Memorandum

To	Chris Ray, YOO Capital
Copy	Andy Ball, Ian Crossley, Gary Earl
From	Thomas Holt
Office	London
Date	14 January 2025
File/Ref	CW000014 Saville Theatre
Subject	Initial Intrusive Investigations – Observations and Recommendations

1.1 Introduction

Stonewest Limited attended site at the Saville Theatre on Thursday 26th November 2024. Formal instruction for this visit was provided by Mr Chris Ray of Yoo Capital via email on Thursday 21st November 2024. For clarification purposes, the extent of instruction was for Stonewest Ltd to complete initial investigations via visual inspection in agreed areas of exposure to identify any potential steel-frame corrosion issues at the premises in accordance with the previously provided method statement (Reference 42638-01-1, included at **Appendix A**). This report provides a summary of observations and outline recommendations for subsequent action based on the condition of exposed materials at the time of attendance. Photographs are provided which shows the areas of exposure subject to inspection at **Appendix B**.

1.2 Limitations

The report is based on a visual assessment only. It is provided for the Yoo Capital. It may not be used by others without express written permission. Stonewest Limited accepts no liability to third parties who may act on the contents of this report. The inspection relates specifically to the general condition and performance of materials exposed as part of initial investigation works in accordance with provided instructions only. The completed works were considered initial Stage 1 minimally invasive investigations. Exposure works were limited to areas approximately 300x300mm in size, completed in areas of existing damage to a rendered band course atop non-bespoke core brickwork accessible via an existing client provided access tower. We have not inspected other parts or the structure or services which any areas covered, unexposed or inaccessible. We are therefore unable to report that any such part of the building is free from defects. This report does not include an assessment of the structure of the building nor on weathertightness risk. Further investigations and advice should be sought on such matters from suitably qualified Engineers, Professionals or Specialists if so required. The content of this report is private and confidential. The content of this report does not imply responsibility as Principal Designer under the Construction Design and Management (CDM) Regulations 2015.

1.3 Observations

Initial opening-up works were undertaken in the client agreed areas, which were selected given existing damage to finishing materials in locations atop non-bespoke substrate materials - for minimal intrusiveness at this early-stage and to utilise existing access provision. The exposure areas were limited but

investigations completed at the time of attendance revealed structural steelwork subject to a level of corrosion, in areas which correspond with defects visible on the surface of the masonry clad façade. The findings support the existing suggestion from within the Ingram Consultancy Report Ref: 2022-004 that the façade(s) may be subject to potential RSD issues.

1.4 Recommendations

- **This report should be read alongside existing reporting produced by the Ingram Consultancy Ref: 2022-004 which provides a broader understanding of the condition of principal façade elements at the Saville Theatre. Reference can also be given to the Stonewest Ltd Options Appraisal Document Ref: 42629 issued July 2024.**

- Further investigations and opening-up is required to provide a representative understanding of the condition of the steel-frame and confirm whether the premises is subject to *systematic* steel-frame corrosion, colloquially known as Regents Street Disease (RSD). Any subsequent investigations should be focused in areas subject to the recurrent pattern cracking visible across the premise's façade, so as to establish the pathologies causing the defects. The pattern of observed surface cracking in the area and orientation of structural steels is indicative of RSD but further exposure is required to establish categorical evidence.

    - Additional opening-up works should be completed at high-mid-and low-level across multiple areas of pattern cracking where present on relevant façade(s) to ascertain the wider condition of the steel-frame and if this corresponds with the visual evidence from these initial investigations at Phase 1 exposure areas.

        - It is important to confirm the degree of any potential corrosion to the steel frame in other areas of the façade(s), given that the corrosion of steelwork in these initial Phase 1 exposure areas may have been affected by previous potential localised water ingress (to have possibly tracked back from any historically present adjacent canopy or adjoining structures).

