

STRUCTURAL ENGINEER'S REPORT

IN RELATION TO THE PROPERTY AT

**BOREHAM MILL,
BISHOPSTROW ROAD,
WARMINSTER,
BA12 9HQ**



Our ref: **00126-EO-RPT-01**

Date: 15 July 2026

Executive Summary

OCS Civil and Structural Engineers were instructed to carry out a visual, non-intrusive structural inspection of Boreham Mill, Bishopstrow Road, Warminster, BA12 9HQ, in connection with Planning Application Ref. PL/2026/02177 for conversion of the existing commercial/business building to residential use. Wiltshire Council's drainage consultee requested the survey to confirm whether the external walls and wider structure are capable of withstanding standing and moving floodwater, including debris.

The inspection was carried out on Thursday 2 July 2026, and covered the Mill Building and its physically attached later extensions: external elevations, ground to third floors, and the roof void. Detached structures, the external veranda, the concrete/brick apron, riverbank structures, sluices, bridges, the access route and drainage infrastructure fell outside its scope. The undercroft/turbine area could not be inspected, as conditions were unsafe and inaccessible.

The desk study included the Enviren Flood Risk Assessment and Drainage Strategy, Reference 2500351-ENV-S1-SW-TR-C-0001, Revision 1.3, dated 17 June 2026. The FRADS states that the existing minimum ground-floor level is 103.620mAOD. The modelled 0.1% probability flood levels are stated as 103.420mAOD in the defended scenario and 103.430mAOD in the undefended scenario, both of which are below the minimum ground-floor level and are identified in the FRADS as resulting in no flooding of the building. Following application of the additional 300mm freeboard allowance, the corresponding design levels are 103.720mAOD and 103.730mAOD, representing nominal exceedances of approximately 0.100m and 0.110m above the minimum ground-floor level.

The external walls comprise substantial masonry construction, approximately 450mm (18 inches) or greater in thickness at the accessible locations observed, and were generally found to be in good condition. No significant cracking, bulging, leaning, displacement, progressive movement, instability, scour or undermining was observed to the accessible external or river-facing elevations. Internally, timber floor joists are supported on steel beams, which in turn bear into the external masonry walls and onto intermediate cast iron columns. The floor structures provide lateral restraint and contribute to the overall structural integration of the external walls. The cast iron columns form part of the internal gravity-load support system but are not considered to be a controlling element in the flood appraisal of the substantial external masonry walls. The later steel-framed loading bay extension was also observed to be in good structural condition.

No visible defects were identified that would materially reduce the ability of the Mill Building, including its physically attached later extensions, to withstand the flood actions identified in the FRADS. In our professional opinion, the building is of sufficiently robust construction for the purpose of addressing the structural survey requirement raised in the planning/drainage comments. No further structural investigation is considered necessary for this purpose.

1. Instruction

OCS Civil and Structural Engineers were instructed by the Client to undertake a non-intrusive structural inspection and prepare a structural report in relation to Boreham Mill, Bishopstrow Road, Warminster, BA12 9HQ.

The report has been prepared in connection with Planning Application Ref. PL/2026/02177 for the proposed conversion of the existing commercial/business use building into residential accommodation.

We understand that Wiltshire Council's drainage consultee has requested a structural survey of the building to assess the suitability of the external walls and the wider structure, and to confirm whether the building is of sufficient construction to withstand standing and moving floodwaters, with associated debris.

The purpose of this report is therefore to provide a professional structural engineering opinion, based on inspection and the information available, on whether the Mill Building is structurally robust in the context of the flood actions identified by the flood-risk consultant.

The following documents and information were reviewed as part of the desk study:

- Enviren Ltd, Flood Risk Assessment and Drainage Strategy (FRADS), Boreham Mill, Warminster, Reference 2500351-ENV-S1-SW-TR-C-0001, Revision 1.3, dated 17/06/2026.
- Enviren Ltd, Flood Risk Appraisal, Wessex College, Boreham Mill, Reference 2500213-ENV-S1-SW-TR-C-0001, Revision 1.2, dated 03/07/2025.
- Existing architectural drawings and site information provided by the Client.
- Planning correspondence provided by the Client in relation to Wiltshire Council's drainage/flood-risk comments.
- Client-provided background information regarding the history, construction and use of the Mill Building.

