existing timber board sarking from roof from south block roof (all areas-pitched roof, mansard, towers) and set aside for reuse. Suitable boards to be reused for reroofing. Roof to be reroofed on a like for like basis.	- Say 40% of boards will be unsuitable for reuse and will require replacement.
2.1.3	Structural roof timbers	Roof - South block	Assess structural roof timbers for condition and suitability. Sound timbers to be left in-situ. Degraded timbers to be removed and replaced.	- Say 20% of structural roof timbers will require replacement.
2.1.4	Structural timbers mansard roof	Roof - south block	Assess structural roof timbers within mansard roof section (below pitched roof). Sound timbers to be left insitu. Degraded timbers to be replaced.	- Say 80% of mansard roof structural timbers will require replacement. Note mansard roof timbers help tie back the feature dormer projections which will need propping and temporary support during works (possibly from scaffold)
2.1.5	Cast iron roof edge features	Roof - South block	Remove existing cast iron feature edge pieces from south block roof (cast iron feature pieces run along the edges of the building at the junction between the mansard and pitched roof areas and around the top hat sections.	- Cast iron feature pieces to be assessed for reuse. Suitable sections (say 75%) to be cleaned (chemical/blast clean?) and repainted. 25% to be replaced with new sections to match existing.

2.1.6	Structural timbers Top hat sections	Roof - south block	Assess structural roof timbers within top hat roof section (below pitched roof). Sound timbers to be left insitu. Degraded timbers to be replaced.	- Say 30% of top hat structural roof timbers require replacement.

2.1.7	Waterproofing Top hat sections	Roof - South block	Remove waterproof membrane to flat sections of top hat roof projections. Replace with new waterproof membrane	- Say 100% of flat roof sections to top hat roof sections
2.1.8	Structural timbers Dormer structure	Roof - west side - south block	Strip back roof coverings and assess existing dormer structure roof and timbers for condition and suitability. Sound timbers to be left insitu. Degraded timbers to be replaced.	- Say 100% of structural timbers to roof dormer to be replaced.
2.1.9	Flashing	Roof - ridges/edges/features - south block	Assess existing flashing for condition. Repair insitu flashing suitable for reuse. Replace defective flashing with new lead flashing. NB: flashing is present around all chimney stack/roof interfaces as well as standard roof joints/changes direction	- Say 50% of lead flashing will require replacement - Say 50% of lead flashing will be suitable for reuse
2.1.10	Timber hatches	Roof - south block	Replace timber hatches in roof	- Say 4No. (2m x 1m each)
2.1.11	Sandstone chimney stacks - cracking	Roof - chimneys - south block	undertake crack stitching to cracked sandstone blocks. Saw cut groove within sandstone, insert threaded stainless steel bar and resin fix, finish to flush surface to match existing	- say 40 No. x 300mm long cracks
2.1.12	Sandstone chimney stacks - missing pointing	Roof - chimneys - south block	Repoint sandstone joint - rake out existing loose mortar, prepare joint, repoint with lime mortar. Make good to match existing	- Say 30% of sandstone faces to chimney columns
2.1.13	Sandstone chimney stacks - loose blocks	Roof - chimneys - south block	Reseat sandstone blocks. Remortar joints	- say 30 No. blocks
2.1.14	Sandstone chimney stacks - chimney pots	Roof - chimneys - south block	Replace missing/damaged chimney pots	- say 15No. Pots to be replaced
2.1.15	Cast iron feature windows	Roof - south block - clocktower	Clean cast iron feature windows to clocktower (possible chemical or blast clean) and recoat	- say 3No. Windows (2m x 3m)
2.1.16	Roof tiles	Roof - North Block - section 1	Remove existing slate tiles from south block roof (all areas-pitched roof, mansard, towers) and set aside for reuse. Suitable slates to be reused. Defective slates to be replaced. Roof to be reroofed on a like for like basis.	- Say 30% of slates will be unsuitable for reuse and will require replacement. - say 70% of slates to be reused

2.1.17	Roof sarking	Roof - North Block - section 1	Remove existing timber board sarking from roof from south block roof (all areas-pitched roof, mansard, towers) and set aside for reuse. Suitable boards to be reused for reroofing. Roof to be reroofed on a like for like basis.	- Say 30% of boards will be unsuitable for reuse and will require replacement.
2.1.18	Structural roof trusses	Roof - North Block - section 1	Assess structural roof timbers for condition and suitability. Sound timbers to be left in-situ. Degraded timbers to be removed and replaced.	- Say 20% of structural roof timbers will require replacement.

2.1.19	Structural timbers mansard roof	Roof - North Block - section 1	Assess structural roof timbers within mansard roof section (below pitched roof). Sound timbers to be left insitu. Degraded timbers to be replaced.	- Say 25% of mansard roof structural timbers will require replacement. Note mansard roof timbers help tie back the feature dormer projections which will need propping and temporary support during works (possibly from scaffold)
2.1.20	Cast iron roof edge features	Roof - North Block - section 1	Remove existing cast iron feature edge pieces from roof (cast iron feature pieces run along the edges of the building at the junction between the mansard and pitched roof areas and around the top hat sections.	- Cast iron feature pieces to be assessed for reuse. Suitable sections (say 75%) to be cleaned (chemical/blast clean?) and repainted. 25% to be replaced with new sections to match existing.
2.1.21	Flashing	Roof - North Block - section 1	Assess existing flashing for condition. Repair insitu flashing suitable for reuse. Replace defective flashing with new lead flashing. NB: flashing is present around all chimney stack/roof interfaces as well as standard roof joints/changes direction	- Say 30% of lead flashing will require replacement - Say 70% of lead flashing will be suitable for reuse
2.1.22	Sandstone chimney stacks - cracking	Roof - North Block - section 1	undertake crack stitching to cracked sandstone blocks. Saw cut groove within sandstone, insert threaded stainless steel bar and resin fix, finish to flush surface to match existing	- say 20 No. x 300mm long cracks
2.1.23	Sandstone chimney stacks - missing pointing	Roof - North Block - section 1	Repoint sandstone joint - rake out existing loose mortar, prepare joint, repoint with lime mortar. Make good to match existing	- Say 30% of sandstone faces to chimney columns
2.1.24	Sandstone chimney stacks - loose blocks	Roof - North Block - section 1	Reseat sandstone blocks. Remortar joints	say 15 No.
2.1.25	Sandstone chimney stacks - chimney pots	Roof - North Block - section 1	Replace missing damaged chimney pots	say 10No.
2.1.26	Roof tiles	Roof - North Block - section 2	Remove existing slate tiles from south block roof (all areas- pitched roof, mansard, towers) and set aside for reuse. Suitable slates to be reused. Defective slates to be replaced. Roof to be reroofed on a like for like basis.	- Say 20% of slates will be unsuitable for reuse and will require replacement. - say 80% of slates to be reused

2.1.27	Roof sarking	Roof - North Block - section 2	Remove existing timber board sarking from roof from south block roof (all areas-pitched roof, mansard, towers) and set aside for reuse. Suitable boards to be reused for reroofing. Roof to be reroofed on a like for like basis.	- Say 15% of boards will be unsuitable for reuse and will require replacement.
2.1.28	Structural roof trusses	Roof - North Block - section 2	Assess structural roof timbers for condition and suitability. Sound timbers to be left in-situ. Degraded timbers to be removed and replaced.	- Say 10% of structural roof timbers will require replacement.
2.1.29	Flashing	Roof - North Block - section 2	Assess existing flashing for condition. Repair insitu flashing suitable for reuse. Replace defective flashing with new lead flashing. NB: flashing is present around all chimney stack/roof interfaces as well as standard roof joints/changes direction	- Say 10% of lead flashing will require replacement - Say 90% of lead flashing will be suitable for reuse

2.1.30	Sandstone chimney stacks - cracking	Roof - North Block - section 2	undertake crack stitching to cracked sandstone blocks. Saw cut groove within sandstone, insert threaded stainless steel bar and resin fix, finish to flush surface.	say 10No. x 300mm long cracks
2.1.31	Sandstone chimney stacks - missing pointing	Roof - North Block - section 2	Repoint sandstone joint - rake out existing loose mortar, prepare joint, repoint with lime mortar.	Say 10% of sandstone faces to chimney columns
2.1.32	Sandstone chimney stacks - loose blocks	Roof - North Block - section 2	Reseat sandstone blocks. Remortar joints	say 10 No.
2.1.33	Sandstone chimney stacks - chimney pots	Roof - North Block - section 2	Replace missing damaged chimney pots	say 5No.
2.2 - East Elevation				
2.2.1	Gutters	East elevation - E1	remove gutters and assess for reuse. Gutters in suitable condition to be blast cleaned and repainted before refitting to building. Unsuitable gutters to be replaced with new cast iron gutters to match existing.	- Say 50% gutters to be repainted - Say 50% gutters will require replacement
2.2.2	Downpipes	East elevation - E1	Assess downpipes for reuse. Downpipes in suitable condition to be blast cleaned and repainted. Unsuitable downpipes to be replaced with new cast iron downpipes to match existing.	- Say 25% downpipes to be reused - Say 75% downpipes will require replacement. All downpipes will require new connection brackets to building
2.2.3	Window framing	East elevation - E1	Timber window framing to be assessed for reuse. Where suitable for reuse framing to be sanded to good surface and repointed. Where unsuitable for reuse framing to be removed and replaced with new sash & case windows to match existing	- say 50% of window frames on E1 suitable for reuse - say 50% of window frames on E1 to be replaced
2.2.4	Window panes	East elevation - E1	Assess glazing panels for suitability for reuse. Where unsuitable/missing/broken replace window glazing with new.	- say 40% of windows on E1 face to be replaced
2.2.5	Sandstone wall face - missing pointing	East elevation - E1	Repoint sandstone joint - rake out existing loose mortar, prepare joint, repoint with lime mortar to match existing.	- Say 50% of sandstone faces will require repointing
2.2.6	Sandstone wall face - loose blocks	East elevation - E1	Reseat sandstone blocks. Remortar joints	- say 50 No. blocks over east elevation

2.2.7	Sandstone wall face - delaminated sandstone	East elevation - E1	Assess condition of sandstone faces for loose/delaminated sandstone. Remove large sections of loose sandstone and repair or clean surfaces to provide sound edge. Where large scale delamination has occurred use mortar replacement such as lithomex and for larger areas indent replacement sandstone into block.	- say 10m2 of sandstone to east elevation face for lithomex repair - say 5m2% of sandstone east elevation face for indent repair
2.2.8	Sandstone wall face - vegetation	East elevation - E1	Remove vegetation growth/staining from building face/joints. Clean surface to remove all plant growth/moss/staining.	- say 20% of E1 building face
2.2.9	Sandstone dormer projection stabilisation	East elevation - E1	Assess existingsandstone dormer projections for integrity. Reseat and mortar blocks. Drill and install threaded stainless steel bars resin fixed into the dormer projection sandstone blocks and tie back into main roof structure by fixing into timber rafters by drilling/using fixing plate.	- say 8No. 1m long threaded stainless steel rods resin fixed to sandstone and plate fixed to timber per dormer on east elevation.
2.2.10	Sandstone lintel support blocks	East elevation - E1	Replace spalled sandstone blocks (where support has been lost/reduced due to spalled sandstone)	Say 20No. Across east elevation

2.2.11	Sandstone crack	East elevation - E1	Minor sandstone cracks. Sandstone to be saw cut to allow installation of threaded stainless steel bars resin fixed across crack at 150mm centres. Surface to be made good to match existing	- say 40 No. x 300mm cracks
2.2.12	Sandstone crack to lintel and surrounding blocks	East elevation - E1	steel angle lintel to be inserted under the existing cracked lintel. Lintel to be propped, window framing removed and angle inserted supported on existing pillars to either side of lintel. Lintel and blocks above window frame to have crack stitched utilising stainless steel threaded rods inserted into blocks and surface made good to match existing	- say 10 No. Location
2.2.13	Corrosion to steel lintel	East elevation - E1	Prop existing sandstone lintel. Remove and install new steel lintel member.	- 1No. Location
2.2.14	Sandstone crack	East elevation - E1	Sandstone to be saw cut to allow installation of threaded stainless steel bars resin fixed across crack at 150mm centres. Surface to be made good to match existing	- say 2000mm long crack
2.2.15	movement to window opening support stonework	East elevation - E1	replace sandstone transom and supporting blocks around window frame window	- say transom block + 4No. Blocks

2.2.16	Sandstone crack	East elevation - E1	Sandstone to be saw cut to allow installation of threaded stainless steel bars resin fixed across crack at 150mm centres. Surface to be made good to match existing	- say 1000mm long crack
2.2.17	spalled sandstone to feature edges	East elevation - E1	Assess sandstone feature edges for loose/delaminated sandstone. Where sandstone is brittle/at risk then sandstone edge to be removed and reformed with appropriate mortar	- say 5% of feature edges/cornice to require remedial work
2.2.18	Gutters	East elevation - E2 - section 1	remove gutters and assess for reuse. Gutters in suitable condition to be blast cleaned and repainted before refitting to building. Unsuitable gutters to be replaced with new cast iron gutters to match existing.	- Say 50% gutters to be repainted - Say 50% gutters will require replacement
2.2.19	Downpipes	East elevation - E2 - section 1	Assess downpipes for reuse. Downpipes in suitable condition to be blast cleaned and repainted. Unsuitable downpipes to be replaced with new cast iron downpipes to match existing.	- Say 25% downpipes to be reused - Say 75% downpipes will require replacement. All downpipes will require new connection brackets to building

2.2.20	Window framing	East elevation - E2 - section 1	Timber window framing to be assessed for reuse. Where suitable for reuse framing to be sanded to good surface and repointed. Where unsuitable for reuse framing to be removed and replaced with new sash & case windows to match existing	- say 50% of window frames on E2 suitable for reuse - say 50% of window frames on E2 to be replaced
2.2.21	Window panes	East elevation - E2 - section 1	Assess glazing panels for suitability for reuse. Where unsuitable/missing/broken replace window glazing with new.	- say 40% of windows on E2 face to be replaced
2.2.22	Sandstone wall face - missing pointing	East elevation - E2 - section 1	Repoint sandstone joint - rake out existing loose mortar, prepare joint, repoint with lime mortar to match existing.	- Say 30% of sandstone faces will require repointing

2.2.23	Sandstone wall face - loose blocks	East elevation - E2 - section 1	Reseat sandstone blocks. Remortar joints	- say 30 No. blocks over east elevation
2.2.24	Sandstone wall face - delaminated sandstone	East elevation - E2 - section 1	Assess condition of sandstone faces for loose/delaminated sandstone. Remove large sections of loose sandstone and repair or clean surfaces to provide sound edge. Where large scale delamination has occurred use mortar replacement such as lithomex and for larger areas indent replacement sandstone into block.	- say 10m2 of sandstone to east elevation face for lithomex repair - say 5m2% of sandstone east elevation face for indent repair
2.2.25	Sandstone wall face - vegetation	East elevation - E2 - section 1	Remove vegetation growth/staining from building face/joints. Clean surface to remove all plant growth/moss/staining.	say 20% eE2 face
2.2.26	Sandstone dormer projection stabilisation	East elevation - E2 - section 1	Assess existingsandstone dormer projections for integrity. Reseat and mortar blocks. Drill and install threaded stainless steel bars resin fixed into the dormer projection sandstone blocks and tie back into main roof structure by fixing into timber rafters by drilling/using fixing plate.	- say 8No. 1m long threaded stainless steel rods resin fixed to sandstone and plate fixed to timber per dormer on east elevation.
2.2.27	Sandstone lintel support blocks	East elevation - E2 - section 1	Replace spalled sandstone blocks (where support has been lost/reduced due to spalled sandstone)	Say 10No. Across E2 face

2.2.28	Sandstone crack	East elevation - E2 - section 1	Minor sandstone cracks. Sandstone to be saw cut to allow installation of threaded stainless steel bars resin fixed across crack at 150mm centres. Surface to be made good to match existing	- say 20 No. x 300mm cracks
2.2.29	spalled sandstone to feature edges	East elevation - E2 - section 1	Assess sandstone feature edges for loose/delaminated sandstone. Where sandstone is brittle/at risk then sandstone edge to be removed and reformed with appropriate mortar	- say 5% of feature edges/cornice to require remedial work
2.2.30	Gutters	East elevation - E2 - section 2	remove gutters and assess for reuse. Gutters in suitable condition to be repainted before refitting to building. Unsuitable gutters to be replaced with new cast iron gutters to match existing.	- Say 90% gutters to be repainted - Say 10% gutters will require replacement
2.2.31	Downpipes	East elevation - E2 - section 2	Assess downpipes for reuse. Downpipes in suitable condition to be blast cleaned and repainted. Unsuitable downpipes to be replaced with new cast iron downpipes to match existing.	- Say 75% downpipes to be reused - Say 25% downpipes will require replacement. Say 50% downpipes will require new connection brackets to building

2.2.32	Window framing	East elevation - E2 - section 2	Timber window framing to be assessed for reuse. Where suitable for reuse framing to be sanded to good surface and repointed. Where unsuitable for reuse framing to be removed and replaced with new sash & case windows to match existing	- say 50% of window frames on E2 section 2 suitable for reuse - say 50% of window frames on E2 section 2 to be replaced
2.2.33	Window panes	East elevation - E2 - section 2	Assess glazing panels for suitability for reuse. Where unsuitable/missing/broken replace window glazing with new.	- say 10% of windows on E2 section 2 face to be replaced
2.2.34	Sandstone wall face - missing pointing	East elevation - E2 - section 2	Repoint sandstone joint - rake out existing loose mortar, prepare joint, repoint with lime mortar to match existing.	- Say 10% of sandstone faces will require repointing
2.2.35	Sandstone wall face - loose blocks	East elevation - E2 - section 2	Reseat sandstone blocks. Remortar joints	- say 5 No. blocks over east elevation

2.2.36	Sandstone wall face - delaminated sandstone	East elevation - E2 - section 2	Assess condition of sandstone faces for loose/delaminated sandstone. Remove large sections of loose sandstone and repair or clean surfaces to provide sound edge. Where large scale delamination has occurred use mortar replacement such as lithomex and for larger areas indent replacement sandstone into block.	- say 10m2 of sandstone to east elevation face for lithomex repair - say 2m2% of sandstone east elevation face for indent repair
2.2.37	Sandstone wall face - vegetation	East elevation - E2 - section 2	Remove vegetation growth/staining from building face/joints. Clean surface to remove all plant growth/moss/staining.	say 10% of E2 section 2 face
2.2.38	Sandstone crack	East elevation - E2 - section 2	Minor sandstone cracks. Sandstone to be saw cut to allow installation of threaded stainless steel bars resin fixed across crack at 150mm centres. Surface to be made good to match existing	- say 5 No. x 300mm cracks
2.2.39	spalled sandstone to feature edges	East elevation - E2 - section 2	Assess sandstone feature edges for loose/delaminated sandstone. Where sandstone is brittle/at risk then sandstone edge to be removed and reformed with appropriate mortar	- say 5% of feature edges/cornice to require remedial work
2.2.40	differential settlement	South elevation - S1	Underpinning works to 10m section of foundation. Underpinning to include propping of the existing building and installation of new RC pads below the existing foundations.	say 1.5m2 pad foundations at 2m centres along length of underpinning. Say 2No. Locations for underpinning works

2.3.5	Sandstone crack	West elevation - W3	Minor sandstone cracks. Sandstone to be saw cut to allow installation of threaded stainless steel bars resin fixed across crack at 150mm centres. Surface to be made good to match existing	- say 4 No. x 300mm cracks
2.3.6	spalled sandstone to feature edges	West elevation - W4	Assess sandstone feature edges for loose/delaminated sandstone. Where sandstone is brittle/at risk then sandstone edge to be removed and reformed with appropriate mortar	- say 2.5% of feature edges/cornice to require remedial work

2.3.7	Gutters	West elevation - W4	remove gutters and assess for reuse. Gutters in suitable condition to be blast cleaned and repainted before refitting to building. Unsuitable gutters to be replaced with new cast iron gutters to match existing.	- Say 50% gutters to be repainted - Say 50% gutters will require replacement
2.3.8	Downpipes	West elevation - W4	Assess downpipes for reuse. Downpipes in suitable condition to be blast cleaned and repainted. Unsuitable downpipes to be replaced with new cast iron downpipes to match existing.	- Say 25% downpipes to be reused - Say 75% downpipes will require replacement. All downpipes will require new connection brackets to building
2.3.9	Drainage to balconies	West elevation - W4	repair drainage to balcony areas by installing screed to match existing sandstone to falls and replace drain items to allow flow of water	- say 3No. Balconies (4mx2m)
2.3.10	Window framing	West elevation - W4	Timber window framing to be assessed for reuse. Where suitable for reuse framing to be sanded to good surface and repointed. Where unsuitable for reuse framing to be removed and replaced with new sash & case windows to match existing	- say 50% of window frames on W4 suitable for reuse - say 50% of window frames on W4 to be replaced

2.3.11	Window panes	West elevation - W4	Assess glazing panels for suitability for reuse. Where unsuitable/missing/broken replace window glazing with new.	- say 40% of window panes on W4 to be replaced
2.3.12	Sandstone wall face - missing pointing	West elevation - W4	Repoint sandstone joint - rake out existing loose mortar, prepare joint, repoint with lime mortar to match existing.	- Say 15% of sandstone on face W4 will require repointing
2.3.13	Sandstone wall face - loose blocks	West elevation - W4	Reseat sandstone blocks. Remortar joints	- say 30 No. blocks over W4 face
2.3.14	Sandstone wall face - delaminated sandstone	West elevation - W4	Assess condition of sandstone faces for loose/delaminated sandstone. Remove large sections of loose sandstone and repair or clean surfaces to provide sound edge. Where large scale delamination has occurred use mortar replacement such as lithomex and for larger areas indent replacement sandstone into block.	- say 10m2 of sandstone to W4 face for lithomex repair - say 5m2 of sandstone to W4 face for indent repair
2.3.15	Sandstone wall face - vegetation	West elevation - W4	Remove vegetation growth/staining from building face/joints. Clean surface to remove all plant growth/moss/staining.	say 20% of W4 face

2.3.16	Sandstone dormer projection stabilisation	West elevation - W4	Assess existingsandstone dormer projections for integrity. Reseat and mortar blocks. Drill and install threaded stainless steel bars resin fixed into the dormer projection sandstone blocks and tie back into main roof structure by fixing into timber rafters by drilling/using fixing plate.	- say 8No. 1m long threaded stainless steel rods resin fixed to sandstone and plate fixed to timber per dormer on W4 face
2.3.17	Sandstone lintel support blocks	West elevation - W4	Replace spalled sandstone blocks (where support has been lost/reduced due to spalled sandstone)	Say 10No. Across W4 face
2.3.18	Sandstone crack	West elevation - W4	Minor sandstone cracks. Sandstone to be saw cut to allow installation of threaded stainless steel bars resin fixed across crack at 150mm centres. Surface to be made good to match existing	- say 40 No. x 300mm cracks
2.3.19	cracking to masonry service box	West elevation - W4	Remove and replace masonry service box at ground level	- say "No. boxes (2m x 1m x 1m tall)