    - Further opening up is required to confirm the approach to steel frame treatment and repairs. Additional information is required regarding the extent of any corrosion to the steel-frame, to ascertain the appropriateness for the potential application of cathodic protection (CP) systems; any need for widespread exposure and treatment; or any need for structural alteration should significant deterioration have occurred.

    - Consideration should be given to exposure to enable inspection of at least 1LM of a steel stanchion in each location via the careful removal and reinstatement of the masonry units forming the external envelope. Investigations should be completed in the presence of a suitably qualified Structural Engineer who will provide specification for appropriate steel-treatment to be employed across any subsequent work phases.

    - Measurements should be obtained at the time of any inspection to ascertain the dimension of structural components and the depth of corrosion products present, enabling the Structural Engineer to confirm any level of deterioration and residual structural capacity of subject elements.

Please let us know if you require any further information regarding the above and attached information. We would be pleased to further advise and assist where possible on this project.

Stonewest Limited

Enclosed:

- **Appendix A** – SWL Outline Planning Stage Method Statement.
- **Appendix B** – SWL Post-Investigations Photographic Record.

APPENDIX A

SWL Outline Planning Stage Method Statement

1.0 - THE SAVILLE THEATRE 42638 - OUTLINE STEEL FRAME CORROSION INVESTIGATIONS METHODOLOGY

BUILDING INFORMATION:

THE SAVILLE THEATRE IS A STEEL-FRAMED MASONRY CLAD CONSTRUCTION LOCATED ON SHAFTESBURY AVENUE, BUILT 1930-1931 TO THE DESIGNS OF TP BENNET & SON IN COLLABORATION WITH THE THEATRE ARCHITECT BERTIE CREWE. IT FEATURES A SCULPTURAL FRIEZE AND ROUNDELS BY GILBERT BAYES. THE BUILDING IS GRADE II LISTED (HISTORIC ENGLAND LIST ENTRY NUMBER: 1271631) OWING TO ITS ARCHITECTURAL AND HISTORIC INTEREST.

CURRENT CONDITION:

DOCUMENTATION PROVIDED TO STONEWEST LTD REFERS TO THE 'DECLINING CONDITION' OF THE MASONRY FACADES (REF1). DEFECTS ARE VISIBLE ACROSS MASONRY UNITS TO THE BUILDING, INCLUDING RECURRENT VERTICAL CRACKING IN PROXIMITY TO STANCHIONS AND LONGITUDINAL CRACKING LOCAL TO STRUCTURAL BEAMS - INDICATIVE OF LAMINAR CORROSION TO THE EMBEDDED STEEL-FRAME.

EXISTING DOCUMENTATION:

REFERENCE SHOULD BE MADE TO THE FOLLOWING DOCUMENTATION WHICH HAS BEEN PRODUCED TO DATE, RELATING TO THE CONDITION OF THE MASONRY FACADES AND LIKELY STEEL-FRAME CORROSION AT THE SAVILLE THEATRE:

- **REF-1:** THE INGRAM CONSULTANCY - 2022-004 FACADE CONDITION REPORT, MAY 2022.
- **REF-2:** STONEWEST LTD - 42628 FACADE RESTORATION AND STRUCTURAL REPAIR INITIAL OPTIONS APPRAISAL, JUNE 2024.

INVESTIGATIONS RATIONALE:

FURTHER INVESTIGATIONS ARE RECOMMENDED WITHIN THE INGRAM CONSULTANCY REPORTING, TO HELP CLARIFY THE CONDITION OF THE STEEL-FRAME IN REPRESENTATIVE AREAS - TO FURTHER INFORM THE SCOPE OF THE PROBLEM AND THE REQUIRED REMEDIAL WORKS PRIOR TO FULL SCAFFOLD ERECTION AND ASSOCIATED COSTS. LOCALISED INTRUSIVE INVESTIGATIONS WILL BE BENEFICIAL TO ASCERTAIN THE SECTION-SIZE OF STEEL MEMBERS AND ESTABLISH TO EXTENT TO WHICH LAMINAR CORROSION HAS PROGRESSED.