The Enviren FRADS Revision 1.3 dated 17/06/2026 has been treated as the current flood-risk document for the purpose of this structural appraisal. The earlier 2025 Flood Risk Appraisal has been treated as superseded background information only.

2. Scope of Inspection

The inspection was undertaken on Thursday 02 July 2026 by Eric Ojjerro BEng (Hons), CEng, MStructE.

The inspection was visual and non-intrusive. It was undertaken to assess the structural condition and robustness of the Mill Building, with particular reference to the external walls, overall loadbearing structure and the building's ability to withstand standing and moving floodwaters with associated debris, based on the flood-risk information provided by others.

The inspection included, where safely and reasonably accessible:

- external elevations;
- ground floor;
- first floor;
- second floor;
- third floor;
- roof void;
- external masonry walls;
- river-facing elevations;
- accessible internal structural elements;
- floor structures and primary support lines where visible;
- later physically attached extensions.

The inspection did not include opening-up works, trial pits, removal of finishes, exposure of concealed members, exposure of foundations, material testing, drainage CCTV survey, intrusive investigation, laboratory testing or structural monitoring.

3. Limitation

This report has been prepared for the sole benefit of the Client and for submission to the project team and, where appropriate, Wiltshire Council in connection with Planning Application Ref. PL/2026/02177. It should not be relied upon by any other party, or for any other purpose, without the prior written agreement of OCS Civil and Structural Engineers.

The report is based on a non-intrusive inspection only. No opening-up works, trial pits, foundation inspections, material testing, structural calculations, intrusive investigations, laboratory testing, drainage CCTV surveys or monitoring works were undertaken.

The undercroft/turbine area was not inspected due to unsafe and inaccessible conditions. This limitation should be noted. However, no visible evidence was observed elsewhere during the inspection to suggest that the inaccessible undercroft/turbine area is causing structural distress, undermining, movement or instability to the Mill Building.

This report does not constitute a full building survey, valuation survey, building fabric condition survey, flood-risk assessment, drainage report, safe access/egress assessment, flood emergency plan, waterproofing design, flood-resilience certification or detailed structural design package.

The flood depth, flood velocity, flow direction, design flood event, climate change allowance, flood return period and debris assumptions have been taken from information prepared by others, principally the Enviren FRADS. These flood-risk parameters have not been independently derived, verified or modelled by OCS Civil and Structural Engineers.

This report does not include hydraulic modelling, flood modelling, flood mapping, verification of flood velocity assumptions, debris-impact calculations, hydrostatic pressure calculations, hydrodynamic pressure calculations or assessment of safe access and egress during flood events.

The professional opinion expressed in this report is based on the visible condition of the Mill Building at the time of inspection and the information available at the time of reporting. It should not be interpreted as a guarantee, warranty or certification of flood performance, nor as confirmation that damage will not occur during any future flood event.

4. Inspection

A structural inspection was undertaken on Thursday 02 July 2026 by an experienced chartered structural engineer.

The weather and access conditions were sufficient to allow an inspection of the principal accessible parts of the Mill Building. The inspection included the external elevations, ground floor, first floor, second floor, third floor and roof void.

The undercroft/turbine area was not inspected, as access was considered unsafe and impracticable at the time of the visit.

The inspection focused on identifying whether there were visible defects, weaknesses, instability, movement, degradation, scour, undermining or other structural issues that could materially reduce the ability of the Mill Building to withstand the flood actions identified by the flood-risk consultant.

The external elevations were inspected for evidence of cracking, bulging, leaning, displacement, open joints, defective masonry, defective lintels, movement, settlement, scour, undermining or other visible signs of structural distress.

The internal inspection considered the visible structural arrangement, including floor construction, primary beams, load paths, masonry walls, cast iron columns, steel support elements and the interaction between the floor structures and the external walls.