2.3.20	spalled sandstone to feature edges	West elevation - W5	Assess sandstone feature edges for loose/delaminated sandstone. Where sandstone is brittle/at risk then sandstone edge to be removed and reformed with appropriate mortar	- say 2.5% of feature edges/cornice to require remedial work
2.3.21	Gutters	West elevation - W5	remove gutters and assess for reuse. Gutters in suitable condition to be blast cleaned and repainted before refitting to building. Unsuitable gutters to be replaced with new cast iron gutters to match existing.	- Say 50% gutters to be repainted - Say 50% gutters will require replacement
2.3.22	Downpipes	West elevation - W5	Assess downpipes for reuse. Downpipes in suitable condition to be blast cleaned and repainted. Unsuitable downpipes to be replaced with new cast iron downpipes to match existing.	- Say 25% downpipes to be reused - Say 75% downpipes will require replacement. All downpipes will require new connection brackets to building
2.3.23	Window framing	West elevation - W5	Timber window framing to be assessed for reuse. Where suitable for reuse framing to be sanded to good surface and repointed. Where unsuitable for reuse framing to be removed and replaced with new sash & case windows to match existing	- say 50% of window frames on W5 suitable for reuse - say 50% of window frames on W5 to be replaced

2.3.24	Window panes	West elevation - W5	Assess glazing panels for suitability for reuse. Where unsuitable/missing/broken replace window glazing with new.	- say 25% of window panes on W5 to be replaced
2.3.25	Sandstone wall face - missing pointing	West elevation - W5	Repoint sandstone joint - rake out existing loose mortar, prepare joint, repoint with lime mortar to match existing.	- Say 15% of sandstone on face W5 will require repointing
2.3.26	Sandstone wall face - loose blocks	West elevation - W5	Reseat sandstone blocks. Remortar joints	- say 10 No. blocks over W5 face
2.3.27	Sandstone wall face - delaminated sandstone	West elevation - W5	Assess condition of feature pieces/cornices for loose/delaminated sandstone. Remove large sections of loose sandstone and repair or clean surfaces to provide sound edge. Where large scale delamination has occurred use mortar replacement such as lithomex and for larger areas indent replacement sandstone into block.	- say 5m2 of sandstone to W5 face for lithomex repair - say 2.5m2 of sandstone to W5 face for indent repair
2.3.28	Sandstone wall face - vegetation	West elevation - W5	Remove vegetation growth/staining from building face/joints. Clean surface to remove all plant growth/moss/staining.	say 20% of W5 face

2.3.29	Sandstone dormer projection stabilisation	West elevation - W5	Assess existingsandstone dormer projections for integrity. Reseat and mortar blocks. Drill and install threaded stainless steel bars resin fixed into the dormer projection sandstone blocks and tie back into main roof structure by fixing into timber rafters by drilling/using fixing plate.	- say 8No. 1m long threaded stainless steel rods resin fixed to sandstone and plate fixed to timber per dormer on W5 face
2.3.30	Sandstone lintel support blocks	West elevation - W5	Replace spalled sandstone blocks (where support has been lost/reduced due to spalled sandstone)	Say 4No. Across W5 face
2.3.31	Sandstone crack	West elevation - W5	Minor sandstone cracks. Sandstone to be saw cut to allow installation of threaded stainless steel bars resin fixed across crack at 150mm centres. Surface to be made good to match existing	- say 10 No. x 300mm cracks
2.3.32	spalled sandstone to feature edges	West elevation - W6	Assess sandstone feature edges for loose/delaminated sandstone. Where sandstone is brittle/at risk then sandstone edge to be removed and reformed with appropriate mortar	- say 2.5% of feature edges/cornice to require remedial work

2.3.33	Gutters	West elevation - W6	remove gutters and assess for reuse. Gutters in suitable condition to be blast cleaned and repainted before refitting to building. Unsuitable gutters to be replaced with new cast iron gutters to match existing.	- Say 50% gutters to be repainted - Say 50% gutters will require replacement
2.3.34	Downpipes	West elevation - W6	Assess downpipes for reuse. Downpipes in suitable condition to be blast cleaned and repainted. Unsuitable downpipes to be replaced with new cast iron downpipes to match existing.	- Say 25% downpipes to be reused - Say 75% downpipes will require replacement. All downpipes will require new connection brackets to building
2.3.35	Window framing	West elevation - W6	Timber window framing to be assessed for reuse. Where suitable for reuse framing to be sanded to good surface and repointed. Where unsuitable for reuse framing to be removed and replaced with new sash & case windows to match existing	- say 50% of window frames on W6 suitable for reuse - say 50% of window frames on W6 to be replaced
2.3.36	Window panes	West elevation - W6	Assess glazing panels for suitability for reuse. Where unsuitable/missing/broken replace window glazing with new.	- say 15% of window panes on W6 to be replaced

2.3.37	Sandstone wall face - missing pointing	West elevation - W6	Repoint sandstone joint - rake out existing loose mortar, prepare joint, repoint with lime mortar to match existing.	- Say 10% of sandstone on face W6 will require repointing
2.3.38	Sandstone wall face - loose blocks	West elevation - W6	Reseat sandstone blocks. Remortar joints	- say 10 No. blocks overW6 face
2.3.39	Sandstone wall face - delaminated sandstone	West elevation - W6	Assess condition of feature pieces/cornices for loose/delaminated sandstone. Remove large sections of loose sandstone and repair or clean surfaces to provide sound edge. Where large scale delamination has occurred use mortar replacement such as lithomex and for larger areas indent replacement sandstone into block.	- say 5m2 of sandstone to W6face for lithomex repair - say 2m2 of sandstone to W6face for indent repair
2.3.40	Sandstone wall face - vegetation	West elevation - W6	Remove vegetation growth/staining from building face/joints. Clean surface to remove all plant growth/moss/staining.	say 10% of W6 face
2.3.41	Sandstone dormer projection stabilisation	West elevation - W6	Assess existingsandstone dormer projections for integrity. Reseat and mortar blocks. Drill and install threaded stainless steel bars resin fixed into the dormer projection sandstone blocks and tie back into main roof structure by fixing into timber rafters by drilling/using fixing plate.	- say 8No. 1m long threaded stainless steel rods resin fixedto sandstone and plate fixed to timber per dormer on W6 face

2.3.42	Sandstone lintel support blocks	West elevation - W6	Replace spalled sandstone blocks (where support has been lost/reduced due to spalled sandstone)	Say 4No. Across W6 face
2.3.43	Sandstone crack	West elevation - W6	Minor sandstone cracks. Sandstone to be saw cut to allow installation of threaded stainless steel bars resin fixed across crack at 150mm centres. Surface to be made good to match existing	- say 20 No. x 300mm cracks
2.3.44	Corrosion to external steel fire escape stair	West elevation - W6	Blast clean and repaint steel fire escape stair with corrosion protection paint system. Assess connections to building and replace bolts and connection plates where necessary	- say 100% steel stair to be cleaned and repainted. - say 15No. Plates will require replacement and 50No. Bolts

2.3.45	Gutters	West elevation - W7	remove gutters and assess for reuse. Gutters in suitable condition to be blast cleaned and repainted before refitting to building. Unsuitable gutters to be replaced with new cast iron gutters to match existing.	- Say 50% gutters to be repainted - Say 50% gutters will require replacement
2.3.46	Downpipes	West elevation - W7	Assess downpipes for reuse. Downpipes in suitable condition to be blast cleaned and repainted. Unsuitable downpipes to be replaced with new cast iron downpipes to match existing.	- Say 25% downpipes to be reused - Say 75% downpipes will require replacement. All downpipes will require new connection brackets to building
2.3.47	Window framing	West elevation - W7	Timber window framing to be assessed for reuse. Where suitable for reuse framing to be sanded to good surface and repointed. Where unsuitable for reuse framing to be removed and replaced with new sash & case windows to match existing	- say 75% of window frames on W7 suitable for reuse - say 25% of window frames on W7 to be replaced
2.3.48	Window panes	West elevation - W7	Assess glazing panels for suitability for reuse. Where unsuitable/missing/broken replace window glazing with new.	- say 15% of window panes on W7 to be replaced

2.3.49	spalled sandstone to feature edges	West elevation - W7	Assess sandstone feature edges for loose/delaminated sandstone. Where sandstone is brittle/at risk then sandstone edge to be removed and reformed with appropriate mortar	- say 2.5% of feature edges/cornice to require remedial work
2.3.50	Sandstone wall face - missing pointing	West elevation - W7	Repoint sandstone joint - rake out existing loose mortar, prepare joint, repoint with lime mortar to match existing.	- Say 10% of sandstone on face W7 will require repointing
2.3.51	Sandstone wall face - delaminated sandstone	West elevation - W7	Assess condition of feature pieces/cornices for loose/delaminated sandstone. Remove large sections of loose sandstone and repair or clean surfaces to provide sound edge. Where large scale delamination has occurred use mortar replacement such as lithomex and for larger areas indent replacement sandstone into block.	- say 2m2 of sandstone to W7face for lithomex repair
2.3.52	Sandstone wall face - vegetation	West elevation - W7	Remove vegetation growth/staining from building face/joints. Clean surface to remove all plant growth/moss/staining.	say 10% of W7 face
2.3.53	Gutters	West elevation - W8	remove gutters and assess for reuse. Gutters in suitable condition to be blast cleaned and repainted before refitting to building. Unsuitable gutters to be replaced with new cast iron gutters to match existing.	- Say 75% gutters to be repainted - Say 25% gutters will require replacement

2.3.54	Downpipes	West elevation - W8	Assess downpipes for reuse. Downpipes in suitable condition to be blast cleaned and repainted. Unsuitable downpipes to be replaced with new cast iron downpipes to match existing.	- Say 25% downpipes to be reused - Say 75% downpipes will require replacement. All downpipes will require new connection brackets to building
2.3.55	Window framing	West elevation - W8	Timber window framing to be assessed for reuse. Where suitable for reuse framing to be sanded to good surface and repointed. Where unsuitable for reuse framing to be removed and replaced with new sash & case windows to match existing	- say 75% of window frames on W8 suitable for reuse - say 25% of window frames on W8 to be replaced
2.3.56	Window panes	West elevation - W8	Assess glazing panels for suitability for reuse. Where unsuitable/missing/broken replace window glazing with new.	- say 15% of window panes on W8 to be replaced

2.3.57	spalled sandstone to feature edges	West elevation - W8	Assess sandstone feature edges for loose/delaminated sandstone. Where sandstone is brittle/at risk then sandstone edge to be removed and reformed with appropriate mortar	- say 1% of feature edges/cornice to require remedial work
2.3.58	Sandstone wall face - missing pointing	West elevation - W8	Repoint sandstone joint - rake out existing loose mortar, prepare joint, repoint with lime mortar to match existing.	- Say 5% of sandstone on face W8 will require repointing
2.3.59	Sandstone wall face - delaminated sandstone	West elevation - W8	Assess condition of feature pieces/cornices for loose/delaminated sandstone. Remove large sections of loose sandstone and repair or clean surfaces to provide sound edge. Where large scale delamination has occurred use mortar replacement such as lithomex and for larger areas indent replacement sandstone into block.	- say 2m2 of sandstone to W8 face for lithomex repair
2.3.60	Sandstone wall face - vegetation	West elevation - W8	Remove vegetation growth/staining from building face/joints. Clean surface to remove all plant growth/moss/staining.	say 10% of W8 face
2.3.61	Gutters	West elevation - W10	remove gutters and assess for reuse. Gutters in suitable condition to be blast cleaned and repainted before refitting to building. Unsuitable gutters to be replaced with new cast iron gutters to match existing.	- Say 75% gutters to be repainted - Say 25% gutters will require replacement

2.3.62	Downpipes	West elevation - W10	Assess downpipes for reuse. Downpipes in suitable condition to be blast cleaned and repainted. Unsuitable downpipes to be replaced with new cast iron downpipes to match existing.	- Say 75% downpipes to be reused - Say 25% downpipes will require replacement. All downpipes will require new connection brackets to building
2.3.63	Window framing	West elevation - W10	Timber window framing to be assessed for reuse. Where suitable for reuse framing to be sanded to good surface and repointed. Where unsuitable for reuse framing to be removed and replaced with new sash & case windows to match existing	- say 75% of window frames on W10 suitable for reuse - say 25% of window frames on W10 to be replaced
2.3.64	Window panes	West elevation - W10	Assess glazing panels for suitability for reuse. Where unsuitable/missing/broken replace window glazing with new.	- say 5% of window panes on W10 to be replaced
2.3.65	spalled sandstone to feature edges	West elevation - W10	Assess sandstone feature edges for loose/delaminated sandstone. Where sandstone is brittle/at risk then sandstone edge to be removed and reformed with appropriate mortar	- say 1% of feature edges/cornice to require remedial work

2.3.66	Sandstone wall face - missing pointing	West elevation - W10	Repoint sandstone joint - rake out existing loose mortar, prepare joint, repoint with lime mortar to match existing.	- Say 5% of sandstone on face W10 will require repointing
2.3.67	Sandstone wall face - delaminated sandstone	West elevation - W10	Assess condition of feature pieces/cornices for loose/delaminated sandstone. Remove large sections of loose sandstone and repair or clean surfaces to provide sound edge. Where large scale delamination has occurred use mortar replacement such as lithomex and for larger areas indent replacement sandstone into block.	- say 2m2 of sandstone to W10 face for lithomex repair
2.3.68	Sandstone wall face - vegetation	West elevation - W10	Remove vegetation growth/staining from building face/joints. Clean surface to remove all plant growth/moss/staining.	say 10% of W10 face

2.4 - South Elevation				
2.4.1	Downpipes	South elevation - S1	Assess downpipes for reuse. Downpipes in suitable condition to be blast cleaned and repainted. Unsuitable downpipes to be replaced with new cast iron downpipes to match existing.	- 2No. downpipes to be cleaned, painted and reused. 1 section to be replaced (say 4m long section) downpipe will require new connection brackets to building
2.4.2	Sandstone wall face - missing pointing	South elevation - S1	Repoint sandstone joint - rake out existing loose mortar, prepare joint, repoint with lime mortar to match existing.	- Say 30% of sandstone faces will require repointing
2.4.3	Sandstone wall face - loose blocks	South elevation - S1	Reseat sandstone blocks. Remortar joints	- say 15 No. blocks over S1 face
2.4.4	Sandstone wall face - delaminated sandstone	South elevation - S1	Assess condition of feature pieces/cornices for loose/delaminated sandstone. Remove large sections of loose sandstone and repair or clean surfaces to provide sound edge. Where large scale delamination has occurred use mortar replacement such as lithomex and for larger areas indent replacement sandstone into block.	- say 5% of sandstone to east elevation face for lithomex repair - say 1% of sandstone east elevation face for indent repair

2.4.5	Sandstone wall face - vegetation	South elevation - S1	Remove vegetation growth from building face/joints. Clean surface to remove all plant growth/moss.	say 20% east elevation building face
2.4.6	damage to sandstone blocks	South elevation - S1	Replace spalled sandstone blocks where sandstone integrity is comprised	Say 10No. Across east elevation
2.4.7	Sandstone crack	South elevation - S1	Minor sandstone cracks. Sandstone to be saw cut to allow installation of threaded stainless steel bars resin fixed across crack at 150mm centres. Surface to be made good to match existing	- say 15 No. x 300mm cracks

2.4.8	Sandstone crack	South elevation - S1	Sandstone to be saw cut to allow installation of threaded stainless steel bars resin fixed across crack at 150mm centres. Surface to be made good to match existing	- say 5000mm long crack
2.4.9	spalled sandstone to feature edges	South elevation - S1	Assess sandstone feature edges for loose/delaminated sandstone. Where sandstone is brittle/at risk then sandstone edge to be removed and reformed with appropriate mortar	- say 5% of feature edges/cornice to require remedial work
2.4.10	differential settlement	South elevation - S1	Underpinning works to 10m section of foundation. Underpinning to include propping of the existing building and installation of new RC pads below the existing foundations.	say 1.5m2 pad foundations at 2m centres along length of underpinning

2.5 - North Elevation				
2.5.1	spalled sandstone to feature edges	North elevation - N1	Assess sandstone feature edges for loose/delaminated sandstone. Where sandstone is brittle/at risk then sandstone edge to be removed and reformed with appropriate mortar	- say 2.5% of feature edges/cornice to require remedial work
2.5.2	Gutters	North elevation - N1	remove gutters and assess for reuse. Gutters in suitable condition to be blast cleaned and repainted before refitting to building. Unsuitable gutters to be replaced with new cast iron gutters to match existing.	- Say 50% gutters to be repainted - Say 50% gutters will require replacement
2.5.3	Downpipes	North elevation - N1	Assess downpipes for reuse. Downpipes in suitable condition to be blast cleaned and repainted. Unsuitable downpipes to be replaced with new cast iron downpipes to match existing.	- Say 25% downpipes to be reused - Say 75% downpipes will require replacement. All downpipes will require new connection brackets to building
2.5.4	Window framing	North elevation - N1	timber window framing to be assessed for reuse. where suitable for reuse framing to be sanded to good surface and repointed. Where unsuitable for reuse framing to be removed and replaced with new cash & case windows to match	- say 50% of window frames on N1 suitable for reuse - say 50% of window frames on N1 to be replaced

2.5.5	Window panes	North elevation - N1	Assess glazing panels for suitability for reuse. Where unsuitable/missing/broken replace window glazing with new.	- say 40% of window panes on N1 to be replaced
2.5.6	Sandstone wall face - missing pointing	North elevation - N1	Repoint sandstone joint - rake out existing loose mortar, prepare joint, repoint with lime mortar to match existing.	- Say 30% of sandstone on face N1 will require repointing
2.5.7	Sandstone wall face - loose blocks	North elevation - N1	Reseat sandstone blocks. Remortar joints	- say 20 No. blocks over N1 face
2.5.8	Sandstone wall face - delaminated sandstone	North elevation - N1	Assess condition of feature pieces/cornices for loose/delaminated sandstone. Remove large sections of loose sandstone and repair or clean surfaces to provide sound edge. Where large scale delamination has occurred use mortar replacement such as lithomex and for larger areas indent replacement sandstone into block.	- say 1% of sandstone to N1 face for lithomex repair - say 0.5% of sandstone to N1 face for indent repair
2.5.9	Sandstone wall face - vegetation	North elevation - N1	Remove vegetation growth from building face/joints. Clean surface to remove all plant growth/moss.	say 20% of N1 face

2.5.10	Sandstone crack to lintel and surrounding blocks	North elevation - N1	steel angle lintel to be inserted under the existing cracked lintel. Lintel to be propped, window framing removed and angle inserted supported on existing pillars to either side of lintel. Lintel and blocks above window frame to have crack stitched utilising stainless steel threaded rods inserted into blocks and surface made good to match existing	- say 3 No. Location
2.5.11	Sandstone crack	North elevation - N1	Minor sandstone cracks. Sandstone to be saw cut to allow installation of threaded stainless steel bars resin fixed across crack at 150mm centres. Surface to be made good to match existing	- say 10 No. x 300mm cracks
2.5.12	spalled sandstone to feature edges	North elevation - N3	Assess sandstone feature edges for loose/delaminated sandstone. Where sandstone is brittle/at risk then sandstone edge to be removed and reformed with appropriate mortar	- say 2.5% of feature edges/cornice to require remedial work

2.5.13	Gutters	North elevation - N3	remove gutters and assess for reuse. Gutters in suitable condition to be blast cleaned and repainted before refitting to building. Unsuitable gutters to be replaced with new cast iron gutters to match existing.	- Say 50% gutters to be repainted - Say 50% gutters will require replacement
2.5.14	Downpipes	North elevation - N3	Assess downpipes for reuse. Downpipes in suitable condition to be blast cleaned and repainted. Unsuitable downpipes to be replaced with new cast iron downpipes to match existing.	- Say 25% downpipes to be reused - Say 75% downpipes will require replacement. All downpipes will require new connection brackets to building
2.5.15	Sandstone wall face - missing pointing	North elevation - N3	Repoint sandstone joint - rake out existing loose mortar, prepare joint, repoint with lime mortar to match existing.	- Say 30% of sandstone on face N3 will require repointing
2.5.16	Sandstone wall face - delaminated sandstone	North elevation - N3	Assess condition of feature pieces/cornices for loose/delaminated sandstone. Remove large sections of loose sandstone and repair or clean surfaces to provide sound edge. Where large scale delamination has occurred use mortar replacement such as lithomex and for larger areas indent replacement sandstone into block.	- say 1% of sandstone to N3 face for lithomex repair
2.5.17	Sandstone wall face - vegetation	North elevation - N3	Remove vegetation growth from building face/joints. Clean surface to remove all plant growth/moss.	say 10% of N3 face

2.5.18	Sandstone crack	North elevation - N3	Minor sandstone cracks. Sandstone to be saw cut to allow installation of threaded stainless steel bars resin fixed across crack at 150mm centres. Surface to be made good to match existing	- say 5 No. x 300mm cracks
2.5.19	spalled sandstone to feature edges	North elevation - N3	Assess sandstone feature edges for loose/delaminated sandstone. Where sandstone is brittle/at risk then sandstone edge to be removed and reformed with appropriate mortar	- say 2.5% of feature edges/cornice to require remedial work
2.5.20	Gutters	North elevation - N4	gutters to be assessed for reuse. In general gutters to this area appear in fair condition. Gutters in suitable condition to be repainted insitu	- Say 100% gutters to be repainted
2.5.21	Downpipes	North elevation - N4	Assess downpipes for reuse. Downpipes in suitable condition to be blast cleaned and repainted. Unsuitable downpipes to be replaced with new cast iron downpipes to match existing.	- say 100% downpipes to be repainted

2.5.22	Sandstone wall face - missing pointing	North elevation - N4	Repoint sandstone joint - rake out existing loose mortar, prepare joint, repoint with lime mortar to match existing.	- Say 30% of sandstone on face N4 will require repointing
2.5.23	Sandstone wall face - delaminated sandstone	North elevation - N4	Assess condition of feature pieces/cornices for loose/delaminated sandstone. Remove large sections of loose sandstone and repair or clean surfaces to provide sound edge. Where large scale delamination has occurred use mortar replacement such as lithomex and for larger areas indent replacement sandstone into block.	- say 1% of sandstone to N4 face for lithomex repair
2.5.24	Sandstone wall face - vegetation	North elevation - N4	Remove vegetation growth from building face/joints. Clean surface to remove all plant growth/moss.	say 10% of N3 face

2.5.25	Sandstone crack	North elevation - N4	Minor sandstone cracks. Sandstone to be saw cut to allow installation of threaded stainless steel bars resin fixed across crack at 150mm centres. Surface to be made good to match existing	- say 5 No. x 300mm cracks
2.5.26	movement to chimney stack	North elevation - N4	chimney to be assessed for movement. Noted that chimney currently has metal strapping. Strapping to be assessed for continued suitability and reinforced/replaced as required	- 1No. Chimney



Ayr Station Hotel - Internal face proposed remedial measures - INTERNAL WORKS SOUTH BLOCK

ITEM Number	Element	Location	Most Likely Solution	Quantity (Nr, m, m2, m3)
3.0 - General				
3.1	rot survey	full building	A full timber rot survey will be required to identify instances of wet and dry rot to structural timbers throughout the building	
3.2	M+E services	full building	Strip out and full refit of all M+E services. - Installation of lighting, sockets and power throughout building - installation of heating plant and associated pipework - Installation of internal water supplies and drainage within the building	- say 100% strip out and refit
3.3	asbestos	full building	A full asbestos survey of the building will be required to identify areas of asbestos within building. Prior to intrusive and refit works asbestos identified will require to be removed	
3.4	Fire stopping	full building	Assessment of full building for compliance with fire standards. It is anticipated that works will be required to install fire stopping/dampers etc throughout the building	
3.5	Lift	Lobby	Existing historic lift to be assessed for condition and remediated as required. This may include refitting lift motor, replaccing lift cables, electric cabling, stripping and remediating steel components (cleaning rust/repainting etc)	
3.6	Internal features	full building	There are a number of features to the building that have historic merit such as the feature staircase. It is not clear the full scope of these elements at this time however an allowance should be made for refurbishing these elements insitu.	