WE ARE PROPOSING MINIMALLY INVASIVE INVESTIGATIONS ONLY AT THIS STAGE, VIA ACCESS TOWER. THE INVESTIGATION IS LIKELY TO PROVIDE VISUAL EVIDENCE OF STEEL-FRAME CORROSION (OR RSD) ISSUES. THIS WILL INFORM FUTURE APPROACHES TO REPAIR AND ASSOCIATED CONSENT APPLICATIONS.

PROPOSED APPROACH AND INVESTIGATIONS:

STEP 1 INVESTIGATIONS: WE ARE PROPOSING TO EXPOSE STRUCTURAL STEELS FOR INVESTIGATION VIA THE REMOVAL OF INDIVIDUAL BRICK UNITS (ACROSS APPROXIMATE 300X300MM AREAS) TO THE NORTH AND SOUTH OF THE EAST ELEVATION FACING SHAFTESBURY AVENUE. PLEASE REFER TO FIGURE 3 WHICH SHOWS AN EXAMPLE IMAGE OF A PROPOSED LOCATION. THE BRICKWORK IN THE PROPOSED LOCATIONS COMPRISES SIMPLE BACKING BRICK UNITS, LOCATED BEHIND A FORMER RENDERED BAND COURSE. THERE IS EXISTING FAILURE TO THE RENDER IN THIS LOCATIONS EXPOSING THE CORE BRICKWORK.

THESE BACKING BRICKS CAN BE EASILY REINSTATED OR TEMPORARILY INFILLED FOLLOWING THE INVESTIGATION WORKS.

STATUTORY APPROVALS:

NO WORKS ARE TO PROCEED WITHOUT RELEVANT APPROVAL. ALL WORKS ARE TO BE UNDERTAKEN IN LINE WITH THIS METHOD STATEMENT. THIS WORK IS ONLY TO BE UNDERTAKEN BY EXPERIENCED OPERATIVES USED TO WORKING ON HERITAGE ASSETS. WORKS COMMENCEMENT ON SITE WILL NOT BE PERMITTED UNTIL PERSONNEL HAVE BEEN THOROUGHLY BRIEFED, HAVING ATTENDED SITE INDUCTION AND SIGNED METHOD STATEMENT.

METHOD:

TEMPORARY REMOVAL OF MASONRY, EXPOSURE OF STANCHION, VISUAL INVESTIGATION , RECORDING, REPORTING AND CLOSING-UP WORKS.