Photographic records of the inspection are included in Appendix A.

5. General Description

Boreham Mill is a substantial former mill building located at Bishopstrow Road, Warminster, BA12 9HQ, adjacent to the River Wylde.

The building is understood to date from 1886 and to have been constructed originally as a purpose-built flour mill. The building has subsequently been converted and used as office accommodation.

The Mill Building comprises a substantial multi-storey masonry structure with later physically attached extensions. The main external walls are formed in robust masonry construction and were observed to be approximately 450mm (18 inches) or greater in thickness at the accessible locations inspected.

Internally, the floor construction generally comprises timber floor joists, closely spaced and supported by steel beams. The steel beams bear into and are supported by the external masonry walls and by intermediate cast iron columns. This arrangement provides defined vertical load paths through the building and also provides floor plates which act to restrain the external walls.

A later attached steel-framed/loading bay extension is present and forms part of the physically attached building fabric inspected under this appointment.

The Enviro FRADS identifies that the current planning proposal relates to the conversion of the existing office building to up to 6 dwelling units. The FRADS classifies the existing use as "Less Vulnerable – Buildings used for professional services" and the proposed residential use as "More Vulnerable – Dwellings".

The FRADS identifies that the site is approximately 0.245 hectares in size and is affected by fluvial, groundwater and reservoir flood-risk considerations. The FRADS states that the site is partially situated within Flood Zones 2 and 3; however, the proposed building footprint is identified as lying

within Flood Zone 1. It also records high groundwater flood risk, medium reservoir flood risk, very low surface water flood risk and very low sewer flood risk.

For the purposes of this structural appraisal, the FRADS states that the existing minimum ground-floor level is 103.620mAOD. The modelled 0.1% probability flood levels are stated as 103.420mAOD in the defended scenario and 103.430mAOD in the undefended scenario, both of which are below the existing minimum ground-floor level and are identified in the FRADS as resulting in no flooding of the building. Following application of the additional 300mm freeboard allowance, the corresponding design levels are 103.720mAOD and 103.730mAOD. These represent nominal exceedances of approximately 0.100m and 0.110m above the existing minimum ground-floor level.

6. Observations and Discussion

6.1. External Masonry Walls and Elevations

The external masonry walls to the Mill Building were observed to be substantial, robust and generally in good condition.

The external walls were observed to be approximately 450mm (18 inches) or greater in thickness at the accessible locations inspected. This wall thickness is materially greater than typical modern cavity wall construction and is consistent with the building's original industrial/mill use.

No significant cracking, bulging, leaning, displacement, distortion, progressive movement or structural instability was observed to the external masonry walls during the inspection.

The masonry appeared generally sound, continuous and well bonded. The elevations inspected did not show signs of significant open joints, widespread masonry deterioration, friable brickwork or loss of structural integrity.

The river-facing elevations appeared structurally sound and continuous, with no visible signs of weakness, instability or movement that would materially reduce their ability to resist floodwater action.

No evidence of scour, undermining, settlement, localised washout, foundation distress or loss of support was observed to the accessible external wall bases during the inspection.

On this basis, the external walls are considered to provide substantial mass, continuity and robustness when considered in relation to the shallow flood depths identified at the building in the FRADS.

6.2. Internal Structural Arrangements and Load Paths

Internally, the Mill Building was observed to comprise timber floor joists, closely spaced and supported on steel beams. The steel beams are supported by and built into the substantial external masonry walls and are also supported by intermediate cast iron columns.

The internal floor structures appear to form robust floor plates at each level. These floor plates provide lateral restraint and contribute to the overall structural integration and stability of the external walls.

The vertical load path through the building is clear, with loads being transferred from the floors into the steel beams, external masonry walls and internal support columns.

The cast iron columns were noted as internal vertical support elements. They are part of the internal structural fabric and contribute to gravity load support. However, they are not considered to be a

controlling factor in the assessment of the external masonry walls' ability to resist shallow floodwater action, moving water or debris impact. The primary flood-resilience appraisal is governed principally by the robustness and continuity of the substantial external masonry walls, the restraint provided by the floor plates, and the absence of observed structural defects.