3.7	Conservation elements		The hotel is a B listed building and therefore works will fall under a conservation project. This will impose additional requirements on the method and materials used for the remedial works. The repairs have assumed that any repairs or replacements will be on a like for like basis.	
4.0 - Internal Defects				
4.1 - South block - Lvl3 (attic)				
4.1.1	Missing masonry to brickwork within roof void below sandstone chimney stacks above	South block - lvl 3	Assess existing masonry and repoint masonry where necessary. Where holes have been made through brickwork walls, walls to be propped and precast concrete lintel installed over opening. Gap to be filled with brickwork to match existing	- say repointing to be over 30m2 - lintel to be installed to 6No. Locations (sat 2.5m span each) - brickwork infill to area 6No. X 4m2 (wall 600mm thick)
4.1.2	Structural timber degradation to floors	South block - lvl 3	Timber joists to be assessed for condition. Defective joists to be removed (along with floorboards and deafening) and replaced with new structural joists. Joists to be seated on structural masonry walls (ends to be membrane wrapped) as per existing. New floor boards and finishes required to all areas.	- Say 75% of joists and associated floorboards on level 3 to be removed from building and replaced. Say C24 225x50 timbers @ 400mm centres.
4.1.3	Timber degradation to walls	South block - lvl 3	Remove defective timber studwork from walls Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plaster	- say 40% of studwork is to be replaced
4.1.4	Degradation to walls	South block - lvl 3	Remove finishes, plaster and lathe where defect/damp is evident. Defects and scale to masonry walls is not clear at this stage but assumed to comprise possible replacement of isolated areas of brickwork and repointing walls. Walls to be plastered and finished to all repaired areas.	- say 40% of brickwork is to be remediated and refinished
4.1.5	Plaster failure/degradation to ceiling	South block - lvl 3	Remove defective plaster from ceiling (and suspended ceiling where present). Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plasterboard and plaster to walls/ceiling. New finishes required to all areas.	- say 40% of ceiling is to be remediated

4.1.7				
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4.2 - South block - Lvl2				
4.2.1	Structural timber degradation to floors	South block - lvl 2	Timber joists to be assessed for condition. Defective joists to be removed (along with floorboards and deafening) and replaced with new structural joists. Joists to be seated on structural masonry walls (ends to be membrane wrapped) as per existing. New floor boards and finishes required to all areas.	- Say 25% of joists and associated floorboards on level 2 to be removed from building and replaced. Say C24 225x50 timbers @ 400mm centres.
4.2.2	Timber degradation to walls	South block - lvl 2	Remove defective timber studwork from walls Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plaster	- say 20% of studwork is to be replaced
4.2.3	Degradation to walls	South block - lvl 2	Remove finishes, plaster and lathe where defect/damp is evident. Defects and scale to masonry walls is not clear at this stage but assumed to comprise possible replacement of isolated areas of brickwork and repointing walls. Walls to be plastered and finished to all repaired areas.	- say 20% of brickwork is to be remediated and refinished
4.2.4	Plaster failure/degradation to ceiling	South block - lvl 2	Remove defective plaster from ceiling (and suspended ceiling where present). Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plasterboard and plaster to walls/ceiling. New finishes required to all areas.	- say 20% of ceiling is to be remediated
4.3 - South block - Lvl1				
4.3.1	Structural timber degradation to floors	South block - lvl 1	Timber joists to be assessed for condition. Defective joists to be removed (along with floorboards and deafening) and replaced with new structural joists. Joists to be seated on structural masonry walls (ends to be membrane wrapped) as per existing. New floor boards and finishes required to all areas.	- Say 20% of joists and associated floorboards on level 1 to be removed from building and replaced. Say C24 225x50 timbers @ 400mm centres.
4.3.2	Timber degradation to walls	South block - lvl 1	Remove defective timber studwork from walls Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plaster	- say 10% of studwork is to be replaced

4.3.3	Degradation to walls	South block - lvl 1	Remove finishes, plaster and lathe where defect/damp is evident. Defects and scale to masonry walls is not clear st this stage but assumed to comprise possible replacement of isolated areas of brickwork and repointing walls. Walls to be plastered and finished to all repaired areas.	- say 20% of brickwork is to be remediated and refinished
4.3.4	Plaster failure/degradation to ceiling	South block - lvl 1	Remove defective plaster from ceiling (and suspended ceiling where present). Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plasterboard and plaster to walls/ceiling. New finishes required to all areas.	- say 20% of ceiling is to be remediated
4.4 - South block - Grd flr				
4.4.1	concrete arch and steel beam floor	South block - lvl 1	barr	- Say slab to be replaced over area of 40m2.
4.4.2	Timber degradation to walls	South block - lvl 1	Remove defective timber studwork from walls Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plaster	- say 20% of studwork is to be replaced
4.4.3	Degradation to walls	South block - lvl 1	Remove finishes, plaster and lathe where defect/damp is evident. Defects and scale to masonry walls is not clear st this stage but assumed to comprise possible replacement of isolated areas of brickwork and repointing walls. Walls to be plastered and finished to all repaired areas.	- say 10% of brickwork is to be remediated and refinished
4.4.4	Plaster failure/degradation to ceiling	South block - lvl 1	Remove defective plaster from ceiling (and suspended ceiling where present). Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plasterboard and plaster to walls/ceiling. New finishes required to all areas.	- say 15% of ceiling is to be remediated

4.5 - South block - Basement				
4.5.1	Ground bearing concrete slab	South block - lvl 1	Undertake local concrete repair mortar repair to the basement floor slab. Break out locally defective concrete, prepare surface and repair area using concrete repair mortar such as renderoc GP.	- Say 20No. Repairs. Each repair say 0.25m2
4.5.2	Timber degradation to walls	South block - lvl 1	Remove defective timber studwork from walls Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plaster	- say 40% of studwork is to be replaced
4.5.3	Degradation to walls	South block - lvl 1	Remove finishes, plaster and lathe where defect/damp is evident. Defects and scale to masonry walls is not clear st this stage but assumed to comprise possible replacement of isolated areas of brickwork and repointing walls. Walls to be plastered and finished to all repaired areas.	- say 40% of brickwork is to be remediated and refinished
4.5.4	Concrete finished barrel vaulted suspended floor	South block - lvl 1	Assess cast iron beams for corrosion and condition. Areas exhibiting corrosion to cast iron beams to be blast cleaned and repainted with corrosion protection paint system. Concrete arches to be assessed for condition. Defective/spalled areas to be broken out to good surface, prepared and repaired with concrete repair mortar (renderoc GP)	- say 20No. Beams x 12m will require repainting - say 30No. Repairs to concrete. Each repair areas 0.25m2
4.5.4B	Concrete finished barrel vaulted suspended floor			
4.5.6	NEW ITEM: Add replacement of 20% pre-existing cast iron beams (approx depth 300mm) with grade S355 steel beams say UB305x165x54 at 1.5m centres			
5.4 - New items				
A1	Concrete arch and steel beam floor above basement	South block – Ground level	Allowance for replacement of 25% of pre-existing cast iron beams (approx. depth 300mm) with grade S355 steel beams say UB 305x165x54 at 1.5m centres. Allowance to include for propping of floors, replacement beams to be brought on site in smaller sections and stitched together, breakout and reinstatement of floor finishes above beams, break out concrete arches local to beams and replace with new composite deck slabs.	25% of floor area

A2	Cast iron and timber suspended floor	South block – 1st floor level (level 1)	Allowance for replacement of 20% of pre-existing cast iron beams (approx. depth 300mm) with grade S355 steel beams say UB 305x165x54 at 3m centres. Allowance to include for propping of floors, replacement beams to be brought on site in smaller sections and stitched together, breakout and repair/reinstate floor finishes above beams, repair/reinstate ceiling finishes below beams.	20% of floor area
A3	Cast iron and timber suspended floor	South block – 2nd floor level (level 2)	Allowance for replacement of 20% of pre-existing cast iron beams (approx. depth 300mm) with grade S355 steel beams say UB 305x165x54 at 3m centres. Allowance to include for propping of floors, replacement beams to be brought on site in smaller sections and stitched together, breakout and repair/reinstate floor finishes above beams, repair/reinstate ceiling finishes below beams.	20% of floor area

Ayr Station Hotel - Internal face proposed remedial measures - INTERNAL WORKS NORTH BLOCK 1

ITEM Number	Element	Location	Most Likely Solution	Quantity (Nr, m, m2, m3)
3.0 - General				
3.1	rot survey	full building	A full timber rot survey will be required to identify instances of wet and dry rot to structural timbers throughout the building	
3.2	M+E services	full building	Strip out and full refit of all M+E services. - Installation of lighting, sockets and power throughout building - installation of heating plant and associated pipework - Installation of internal water supplies and drainage within the building	- say 100% strip out and refit
3.3	asbestos	full building	A full asbestos survey of the building will be required to identify areas of asbestos within building. Prior to intrusive and refit works asbestos identified will require to be removed	
3.4	Fire stopping	full building	Assessment of full building for compliance with fire standards. It is anticipated that works will be required to install fire stopping/dampers etc throughout the building	
3.5	Lift	Lobby	Existing historic lift to be assessed for condition and remediated as required. This may include refitting lift motor, replacccing lift cables, electric cabling, stripping and remediating steel components (cleaning rust/repainting etc)	
3.6	Internal features	full building	There are a number of features to the building that have historic merit such as the feature staircase. It is not clear the full scope of these elements at this time however an allowance should be made for refurbishing these elements insitu.	

3.7	Conservation elements		The hotel is a B listed building and therefore works will fall under a conservation project. This will impose additional requirements on the method and materials used for the remedial works. The repairs have assumed that any repairs or replacements will be on a like for like basis.	
4.0 - Internal Defects				
5.1 - North block - Lvl3 (attic)				
5.1.1	Structural timber degradation to floors	South block - lvl 3	Timber joists to be assessed for condition. Defective joists to be removed (along with floorboards and deafening) and replaced with new structural joists. Joists to be seated on structural masonry walls (ends to be membrane wrapped) as per existing. New floor boards and finishes required to all areas.	- Say 30% of joists and associated floorboards on level 3 to be removed from building and replaced. Say C24 225x50 timbers @ 400mm centres.
5.1.2	Timber degradation to walls	South block - lvl 3	Remove defective timber studwork from walls Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plaster	- say 25% of studwork is to be replaced
5.1.3	Degradation to walls	South block - lvl 3	Remove finishes, plaster and lathe where defect/damp is evident. Defects and scale to masonry walls is not clear st this stage but assumed to comprise possible replacement of isolated areas of brickwork and repointing walls. Walls to be plastered and finished to all repaired areas.	- say 25% of brickwork is to be remediated and refinished
5.1.4	Plaster failure/degradation to ceiling	South block - lvl 3	Remove defective plaster from ceiling (and suspended ceiling where present). Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plasterboard and plaster to walls/ceiling. New finishes required to all areas.	- say 25% of ceiling is to be remediated

5.2 - North block - Lvl2

4.2.1	Structural timber degradation to floors	South block - lvl 2	Timber joists to be assessed for condition. Defective joists to be removed (along with floorboards and deafening) and replaced with new structural joists. Joists to be seated on structural masonry walls (ends to be membrane wrapped) as per existing. New floor boards and finishes required to all areas.	- Say 10% of joists and associated floorboards on level 2 to be removed from building and replaced. Say C24 225x50 timbers @ 400mm centres.
4.2.2	Structural timber degradation to walls	South block - lvl 2	Remove defective timber studwork from walls Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plaster	- say 10% of studwork is to be replaced
4.2.3	Structural timber degradation to walls	South block - lvl 2	Remove finishes, plaster and lathe where defect/damp is evident. Defects and scale to masonry walls is not clear at this stage but assumed to comprise possible replacement of isolated areas of brickwork and repointing walls. Walls to be plastered and finished to all repaired areas.	- say 10% of brickwork is to be remediated and refinished
4.2.4	Plaster failure/degradation to ceiling	South block - lvl 2	Remove defective plaster from ceiling (and suspended ceiling where present). Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plasterboard and plaster to walls/ceiling. New finishes required to all areas.	- say 10% of ceiling is to be remediated

5.3 - North block - Lvl1				
4.3.1	Structural timber degradation to floors	South block - lvl 1	Timber joists to be assessed for condition. Defective joists to be removed (along with floorboards and deafening) and replaced with new structural joists. Joists to be seated on structural masonry walls (ends to be membrane wrapped) as per existing. New floor boards and finishes required to all areas.	- Say 10% of joists and associated floorboards on level 1 to be removed from building and replaced. Say C24 225x50 timbers @ 400mm centres.
4.3.2	Timber degradation to walls	South block - lvl 1	Remove defective timber studwork from walls Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plaster	- say 10% of studwork is to be replaced
4.3.3	Degradation to walls	South block - lvl 1	Remove finishes, plaster and lathe where defect/damp is evident. Defects and scale to masonry walls is not clear st this stage but assumed to comprise possible replacement of isolated areas of brickwork and repointing walls. Walls to be plastered and finished to all repaired areas.	- say 10% of brickwork is to be remediated and refinished
4.3.4	Plaster failure/degradation to ceiling	South block - lvl 1	Remove defective plaster from ceiling (and suspended ceiling where present). Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plasterboard and plaster to walls/ceiling. New finishes required to all areas.	- say 10% of ceiling is to be remediated
5.4 - North block - Grd fir				
4.4.1	Concrete finished barrel vaulted suspended floor	South block - lvl 1	Undertake local concrete repair mortar repair to the ground floor slab. Break out locally defective concrete, prepare surface and repair area using concrete repair mortar such as renderoc GP.	- Say 10No. Repairs. Each repair say 0.25m2
4.4.2	Timber degradation to walls	South block - lvl 1	Remove defective timber studwork from walls Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plaster	- say 10% of studwork is to be replaced
4.4.3	Degradation to walls	South block - lvl 1	Remove finishes, plaster and lathe where defect/damp is evident. Defects and scale to masonry walls is not clear st this stage but assumed to comprise possible replacement of isolated areas of brickwork and repointing walls. Walls to be plastered and finished to all repaired areas.	- say 10% of brickwork is to be remediated and refinished

4.4.4	Plaster failure/degradation to ceiling	South block - lvl 1	Remove defective plaster from ceiling (and suspended ceiling where present). Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plasterboard and plaster to walls/ceiling. New finishes required to all areas.	- say 10% of ceiling is to be remediated

Ayr Station Hotel - Internal face proposed remedial measures - INTERNAL WORKS - NORTH BLOCK 2

ITEM Number	Element	Location	Most Likely Solution	Quantity (Nr, m, m2, m3)
3.0 - General				
3.1	rot survey	full building	A full timber rot survey will be required to identify instances of wet and dry rot to structural timbers throughout the building	
3.2	M+E services	full building	Strip out and full refit of all M+E services. - Installation of lighting, sockets and power throughout building - installation of heating plant and associated pipework - Installation of internal water supplies and drainage within the building	- say 100% strip out and refit
3.3	asbestos	full building	A full asbestos survey of the building will be required to identify areas of asbestos within building. Prior to intrusive and refit works asbestos identified will require to be removed	
3.4	Fire stopping	full building	Assessment of full building for compliance with fire standards. It is anticipated that works will be required to install fire stopping/dampers etc throughout the building	
3.5	Lift	Lobby	Existing historic lift to be assessed for condition and remediated as required. This may include refitting lift motor, replaccing lift cables, electric cabling, stripping and remediating steel components (cleaning rust/repainting etc)	
3.6	Internal features	full building	There are a number of features to the building that have historic merit such as the feature staircase. It is not clear the full scope of these elements at this time however an allowance should be made for refurbishing these elements insitu.	

3.7	Conservation elements		The hotel is a B listed building and therefore works will fall under a conservation project. This will impose additional requirements on the method and materials used for the remedial works. The repairs have assumed that any repairs or replacements will be on a like for like basis.	
4.0 - Internal Defects				
5.1 - North block 2 - GROUND FLOOR				
5.1.1	Structural timber degradation to floors	South block - lvl 3	Timber joists to be assessed for condition. Defective joists to be removed (along with floorboards and deafening) and replaced with new structural joists. Joists to be seated on structural masonry walls (ends to be membrane wrapped) as per existing. New floor boards and finishes required to all areas.	- Say 15% of joists and associated floorboards on level 3 to be removed from building and replaced. Say C24 225x50 timbers @ 400mm centres.
5.1.2	Timber degradation to walls	South block - lvl 3	Remove defective timber studwork from walls Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plaster	- say 12.5% of studwork is to be replaced
5.1.3	Degradation to walls	South block - lvl 3	Remove finishes, plaster and lathe where defect/damp is evident. Defects and scale to masonry walls is not clear st this stage but assumed to comprise possible replacement of isolated areas of brickwork and repointing walls. Walls to be plastered and finished to all repaired areas.	- say 12.5% of brickwork is to be remediated and refinished
5.1.4	Plaster failure/degradation to ceiling	South block - lvl 3	Remove defective plaster from ceiling (and suspended ceiling where present). Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plasterboard and plaster to walls/ceiling. New finishes required to all areas.	- say 12.5% of ceiling is to be remediated

5.2 - North block - FIRST FLOOR				
4.2.1	Structural timber degradation to floors	South block - lvl 2	Timber joists to be assessed for condition. Defective joists to be removed (along with floorboards and deafening) and replaced with new structural joists. Joists to be seated on structural masonry walls (ends to be membrane wrapped) as per existing. New floor boards and finishes required to all areas.	- Say 5% of joists and associated floorboards on level 2 to be removed from building and replaced. Say C24 225x50 timbers @ 400mm centres.
4.2.2	Structural timber degradation to walls	South block - lvl 2	Remove defective timber studwork from walls Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plaster	- say 5% of studwork is to be replaced
4.2.3	Structural timber degradation to walls	South block - lvl 2	Remove finishes, plaster and lathe where defect/damp is evident. Defects and scale to masonry walls is not clear at this stage but assumed to comprise possible replacement of isolated areas of brickwork and repointing walls. Walls to be plastered and finished to all repaired areas.	- say 5% of brickwork is to be remediated and refinished
4.2.4	Plaster failure/degradation to ceiling	South block - lvl 2	Remove defective plaster from ceiling (and suspended ceiling where present). Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plasterboard and plaster to walls/ceiling. New finishes required to all areas.	- say 10% of ceiling is to be remediated

F. Cost Estimate



**Former Ayr Station Hotel Building
Ayr, Scotland**

INITIAL BUDGET

Revision: D

Issued: 26th September 2019

for

South Ayrshire Council

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Revision: D

Issue date: 26th September 2019

Base date: Q3 2019

Project No. 399316

Issue and Revision Record

Rev.	Status	Originator	Checker	Approver	Date	Description
-	ISSUE	KH	LS	DR	5th July 2019	Order of Cost
A	ISSUE	KH	LS	DR	5th July 2019	Order of Cost
B	DRAFT	LS	KH	DR	2nd August 2019	Order of Cost - updated to reflect Engineering team email dated 16th July 2019 and updated drawing information
			JB			
C	ISSUE	DR	LS	CF	25th September 2019	Order of Cost - updated to reflect Engineering team email dated 24th September 2019
D	ISSUE	DR	LS	CF	26th September 2019	Order of Cost - updated to include cost split as per Engineering team email 26th September 2019

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B. Mackay	Mott MacDonald	-	Electronic	26th September 2019

Revision: D

Issue date: 26th September 2019

Base date: Q3 2019

Project No. 399316

Main Report

Section	Description	Page
1	Introduction	1
2	Level 1 Summary	2
3	Area Summary	3
4	Basis of Estimate	5
5	Assumptions	6
6	Exclusions	7

Appendix

A	Pricing List	8
B	Drawing identifying the blocks	9

Revision: D

Issue date: 26th September 2019

Base date: Q3 2019

Project No. 399316

1. Introduction

Project description

This document prepares a forecast cost for the repair works to the former Ayr Station Hotel Building, as identified in Appendix A to this document. Following the meeting on the 26th June, it was noted that the purpose of the building is to bring it back to compliance with current Scottish Building Standards Regulations. The works to achieve this are noted in Appendix A. The rectified building will be fitted out by others.

Background

This report has been prepared for South Ayrshire Council to advise on the project cost to restore the former Ayr Station Hotel Building in, Ayr, Scotland back to compliance with the current Scottish building Standards Regulations. The scheme consists of external façade, roof, and internal repairs as detailed in Appendix A.

Statement of cost

This is an order of cost in the sum of £9,995,000 (excluding VAT).
This is based on current day prices as at Q3 2019.

VAT assessment

VAT is excluded from the Cost Plan. It is recommended that specialist advice is sought on VAT matters to ensure that the correct rates are applied to the various aspects of the project.