- ERECTION OF TOWER SCAFFOLD TO ENABLE ACCESS TO RELEVANT AREAS TO BE COMPLETED BY OTHERS. TOWER IS TO BE FREE-STANDING AND WILL NOT DAMAGE THE FABRIC OF THE BUILDING BY TYING-IN.
- THE SITE TEAM IS TO PHOTOGRAPH THE RELEVANT AREA FOR INSPECTION, PROVIDING A RECORD OF CURRENT CONDITION AND ARRANGEMENT PRIOR TO INTERVENTION, TO AID IN REINSTATEMENT FOLLOWING WORKS.
- OPERATIVES ARE TO CAREFULLY RAKE OUT EACH JOINT AND BED OF THE MASONRY UNIT TO RELEASE FROM POSITION, WITH USE OF A MASONRY SAW; FINE CHISELS AND HANDHELD BLADES.
- CARE IS TO BE TAKEN, SO NOT TO DAMAGE EDGES OF UNITS WHICH ARE EASILY CHIPPED.
- UNITS ARE TO BE REMOVED ACROSS PROPOSED AREA FOR INSPECTION FROM TOP, WORKING DOWN. ALL BRICK UNITS ARE TO BE SET ASIDE ON THE SCAFFOLD FOR RE-USE FOLLOWING INSPECTION.
- DUST IS TO BE SUPPRESSED BY AN OPERATIVE WITH A HAND-HELD WATER SPRAYER AND/ OR EXTRACTED WITH THE AID OF A HOOVER TO COLLECT AIR BORNE DUST.
- HARDENED GROUT, CONCRETE OR BACKING INFILL WILL BE REMOVED BY USING HAND TOOLS AND/ OR 110V HANDHELD BREAKERS WHERE REQUIRED. ALL DEBRIS ARISING IS TO BE BAGGED AND AND DISPOSED OF VIA A LICENSED WASTE DISPOSAL COMPANY.
- THE EXPOSED STEEL WILL BE VISUALLY INSPECTED AND PHOTOGRAPHED USING A DIGITAL CAMERA, RECORDING ANY EVIDENCE OF CORROSION ACROSS THE FLANGE AND WEB SO FAR AS ACCESSIBLE. OUTLINE DIMENSIONS FOR THE STEEL MEMBER AND THE BUILD-UP OF CORROSION PRODUCT WILL BE RECORDED.
- REINSTATEMENT WORKS WILL COMMENCE FOLLOWING THE COMPLETION OF INITIAL INVESTIGATIONS. LIME MORTAR AND SALVAGED CORE MATERIALS WILL BE REINSTATED IN THE VOID. BEDDING MORTARS WILL BE LAID AND EACH BRICK UNIT LAID, RECONSTRUCTING THE SMALL AREA OF THE FACADE IN THE REVERSE ORDER AS TO WHEN IT WAS DISMANTLED.

FUTURE WORKS:

CONSIDERATION SHOULD BE GIVEN TO THE UNDERTAKING OF FURTHER INTRUSIVE INVESTIGATIONS TO ENABLE INSPECTION OF AT LEAST 1LM OF A STEEL STANCHION VIA THE CAREFUL REMOVAL AND REINSTATEMENT OF MASONRY UNITS ADJACENT. INVESTIGATIONS SHOULD BE COMPLETED IN THE PRESENCE OF A STRUCTURAL ENGINEER WHO WILL PROVIDE SPECIFICATION FOR APPROPRIATE STEEL-TREATMENT TO BE EMPLOYED ACROSS ANY SUBSEQUENT WORK PHASES. CARE MUST BE TAKEN AS NOT TO DAMAGE AND TO SALVAGE ALL MATERIALS TEMPORARILY REMOVED. DETAILED RECORDING AND PHOTOGRAPHS WILL BE REQUIRED.

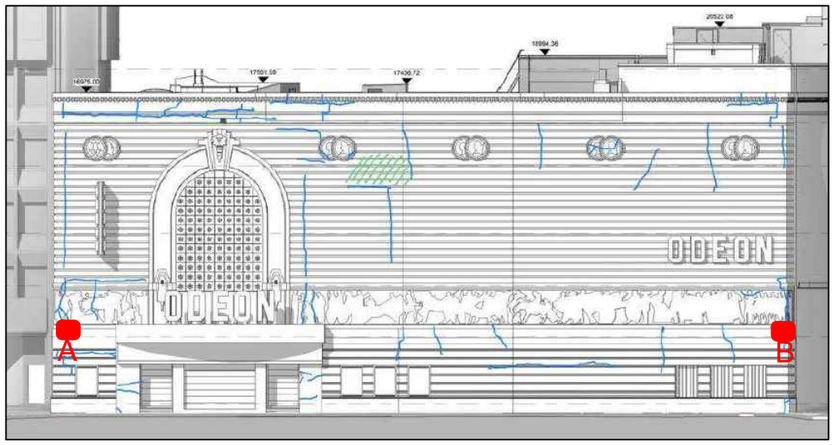

FIG.1 - ANNOTATED ELEVATION DRAWING (INGRAM CONSULTANCY FACADE CONDITION REPORT, 2022).
NOTE: ORIGINAL MARK-UP SHOWING LOCATION OF CRACKING VISIBLE. SWL RED ANNOTATION SHOWS PROPOSED LOCATIONS FOR INITIAL INVESTIGATIONS.