No visible defects were observed internally that would suggest structural weakness, instability or lack of integrity in the principal load paths.

6.3. Later Attached Extension

The later physically attached extension/loading bay area was inspected where accessible.

The steel-framed/loading bay extension appeared to be in good structural condition. No significant cracking, movement, corrosion, distortion, instability or other visible structural defects were observed that would materially affect the flood-resilience appraisal.

The later attached elements do not appear to compromise the structural robustness of the main Mill Building. Where attached to the original structure, no visible signs of significant differential movement or structural distress were observed.

6.4. Undercroft/Turbine Area

The undercroft/turbine area was not inspected due to unsafe and inaccessible conditions at the time of the site visit.

This is a limitation of the inspection. However, no visible signs of distress, movement, cracking, settlement, scour, undermining or instability were observed in the accessible areas of the Mill Building which would suggest that the inaccessible undercroft/turbine area is adversely affecting the structural integrity of the building.

On the basis of the accessible inspection, the inability to inspect the undercroft/turbine area does not alter the overall professional opinion expressed in this report.

6.5. Appraisal Against Standing Floodwater

The Enviren FRADS states that the modelled 0.1% probability flood levels in the defended and undefended scenarios remain below the existing minimum ground-floor level and are identified as resulting in no flooding of the building. Following application of the additional 300mm freeboard allowance, the corresponding design levels nominally exceed the existing minimum ground-floor level by approximately 0.100m and 0.110m respectively.

For standing floodwater of this depth, the principal structural consideration is the ability of the external walls to resist low-level hydrostatic pressure and remain stable without evidence of weakness, movement, deterioration or loss of support.

The external masonry walls are substantial, approximately 18 inches or greater in thickness, and were observed to be in good condition. No visible signs of structural instability, progressive movement, undermining, significant cracking or loss of wall integrity were observed.

In our professional opinion, the external masonry walls are sufficiently robust to withstand the standing floodwater depths identified at the building in the FRADS.

6.6. Appraisal Against Moving Floodwater

The ability of a structure to withstand moving floodwater depends on the magnitude of flow, depth, velocity, duration, direction, debris loading and the condition and robustness of the structure. The derivation of flood velocity, flow path and hydraulic conditions is outside the scope of this structural report and remains a matter for the flood-risk consultant.

From a structural perspective, the Mill Building is a substantial former industrial masonry structure, with thick external walls and restrained floor plates. The visible external walls and internal load paths do not show evidence of weakness, instability or structural deterioration that would materially reduce the building's ability to resist moving floodwater at the levels identified in the FRADS.

The river-facing elevations were observed to be sound and continuous, and no visible undermining or scour was observed at the accessible wall bases.

On this basis, and subject to the flood-risk parameters provided by others, the Mill Building is considered sufficiently robust to withstand the moving floodwater actions identified for the building in the FRADS.

6.7. Appraisal Against Associated Debris

The debris-impact component has not been assessed by calculation. The nature, size, velocity and impact energy of debris have not been defined as part of this appointment and remain matters associated with the flood-risk/hydraulic assessment.

However, based on the structural inspection, the Mill Building comprises substantial masonry external walls, robust floor plates and defined load paths. The external masonry walls were found to be in good condition and free from visible defects that would materially reduce their resistance to localised impact or flood-related loading.

No structurally vulnerable areas were observed to the external walls that would materially reduce the ability of the Mill Building to withstand debris associated with the flood conditions identified in the FRADS.

6.8. Overall Discussion

The Mill Building is a substantial former industrial building originally constructed for mill use. The structural form observed on site is consistent with a robust building of significant mass and stiffness.

The principal structural features relevant to the flood-resilience appraisal are:

- substantial external masonry walls of approximately 18 inches or greater thickness;
- sound and continuous external elevations;
- absence of significant cracking, bulging, leaning, displacement or progressive movement;
- absence of visible scour, undermining or settlement;
- robust internal floor plates providing restraint to the external walls;
- clear vertical and horizontal load paths through the building;
- later physically attached extensions observed to be in good structural condition.