Risk Summary

Key risks include the asbestos, anthrax, and damp issues. We recommend that appropriate surveys are undertaken so that the cost assumptions can be updated. It is also adjacent to a railway line, so we recommend that discussions with Network rail are instigated to understand any restrictions imposed.
Please refer to section 5 and 6 of this report for a full set of the assumptions and excluded costs.

Key Observations

We have summarised below our key observations:

- The items priced are based on the descriptions and works identified in appendix A only.
- Give consideration to any additional works that may be required (eg due to network rail requirements, conservation requests, planning etc) - these may have additional cost implications.
- Set up a risk workshop to identify key risks, mitigation strategies and to better understand the cost and programme implications.
- Give consideration to a local workshop space for offsite works, to refurbish existing materials, denail sarking boards etc - costs for a suitable workshop are currently excluded from our budget.
- The allowance for asbestos removal has been reduced to reflect discussions with the author and the engineering team. We suggest that the client retains a separate contingency for any additional costs in connection with this.

Revision: D

Issue date: 26th September 2019

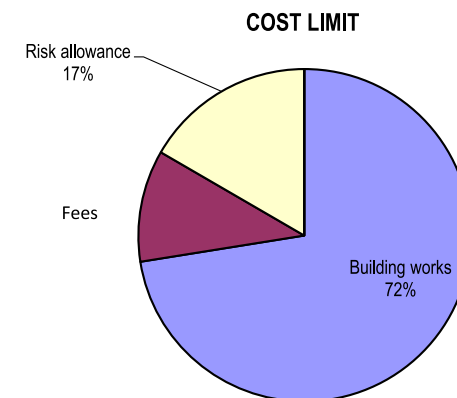
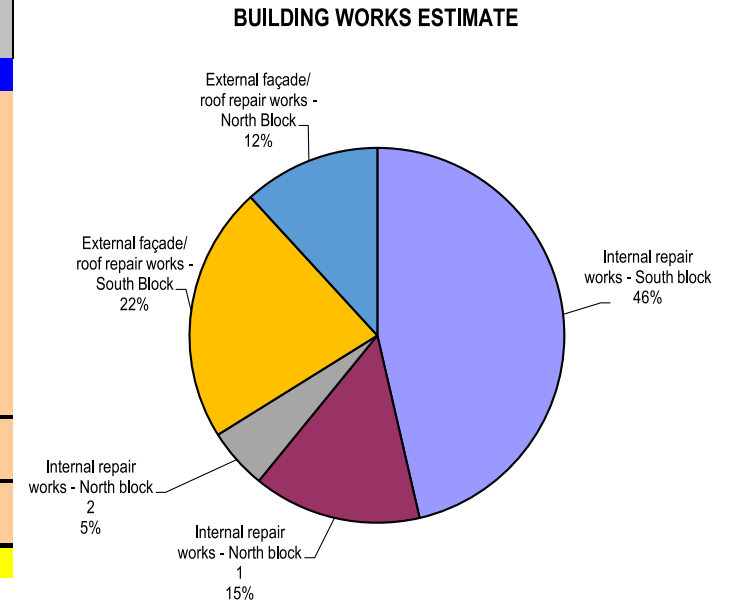
Base date: Q3 2019

Project No. 399316

2. Level 1 Summary

GIFA (m²): 5,465

	GROUP ELEMENT / ELEMENT		COST / m ² GIFA	TOTAL COST OF ELEMENT (TARGET COST)
BUILDING WORKS			£	£
1	Internal repair works - South block		447	2,443,151
2	Internal repair works - North block 1		140	763,875
3	Internal repair works - North block 2		50	274,838
4	External façade/ roof repair works - South Block		213	1,163,936
5	External façade/ roof repair works - North Block		114	621,822
SUB-TOTAL: BUILDING WORKS			964	5,267,622
6	Main contractor's preliminaries	25%	241	1,316,905
SUB-TOTAL: BUILDING WORKS (incl. prelims)			1205	6,584,527
7	Main contractor's overheads and profit	10%	120	658,453
BUILDING WORKS ESTIMATE			1325	7,242,980
PROJECT / DESIGN TEAM FEES AND OTHER DEVELOPMENT / PROJECT COSTS			£	£
8.1	Professional/ Design Team Fees	15%		1,086,447
8.2	Other development / project costs			Excluded
TOTAL: PROJECT / DESIGN TEAM FEES AND OTHER DEVELOPMENT / PROJECT COSTS				
BASE COST ESTIMATE			1524	8,329,427
RISK ALLOWANCE			£	£
9	Risk allowance	20%	305	1,665,885
COST LIMIT (excluding inflation)			1829	9,995,312
INFLATION			£	£
10.1	Tender inflation			Excluded
10.2	Construction inflation			Excluded
TOTAL: INFLATION ALLOWANCE				
COST LIMIT (excluding Inflation and VAT assessment)			1829	9,995,312



Revision: D

Issue date: 26th September 2019

Base date: Q3 2019

Project No. 399316

3. Area summary

	GIFA	PERIMETER	INT. PARTITIONS
Basement	487.00 m2	157 m	75.00 m
South	487.00 m2	157.00 m	
Ground	1,486.00 m2	306 m	162.00 m
North 1	367.00 m2	121.38 m	
North 2	388.00 m2	Excl	
South	731.00 m2	200.09 m	
First	1,250.00 m2	245 m	181.00 m
North 1	367.00 m2	122.90 m	
North 2	151.00 m2	53.00 m	
South	732.00 m2	191.52 m	
Second	1,099.00 m2	293 m	288.00 m
North	367.00 m2	118.10 m	
South	732.00 m2	191.52 m	
Third	1,078.00 m2	308 m	288.00 m
North	360.00 m2	123.08 m	
South	718.00 m2	185.67 m	
Fourth	65.00 m2	33 m	(no drawing to scale int. works off)
South	65.00 m2	33.00 m	
TOTAL (incl North 2)	5,465.00 m2		

Revision: D

Issue date: 26th September 2019

Base date: Q3 2019

Project No. 399316

4. Basis of Estimate

The Cost Plan is based on the following information:-

Architectural

DRWG No	REV	NAME	USE
-	-	1 2 3 Floor Layout	For reference to see 4th floor measure
DRWG no 2	-	Basement Floor Plan	Used to measure
-	1	Ayr station elevations and roof plan sketches	Used to measure
DRWG no 3	-	Ground Floor Plan	Used to measure
DRWG no 4	-	First Floor Plan	Used to measure
DRWG no 5	-	Second Floor Plan	Used to measure
DRWG no 6	-	Third Floor Plan	Used to measure

Other

Email dated 03.10.18 "Ayr Station Hotel Emerging Issues with Condition of Timber Roof Structure"

Email dated 03.07.19 "Ayr Station Hotel Cost Report Teleconference proposed for 10am Wed 26th June 19"

Email dated 02.07.19 "Ayr Station Hotel Cost Report Teleconference proposed for 10 am Wed 26th June 19"

Email dated 16.07.19 "Ayr Station Hotel Cost Estimate"

Email dated 24.07.19 "RE: Ayr Station Hotel Cost Estimate"

Email nr 2 dated 24.07.19 "RE: Ayr Station Hotel Cost Estimate" with floor construction build up/ description

Revision: D

Issue date: 26th September 2019

Base date: Q3 2019

Project No. 399316

5. Assumptions

The Cost Plan is based on the following assumptions and qualifications:-

Ref.	Description
a	We have included an allowance of £437k for asbestos removal. This budget assumes that there will be approx asbestos encapsulation where possible. An asbestos survey is available for the basement only. We recommend that an asbestos survey is undertaken for the ground and upper floors. This is a risk item - We suggest that the client maintains a separate contingency for this item. Once the asbestos survey has been prepared for the upper floors, this cost should be reviewed.
b	Based on photographic evidence, it is likely that an asbestos survey and removal of ACM's would be required prior to any commencement of roofing works.
c	We have only priced for the works described in the "most likely solution" and "comments" columns in Appendix A of this document. If any additional works, scope or quantities are required this will have cost implications.
d	Costs are based on current day prices (ie Q3 2019).
e	We have included an allowance of 15% for professional fees.
f	We have included an allowance of 20% for contingency.
g	Competitive tender process.
h	Installation of mechanical and electrical works in line with minimal provision.
i	Emergency lighting only is included. All other lighting is excluded.
j	Pre-existing scaffold to be removed ahead of this construction project.
k	We have included for a rot survey.
l	For the internal walls we have assumed that the wall composition is 80% brickwork and 20% studwork - as noted in Appendix A.
m	Not workable chimneys - as per discussion with the author and the engineering team.
n	It is not a phased programme (ie the contractor will have access to all the floors and external areas simultaneously).
o	Where plaster failure/ degradation of ceiling has occurred, we have included for ceiling repair only. We have not included for re-doing any cornice detail or decorative features.
p	We assume that the works identified in Appendix A are a full and exhaustive list of works required to bring the building up to minimal compliance. If any additional works are required, this will have cost implications.
q	We have included an allowance of £50k for organising and attending network rail meetings.
r	Internal finishes/ Fit out by others.
s	We have priced the works detailed within appendix A, however please note that some additional works may be required to meet building compliance (to be confirmed by others). For example, we have priced item 2.3.44 (corrosion to external steel escape stair) as requested, but we have not included for any additional works beyond this (such as a replacement stair).

Revision: D

Issue date: 26th September 2019

Base date: Q3 2019

Project No. 399316

5. Assumptions

The Cost Plan is based on the following assumptions and qualifications:-

Ref.	Description
t	Access: Works priced assuming provision of temporary external hoist access to all floor and eaves / roof parapet levels. Hoist to be of sufficient SWL capacity to carry both materials and personnel.
u	We have assumed that scaffolding will be sufficient for any access requirements in connection with temporary works.
v	Structural roof timbers: Costs for works based on an average timber section of 150 x 75 tanalized wrought softwood unless otherwise stated.
w	Sarking Boards: Costs for works based on a board section of 150 x 22 tanalized wrought softwood. An allowance for breathable membrane over the boards is included.
x	All roofing timbers nail fixed in situ.
y	Cast Iron Roof Edge Features: Assumed Ironwork comprises of two types of component:- a) main ridge section circular in section with two flanged edges, b) tile shaped finials bolted to main section flanges.
z	Flat Top Covering to 'Top Hat' Roof Structures: Assumed seamed lead sheet on breathable membrane on sarking boards on roof structure.
aa	Rainwater Goods: Assumed all replacement materials can be sourced as proprietary materials, i.e. no bespoke items.
ab	Decoration Works to Retained Window Framing: Assumed no lead in previously applied paint.
ac	Item 2.3.44: Blast clean and repaint external fire escape stairway: Assumed dustless / wet abrasive blasting method; Brush applied finishes (no paint spraying).
ad	Assume existing foundations are strip foundations and no deeper than 1.5m.
ae	Any new roof timbers to be grade C24.
af	We have included for works to the main building only. Works to all other areas are excluded (eg the canopy area, bridge, adjacent buildings etc).
ag	For north block 2 all quantities are assumed to be 50% of those noted in north block 1 - as per email dated 16.07.19 and conversation with the engineering team on 01.08.19.
ah	This is minimal drawing information available for North block 2. We have assumed a GIFA of 539m2 based on the sketch information available.
ai	We assume a maximum construction programme of 18 months (which includes 6 months for the external works).

Revision: D

Issue date: 26th September 2019

Base date: Q3 2019

Project No. 399316

6. Exclusions

The following items are not included within the Cost Plan:-

Ref.	Description
a	Any works that are not specifically identified in Appendix A
b	Any works to the 4th floor or the north block 1
c	Inflation beyond Q3 2019
d	Consequential improvements (other than those identified in Appendix A)
e	Other development costs
f	Finance charges
g	Loose fixtures, fittings, and furnishings
h	Planning Conditions
i	Making the chimneys operational/ workable
j	Land purchase and associated costs
k	Service Diversions
l	Site dewatering
m	External works
n	New substation
o	External signage
p	Contamination / asbestos in ground
q	Section 278 or 106 works
r	Planning application cost
s	Planning, statutory fees and charges, Building Warrant (and Structural Engineers Registration [SER] Certificate) application cost
t	Other development costs eg. CIL (community infrastructure levy)
u	Costs include for the minimal works required as detailed in Appendix A. Any additional works eg internal fit out and finishes, furniture etc are excluded.
v	Surveys (other than the rot & asbestos surveys)
w	Off site reinforcement/upgrade works to the gas, electric, and water services
x	Item 3.6 (Internal Features) of Appendix A
y	Item 3.7 (Additional Conservation elements) of Appendix A
z	Any specialist finishes eg cornice details, arches etc
aa	Any works to the feature staircase
ab	VAT
ac	Rot repair works (other than those identified in Appendix A)
ad	Anthrax survey, removal, or any associated works
ae	Lead paint in existing external finishes to windows
af	All Costs associated with works on Network Rail infrastructure and property including ground floor area of north block, isolations, possessions or blockages etc
ag	Management of general public outside the CDM area
ah	Further external surface cleaning to building other than works stated within Appendix A
ai	Sprinkler installation - as advised by the engineering team on conference call dated 31.07.19 (we suggest an additional cost in region of £50/m2 for this)
aj	All works in connection with the lift
ak	Any works in connection with air conditioning
al	Any works in connection with IT infrastructure
am	Any works in connection with lighting (other than the emergency lighting)

Appendix A - Pricing Document (250919)

Ayr Station Hotel - Internal face proposed remedial measures - INTERNAL WORKS NORTH BLOCK 1

1st August 2019

ITEM Number	Element	Location	Most Likely Solution	Quantity (Nr, m, m2, m3)	Comments	Qty	Unit	Rate	Total (£)	Comment
3.0 - General										
3.1	rot survey	full building	A full timber rot survey will be required to identify instances of wet and dry rot to structural timbers throughout the building			1	item	4,450	4,450	This is cost for survey only. Qty pro-rata for purpose of separating North and South costs
3.2	M+E services	full building	Strip out and full refit of all M+E services. - Installation of lighting, sockets and power throughout building - installation of heating plant and associated pipework - Installation of internal water supplies and drainage within the building	- say 100% strip out and refit	Services within the building are in an unknown condition. It is assumed that due to age and condition of building the services are dated and in generally poor condition. In addition theft of pipework and tanks is evident within the building. The full scale of which is not known.	1,461	m2	385	562,485	Rate reduced to exclude sprinklers, any works in connection with the air conditioning, any internal lighting (apart from emergency lighting), and IT cabling; all exclusions as advised by Engineering team on conference call dated 31.07.19. Rate includes for strip out of existing M&E.
3.3	asbestos	full building	A full asbestos survey of the building will be required to identify areas of asbestos within building. Prior to intrusive and refit works asbestos identified will require to be removed		Note. An asbestos survey was undertaken in the basement area and asbestos was found in a number of locations. It is reasonable to assume that a asbestos is present in the main building and will require to be removed prior to any works that might disturb the material	1,461	m2	80	116,880	Budget reduced as per email dated 16.07.19. Risk item- Suggest client maintains a separate contingency for this item.
3.4	Fire stopping	full building	Assessment of full building for compliance with fire standards. It is anticipated that works will be required to install fire stopping/dampers etc throughout the building		Assume 1200x1200mm openings in each of the crosswalls in the roof area to be fire stopped.	15	nr	900	13,497	Quantity based on Engineering team email dated 16.07.19. Qty pro-rata for purpose of separating North and South costs
3.5	Lift	Lobby	Existing historic lift to be assessed for condition and remediated as required. This may include refitting lift motor, replacing lift cables, electric cabling, stripping and remediating steel components (cleaning rust/repainting etc)			1	item		Excluded	Item excluded as per email dated 16.07.19
3.6	Internal features	full building	There are a number of features to the building that have historic merit such as the feature staircase. It is not clear the full scope of these elements at this time however an allowance should be made for refurbishing these elements insitu.		There are a number of features to the building that have historic merit such as the feature staircase. It is not clear the full scope of these elements at this time however an allowance should be made for refurbishing these elements insitu.	1	item		Excluded	Engineering team query response dated 28.06.19, noted that no works are required
3.7	Conservation elements		The hotel is a B listed building and therefore works will fall under a conservation project. This will impose additional requirements on the method and materials used for the remedial works. The repairs have assumed that any repairs or replacements will be on a like for like basis.			1	item		Excluded	Engineering team to confirm any additional requirements, so that we can include a price
4.0 - Internal Defects										
5.1 - North block - Lv3 (attic)										
5.1.1	Structural timber degradation to floors	South block - lvi 3	Timber joists to be assessed for condition. Defective joists to be removed (along with floorboards and deafening) and replaced with new structural joists. Joists to be sealed on structural masonry walls (ends to be membrane wrapped) as per existing. New floor boards and finishes required to all areas.	- Say 30% of joists and associated floorboards on level 3 to be removed from building and replaced. Say C24 225x50 timbers @ 400mm centres.	Degradation of the timber floor joists was noted in a number of locations. The degradation appears to mainly be as a result of water ingress through failed roof elements/leaks through building from burst water tank in attic and penetrating water to joist ends through walls and window details	108	m2	85	9,180	
5.1.2	Timber degradation to walls	South block - lvi 3	Remove defective timber studwork from walls Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plaster	- say 25% of studwork is to be replaced	proportion of timber stud walls to brickwork internal walls is not known. Assume wall composition is 80% brickwork and 20% studwork.	9	m2	110	1,014	Description adjusted as per Engineering team email dated 16.07.19
5.1.3	Degradation to walls	South block - lvi 3	Remove finishes, plaster and lathe where defect/damp is evident. Defects and scale to masonry walls is not clear st this stage but assumed to comprise possible replacement of isolated areas of brickwork and repointing walls. Walls to be plastered and finished to all repaired areas.	- say 25% of brickwork is to be remediated and refinished	The general wall makeup is not confirmed. It is assumed that the wall makeup generally is lathe and plaster on brick walls.	98	m2	122	12,013	Description adjusted as per Engineering team email dated 16.07.19
5.1.4	Plaster failure/degradation to ceiling	South block - lvi 3	Remove defective plaster from ceiling (and suspended ceiling where present). Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plasterboard and plaster to walls/ceiling. New finishes required to all areas.	- say 25% of ceiling is to be remediated		90	m2	75	6,750	

5.2 - North block - Lvl2					
4.2.1	Structural timber degradation to floors	South block - lvl 2	Timber joists to be assessed for condition. Defective joists to be removed (along with floorboards and deafening) and replaced with new structural joists. Joists to be seated on structural masonry walls (ends to be membrane wrapped) as per existing. New floor boards and finishes required to all areas.	- Say 10% of joists and associated floorboards on level 2 to be removed from building and replaced. Say C24 225x50 timbers @ 400mm centres.	Degradation of the timber floor joists was noted in a number of locations. The degradation appears to mainly be as a result of water ingress through failed roof elements/leaks through building from burst water tank in attic and penetrating water to joist ends through walls and window details.
4.2.2	Structural timber degradation to walls	South block - lvl 2	Remove defective timber studwork from walls Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plaster.	- say 10% of studwork is to be replaced	proportion of timber stud walls to brickwork internal walls is not known. Assume wall composition is 80% brickwork and 20% studwork.
4.2.3	Structural timber degradation to walls	South block - lvl 2	Remove finishes, plaster and lathe where defect/damp is evident. Defects and scale to masonry walls is not clear st this stage but assumed to comprise possible replacement of isolated areas of brickwork and repainting walls. Walls to be plastered and finished to all repaired areas.	- say 10% of brickwork is to be remediated and refinished	The general wall makeup is not confirmed. It is assumed that the wall makeup generally is lathe and plaster on brick walls.
4.2.4	Plaster failure/degradation to ceiling	South block - lvl 2	Remove defective plaster from ceiling (and suspended ceiling where present). Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plasterboard and plaster to walls/ceiling. New finishes required to all areas.	- say 10% of ceiling is to be remediated	

37	m2	85	3,120	
18	m2	110	2,028	
38	m2	122	4,611	
37	m2	75	2,753	
			-	

5.3 - North block - Lvl1										
4.3.1	Structural timber degradation to floors	South block - lvl 1	Timber joists to be assessed for condition. Defective joists to be removed (along with floorboards and deafening) and replaced with new structural joists. Joists to be seated on structural masonry walls (ends to be membrane wrapped) as per existing. New floor boards and finishes required to all areas.	- Say 10% of joists and associated floorboards on level 1 to be removed from building and replaced. Say C24 225x50 timbers @ 400mm centres.	Degradation of the timber floor joists was noted in a number of locations. The degradation appears to mainly be as a result of water ingress through failed roof elements/leaks through building from burst water tank in attic and penetrating water to joist ends through walls and window details	37	m2	85	3,120	
4.3.2	Timber degradation to walls	South block - lvl 1	Remove defective timber studwork from walls Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plaster	- say 10% of studwork is to be replaced	proportion of timber stud walls to brickwork internal walls is not known. Assume wall composition is 80% brickwork and 20% studwork.	12	m2	110	1,274	Description adjusted as per Engineering team email dated 16.07.19
4.3.3	Degradation to walls	South block - lvl 1	Remove finishes, plaster and lathe where defect/damp is evident. Defects and scale to masonry walls is not clear st this stage but assumed to comprise possible replacement of isolated areas of brickwork and repainting walls. Walls to be plastered and finished to all repaired areas.	- say 10% of brickwork is to be remediated and refinished	The general wall makeup is not confirmed. It is assumed that the wall makeup generally is lathe and plaster on brick walls.	39	m2	122	4,798	Description adjusted as per Engineering team email dated 16.07.19
4.3.4	Plaster failure/degradation to ceiling	South block - lvl 1	Remove defective plaster from ceiling (and suspended ceiling where present). Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plasterboard and plaster to walls/ceiling. New finishes required to all areas.	- say 10% of ceiling is to be remediated		37	m2	75	2,753	
5.4 - North block - Grd flr										
4.4.1	Concrete finished barrel vaulted suspended floor	South block - lvl 1	Undertake local concrete repair mortar repair to the ground floor slab. Break out locally defective concrete, prepare surface and repair area using concrete repair mortar such as renderac GP.	- Say 10No. Repairs. Each repair say 0.25m2	The ground floor slab has not generally been surveyed. Construction and defects are assumed based on condition	10	nr	250	2,500	Description adjusted as per Engineering team email dated 16.07.19
4.4.2	Timber degradation to walls	South block - lvl 1	Remove defective timber studwork from walls Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plaster	- say 10% of studwork is to be replaced	proportion of timber stud walls to brickwork internal walls is not known. Assume wall composition is 80% brickwork and 20% studwork.	14	m2	110	1,533	Description adjusted as per Engineering team email dated 16.07.19
4.4.3	Degradation to walls	South block - lvl 1	Remove finishes, plaster and lathe where defect/damp is evident. Defects and scale to masonry walls is not clear st this stage but assumed to comprise possible replacement of isolated areas of brickwork and repainting walls. Walls to be plastered and finished to all repaired areas.	- say 10% of brickwork is to be remediated and refinished	The general wall makeup is not confirmed. It is assumed that the wall makeup generally is lathe and plaster on brick walls.	52	m2	122	6,368	Description adjusted as per Engineering team email dated 16.07.19
4.4.4	Plaster failure/degradation to ceiling	South block - lvl 1	Remove defective plaster from ceiling (and suspended ceiling where present). Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plasterboard and plaster to walls/ceiling. New finishes required to all areas.	- say 10% of ceiling is to be remediated		37	m2	75	2,753	
									763,875	Net costs only. This excludes contractor on-costs