FIG.2 / FIG.3 - STREET-VIEW PHOTOGRAPH OF SUBJECT ELEVATION / CLOSE-UP OF PROPOSED INVESTIGATION AREA A.
NOTE: SWL RED ANNOTATION SHOWS PROPOSED LOCATIONS FOR INITIAL INVESTIGATIONS.

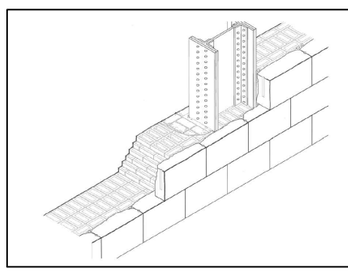

FIG.4 - DRAWING SHOWING INDICATIVE FACADE CROSS-SECTION WITH EMBEDDED STANCHION ENCASED BY MASONRY UNITS (INGRAM CONSULTANCY FACADE CONDITION REPORT, 2022).

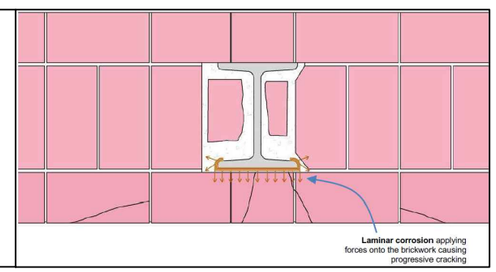

FIG.5 - DRAWING SHOWING LAMINAR CORROSION OF STRUCTURAL STEELS AS A DETERIORATION MECHANISM CAUSING THE FRACTURE OF ADJACENT MASONRY UNITS (INGRAM CONSULTANCY FACADE CONDITION REPORT, 2022).

KEY:
NO KEY APPLICABLE.

	REVISIONS	DATE
-	Planning Stage Issue	10.24

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OUTLINE METHODOLOGY:
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1.0 - THE SAVILLE THEATRE 42638 - OUTLINE STEEL FRAME CORROSION INVESTIGATIONS METHODOLOGY

EXEMPLAR PHOTOGRAPHY AND RECORDING:

COMPREHENSIVE DOCUMENTATION SHOULD BE PRODUCED FOLLOWING ANY INVESTIGATIONS, RECORDING OBSERVATIONS FOR EACH EXPOSURE LOCATION.

THIS SHOULD INCLUDE A PHOTOGRAPHIC RECORD WITH IMAGES (1) BEFORE EXPOSURE (2) AFTER OPENING-UP WORKS - SHOWING THE CONDITION/ ARRANGEMENT OF STEEL MEMBERS AND (3) FOLLOWING CLOSING-UP WORKS - SHOWING THE REINSTATEMENT OF SALVAGED MATERIALS IN ORIGINAL LOCATIONS. SECTIONAL DRAWINGS SHOULD ALSO BE PRODUCED SHOWING THE FACADE MASONRY, BACKING STRUCTURES, STEEL POSITIONS AND ALL RELEVANT DIMENSIONAL INFORMATION.

PLEASE REFER TO FIGURES 7A/B/C FOR EXEMPLAR RECORDS EXTRACTED FROM PREVIOUS REPORTING, WHICH WAS PRODUCED FOLLOWING INVESTIGATIONS ON A SIMILAR STEEL-FRAME CORROSION REMEDIATION PROJECT.

FIG.6 - BEFORE, DURING AND AFTER PHOTOGRAPHS TO BE TAKEN AS PART OF ALL WORKS PROCESSES.