Based on the inspection, no visible defects were identified that would materially reduce the ability of the Mill Building to withstand the standing and moving floodwaters with associated debris identified by the flood-risk consultant.

No further structural investigation is considered necessary for the purpose of responding to the structural survey requirement raised in connection with the planning/drainage comments.

7. Conclusion

The external masonry walls were observed to be substantial, robust and generally in good condition. They were found to be approximately 450mm (18 inches) or greater in thickness at the accessible locations inspected. No significant visible cracking, bulging, leaning, displacement, progressive movement, instability, scour, undermining or structural weakness was observed.

The internal structure was observed to comprise timber floor joists supported on steel beams, with the beams supported by the external masonry walls and intermediate cast iron columns. The floor structures form robust floor plates which provide restraint to the external walls and contribute to the overall stability and robustness of the building.

The later physically attached steel-framed/loading bay extension was observed to be in good structural condition, with no visible defects that would materially affect the flood-resilience appraisal.

The undercroft/turbine area was not inspected due to unsafe and inaccessible conditions. However, no visible evidence was observed elsewhere within the accessible parts of the building to suggest that this inaccessible area is adversely affecting the structural integrity of the Mill Building.

Based on the visual, non-intrusive inspection and subject to the flood-risk parameters, assumptions and limitations set out in the Enviren FRADS, no visible structural defects were identified that would materially reduce the ability of the Mill Building to withstand the flood actions identified for the building, including standing and moving floodwaters with associated debris.

In our professional opinion, the Mill Building, including the physically attached later extensions, is of sufficiently robust construction to withstand the flood actions identified for the building in the flood-risk information provided by others.

No further structural investigation is considered necessary for the purpose of responding to the structural survey requirement raised in connection with the planning/drainage comments.

This conclusion is provided as a non-intrusive professional structural appraisal for planning purposes. It is not a guarantee, warranty or certification of flood performance, nor does it confirm that damage could not occur during any future flood event.

We trust this provides you with sufficient information for your needs but if you have any queries or require further clarification, please do not hesitate to contact us.

Yours sincerely,

For OCS Civil and Structural Engineers



**Eric Ojjerro BEng (Hons), CEng, MStructE
Director**

Appendix A: Structural Inspection Record Photographs



Photograph 01 Boreham Mill, Bishopstrow Road, Warminster, BA12 9HQ



Photograph 02 Boreham Mill, Bishopstrow Road, Warminster, BA12 9HQ



Photograph 03

Boreham Mill, Bishopstrow Road, Warminster, BA12 9HQ



Photograph 04

Boreham Mill, Bishopstrow Road, Warminster, BA12 9HQ



Photograph 05

Boreham Mill, Bishopstrow Road, Warminster, BA12 9HQ



Photograph 06

Boreham Mill, Bishopstrow Road, Warminster, BA12 9HQ



Photograph 07

Boreham Mill, Bishopstrow Road, Warminster, BA12 9HQ



Photograph 08

Boreham Mill, Bishopstrow Road, Warminster, BA12 9HQ



Photograph 09

Boreham Mill, Bishopstrow Road, Warminster, BA12 9HQ



Photograph 10

Boreham Mill, Bishopstrow Road, Warminster, BA12 9HQ



Photograph 11

Boreham Mill, Bishopstrow Road, Warminster, BA12 9HQ



Photograph 12

Boreham Mill, Bishopstrow Road, Warminster, BA12 9HQ



Photograph 13

Boreham Mill, Bishopstrow Road, Warminster, BA12 9HQ



Photograph 14

Boreham Mill, Bishopstrow Road, Warminster, BA12 9HQ



Photograph 15

Boreham Mill, Bishopstrow Road, Warminster, BA12 9HQ



Photograph 16

Boreham Mill, Bishopstrow Road, Warminster, BA12 9HQ