Ayr Station Hotel - Internal face proposed remedial measures - INTERNAL WORKS SOUTH BLOCK

1st August 2019

ITEM Number	Element	Location	Most Likely Solution	Quantity (Nr, m, m2, m3)	Comments	Qty	Unit	Rate	Total (£)	Comment
3.0 - General										
3.1	rot survey	full building	A full timber rot survey will be required to identify instances of wet and dry rot to structural timbers throughout the building			1	item	10,550	10,550	This is cost for survey only
3.2	M+E services	full building	Strip out and full refit of all M+E services. - Installation of lighting, sockets and power throughout building - installation of heating plant and associated pipework - Installation of internal water supplies and drainage within the building - say 100% strip out and refit		Services within the building are in an unknown condition. It is assumed that due to age and condition of building the services are dated and in generally poor condition. In addition theft of pipework and tanks is evident within the building. The full scale of which is not known.	3,465	m2	385	1,334,025	Rate reduced to exclude sprinklers, any works in connection with the air conditioning, any internal lighting (apart from emergency lighting), and IT cabling; all exclusions as advised by Engineering team on conference call dated 31.07.19. Rate includes for strip out of existing M&E.
3.3	asbestos	full building	A full asbestos survey of the building will be required to identify areas of asbestos within building. Prior to intrusive and refit works asbestos identified will require to be removed		Note. An asbestos survey was undertaken in the basement area and asbestos was found in a number of locations. It is reasonable to assume that a asbestos is present in the main building and will require to be removed prior to any works that might disturb the material	3,465	m2	80	277,200	Budget reduced as per email dated 16.07.19. Risk item- Suggest client maintains a separate contingency for this item.
3.4	Fire stopping	full building	Assessment of full building for compliance with fire standards. It is anticipated that works will be required to install fire stopping/dampers etc throughout the building		Assume 1200x1200mm openings in each of the crosswalls in the roof area to be fire stopped.	15	nr	2,100	31,503	Quantity based on Engineering team email dated 16.07.19
3.5	Lift	Lobby	Existing historic lift to be assessed for condition and remediated as required. This may include refitting lift motor, replacing lift cables, electric cabling, stripping and remediating steel components (cleaning rust/repainting etc)			1	item		Excluded	Item excluded as per email dated 16.07.19
3.6	Internal features	full building	There are a number of features to the building that have historic merit such as the feature staircase. It is not clear the full scope of these elements at this time however an allowance should be made for refurbishing these elements insitu.		There are a number of features to the building that have historic merit such as the feature staircase. It is not clear the full scope of these elements at this time however an allowance should be made for refurbishing these elements insitu.	1	item		Excluded	Engineering team query response dated 28.06.19, noted that no works are required
3.7	Conservation elements		The hotel is a B listed building and therefore works will fall under a conservation project. This will impose additional requirements on the method and materials used for the remedial works. The repairs have assumed that any repairs or replacements will be on a like for like basis.			1	item		Excluded	Engineering team to confirm any additional requirements, so that we can include a price
4.0 - Internal Defects										
4.1 - South block - Lv3 (attic)										
4.1.1	Missing masonry to brickwork within roof void below sandstone chimney stacks above	South block - lvi 3	Assess existing masonry and repoint masonry where necessary. Where holes have been made through brickwork walls, walls to be propped and precast concrete lintel installed over opening. Gap to be filled with brickwork to match existing	- say repointing to be over 30m2 - lintel to be installed to 6No. Locations (sat 2.5m span each) - brickwork infill to area 6No. X 4m2 (wall 600mm thick)	NB. brickwork within roof voids support the sandstone chimney stack projection above roof level. In soe instances holes have been made in the brickwork with no adequate lintel or support	1	item	9,000	9,000	
4.1.2	Structural timber degradation to floors	South block - lvi 3	Timber joists to be assessed for condition. Defective joists to be removed (along with floorboards and deafening) and replaced with new structural joists. Joists to be seated on structural masonry walls (ends to be membrane wrapped) as per existing. New floor boards and finishes required to all areas.	- Say 75% of joists and associated floorboards on level 3 to be removed from building and replaced. Say C24 225x50 timbers @ 400mm centres.	Degradation of the timber floor joists was noted in a number of locations. The degradation appears to mainly be as a result of water ingress through failed roof elements/leaks through building from burst water tank in attic and penetrating water to joist ends through walls and window details	539	m2	85	45,773	
4.1.3	Timber degradation to walls	South block - lvi 3	Remove defective timber studwork from walls Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plaster	- say 40% of studwork is to be replaced	proportion of timber stud walls to brickwork internal walls is not known. Assume wall composition is 80% brickwork and 20% studwork.	74	m2	110	8,110	Description adjusted as per Engineering team email dated 16.07.19
4.1.4	Degradation to walls	South block - lvi 3	Remove finishes, plaster and lathe where defect/damp is evident. Defects and scale to masonry walls is not clear st this stage but assumed to comprise possible replacement of isolated areas of brickwork and repointing walls. Walls to be plastered and finished to all repaired areas.	- say 40% of brickwork is to be remediated and refinished	The general wall makeup is not confirmed. It is assumed that the wall makeup generally is lathe and plaster on brick walls.	689	m2	122	84,077	Description adjusted as per Engineering team email dated 16.07.19
4.1.5 4.1.7	Plaster failure/degradation to ceiling	South block - lvi 3	Remove defective plaster from ceiling (and suspended ceiling where present). Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plasterboard and plaster to walls/ceiling. New finishes required to all areas.	- say 40% of ceiling is to be remediated		287	m2	75	21,540	

4.2 - South block - Lvl2										
4.2.1	Structural timber degradation to floors	South block - lvl 2	Timber joists to be assessed for condition. Defective joists to be removed (along with floorboards and deafening) and replaced with new structural joists. Joists to be seated on structural masonry walls (ends to be membrane wrapped) as per existing. New floor boards and finishes required to all areas.	- Say 25% of joists and associated floorboards on level 2 to be removed from building and replaced. Say C24 225x50 timbers @ 400mm centres.	Degradation of the timber floor joists was noted in a number of locations. The degradation appears to mainly be as a result of water ingress through failed roof elements/leaks through building from burst water tank in attic and penetrating water to joist ends through walls and window details	183	m2	85	15,555	
4.2.2	Timber degradation to walls	South block - lvl 2	Remove defective timber studwork from walls Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plaster	- say 20% of studwork is to be replaced	proportion of timber stud walls to brickwork internal walls is not known. Assume wall composition is 80% brickwork and 20% studwork.	37	m2	110	4,055	Description adjusted as per Engineering team email dated 16.07.19
4.2.3	Degradation to walls	South block - lvl 2	Remove finishes, plaster and lathe where defect/damp is evident. Defects and scale to masonry walls is not clear st this stage but assumed to comprise possible replacement of isolated areas of brickwork and repointing walls. Walls to be plastered and finished to all repaired areas.	- say 20% of brickwork is to be remediated and refinished	The general wall makeup is not confirmed. It is assumed that the wall makeup generally is lathe and plaster on brick walls.	335	m2	122	40,867	Description adjusted as per Engineering team email dated 16.07.19
4.2.4	Plaster failure/degradation to ceiling	South block - lvl 2	Remove defective plaster from ceiling (and suspended ceiling where present). Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plasterboard and plaster to walls/ceiling. New finishes required to all areas.	- say 20% of ceiling is to be remediated		146	m2	75	10,980	
4.3 - South block - Lvl1										
4.3.1	Structural timber degradation to floors	South block - lvl 1	Timber joists to be assessed for condition. Defective joists to be removed (along with floorboards and deafening) and replaced with new structural joists. Joists to be seated on structural masonry walls (ends to be membrane wrapped) as per existing. New floor boards and finishes required to all areas.	- Say 20% of joists and associated floorboards on level 1 to be removed from building and replaced. Say C24 225x50 timbers @ 400mm centres.	Degradation of the timber floor joists was noted in a number of locations. The degradation appears to mainly be as a result of water ingress through failed roof elements/leaks through building from burst water tank in attic and penetrating water to joist ends through walls and window details	146	m2	85	12,444	
4.3.2	Timber degradation to walls	South block - lvl 1	Remove defective timber studwork from walls Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plaster	- say 10% of studwork is to be replaced	proportion of timber stud walls to brickwork internal walls is not known. Assume wall composition is 80% brickwork and 20% studwork.	12	m2	138	1,593	Description adjusted as per Engineering team email dated 16.07.19
4.3.3	Degradation to walls	South block - lvl 1	Remove finishes, plaster and lathe where defect/damp is evident. Defects and scale to masonry walls is not clear st this stage but assumed to comprise possible replacement of isolated areas of brickwork and repointing walls. Walls to be plastered and finished to all repaired areas.	- say 20% of brickwork is to be remediated and refinished	The general wall makeup is not confirmed. It is assumed that the wall makeup generally is lathe and plaster on brick walls.	215	m2	122	26,260	Description adjusted as per Engineering team email dated 16.07.19
4.3.4	Plaster failure/degradation to ceiling	South block - lvl 1	Remove defective plaster from ceiling (and suspended ceiling where present). Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plasterboard and plaster to walls/ceiling. New finishes required to all areas.	- say 20% of ceiling is to be remediated		146	m2	75	10,980	
4.4 - South block - Grd flr										
4.4.1	concrete arch and steel beam floor	South block - lvl 1	barr	- Say slab to be replaced over area of 40m2.	The ground floor was surveyed from one room only due to access restrictions. No major defects were noted although water ingress was observed on the floor above therefore it is assumed that there are instances of water ingress within the ground floor area also. The ground floor construction is not confirmed however appears to be in situ concrete arches supported on steel beams	40	m2	1,050	42,000	More detailed required on this
4.4.2	Timber degradation to walls	South block - lvl 1	Remove defective timber studwork from walls Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plaster	- say 20% of studwork is to be replaced	proportion of timber stud walls to brickwork internal walls is not known. Assume wall composition is 80% brickwork and 20% studwork.	21	m2	138	2,851	Description adjusted as per Engineering team email dated 16.07.19
4.4.3	Degradation to walls	South block - lvl 1	Remove finishes, plaster and lathe where defect/damp is evident. Defects and scale to masonry walls is not clear st this stage but assumed to comprise possible replacement of isolated areas of brickwork and repointing walls. Walls to be plastered and finished to all repaired areas.	- say 10% of brickwork is to be remediated and refinished	The general wall makeup is not confirmed. It is assumed that the wall makeup generally is lathe and plaster on brick walls.	142	m2	122	17,296	Description adjusted as per Engineering team email dated 16.07.19
4.4.4	Plaster failure/degradation to ceiling	South block - lvl 1	Remove defective plaster from ceiling (and suspended ceiling where present). Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plasterboard and plaster to walls/ceiling. New finishes required to all areas.	- say 15% of ceiling is to be remediated		110	m2	75	8,224	

4.5 - South block - Basement										
4.5.1	Ground bearing concrete slab	South block - lvl 1	Undertake local concrete repair mortar repair to the basement floor slab. Break out locally defective concrete, prepare surface and repair area using concrete repair mortar such as renderoc GP.	- say 20No. Repairs. Each repair say 0.25m2	The basement floor is assumed to be a ground bearing concrete slab. No major defects were picked up with the floor slab during surveys however a number of areas were not visible.	20	nr	300	6,000	
4.5.2	Timber degradation to walls	South block - lvl 1	Remove defective timber studwork from walls Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plaster	- say 40% of studwork is to be replaced	proportion of timber stud walls to brickwork internal walls is not known. Assume wall composition is 80% brickwork and 20% studwork.	25	m2	138	3,465	Description adjusted as per Engineering team email dated 16.07.19
4.5.3	Degradation to walls	South block - lvl 1	Remove finishes, plaster and lathe where defect/damp is evident. Defects and scale to masonry walls is not clear st this stage but assumed to comprise possible replacement of isolated areas of brickwork and repointing walls. Walls to be plastered and finished to all repaired areas.	- say 40% of brickwork is to be remediated and refinished	The general wall makeup is not confirmed. It is assumed that the wall makeup generally is lathe and plaster on brick walls.	373	m2	122	45,535	Description adjusted as per Engineering team email dated 16.07.19
4.5.4	Concrete finished barrel vaulted suspended floor	South block - lvl 1	Assess cast iron beams for corrosion and condition. Areas exhibiting corrosion to cast iron beams to be blast cleaned and repainted with corrosion protection paint system. Concrete arches to be assessed for condition. Defective/spalled areas to be broken out to good surface, prepared and repaired with concrete repair mortar (renderoc GP)	- say 20No. Beams x 12m will require repainting - say 30No. Repairs to concrete. Each repair areas 0.25m2	From surveys cast iron beams appeared in fair condition with minor signs of rust at isolated locations	20	nr	540	10,800	Description adjusted as per Engineering team email dated 16.07.19
4.5.4B	Concrete finished barrel vaulted suspended floor									
4.5.6	NEW ITEM: Add replacement of 30% pre-existing cast iron beams (approx depth 300mm) with grade S355 steel beams say UB305x165x54 at 1.5m centres								Included elsewhere	Item requested on email dated 26.07.19 and 16.07.19. Included at bottom of worksheet - please see below
5.4 - New Items										
A1	Concrete arch and steel beam floor above basement	South block - Ground level	Allowance for replacement of 25% of pre-existing cast iron beams (approx. depth 300mm) with grade S355 steel beams say UB 305x165x54 at 1.5m centres. Allowance to include for propping of floors, replacement beams to be brought on site in smaller sections and stitched together, breakout and reinstatement of floor finishes above beams, break out concrete arches local to beams and replace with new composite deck slabs.	25% of floor area	25% of floor area	183	m2	950	173,613	Requested on emails dated 16.07.19 and 26.07.19 New Item; as requested on email dated 16.07.19 and 26.07.19
A2	Cast iron and timber suspended floor	South block - 1st floor level (level 1)	Allowance for replacement of 20% of pre-existing cast iron beams (approx. depth 300mm) with grade S355 steel beams say UB 305x165x54 at 3m centres. Allowance to include for propping of floors, replacement beams to be brought on site in smaller sections and stitched together, breakout and repair/reinstate floor finishes above beams, repair/reinstate ceiling finishes below beams.	20% of floor area	20% of floor area	146	m2	645	94,428	New Item; as requested on email dated 16.07.19 and 26.07.19
A3	Cast iron and timber suspended floor	South block - 2nd floor level (level 2)	Allowance for replacement of 20% of pre-existing cast iron beams (approx. depth 300mm) with grade S355 steel beams say UB 305x165x54 at 3m centres. Allowance to include for propping of floors, replacement beams to be brought on site in smaller sections and stitched together, breakout and repair/reinstate floor finishes above beams, repair/reinstate ceiling finishes below beams.	20% of floor area	20% of floor area	146	m2	645	94,428	New Item; as requested on email dated 16.07.19 and 26.07.19
									2,443,151	Net costs only. This excludes contractor on-costs

Ayr Station Hotel - Internal face proposed remedial measures - INTERNAL WORKS - NORTH BLOCK 2

1st August 2019

ITEM Number	Element	Location	Most Likely Solution	Quantity (Nr, m, m2, m3)	Comments	Qty	Unit	Rate	Total (£)	Comment
3.0 - General										
3.1	rot survey	full building	A full timber rot survey will be required to identify instances of wet and dry rot to structural timbers throughout the building			1	item	3,500	3,500	This is cost for survey only
3.2	M+E services	full building	Strip out and full refit of all M+E services. - Installation of lighting, sockets and power throughout building - installation of heating plant and associated pipework - Installation of internal water supplies and drainage within the building - say 100% strip out and refit		Services within the building are in an unknown condition. It is assumed that due to age and condition of building the services are dated and in generally poor condition. In addition theft of pipework and tanks is evident within the building. The full scale of which is not known.	539	m2	387	208,593	
3.3	asbestos	full building	A full asbestos survey of the building will be required to identify areas of asbestos within building. Prior to intrusive and refit works asbestos identified will require to be removed		Note. An asbestos survey was undertaken in the basement area and asbestos was found in a number of locations. It is reasonable to assume that a asbestos is present in the main building and will require to be removed prior to any works that might disturb the material	539	m2	80	43,120	
3.4	Fire stopping	full building	Assessment of full building for compliance with fire standards. It is anticipated that works will be required to install fire stopping/dampers etc throughout the building		Assume 1200x1200mm openings in each of the crosswalls in the roof area to be fire stopped.	1	item		Excluded	
3.5	Lift	Lobby	Existing historic lift to be assessed for condition and remediated as required. This may include refitting lift motor, replacing lift cables, electric cabling, stripping and remediating steel components (cleaning rust/repainting etc)			1	item		n/a	
3.6	Internal features	full building	There are a number of features to the building that have historic merit such as the feature staircase. It is not clear the full scope of these elements at this time however an allowance should be made for refurbishing these elements insitu.		There are a number of features to the building that have historic merit such as the feature staircase. It is not clear the full scope of these elements at this time however an allowance should be made for refurbishing these elements insitu.	1	item		Excluded	Engineering team query response dated 28.06.19, noted that no works are required
3.7	Conservation elements		The hotel is a B listed building and therefore works will fall under a conservation project. This will impose additional requirements on the method and materials used for the remedial works. The repairs have assumed that any repairs or replacements will be on a like for like basis.			1	item		Excluded	Engineering team to confirm any additional requirements, so that we can include a price
4.0 - Internal Defects										
5.1 - North block 2 - GROUND FLOOR										
5.1.1	Structural timber degradation to floors	South block - lvl 3	Timber joists to be assessed for condition. Defective joists to be removed (along with floorboards and draifning) and replaced with new structural joists. Joists to be seated on structural masonry walls (ends to be membrane wrapped) as per existing. New floor boards and finishes required to all areas. - Say 15% of joists and associated floorboards on level 3 to be removed from building and replaced. Say C24 225x50 timbers @ 400mm centres.		Degradation of the timber floor joists was noted in a number of locations. The degradation appears to mainly be as a result of water ingress through failed roof elements/leaks through building from burst water tank in attic and penetrating water to joist ends through walls and window details	58	m2	85	4,947	All Quantities are 50% of the quantity included for North block 1 as advised by Engineering team on con
5.1.2	Timber degradation to walls	South block - lvl 3	Remove defective timber studwork from walls Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plaster - say 12.5% of studwork is to be replaced		proportion of timber stud walls to brickwork internal walls is not known. Assume wall composition is 80% brickwork and 20% studwork.	5	m2	110	507	
5.1.3	Degradation to walls	South block - lvl 3	Remove finishes, plaster and lathe where defect/damp is evident. Defects and scale to masonry walls is not clear at this stage but assumed to comprise possible replacement of isolated areas of brickwork and repainting walls. Walls to be plastered and finished to all repaired areas. - say 12.5% of brickwork is to be remediated and refinished		The general wall makeup is not confirmed. It is assumed that the wall makup generally is lathe and plaster on brick walls.	49	m2	122	6,006	
5.1.4	Plaster failure/degradation to ceiling	South block - lvl 3	Remove defective plaster from ceiling (and suspended ceiling where present). Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plasterboard and plaster to walls/ceiling. New finishes required to all areas. - say 12.5% of ceiling is to be remediated			49	m2	75	3,638	

5.2 - North block - FIRST FLOOR

Item ID	Description	Location	Work Description	Notes	Quantity	Unit	Rate	Amount	Notes
4.2.1	Structural timber degradation to floors	South block - lvl 2	Timber joists to be assessed for condition. Defective joists to be removed (along with floorboards and deafening) and replaced with new structural joists. Joists to be seated on structural masonry walls (ends to be membrane wrapped) as per existing. New floor boards and finishes required to all areas.	- Say 5% of joists and associated floorboards on level 2 to be removed from building and replaced. Say C24 225x50 timbers @ 400mm centres.	8	m2	85	642	Degradation of the timber floor joists was noted in a number of locations. The degradation appears to mainly be as a result of water ingress through failed roof elements/leaks through building from burst water tank in attic and penetrating water to joist ends through walls and window details.
4.2.2	Structural timber degradation to walls	South block - lvl 2	Remove defective timber studwork from walls. Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plaster.	- say 5% of studwork is to be replaced	9	m2	110	1,014	proportion of timber stud walls to brickwork internal walls is not known. Assume wall composition is 80% brickwork and 20% studwork.
4.2.3	Structural timber degradation to walls	South block - lvl 2	Remove finishes, plaster and lathe where defect/damp is evident. Defects and scale to masonry walls is not clear at this stage but assumed to comprise possible replacement of isolated areas of brickwork and repainting walls. Walls to be plastered and finished to all repaired areas.	- say 5% of brickwork is to be remediated and refinished	19	m2	122	2,305	The general wall makeup is not confirmed. It is assumed that the wall makeup generally is lathe and plaster on brick walls.
4.2.4	Plaster failure/degradation to ceiling	South block - lvl 2	Remove defective plaster from ceiling (and suspended ceiling where present). Remove defective lathe where not suitable for reuse. Where lathe suitable replaster with appropriate plaster to match existing (if possible). Where lathe unsuitable install plasterboard and plaster to walls/ceiling. New finishes required to all areas.	- say 10% of ceiling is to be remediated	8	m2	75	566	
								274,838	Net costs only. This excludes contractor on-costs