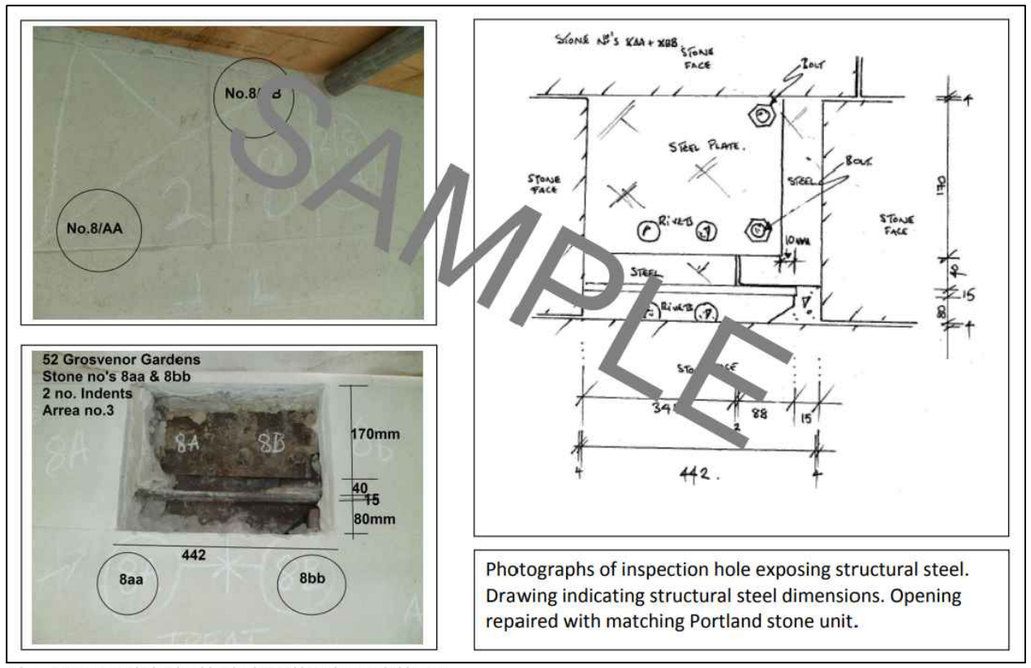

FIG.7A - EXEMPLAR INVESTIGATION LOCATION, SITE RECORDING AND PHOTOGRAPHY

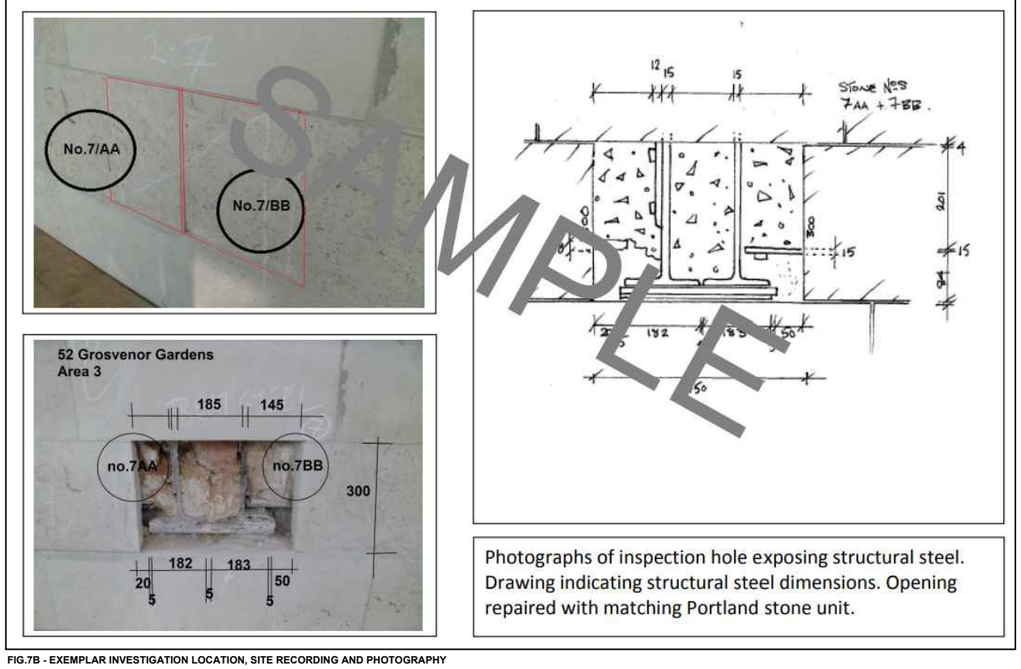

FIG.7B - EXEMPLAR INVESTIGATION LOCATION, SITE RECORDING AND PHOTOGRAPHY

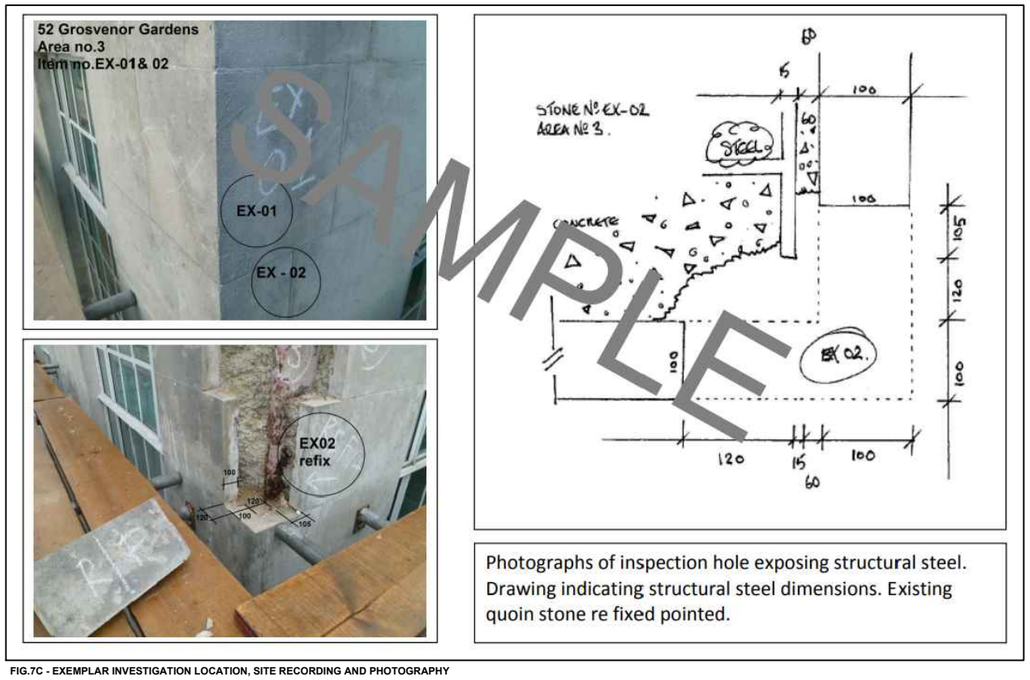

FIG.7C - EXEMPLAR INVESTIGATION LOCATION, SITE RECORDING AND PHOTOGRAPHY

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APPENDIX B

SWL Post-Investigations Photographic Record

APPENDIX B
PHOTOGRAPHS

Photo 1.

Photo 2.

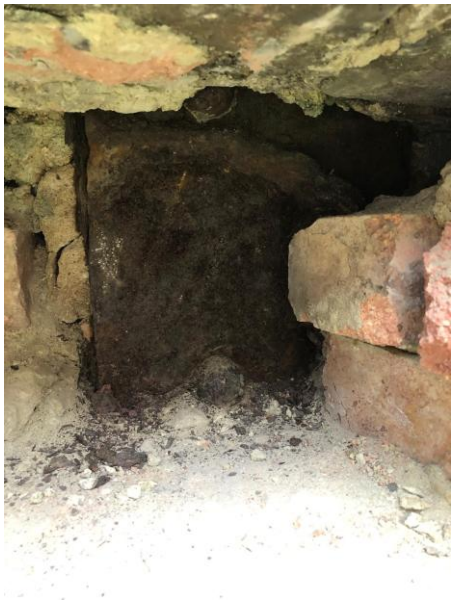

Photo 3.