ITEM Number	Element	Location	Most Likely Solution	Quantity (lit, m, m2, m3)	Comments													
1.0 - General																		
1.1	0 Facility works																	
1.1.1	Site set-up	General	Contractor site establishment. Note existing site enclosure pre-established including fencing.															
1.1.2	Scaffolding reconfiguration	General	Reconfiguration and partial rebuilding of the existing scaffold to allow remedial works to be undertaken will be required. NB: existing scaffold to be placed covering the entire South block however the scaffold needs reconfigured to allow movement of material around building. Will likely include rebuilding the southern section of the scaffold and incorporating lifting platforms and craneage/lifting points around the building.															
1.1.3	Proximity to live railway station/line		The building is located adjacent to an active railway line (refer site plans) which will have an impact on access and impose restrictions on the method of working															
1.1.4	Possible off-site storage / workshop		Restricted site storage / lay-down area. Investigate possibility of local vacant industrial warehouse / facility to sort, process and store reusable materials from imminent weather and to accept deliveries of replacement materials for despatch to site. This option would also improve continuity of works (weather considerations).															
1.1.5	Temporary Works																	
2.0 - External Defects																		
2.1 - Roof																		
2.1.1	Roof tiles	Roof - South Block	Remove existing slate tiles from south block roof (all over-pitched roof, mansard, towers) and set aside for reuse. Suitable slates to be re-used. Defective slates to be replaced. Roof to be reroofed on a like for like basis.	- Say 40% of slates will be unsuitable for reuse and will require replacement. - say 60% of slates to be reused	refer img 01_RI_typical slates													
						Remove existing slates (to be retained)	1464	m2	15.00	21,960.00	60%	£	13,176.00					
						Remove existing slates (to be scrapped)	1464	m2	12.50	18,300.00	40%	£	7,452.00					
						Slips	7	nr	300.00	2,100.00	100%	£	2,100.00					
						Material: replacement slates	1464	m2	72.00	105,408.00	40%	£	42,163.20					
						Replace slates Labour	1464	m2	16.00	23,424.00	100%	£	23,424.00					
						Allowance for valleys & cuts	373	m	3.00	1,119.00	100%	£	1,119.00					
						Allowance for ridges		m			0%	£						
						Allowance for flashing		m			0%	£						
						Allowance for verges	33	m	15.00	495.00	100%	£	495.00					
2.1.2	Roof sarking	Roof - South block	Remove existing timber board sarking from roof from south block roof (all across pitched roof, mansard, towers) and set aside for reuse. Suitable boards to be re-used for roofing. Roof to be reroofed on a like for like basis.	- Say 40% of boards will be unsuitable for reuse and will require replacement.	refer img 02_RI_typical sarking board													
						Remove existing boards (to be retained)	1464	m2	18.00	26,352.00	60%	£	15,811.20					
						Remove existing boards (to be scrapped)	1464	m2	16.00	23,424.00	40%	£	9,859.20					
						Slips	7	nr	300.00	2,100.00	100%	£	2,100.00					
						Replace boarding/ Materials	1464	m2	50.00	73,200.00	40%	£	29,280.00					
						Replace boarding	1464	m2	15.00	21,960.00	100%	£	21,960.00					
						Allowance for valleys & cuts	373	m	3.00	1,119.00	100%	£	1,119.00					
						Allowance for ridges		m			0%	£						
						Allowance for flashing		m			0%	£						
						Allowance for verges	33	m	3.00	99.00	100%	£	99.00					
						Breathable membrane	1464	m2	3.00	4,392.00	100%	£	4,392.00					
2.1.3	Structural roof timbers	Roof - South block	Assess structural roof timbers for condition and suitability. Sound timbers to be left in situ. Degraded timbers to be removed and replaced.	- Say 20% of structural roof timbers will require replacement.	refer img 03_RI_typical degraded roof timbers Structural roof timbers refer to the structural timbers within the pitched section of the roof only. Including rafters and truss members.													
						Remove existing timber (to be scrapped)	5619	m	12.00	67,428.00	100%	£	67,428.00					
						Slips	10	nr	300.00	3,000.00	100%	£	3,000.00					
						Replace Timbers/ Materials	5619	m	12.00	67,428.00	100%	£	67,428.00					
						Replace Timbers Labour	5619	m	8.11	45,590.00	100%	£	45,590.00					
2.1.4	Structural timbers mansard roof	Roof - south block	Assess structural roof timbers within mansard roof section (below pitched roof). Sound timbers to be left in situ. Degraded timbers to be replaced.	- Say 80% of mansard roof structural timbers will require replacement. Note mansard roof timbers help tie back the mansard roof projections which will need propping and temporary support during works (possibly from scaffold)	refer img 13_RI_typical mansard roof timbers Mansard roof timbers includes for only the timbers within the vertical face of the mansard roof section running between sandstone dormer projections													
						Remove existing timber (to be scrapped)	1786	m	12.00	21,432.00	100%	£	21,432.00					
						Slips	10	nr	300.00	3,000.00	100%	£	3,000.00					
						Replace Timbers/ Materials	1786	m	12.00	21,432.00	100%	£	21,432.00					
						Replace Timbers Labour	1786	m	3.00	5,358.00	100%	£	5,358.00					
2.1.5	Cast iron roof edge features	Roof - South block	Remove existing cast iron feature edge pieces from south block roof (cast iron feature pieces run along the edges of the building at the junction between the mansard and pitched roof areas and around the top hat sections).	- Cast iron feature pieces to be assessed for reuse. Suitable sections (say 75%) to be cleaned (chemical/blast clean?) and repainted. 25% to be replaced with new sections to match existing.	refer img 04_RI_cast iron edge features													
						Remove existing (ironwork to be retained)	211	m	30.00	6,330.00	75%	£	4,747.50					
						Remove existing (ironwork to be scrapped)	211	m	30.00	6,330.00	25%	£	1,582.50					
						Slips	1	nr	200.00	200.00	100%	£	200.00					
						Procurement of bespoke new items	211	m	320.00	67,520.00	75%	£	16,880.00					
						Reinstall ironwork	211	m	30.00	6,330.00	100%	£	6,330.00					
2.1.6	Structural timbers Top hat sections	Roof - south block	Assess structural roof timbers within top hat roof section (below pitched roof). Sound timbers to be left in situ. Degraded timbers to be replaced.	- Say 30% of top hat structural roof timbers require replacement.	refer img 05_RI_top hat roof													
						Remove existing timber (to be scrapped)	1357	m	12.00	16,284.00	50%	£	8,142.00					
						Slips	7	nr	300.00	2,100.00	100%	£	2,100.00					
						Replace Timbers/ Materials	1357	m	12.00	16,284.00	50%	£	8,142.00					
						Replace Timbers Labour	1357	m	4.00	5,428.00	50%	£	2,714.00					

Q3 Comments
Assumed 1. Suitable area on site for sorting / lay-down area for retained materials 2. Scrap materials via waste chute(s) to skip 3. How do we get slates to be returned to floor level? Possible Alimak(s) - Check if installed with Colin/ Andrew 4. Skip size @ £300,00ea 5. Tiles: Size
Rate to include removal, move to Alimak, call offsite, store on site (Spans p. 220 - £14.13) Rate to include removal and place in waste chutes (Spans p. 220 - £14.14)
https://www.thehatchcompany.co.uk/2018/04/with-avro-roofline-site/
Allow for cutting tiles to suit valleys / chimneys, etc
Cast iron ridges itemised separately. See item 2.1.5
Flashing itemised separately. See item 2.1.9
Rate to include for bedding in lime mortar on masonry 1. How do we get removed boards to floor level? Possible Alimak(s)
1464m ² @ 150 wide board + 9750m. Rate includes denailing (Spans p. 217 - £17.56) Rate to include removal, place in waste skips, no denailing 12.88m ² 150 x 28mm wrought softwood tanalised (Spans p. 334 - £49.20 to 50.10) Rate to include moving boarding from G.L. to Roof level. fix in place Allow for cutting boards to suit valleys / chimneys, etc Cast iron ridges itemised separately. See item 2.1.5 Flashing itemised separately. See item 2.1.9 See verges finished in lead flashing? HD breather membrane Spans p.381 - £7.63
1. Possible mobile crane to remove trusses? Would they be safe to lift if badly degraded? 2. Consider craneage costs (height of building may require a 100-200tonne capacity crane even if only lifting 1.20metres. 3. If not up in the consider safe access & manual handling across voids below
Based on 147 Nr trusses @ 27.22m per rafter / truss (does not include mansard sides) 9600m ² 150 x 75 (Spans p. 328 - £11.90 / m)
1. Allowance for temporary support / propping to windows where timber removed. 2. Safe Access requirements
Based on 147 Nr trusses @ 12.15m per rafter / truss (no allowance for ceiling joists) 150 x 75 (Spans p. 328 - £11.90 / m)
1. Ironwork comprises of two types of component. a). Main ridge section circular in section with (flanged edge), the shaped linels (possibly drop-forged wrought iron plates) bolted (possibly needed to main section flange 2. Proposals of getting removed items to G.L. 3. Requires off-site blasting / picking facility for cleaning & painting. 4. If items cannot be matched with proprietary items, foundry for casting replacements required.
Includes Mansard ridges, Mansard sides & perimeters (no top hats)
Requires moulds, cutting, drilling & finishes
Based on 400mm x 4. Frames (no Bracing) 438 m ² 150 x 75 (Spans p. 328 - £11.90 / m)

21.19	Structural timbers mansard roof	Roof - North Block - section 1	Assess structural roof timbers within mansard roof section (below pitched roof). Sound timbers to be left in situ. Degraded timbers to be replaced.	- Say 25% of mansard roof structural timbers will require replacement. - Note mansard roof timbers help tie back the feature dormer projections which will need ongoing and temporary support during works (possibly from scaffold)	refer img 13_Rf_typical mansard roof timbers															
										Remove existing timber (to be scrapped)	1280	m	12.00	15,360.00	25%		£	3,840.00		
										Slips	0	nr	350.00	100%		£	-			
										Replace Timbers, Materials	1280	m	12.00	15,360.00	25%		£	3,840.00		
										Replace Timbers, Labour	1280	m	8.00	10,240.00	25%		£	2,560.00		
														100%		£	-			
21.20	Cast iron roof edge features	Roof - North Block - section 1	Remove existing cast iron feature edge pieces from roof / cast iron feature pieces run along the edges of the building at the junction between the mansard and pitched roof areas and around the top hat sections.	- Cast iron feature pieces to be assessed for reuse. Suitable sections (say 75%) to be cleaned /chromed/blast cleaned and repainted. 25% to be replaced with new sections to match existing.	refer img 04_Rf_cast iron edge features															
										Remove existing (work to be retained)	135	m	30.00	4,050.00	75%		£	3,037.50		
										Remove existing (work to be scrapped)	135	m	30.00	4,050.00	25%		£	1,012.50		
										Slips	1	nr	300.00	100%		£	300.00			
										Placement of bespoke new items	135	m	300.00	45,000.00	25%		£	10,800.00		
										Reinstall ironwork	135	m	30.00	4,050.00	100%		£	4,050.00		
21.21	Flashing	Roof - North Block - section 1	Assess existing flashing for condition. Repair in situ flashing suitable for reuse. Replace defective flashing with new lead flashing. NB flashing is present around all chimney stack/roof interfaces as well as standard roof joints/chimney direction	- Say 30% of roof flashing will require replacement - Say 70% of roof flashing will be suitable for reuse	refer img 08_Rf_roof flashing															
										Remove existing flashing (to be scrapped)	110	m2	15.00	1,650.00	30%		£	495.00		
										Slips	1	nr	300.00	100%		£	300.00			
										Replace Flashing, Materials	110	m2	110.00	12,100.00	30%		£	3,630.00		
										Replace Flashing, Labour	110	m2	18.00	1,980.00	30%		£	594.00		
21.22	Sandstone chimney stacks - cracking	Roof - North Block - section 1	Undertake crack stitching to cracked sandstone blocks. Saw cut groove within sandstone, insert threaded stainless steel bar and resin fix. Finish to flush surface to match existing	- say 20 no. x 300mm long cracks	refer img 10_Rf_chimney stack cracking															
										Grabate /cut-out for threaded bar	20	Nr	25.00	500.00	100%		£	500.00		
										After bar and resin	20	Nr	25.00	500.00	100%		£	500.00		
										Finish flush in lithomex lime mortar	20	Nr	20.00	400.00	100%		£	400.00		
21.23	Sandstone chimney stacks - missing pointing	Roof - North Block - section 1	Repoint sandstone joint - rake out existing loose mortar, prepare joint, repoint with lime mortar. Make good to match existing	- Say 30% of sandstone face to chimney columns	refer img 11_Rf_unrepointed blocks															
										Rake out mortar joints	106	m2	12.00	1,272.00	30%		£	381.60		
										Repoint mortar joints	106	m2	13.00	1,378.00	30%		£	413.40		
21.24	Sandstone chimney stacks - loose blocks	Roof - North Block - section 1	Repoint sandstone blocks. Remove loose	- say 15 bn.	refer img 11_Rf_unrepointed blocks															
										Remove blocks / clear existing mortar	15	Nr	15.00	225.00	100%		£	225.00		
										Rebed block in lime mortar	15	Nr	15.00	225.00	100%		£	225.00		
										Repoint / flush mortar joints	15	Nr	10.00	150.00	100%		£	150.00		
21.25	Sandstone chimney stacks - chimney pots	Roof - North Block - section 1	Rebuild missing damaged chimney pots	- say 10/bn.	refer img 12_Rf_chimney pots															
										Remove existing / clear existing mortar	10	Nr	15.00	150.00	100%		£	150.00		
										Materials: Sandstone chimney pot	10	Nr	75.00	750.00	100%		£	750.00		
										Rebed block in lime mortar	10	Nr	15.00	150.00	100%		£	150.00		
										point / flush mortar joints	10	Nr	10.00	100.00	100%		£	100.00		
21.26	Roof tiles	Roof - North Block - section 2	Remove existing slate tiles from south block roof (all non-pitched roof, mansard, towers) and set aside for reuse. Suitable slates to be reused. Defective slates to be replaced. Roof to be re-roofed on a like for like basis.	- Say 20% of slates will be unsuitable for reuse and will require replacement - say 80% of slates to be reused	refer img 01_Rf_typical slates															
										Remove existing slates (to be retained)	193	m2	15.00	2,895.00	80%		£	2,316.00		
										Remove existing slates (to be scrapped)	193	m2	12.50	2,412.50	20%		£	482.50		
										Slips	1	nr	300.00	100%		£	300.00			
										Material: replacement slates	193	m2	72.00	13,956.00	20%		£	2,791.20		
										Replace Slates, Labour	193	m2	16.00	3,088.00	100%		£	3,088.00		
										Allowance for valleys & cuts	74	m	4.00	296.00	100%		£	296.00		
										Allowance for ridges		m		-	0%		£	-		
										Allowance for flashing		m		-	0%		£	-		
										Allowance for verges	37	m	15.00	555.00	100%		£	555.00		
21.27	Roof sarking	Roof - North Block - section 2	Remove existing timber board sarking from roof from south block roof (all non-pitched roof, mansard, towers) and set aside for reuse. Suitable boards to be reused for re-sarking. Roof to be re-roofed on a like for like basis.	- Say 15% of boards will be unsuitable for reuse and will require replacement.	refer img 02_Rf_typical sarking board															
										Remove existing boards (to be retained)	193	m2	18.00	3,474.00	85%		£	2,952.90		
										Remove existing boards (to be scrapped)	193	m2	16.00	3,088.00	15%		£	463.10		
										Slips	1	nr	300.00	100%		£	300.00			
										Replace boarding, Materials	193	m2	50.00	9,650.00	15%		£	1,447.50		
										Replace boarding	193	m2	15.00	2,895.00	100%		£	2,895.00		
										Allowance for valleys & cuts	72	m	5.00	360.00	100%		£	360.00		
										Allowance for ridges		m		-	0%		£	-		
										Allowance for flashing		m		-	0%		£	-		
										Allowance for verges	37	m	5.00	182.50	100%		£	182.50		
										Breathable membrane	193	m2	5.00	965.00	100%		£	965.00		
21.28	Structural roof trusses	Roof - North Block - section 2	Assess structural roof timbers for condition and suitability. Sound timbers to be left in situ. Degraded timbers to be replaced and repaired.	- Say 10% of structural roof timbers will require replacement.	refer img 03_Rf_typical degraded roof timbers															
										Remove existing timber (to be scrapped)	1178	m	12.00	14,136.00	20%		£	2,827.20		
										Slips	2	nr	300.00	100%		£	600.00			
										Replace Timbers, Materials	1178	m	12.00	14,136.00	20%		£	2,827.20		
										Replace Timbers, Labour	1178	m	8.00	9,424.00	20%		£	1,884.80		
21.29	Flashing	Roof - North Block - section 2	Assess existing flashing for condition. Repair in situ flashing suitable for reuse. Replace defective flashing with new lead flashing. NB flashing is present around all chimney stack/roof interfaces as well as standard roof joints/chimney direction	- Say 30% of roof flashing will require replacement - Say 80% of roof flashing will be suitable for reuse	refer img 08_Rf_roof flashing															
										Remove existing flashing (to be scrapped)	45	m2	15.00	675.00	10%		£	67.50		
										Slips	1	nr	300.00	100%		£	300.00			
										Replace Flashing, Materials	45	m2	110.00	4,950.00	10%		£	495.00		
										Replace Flashing, Labour	45	m2	18.00	810.00	10%		£	81.00		

<i>Based on 147 Nr trusses @ 12.15m per rafter / truss (no allowance for ceiling joists)</i>																					
<i>150 x 75 (Spans p. 328 - £11.90 / m)</i>																					
<i>Includes Mansard ridges, Mansard sides & eimeters to top hats</i>																					
<i>Requires moids, coating, drilling & finishes</i>																					
<i>30m x 0.45m wide roof valleys & to window frames + 100m x 0.6m wide into gutters + 5 nr chimney @ 16 x 0.45m</i>																					
<i>Spans p. 353 2.24mm thk code 5 (roof covering)</i>																					
<i>Blocks are within courses hence increase in rate for removal</i>																					
<i>In materials</i>																					
<i>In materials</i>																					
<i>5 Nr Chimney @ 18m</i>																					
<i>630m2 roof + 154.61m2 top hat = 784.61m2 (Spans p. 220 - £14.13)</i>																					
<i>Rate to include removal and place in waste chute. Spans p. 220 - £12.14</i>																					
<i>https://www.thedatateamary.co.uk/?hoo/weths-grew-roofing-slates/</i>																					
<i>Allow for cutting tiles to suit valleys / chimneys etc</i>																					
<i>Cast iron ridges itemised separately. See Item 2.1.5</i>																					
<i>Flashing itemised separately. See item 2.1.9</i>																					
<i>Rate to include for bedline in lime mortar on masonry</i>																					
<i>630m2 @ 150 wide board = 4967m. Rate includes dunnage (Spans p. 217 - £17.56)</i>																					
<i>Rate to include removal, place in waste chute, no dunnage</i>																					
<i>150 x 23mm wrought softwood tanalized (Spans p. 334 - £49.20 to 50.18)</i>																					
<i>Rate to include moisture boarding from G.L. to Roof level. Fix in place</i>																					
<i>Allow for cutting boards to suit valleys / chimneys etc</i>																					
<i>Cast iron ridges itemised separately. See Item 2.1.5</i>																					
<i>Flashing itemised separately. See Item 2.1.9</i>																					
<i>Are verges finished in lead flashing?</i>																					
<i>In weather membrane (Spans p. 381 - £3.63)</i>																					
<i>Based on 100 Nr trusses @ 23.2m per rafter / truss + 630m top hat structure = (does not include 630m2)</i>																					
<i>150 x 75 (Spans p. 328 - £11.90 / m)</i>																					
<i>30m x 0.45m wide roof valleys & to window frames + 28m x 0.6m wide into gutters + 2 nr chimney @ 16 x 0.45m</i>																					
<i>Spans p. 353 2.24mm thk code 5 (roof covering)</i>																					

2.3.20	spalled sandstone to feature edges	West elevation - WS	Assess sandstone feature edges for loose/delaminated sandstone. Where sandstone is brittle/at risk then sandstone edge to be removed and reformed with appropriate mortar	- say 2.5% of feature edges/ cornice to require remedial work		Remove loose sandstone & prepare surface	14	m	80.00	560.00	5%	£	78.00
						Finish flush in Lithonex lime mortar	14	m	150.00	1,480.00	5%	£	84.00
2.3.21	Gutters	West elevation - WS	Remove gutters and assess for reuse. Gutters in suitable condition to be blast cleaned and repainted before refitting to building. Unsuitable gutters to be replaced with new cast iron gutters to match existing.	- say 50% gutters to be repainted - say 50% gutters will require replacement	refer 01_E1 typical gutter.	Remove existing gutters	18	m	20.00	360.00	100%	£	360.00
						Blast / clean & paint gutters retained	19	m	18.00	342.00	50%	£	171.00
						Slips	1	nr	300.00	300.00	100%	£	300.00
						Material: replacement guttering	19	m	50.00	950.00	50%	£	475.00
						Replace gutters: Labour	19	m	28.00	532.00	100%	£	532.00
2.3.22	Downpipes	West elevation - WS	Assess downpipes for reuse. Downpipes in suitable condition to be blast cleaned and repainted. Unsuitable downpipes to be replaced with new cast iron downpipes to match existing.	- say 25% downpipes to be reused - say 75% downpipes will require replacement All downpipes will require new connection brackets to building	refer 02_E1 typical downpipe.	Remove existing Downpipes	46	m	20.00	920.00	100%	£	920.00
						Blast / clean & paint downpipes retained	46	m	18.00	828.00	25%	£	207.00
						Slips	1	nr	300.00	300.00	100%	£	300.00
						Material: replacement downpipes	46	m	148.00	6,808.00	75%	£	4,806.00
						Replace downpipes: Labour	46	m	76.00	1,196.00	100%	£	1,196.00
2.3.23	Window framing	West elevation - WS	Timber window Framing to be assessed for reuse. Where suitable for reuse framing to be sanded to good surface and repainted. Where unsuitable for reuse framing to be removed and replaced with new oak & case windows to match existing	- say 50% of window frames on WS suitable for reuse - say 50% of window frames on WS to be replaced	refer 03_E1 timber framing	Remove defective windows	11	nr	75.00	825.00	50%	£	412.50
						Allow 1 repair per window	11	nr	50.00	550.00	50%	£	275.00
						Operational repairs to windows retained	11	m	100.00	1,100.00	50%	£	550.00
						Clean & paint windows retained	11	m	90.00	1,170.00	50%	£	585.00
						Slips	1	nr	300.00	300.00	100%	£	300.00
						Material: replacement windows	11	nr	600.00	7,800.00	50%	£	3,900.00
						Install replacement windows	11	m	120.00	1,320.00	100%	£	1,320.00
2.3.24	Window panes	West elevation - WS	Assess glazing panes for suitability for reuse. Where unsuitable/missing/broken replace window glazing with new.	- say 25% of window panes on WS to be replaced		Remove reflective panes	26	nr	20.00	520.00	25%	£	130.00
						Material: replacement glazing	26	nr	12.00	312.00	25%	£	78.00
						Replace glazing: Labour	26	m	20.00	520.00	25%	£	130.00
2.3.25	Sandstone wall face - missing pointing	West elevation - WS	Repoint sandstone joint - rake out existing loose mortar, prepare joints, repoint with lime mortar to match existing.	- say 15% of sandstone on face WS will require repointing		Rake out mortar joints	216	m2	12.00	2,592.00	15%	£	388.80
						Repoint mortar joints	216	m2	15.00	3,240.00	15%	£	486.00
2.3.26	Sandstone wall face - loose blocks	West elevation - WS	Repoint sandstone blocks. Repointer raises	- say 10 No. blocks over WS face		Remove blocks / clear existing mortar	10	nr	45.00	450.00	100%	£	450.00
						Rebed block in lime mortar	10	nr	15.00	150.00	100%	£	150.00
						Repoint / Repointer mortar joints	10	nr	10.00	100.00	100%	£	100.00
2.3.27	Sandstone wall face - delaminated sandstone	West elevation - WS	Assess condition of feature pieces/cornices for loose/delaminated sandstone. Remove large sections of loose sandstone and repair or clean surface to provide sound edge. Where large scale delamination has occurred use mortar replacement such as lithium and for larger areas indent replacement sandstone into block	- say 5m2 of sandstone to WS face for lithium repair - say 2.5m2 of sandstone to WS face for indent repair		Remove loose sandstone & prepare surface	7.5	m2	40.00	300.00	100%	£	300.00
						Finish flush in Lithonex lime mortar	7.5	m2	60.00	450.00	100%	£	450.00
2.3.28	Sandstone wall face - vegetation	West elevation - WS	Remove vegetation growth/leaving from building face/joints. Clean surface to remove all plant growth/moss/leaving.	- say 20% of WS face		Cut back and remove larger areas of vegetation from wall	216	m2	10.00	2,160.00	20%	£	432.00
						Rake out roots from mortar joints	216	m2	15.00	3,240.00	20%	£	648.00
						Treat with biocidal agent (lacyna)	216	m2	15.00	3,240.00	20%	£	648.00
						Steam wash affected area	216	m2	10.00	2,160.00	20%	£	432.00
						Repoint joints with lime mortar to match existing	216	m2	15.00	3,240.00	20%	£	648.00
2.3.29	Sandstone dormer projection stabilisation	West elevation - WS	Assess existing sandstone dormer projections for integrity. Repoint and mortar blocks. Drill and install threaded stainless steel bars resin fixed into the dormer projection sandstone blocks and be back into main roof structure by being into timber rafters by drilling/using fixing plate.	- say 8No. 1m long threaded stainless steel rods resin fixed sandstone and glued bed to timber per dormer on WS face	refer 03_W4_dormer projection	Rebate / cut-out for threaded bar	8	nr	25.00	200.00	100%	£	200.00
						Affix bar and resin	8	nr	70.00	560.00	100%	£	560.00
						Finish flush in Lithonex lime mortar	8	nr	20.00	160.00	100%	£	160.00
						Repoint existing block	8	nr	70.00	560.00	100%	£	560.00
						Paint around block with lime mortar	8	nr	8.00	64.00	100%	£	64.00
2.3.30	Sandstone lintel support blocks	West elevation - WS	Replace spalled sandstone blocks (where support has been lost/removed due to spalled sandstone)	- say 4No. across WS face		Support lintel	4	nr	15.00	60.00	100%	£	60.00
						Remove damaged stone block	4	nr	25.00	100.00	100%	£	100.00
						New dressed block: 100mm	4	nr	43.11	172.44	100%	£	172.44
						New dressed block: bed and point	4	nr	25.00	100.00	100%	£	100.00
2.3.31	Sandstone crack	West elevation - WS	Minor sandstone cracks. Sandstone to be saw cut to allow installation of threaded stainless steel bars resin fixed across crack at 150mm centres. Surface to be made good to match existing.	- say 10 No. x 300mm cracks	refer 07_E1 typical sandstone blocks	Rebate / cut-out for threaded bar	10	nr	25.00	250.00	100%	£	250.00
						Affix bar and resin	10	nr	25.00	250.00	100%	£	250.00
						Finish flush in Lithonex lime mortar	10	nr	20.00	200.00	100%	£	200.00
2.3.32	spalled sandstone to feature edges	West elevation - WS	Assess sandstone feature edges for loose/delaminated sandstone. Where sandstone is brittle/at risk then sandstone edge to be removed and reformed with appropriate mortar	- say 2.5% of feature edges/cornice to require remedial work		Remove loose sandstone & prepare surface	16	m	80.00	680.00	5%	£	16.00
						Finish flush in Lithonex lime mortar	16	m	120.00	1,200.00	5%	£	48.00

top materials

<https://www.drainageonline.co.uk/above-ground-drainage/guttering/cast-iron-gutter/notts-cast-iron-gutter>

2 Nr. @ 14m x 1 Nr. @ 18m.

Slooms (S 568) includes frames, wood brackets

Slooms p. 312

Allow for 1 hr. conservation repair per retained window frame. 18A rate

Face frames, check correct operation

Clean underneath & top coat - 1 man 4hrs @ £15.00 per hour

Purpose made double hung sash windows treated with softwood Slooms p. 4381

Assumed frames delivered painted & glazed

Based on retained frames above x 4 panes per frame. Remove glass and clean frame
£12.00 per pane allowance (inc. cavity)

Box 14m x 12m2 x 5m x 18m x 10m2 = 214m2 total

Blocks are within courses hence increase in rate for removal

top materials

top materials

top materials

top materials

top materials

top materials

Blocks are within courses hence increase in rate for removal

top materials

top materials

top materials

Item No.	Item Name	Location	Description	Notes	Ref	QTY	UNIT	PRICE	TOTAL	TAX	NET TOTAL
2.3.33	Gutters	West elevation - W6	remove gutters and assess for reuse. Gutters in suitable condition to be blast cleaned and repainted before refitting to building. Unsuitable gutters to be replaced with new cast iron gutters to match existing.	- Say 50% gutters to be repainted - Say 50% gutters will require replacement	refer 01_E1_typical gutter.						
						98	m	20.00	1,960.00	100%	1,960.00
						98	m	18.00	1,764.00	50%	931.00
						1	nr	300.00	300.00	100%	300.00
						59	m	50.00	2,950.00	50%	1,475.00
						59	m	28.00	1,652.00	100%	1,652.00
2.3.34	Downpipes	West elevation - W6	Assess downpipes for reuse. Downpipes in suitable condition to be blast cleaned and repainted. Unsuitable downpipes to be replaced with new cast iron downpipes to match existing.	- Say 25% downpipes to be reused - Say 75% downpipes will require replacement. - All downpipes will require new connection brackets to building	refer 02_E1_typical downpipe.						
						98	m	20.00	1,960.00	100%	1,960.00
						98	m	18.00	1,764.00	50%	881.00
						1	nr	300.00	300.00	100%	300.00
						98	m	180.00	17,640.00	75%	13,230.00
						98	m	26.91	2,637.18	100%	2,637.18
2.3.35	Window Framing	West elevation - W6	Timber window framing to be assessed for reuse. Where suitable for reuse framing to be sanded to good surface and repointed. Where unsuitable for reuse framing to be removed and replaced with new soft & case windows to match existing.	- say 50% of window frames on W6 suitable for reuse - say 50% of window frames on W6 to be replaced	refer 03_E1_Timber framing						
						49	nr	75.00	3,675.00	50%	1,837.50
						49	nr	50.00	2,450.00	50%	1,225.00
						49	m	100.00	4,900.00	50%	2,450.00
						49	nr	90.00	4,410.00	50%	2,205.00
						1	nr	300.00	300.00	100%	300.00
						49	nr	650.00	31,850.00	50%	15,925.00
						4	nr	120.00	480.00	100%	480.00
2.3.36	Window panes	West elevation - W6	Assess glazing panels for suitability for reuse. Where unsuitable/missing/broken replace window glazing with new.	- say 25% of window panes on W6 to be replaced							
						98	nr	20.00	1,960.00	15%	294.00
						98	nr	12.00	1,176.00	15%	176.40
						98	m	20.00	1,960.00	15%	294.00
2.3.37	Sandstone wall face - missing pointing	West elevation - W6	Repoint sandstone joint - rake out existing loose mortar, prepare joint, repoint with lime mortar to match existing.	- Say 10% of sandstone on fire W6 will require repointing							
						792	m2	12.00	9,504.00	10%	950.40
						792	m2	15.00	11,880.00	10%	1,188.00
2.3.38	Sandstone wall face - loose blocks	West elevation - W6	Repoint sandstone blocks & mortar joints	- say 10 No. blocks over W6 face							
						10	nr	45.00	450.00	100%	450.00
						10	nr	15.00	150.00	100%	150.00
						10	nr	100.00	1,000.00	100%	1,000.00
2.3.39	Sandstone wall face - delaminated sandstone	West elevation - W6	Assess condition of feature pieces/cornices for loose/delaminated sandstone. Remove large sections of loose sandstone and repair or clean surfaces to provide sound edge. Where larger scale delamination has occurred use mortar replacement such as Lithomex and for larger areas indent replacement sandstone into block.	- say 5m2 of sandstone to W6 face for Lithomex repair - say 2m2 of sandstone to W6 face for indent repair							
						7	m2	40.00	280.00	100%	280.00
						7	m2	60.00	420.00	100%	420.00
2.3.40	Sandstone wall face - vegetation	West elevation - W6	Remove vegetation growth/staining from building face/joints. Clean surface to remove all plant growth/moss/staining.	- say 10% of W6 face							
						792	m2	10.00	7,920.00	10%	792.00
						792	m2	15.00	11,880.00	10%	1,188.00
						792	m2	15.00	11,880.00	10%	1,188.00
						792	m2	10.00	7,920.00	10%	792.00
						792	m2	15.00	11,880.00	10%	1,188.00
2.3.41	Sandstone dormer projection stabilisation	West elevation - W6	Assess existing sandstone dormer projections for integrity. Re-seat and mortar blocks. Drill and install threaded stainless steel bars resin fixed into the dormer projection sandstone blocks and tie back into main roof structure by fixing into timber rafters by drilling/using fixing plate.	- say 8No. 1m long threaded stainless steel bars resin fixed into sandstone and plate fixed to timber per dormer on W6 face	refer 03_W4_dormer projection						
						8	nr	25.00	200.00	100%	200.00
						8	nr	70.00	560.00	100%	560.00
						8	nr	20.00	160.00	100%	160.00
						8	nr	70.00	560.00	100%	560.00
						8	nr	8.00	64.00	100%	64.00
2.3.42	Sandstone lintel support blocks	West elevation - W6	Replace spalled sandstone blocks (where support has been lost/reduced due to spalled sandstone)	- say 4No. across W6 face							
						4	nr	15.00	60.00	100%	60.00
						4	nr	25.00	100.00	100%	100.00
						4	nr	30.00	120.00	100%	120.00
						4	nr	25.00	100.00	100%	100.00
2.3.43	Sandstone crack	West elevation - W6	Minor sandstone cracks. Sandstone to be saw cut to allow installation of threaded stainless steel bars resin fixed across crack at 150mm centres. Surface to be made good to match existing.	- say 20 No. x 300mm cracks	refer 07_E1_typical sandstone blocks						
						20	nr	25.00	500.00	100%	500.00
						20	nr	25.00	500.00	100%	500.00
						20	nr	20.00	400.00	100%	400.00
2.3.44	Corrosion to external steel fire escape stair	West elevation - W6	Blast clean and repaint steel fire escape stair with corrosion protection paint system. Assess connections to building and replace bolts and connection plates where necessary.	- say 100% steel stair to be cleaned and repainted. - say 15No. plates will require replacement and 50No. bolts	refer 05_W6_fire escape stair						
						15	nr	250.00	3,750.00	100%	3,750.00
						1	item	5,000.00	5,000.00	100%	5,000.00
						1	item	1,800.00	1,800.00	100%	1,800.00

https://www.drainageonline.co.uk/above-ground-drainage/guttering/cast-iron-gutter/hot/cast-iron-gutter

7 No @ 14m

Spans in 560 includes fittings, and brackets

Spans = 217

Allow for 1 no. conservation repair per retained window frame. T&A rate

Face frames - check correct operation

Clean undercoat & top coat - 1 man day @ £15.00 per hour

Remove made double hung sash windows treated with softwood (Spans p. 438)

Assumed frames delivered painted & glazed

Based on retained frames above x 4 panes per frame. Remove glass and clean frame (£12.00 per pane allowance (inc. putty))

65m x 14m = 910m2 + 9m x 18m = 162m2 = 792m2 total

Blocks are within courses hence increase in size for removal

Inc. materials

Inc. materials

Inc. materials

Inc. materials

Blocks are within courses hence increase in size for removal

Inc. materials

Inc. materials

Assumed open mesh panels 1.0m x 1.0m (scaffold supported and painted)

Assumed dustless or wet abrasive blasting (dust control)

Brush applied - unlikely to spray (inc. materials)

2.3.45	Gutters	West elevation -W7	remove gutters and assess for reuse. Gutters in suitable condition to be blast cleaned and repainted before refitting to building. Unsuitable gutters to be replaced with new cast iron gutters to match existing.	- Say 50% gutters to be repainted - Say 50% gutters will require replacement	Remove existing gutters	8	m	20.00	160.00	100%	£	160.00
					Blast / Clean & paint gutters retained	8	m	18.00	144.00	50%	£	72.00
					Slips	1	nr	300.00	300.00	100%	£	300.00
					Material; replacement guttering	8	m	50.00	400.00	50%	£	200.00
					Replace gutters: Labour	8	m	28.00	208.00	100%	£	208.00
2.3.46	Downpipes	West elevation -W7	Assess downpipes for reuse. Downpipes in suitable condition to be blast cleaned and repainted. Unsuitable downpipes to be replaced with new cast iron downpipes to match existing.	- Say 25% downpipes to be reused - Say 75% downpipes will require replacement. All downpipes will require new connection brackets to building	Remove existing Downpipes	28	m	20.00	560.00	100%	£	560.00
					Blast / Clean & paint downpipes retained	28	m	18.00	504.00	25%	£	126.00
					Slips	1	nr	300.00	300.00	100%	£	300.00
					Material; replacement downpipes	28	m	140.00	3,920.00	75%	£	2,940.00
					Replace downpipes: Labour	28	m	26.81	750.88	100%	£	750.88
2.3.47	Window Framing	West elevation -W7	Timber window framing to be assessed for reuse. Where suitable for reuse framing to be sanded to good surface and repointed. Where unsuitable for reuse framing to be removed and replaced with new soft & case windows to match existing	- say 75% of window frames on W7 suitable for reuse - say 25% of window frames on W7 to be replaced	Remove defective windows	2	nr	75.00	150.00	25%	£	37.50
					Allow 1 repair per window	2	nr	50.00	100.00	75%	£	75.00
					Operational repairs to windows retained	2	nr	100.00	216.00	75%	£	162.00
					Clean & paint windows retained	2	m	90.00	180.00	75%	£	135.00
					Slips	1	nr	300.00	300.00	100%	£	300.00
2.3.48	Window panes	West elevation -W7	Assess glazing panels for suitability for reuse. Where unsuitable/missing/broken replace window glazing with new	- say 15% of window panes on W7 to be replaced	Remove defective panes	6	nr	20.00	120.00	15%	£	18.00
					Material; replacement glazing	6	nr	12.00	72.00	15%	£	10.80
					Replace glazing: Labour	6	m	20.00	120.00	15%	£	18.00
					Remove loose sandstone & prepare surface	2	m ²	40.00	80.00	100%	£	80.00
					Finish flush in Lithuanian lime mortar	2	m ²	60.00	120.00	100%	£	120.00
2.3.49	Spalled sandstone to feature edges	West elevation -W7	Assess sandstone feature edges for loose/delaminated sandstone. Where sandstone is brittle/at risk then sandstone edge to be removed and reformed with appropriate mortar	- say 25% of feature edges/cornice to require remedial work	Remove loose sandstone & prepare surface	2	m ²	40.00	80.00	100%	£	80.00
					Finish flush in Lithuanian lime mortar	2	m ²	60.00	120.00	100%	£	120.00
					Remove loose sandstone & prepare surface	2	m ²	40.00	80.00	100%	£	80.00
					Finish flush in Lithuanian lime mortar	2	m ²	60.00	120.00	100%	£	120.00
					Remove loose sandstone & prepare surface	2	m ²	40.00	80.00	100%	£	80.00
2.3.50	Sandstone wall face - missing pointing	West elevation -W7	Repoint sandstone joint - rake out existing loose mortar, prepare joint, repoint with lime mortar to match existing.	- Say 10% of sandstone on face W7 will require repointing	Rake out mortar joints	79	m ²	12.00	948.00	10%	£	94.80
					Repoint mortar joints	79	m ²	15.00	1,185.00	10%	£	118.50
					Remove loose sandstone & prepare surface	2	m ²	40.00	80.00	100%	£	80.00
					Finish flush in Lithuanian lime mortar	2	m ²	60.00	120.00	100%	£	120.00
					Remove loose sandstone & prepare surface	2	m ²	40.00	80.00	100%	£	80.00
2.3.51	Sandstone wall face - delaminated sandstone	West elevation -W7	Assess condition of feature pieces/cornices for loose/delaminated sandstone. Remove large sections of loose sandstone and repair or clean surfaces to provide sound edge. Where large scale delamination has occurred use mortar replacement such as fibronax and for larger areas indent replacement sandstone into block.	- say 2m ² of sandstone to W7 face for fibronax repair	Remove loose sandstone & prepare surface	2	m ²	40.00	80.00	100%	£	80.00
					Finish flush in Lithuanian lime mortar	2	m ²	60.00	120.00	100%	£	120.00
					Remove loose sandstone & prepare surface	2	m ²	40.00	80.00	100%	£	80.00
					Finish flush in Lithuanian lime mortar	2	m ²	60.00	120.00	100%	£	120.00
					Remove loose sandstone & prepare surface	2	m ²	40.00	80.00	100%	£	80.00
2.3.52	Sandstone wall face - vegetation	West elevation -W7	Remove vegetation growth/staining from building face/joints. Clean surface to remove all plant growth/moss/staining.	- say 10% of W7 face	Cut back and remove larger areas of vegetation from wall	79	m ²	10.00	790.00	10%	£	79.00
					Rake out roots from mortar joints	79	m ²	15.00	1,185.00	10%	£	118.50
					Treat with biocidal agent (copper)	79	m ²	15.00	1,185.00	10%	£	118.50
					Screen wash affected area	79	m ²	10.00	790.00	10%	£	79.00
					Repoint joints with lime mortar to match existing	79	m ²	15.00	1,185.00	10%	£	118.50
2.3.53	Gutters	West elevation -W8	remove gutters and assess for reuse. Gutters in suitable condition to be blast cleaned and repainted before refitting to building. Unsuitable gutters to be replaced with new cast iron gutters to match existing.	- Say 75% gutters to be repainted - Say 25% gutters will require replacement	Remove existing gutters	10	m	20.00	200.00	100%	£	200.00
					Blast / Clean & paint gutters retained	10	m	18.00	180.00	50%	£	90.00
					Slips	1	nr	300.00	300.00	100%	£	300.00
					Material; replacement guttering	10	m	50.00	500.00	50%	£	250.00
					Replace gutters: Labour	10	m	26.00	260.00	100%	£	260.00
2.3.54	Downpipes	West elevation -W8	Assess downpipes for reuse. Downpipes in suitable condition to be blast cleaned and repainted. Unsuitable downpipes to be replaced with new cast iron downpipes to match existing.	- Say 25% downpipes to be reused - Say 75% downpipes will require replacement. All downpipes will require new connection brackets to building	Remove existing Downpipes	24	m	20.00	480.00	100%	£	480.00
					Blast / Clean & paint downpipes retained	24	m	18.00	432.00	25%	£	108.00
					Slips	1	nr	300.00	300.00	100%	£	300.00
					Material; replacement downpipes	24	m	140.00	3,360.00	75%	£	2,520.00
					Replace downpipes: Labour	24	m	28.00	674.00	100%	£	674.00
2.3.55	Window Framing	West elevation -W8	Timber window framing to be assessed for reuse. Where suitable for reuse framing to be sanded to good surface and repointed. Where unsuitable for reuse framing to be removed and replaced with new soft & case windows to match existing	- say 75% of window frames on W8 suitable for reuse - say 25% of window frames on W8 to be replaced	Remove defective windows	4	nr	75.00	300.00	25%	£	75.00
					Allow 1 repair per window	4	nr	50.00	200.00	75%	£	150.00
					Operational repairs to windows retained	4	m	100.00	216.00	75%	£	162.00
					Clean & paint windows retained	4	m	90.00	360.00	75%	£	270.00
					Slips	1	nr	300.00	300.00	100%	£	300.00
2.3.56	Window panes	West elevation -W8	Assess glazing panels for suitability for reuse. Where unsuitable/missing/broken replace window glazing with new	- say 15% of window panes on W8 to be replaced	Remove defective panes	12	nr	20.00	240.00	15%	£	36.00
					Material; replacement glazing	12	nr	12.00	144.00	15%	£	21.60
					Replace glazing: Labour	12	m	20.00	240.00	15%	£	36.00
					Remove loose sandstone & prepare surface	2	m ²	40.00	80.00	100%	£	80.00
					Finish flush in Lithuanian lime mortar	2	m ²	60.00	120.00	100%	£	120.00

<https://www.drainageonline.co.uk/above-ground-drainage/guttering/cast-iron-gutter/hot-as-cast-iron-gutter>

2 Nr @ 14m

Spots in S681 includes fittings, and brackets

Spots @ 217

Allow for 1 nr. conservation repair per retained window frame- 16k care

Face frames: check correct operation

Clean undercoat & top coat - 1 man 6hrs @ £15.00 per hour

Propose made double hung sash windows treated wrought softwood (Spots p. 438)

Assumed frames delivered painted & glazed

Based on retained frames above 4 6 panes per frame. Remove glass and clean frame

(£12.00 per pane allowance (inc. putty))

Inc. materials

7.25m x 8m x 58m² + 2m x 8m x 16m² = 726m² total

Inc. materials

Inc. materials

<https://www.drainageonline.co.uk/above-ground-drainage/guttering/cast-iron-gutter/hot-as-cast-iron-gutter>

3 Nr @ 8m

Spots in S681 includes fittings, and brackets

Spots @ 317

Allow for 1 nr. conservation repair per retained window frame- 16k care

Face frames: check correct operation

Clean undercoat & top coat - 1 man 6hrs @ £15.00 per hour

Propose made double hung sash windows treated wrought softwood (Spots p. 438)

Assumed frames delivered painted & glazed

Based on retained frames above 4 6 panes per frame. Remove glass and clean frame

(£12.00 per pane allowance (inc. putty))