Photo 4.

Photo 5.

Photo 6.

Photo 7.

Photo 8.

Photo 9.

Photo 10.

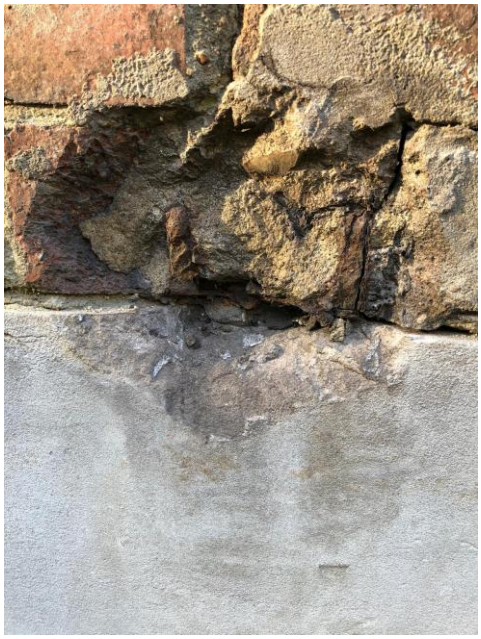

Photo 11.

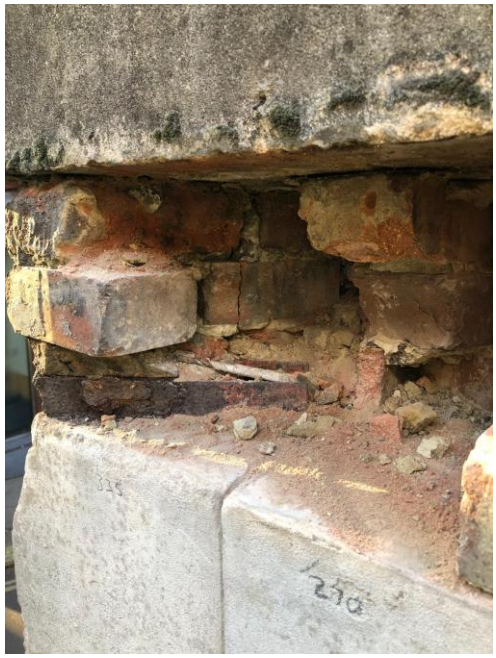

Photo 12.

Photo 13.

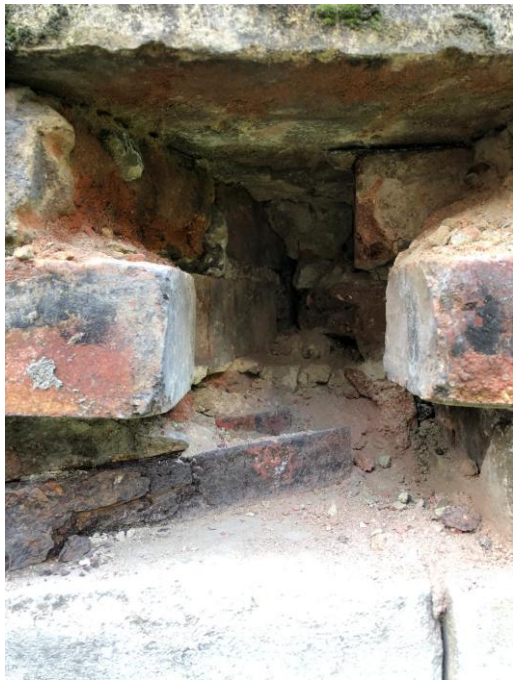

Photo 14.

Photo 15.

Photo 16.