2.3.57	spalled sandstone to feature edges	West elevation -WB	Assess sandstone feature edges for loose/delaminated sandstone. Where sandstone is brittle/at risk then sandstone edge to be removed and reformered with appropriate mortar	- say 1% of feature edges/cornice to require remedial work	Remove loose sandstone & prepare surface	14.5	m	80.00	580.00	1%	£	5.84	
					Finish Flush in Lithonax lime mortar	14.5	m	120.00	1,740.00	1%	£	17.40	Ins. materials
2.3.58	Sandstone wall face - missing pointing	West elevation -WB	Repoint sandstone joint - rake out existing base mortar, prepare joint, repoint with lime mortar to match existing.	- Say 5% of sandstone on face WB will require repointing	Take out mortar joints	168	m²	12.00	2,016.00	5%	£	100.80	14.5m x 8m = 116m² + 4.5m x 8m = 32m² = 158m² total
					Repoint mortar joints	168	m²	15.00	2,520.00	6%	£	126.00	
2.3.59	Sandstone wall face - delaminated sandstone	West elevation -WB	Assess condition of feature pieces/cornices for loose/delaminated sandstone. Remove large sections of loose sandstone and repair or clean surfaces to provide sound edge. Where large scale delamination has occurred use mortar replacement such as Lithonax and for larger areas indent replacement sandstone into block.	- say 2m² of sandstone to WB face for lithonax repair	Remove loose sandstone & prepare surface	2	m²	40.00	80.00	100%	£	80.00	Ins. materials
					Finish Flush in Lithonax lime mortar	2	m²	60.00	120.00	100%	£	120.00	
2.3.60	Sandstone wall face - vegetation	West elevation -WB	Remove vegetation growth/staining from building face/joints. Clean surface to remove all plant growth/moss/staining.	- say 10% of WB face	Cut back and remove larger areas of vegetation from built	158	m²	10.00	1,580.00	10%	£	158.00	Ins. materials
					Take out roots from mortar joints	168	m²	15.00	2,520.00	10%	£	252.00	
					Treat with biocidal agent (terraz)	168	m²	15.00	2,520.00	10%	£	252.00	
					Sealers wash affected areas	168	m²	10.00	1,680.00	10%	£	168.00	
					Repoint joints with lime mortar to match existing	168	m²	15.00	2,520.00	10%	£	252.00	
2.3.61	Gutters	West elevation -W10	remove gutters and assess for reuse. Gutters in suitable condition to be blast cleaned and repainted before refitting to building. Unsuitable gutters to be replaced with new cast iron gutters to match existing.	- Say 75% gutters to be repainted - Say 25% gutters will require replacement	Remove existing gutters	31	m	20.00	620.00	100%	£	620.00	https://www.drainageonline.co.uk/above-ground-drainage/guttering/last-iron-gutter/roths-ogee-cast-iron-gutter
					Blast Clean & paint gutters retained	31	m	18.00	558.00	50%	£	279.00	
					Slips	1	nr	300.00	300.00	100%	£	300.00	
					Material, replacement guttering	31	m	50.00	1,550.00	50%	£	775.00	
					Replace gutters, Labour	31	m	26.00	806.00	100%	£	806.00	
2.3.62	Downpipes	West elevation -W10	Assess downpipes for reuse. Downpipes in suitable condition to be blast cleaned and repainted. Unsuitable downpipes to be replaced with new cast iron downpipes to match existing.	- Say 75% downpipes to be reused - Say 25% downpipes will require replacement. All downpipes will require new connection brackets to building	Remove existing Downpipes	12	m	20.00	240.00	100%	£	240.00	1 Nr. @ 6m + 2 Nr @ 3m
					Blast Clean & paint downpipes retained	12	m	18.00	216.00	75%	£	162.00	
					Slips	1	nr	300.00	300.00	100%	£	300.00	
					Material, replacement downpipes	12	m	140.00	1,680.00	75%	£	1,260.00	
					Replace downpipes, Labour	12	m	28.00	336.00	100%	£	336.00	
2.3.63	Window framing	West elevation -W10	Timber window framing to be assessed for reuse. Where suitable for reuse framing to be sanded to good surface and repainted. Where unsuitable for reuse framing to be removed and replaced with new uPVC & case windows to match existing.	- say 75% of window frames on W10 suitable for reuse - say 25% of window frames on W10 to be replaced	Remove defective windows	7	nr	75.00	525.00	75%	£	393.75	
					Allow a repair per window	7	nr	50.00	350.00	75%	£	262.50	
					Operational repairs to windows retained	7	nr	100.00	700.00	75%	£	525.00	
					Clean & paint windows retained	7	nr	90.00	630.00	75%	£	472.50	
					Slips	1	nr	300.00	300.00	100%	£	300.00	
					Material, replacement window	7	nr	620.00	4,340.00	75%	£	3,255.00	
					Install replacement window	7	nr	120.00	840.00	100%	£	840.00	
2.3.64	Window panes	West elevation -W10	Assess glazing panels for suitability for reuse. Where unsuitable/missing/broken replace window glazing with new	- say 5% of window panes on W10 to be replaced	Remove defective panes	21	nr	20.00	420.00	5%	£	21.00	
					Material, replacement glazing	21	nr	12.00	252.00	5%	£	12.60	
					Replace glazing, Labour	21	m	20.00	420.00	5%	£	21.00	
2.3.65	spalled sandstone to feature edges	West elevation -W10	Assess sandstone feature edges for loose/delaminated sandstone. Where sandstone is brittle/at risk then sandstone edge to be removed and reformered with appropriate mortar	- say 1% of feature edges/cornice to require remedial work	Remove loose sandstone & prepare surface	16	m	80.00	680.00	1%	£	6.84	Ins. materials
					Finish Flush in Lithonax lime mortar	16	m	120.00	1,920.00	1%	£	19.20	
2.3.66	Sandstone wall face - missing pointing	West elevation -W10	Repoint sandstone joint - rake out existing base mortar, prepare joint, repoint with lime mortar to match existing.	- Say 5% of sandstone on face W10 will require repointing	Take out mortar joints	156	m²	12.00	1,872.00	5%	£	93.60	16m x 6m = 96m² + 15m x 6m = 60m² = 156m² total
					Repoint mortar joints	156	m²	15.00	2,340.00	6%	£	117.00	
2.3.67	Sandstone wall face - delaminated sandstone	West elevation -W10	Assess condition of feature pieces/cornices for loose/delaminated sandstone. Remove large sections of loose sandstone and repair or clean surfaces to provide sound edge. Where large scale delamination has occurred use mortar replacement such as Lithonax and for larger areas indent replacement sandstone into block.	- say 2m² of sandstone to W10 face for lithonax repair	Remove loose sandstone & prepare surface	2	m²	40.00	80.00	100%	£	80.00	Ins. materials
					Finish Flush in Lithonax lime mortar	2	m²	60.00	120.00	100%	£	120.00	
2.3.68	Sandstone wall face - vegetation	West elevation -W10	Remove vegetation growth/staining from building face/joints. Clean surface to remove all plant growth/moss/staining.	- say 10% of W10 face	Cut back and remove larger areas of vegetation from built	156	m²	10.00	1,560.00	10%	£	156.00	Ins. materials
					Take out roots from mortar joints	156	m²	15.00	2,340.00	10%	£	234.00	
					Treat with biocidal agent (terraz)	156	m²	15.00	2,340.00	10%	£	234.00	
					Sealers wash affected areas	156	m²	10.00	1,560.00	10%	£	156.00	
					Repoint joints with lime mortar to match existing	156	m²	15.00	2,340.00	10%	£	234.00	

2.4 - South Elevation										
Item No.	Work Description	Location	Notes	Ref	Unit	Qty	Rate	Amount	Percentage	Final Amount
2.4.1	Downpipes	South elevation - S1	Assess downpipes for reuse. Downpipes in suitable condition to be blast cleaned and repaired. Unsuitable downpipes to be replaced with new cast iron downpipes to match existing.	-2No. downpipes to be cleaned, painted and resealed. 1 section to be replaced (see 4m long section) downpipe will require new connection brackets to building	refer 01_S1_downpipe					
			Remove existing Downpipes		m	32	20.00	640.00	100%	£ 640.00
			Blind / clean & repaint downpipes retained		m	32	18.00	576.00	87%	£ 601.32
			Flags		m	32	300.00	9,600.00	100%	£ 9,600.00
			Material - replacement downpipes		m	32	150.00	4,800.00	100%	£ 4,800.00
			Replace downpipes Labour		m	32	26.00	832.00	100%	£ 832.00
2.4.2	Sandstone wall face - missing pointing	South elevation - S1	Repoint sandstone joints - rake out existing loose mortar, prepare joints, re-point with lime mortar to match existing.	-say 80% of sandstone faces will require re-pointing						
			Rake out mortar joints		m²	108	12.00	1,296.00	70%	£ 2,587.20
			Point mortar joints		m²	308	15.00	4,620.00	70%	£ 3,234.00
2.4.3	Sandstone wall face - loose blocks	South elevation - S1	Reset sandstone blocks. Remortar joints	-say 15 No. blocks over S1 face	refer 04_E1_typical loose block					
			Remove blocks / clear existing mortar		Nr	20	45.00	900.00	100%	£ 900.00
			Re-bed block in lime mortar		Nr	20	15.00	300.00	100%	£ 300.00
			Point / finish lime mortar joints		Nr	20	10.00	200.00	100%	£ 200.00
2.4.4	Sandstone wall face - delaminated sandstone	South elevation - S1	Assess condition of feature pierce/cornices for loose/delaminated sandstone. Remove large sections of loose sandstone and repair or clean surfaces to provide sound edge. Where large scale delamination has occurred use mortar replacement such as lithomex and for larger areas indent replacement sandstone into block.	- say 5% of sandstone to east elevation (see for lithomex repair) - say 5% of sandstone east elevation face for indent repair						
			Remove loose sandstone & prepare surface		m²	154	40.00	6,160.00	70%	£ 1,232.00
			Finish flush in Lithomex lime mortar		m²	154	60.00	9,240.00	70%	£ 1,484.00
2.4.5	Sandstone wall face - vegetation	South elevation - S1	Remove vegetation growth from building face/joints. Clean surface to remove all plant growth/moss.	- say 20% east elevation building face						
			Cut back and remove larger areas of vegetation from wall		m²	154	10.00	1,540.00	70%	£ 308.00
			Rake out moss from mortar joints		m²	154	15.00	2,310.00	20%	£ 462.00
			Treat with biocidal agent (spray)		m²	154	15.00	2,310.00	20%	£ 462.00
			Steam wash affected area		m²	154	10.00	1,540.00	70%	£ 308.00
			Repoint joints with lime mortar to match existing		m²	154	15.00	2,310.00	20%	£ 462.00
2.4.6	damage to sandstone blocks	South elevation - S1	Replace spalled sandstone blocks where sandstone integrity is compromised	- say 10No. Across east elevation	refer 02_S1_damaged block					
			Remove existing block		Nr	10	25.00	250.00	100%	£ 250.00
			Replacement block materials		Nr	10	100.00	1,000.00	100%	£ 1,000.00
			Bed new blocks into wall using lime mortar		Nr	10	20.00	200.00	100%	£ 200.00
			Point around block with lime mortar		Nr	10	8.00	80.00	100%	£ 80.00
2.4.7	Sandstone crack	South elevation - S1	Minor sandstone cracks. Sandstone to be saw cut to allow installation of threaded stainless steel bars resin bed across crack at 150mm centres. Surface to be made good to match existing.	- say 15 No. x 300mm cracks	refer 03_S1_cracks					
			Rebate / cut-out for threaded bar		Nr	15	25.00	375.00	100%	£ 375.00
			Affix bar and resin		Nr	15	25.00	375.00	100%	£ 375.00
			Finish flush in Lithomex lime mortar		Nr	15	20.00	300.00	100%	£ 300.00
2.4.8	Sandstone crack	South elevation - S1	Sandstone to be saw cut to allow installation of threaded stainless steel bars resin bed across crack at 150mm centres. Surface to be made good to match existing.	- say 5000mm long crack	refers to defect S1.59					
			Rebate / cut-out for threaded bar		Nr	34	25.00	850.00	100%	£ 850.00
			Affa bar and resin		Nr	34	25.00	850.00	100%	£ 850.00
			Finish flush in Lithomex lime mortar		Nr	34	20.00	680.00	100%	£ 680.00
2.4.9	spalled sandstone to feature edges	South elevation - S1	Assess sandstone feature edges for loose/delaminated sandstone. Where sandstone is brittle/at risk then sandstone edge to be removed and reformed with appropriate mortar	- say 5% of feature edges/cornice to require remedial work						
			Rake out mortar joints		m²	11	12.00	132.00	5%	£ 6.60
			Point mortar joints		m²	11	15.00	165.00	5%	£ 8.25
2.4.10	differential settlement	South elevation - S1	Underpinning works to 10m section of foundation. Underpinning to include grapping of the existing building and installation of new RC piers below the existing foundations.	- say 1.5m² pad foundations at 2m centres along length of underpinning	Underpinning proposal to be confirmed by Geotech					
			Excavation to level		m³	164	20.00	3,280.00	100%	£ 3,280.00
			Trench protection		Nr	12	150.00	1,800.00	100%	£ 1,800.00
			Reinforcement bars cages		Nr	12	200.00	2,400.00	100%	£ 2,400.00
			Formwork to pads/slab top		Nr	12	125.00	1,500.00	100%	£ 1,500.00
			In-situ concrete		m³	36	180.00	6,480.00	100%	£ 6,480.00
			Strip formwork		Nr	12	75.00	900.00	100%	£ 900.00
			Backfill with selected excavated materials & compact in layers		m³	164	15.00	2,460.00	100%	£ 2,460.00
			Dispose off-site surplus excavated materials		m³	36	40.00	1,440.00	100%	£ 1,440.00

1 Nr @ 18m + 1 Nr @ 14m

Spans to 568i includes finishes and brackets

11m x 14m + 224m² + 10m x 8m + 80m² = 308m² total

Blocks are within courses hence increase in rate for removal

No materials

No materials

No materials

No materials

No materials

Blocks are within courses hence increase in rate for removal

No materials

16m x 6m + 96m² + 15m x 4m + 60m² = 156m² total

Assume 1.8m to base of foundation. Depth of excavation 3.8 x 1.5 x 1 = 5.7m³ = working area 3.8 x 2 x 1.7 = 12.84m² per pad x 6 pads required each run. Assume hard surfacing.

1.5m² works at per run

Assumed inert

2.4. North Elevation												
2.5.1	spalled sandstone to feature edges	North elevation - N1	Assess sandstone feature edges for loose/delaminated sandstone. Where sandstone is brittle/ris risk then sandstone edge to be removed and reform with appropriate mortar	- say 2.5% of feature edges/cornice to require remedial work								
					Rake out mortar joints	11	m ²	12.00	132.00	3%	£	3.96
					Joint mortar joints	11	m ²	15.00	165.00	3%	£	4.95
2.5.2	Gutters	North elevation - N1	remove gutters and assess for reuse. Gutters in suitable condition to be blast cleaned and repainted before refitting to building. Unsuitable gutters to be replaced with new cast iron gutters to match existing.	- Say 50% gutters to be repaired - Say 50% gutters will require replacement	refer 01_E1_typical gutter.							
					Remove existing gutters	16	m	20.00	320.00	100%	£	320.00
					Blast / clean & paint gutters retained	16	m	14.00	224.00	45%	£	100.80
					Slips	1	nr	300.00	300.00	100%	£	300.00
					Material; replacement guttering	16	m	50.00	800.00	50%	£	400.00
					Reface gutters Labour	16	m	26.00	416.00	100%	£	416.00
2.5.3	Downpipes	North elevation - N1	Assess downpipes for reuse. Downpipes in suitable condition to be blast cleaned and repainted. Unsuitable downpipes to be replaced with new cast iron downpipes to match existing.	- Say 25% downpipes to be reused - Say 75% downpipes will require replacement. All downpipes will require new connection brackets to building	refer 03_E1_Limber framing							
					Remove existing Downpipes	46	m	20.00	920.00	100%	£	920.00
					Blast / clean & paint downpipes retained	46	m	18.00	828.00	25%	£	207.00
					Slips	1	nr	300.00	300.00	100%	£	300.00
					Material; replacement downpipes	46	m	148.00	6,808.00	75%	£	4,806.00
					Reface downpipes Labour	46	m	26.00	1,196.00	100%	£	1,196.00
2.5.4	Window Framing	North elevation - N1	Timber window framing to be assessed for reuse. Where suitable for reuse framing to be sanded to good surface and repainted. Where unsuitable for reuse framing to be removed	- say 50% of window frames on N1 suitable for reuse - say 50% of window frames on N1 to be replaced								
					Remove defective windows	12	nr	75.00	900.00	50%	£	450.00
					Allow 1 repair per window	12	nr	50.00	600.00	50%	£	300.00
					Operational repairs to windows retained	12	m	100.00	1,200.00	50%	£	600.00
					Clean & paint windows retained	12	m	90.00	1,080.00	50%	£	540.00
					Slips	1	nr	300.00	300.00	100%	£	300.00
					Material; replacement windows	12	nr	600.00	7,200.00	50%	£	3,600.00
					Install replacement windows	12	m	120.00	1,440.00	100%	£	1,440.00
2.5.5	Window panes	North elevation - N1	Assess glazing panels for suitability for reuse. Where unsuitable/missing/broken replace window glazing with new	- say 40% of window panes on N1 to be replaced								
					Remove defective panes	24	nr	20.00	480.00	40%	£	192.00
					Material; replacement glazing	24	nr	12.00	288.00	40%	£	115.20
					Reface glazing Labour	24	m	20.00	480.00	40%	£	192.00
2.5.6	Sandstone wall face - missing pointing	North elevation - N1	Repoint sandstone joint - rake out existing loose mortar, prepare joint, repoint with lime mortar to match existing.	- Say 30% of sandstone on face N1 will require repointing								
					Rake out mortar joints	224	m ²	12.00	2,688.00	30%	£	806.40
					Joint mortar joints	224	m ²	15.00	3,360.00	30%	£	1,008.00
2.5.7	Sandstone wall face - loose blocks	North elevation - N1	Repoint sandstone blocks / re-mortar joints	- say 20 No. blocks over N1 face								
					Remove blocks / clear existing mortar	20	nr	45.00	900.00	100%	£	900.00
					Rebed blocks in lime mortar	20	nr	15.00	300.00	100%	£	300.00
					Joint / Re-mortar mortar joints	20	nr	10.00	200.00	100%	£	200.00
2.5.8	Sandstone wall face - delaminated sandstone	North elevation - N1	Assess condition of feature pieces/cornices for loose/delaminated sandstone. Remove large sections of loose sandstone and repair or clean surfaces to provide sound edge. Where large scale delamination has occurred use mortar replacement such as lithomex and for larger areas indent replacement sandstone into block.	- say 1% of sandstone to N1 face for lithomex repair - say 0.5% of sandstone to N1 face for indent repair								
					Remove loose sandstone & prepare surface	154	m ²	40.00	6,160.00	2%	£	123.20
					Finish flush in lithomex lime mortar	154	m ²	60.00	9,240.00	2%	£	1,848.00
2.5.9	Sandstone wall face - vegetation	North elevation - N1	Remove vegetation growth from building face/joints. Clean surface to remove all plant growth/trace.	- say 20% of N1 face								
					Cut back and remove larger areas of vegetation from wall	224	m ²	10.00	2,240.00	20%	£	448.00
					Rake out roots from mortar joints	224	m ²	15.00	3,360.00	20%	£	672.00
					Treat with biocidal agent (facia)	224	m ²	15.00	3,360.00	20%	£	672.00
					Steam wash affected area	224	m ²	10.00	2,240.00	20%	£	448.00
					Repoint joints with lime mortar to match existing	224	m ²	15.00	3,360.00	20%	£	672.00
2.5.10	Sandstone crack to lintel and surrounding blocks	North elevation - N1	Insert angle lintel to be inserted under the existing cracked lintel. Lintel to be prepared, window framing removed and angle inserted supported an existing gaffers to either side of lintel. Lintel and blocks above window frame to have crack stitched using stainless steel threaded rods inserted into blocks and surface made good to match existing	- say 3 No. Location	refer 08_E1_typical cracked lintel							
					Support lintel / remove window	3	nr	100.00	300.00	100%	£	300.00
					Install RSK support under lintel	3	nr	120.00	360.00	100%	£	360.00
					Refit existing window / replacement	3	nr	120.00	360.00	100%	£	360.00
					Making good - re-pointing sealants, etc	3	nr	60.00	180.00	100%	£	180.00
2.5.11	Sandstone crack	North elevation - N1	Minor sandstone cracks. Sandstone to be saw cut to allow installation of threaded stainless steel bars with fixed across crack at 150mm centres. Surface to be made good to match existing	- say 10 No. x 300mm cracks	refer 03_W4_masonry box							
					Drill hole / cut-out for threaded bar	10	nr	25.00	250.00	100%	£	250.00
					Affix bar and resin	10	nr	25.00	250.00	100%	£	250.00
					Finish flush in lithomex lime mortar	10	nr	20.00	200.00	100%	£	200.00
2.5.12	spalled sandstone to feature edges	North elevation - N3	Assess sandstone feature edges for loose/delaminated sandstone. Where sandstone is brittle/ris risk then sandstone edge to be removed and reform with appropriate mortar	- say 2.5% of feature edges/cornice to require remedial work								
					Rake out mortar joints	11	m ²	12.00	132.00	3%	£	3.96
					Joint mortar joints	11	m ²	15.00	165.00	3%	£	4.95

16m x 6m = 96m² + 15m x 4m = 60m² = 156m² total

<https://www.drainageonline.co.uk/above-ground-drainage/guttering/cast-iron-gutter/hotts-quesadame-estate>

1 Nr @ 18m x 2 Nr @ 14m

Spans (x 500) includes firmes, and brackets

Spans @ 217

Allow for 1 nr. conservation repair per retained window frame. 1% rate

Face frames check correct operation

Clean, undercoat & top coat - 1 man 6hrs @ £15.00 per hour

Porosity might double from splash window treated with softwood (Spans p. 438)

Assumed frames delivered painted & glazed

Based on retained frames above 4 gaffers per frame. Remove glass and clean frame. (£12.00 per gaffe allowance inc. outlay)

16m x 14m = 224m²

Blocks are within courses hence increase in rate for removal

Inc. materials

Inc. materials

Inc. materials

Inc. materials

Blocks are within courses hence increase in rate for removal

Inc. materials

Inc. materials

16m x 6m = 96m² + 15m x 4m = 60m² = 156m² total

Appendix B - Block Sketch

