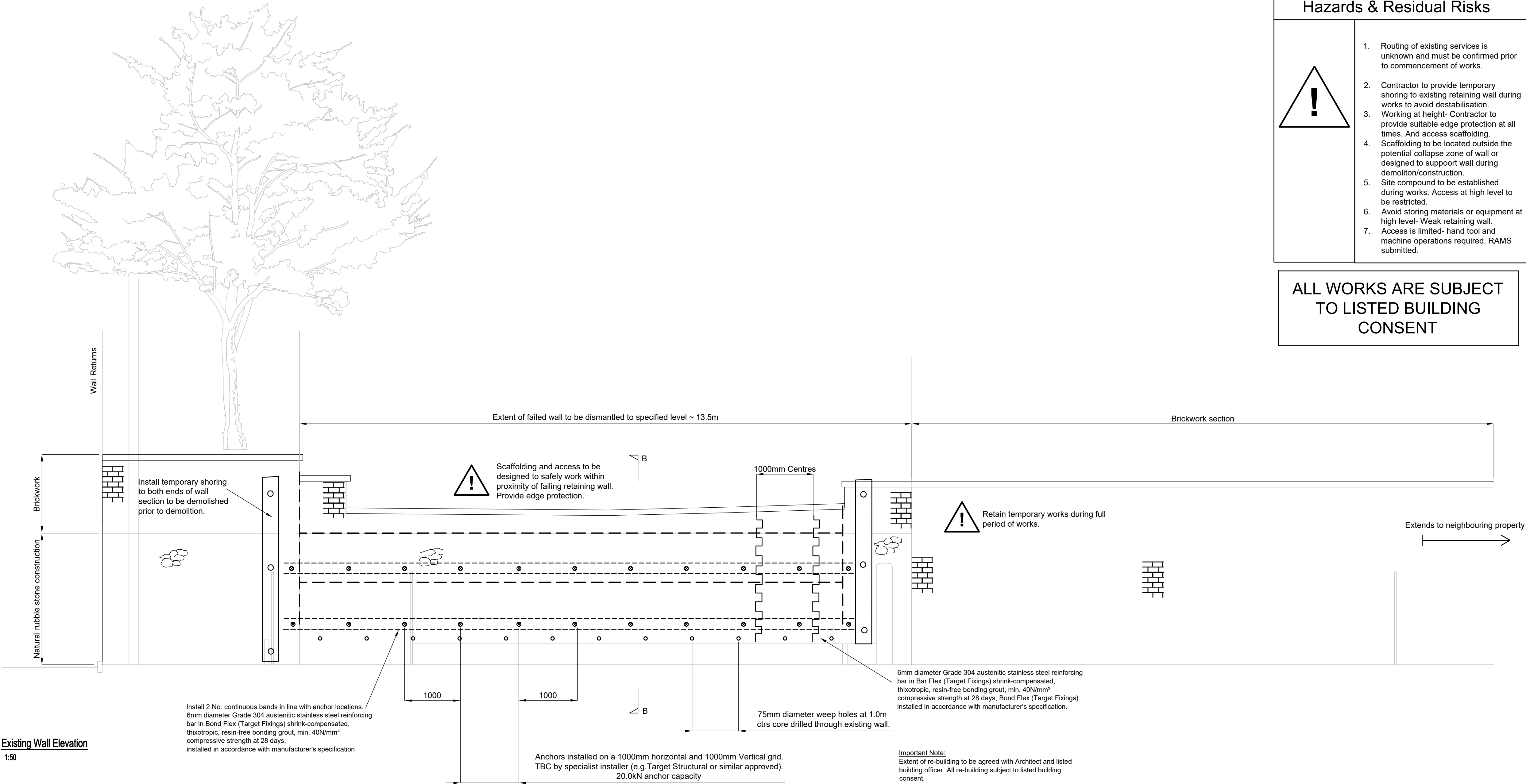




Existing Wall Elevation
1:50

SCOPE OF WORKS

13.5m section of the existing stone retaining wall shall be carefully taken down and rebuilt with the introduction of strengthening works. The new wall shall blockwork backing wall and natural stone facing, constructed in accordance with this specification.

1. BLOCKWORK BACKING WALL

- 1.1 Materials
 - Dense concrete blocks minimum 1800 kg/m³ / 7.3N compressive strength
 - Mortar designation (ii) / M6 in accordance with BS EN 998-2
 - Movement joints: 12mm wide at 6m centres maximum (see plan for locations)
- 1.2 Construction
 - Blockwork to be built in stretcher bond with fully filled perpend and bed joints.
 - Horizontal bed joints in line with heli pile ties to have 6mm Bar Flex introduced within bed joint across full width of repaired walls and projecting 450mm into existing stone retaining wall at junction. Installed following Target Structural (or similar approved) specification and details.
 - Heli-Piles installed on a 600 x 600 vertical x horizontal centre to a depth required to reach a minimum 11.5kN. Installation to be coordinated with the re-building of wall and placement of horizontal Bar Flex.
 - Block courses to align with stone facing courses to match existing.

3. LIME MORTAR SPECIFICATION

- 3.1 Mix Design
 - Mix ratio: 2:5 (2 parts NHL 3.5 lime : 5 parts sand)
 - Lime: Natural Hydraulic Lime NHL 3.5 to BS EN 459-1
 - Sand: Balanced mix of soft and coarse sand to show texture in final appearance
 - Sand to be well graded, clean, and free from deleterious materials
- 3.2 Mixing and Application
 - Mortar to be mixed in small batches for use within 2 hours
 - Joints to be dampened with fine mist of water before pointing
 - Pointing mortar to be finished slightly proud then brushed/tapped back using stiff brush
 - Final finish to match texture and colour of surrounding original work

2. NATURAL STONE FACING

- 2.1 General Requirements
 - The original masonry style and appearance shall be carefully observed and matched when rebuilding the wall. All stonework shall be carried out by a suitably experienced stonemason with proven experience in the repair of historic walls and the use of lime mortars.
- 2.2 Stone Selection
 - Preferably reuse original stone from the dismantled sections, at least for face stones
 - Any new stones shall match the original in type, size, colour, and texture
 - New stones shall be mixed and blended with the old to avoid obvious demarcation lines
 - Stones to be laid on natural bed with appropriate horizontal bedding
- 2.3 Tying to Blockwork
 - Stone facing to be tied to blockwork backing using stainless steel Type 1 wall ties
 - Ties at maximum 450mm vertical centres and 450mm horizontal centres
- 2.4 Wall Core
 - Core to be fully packed with mortar and packing stones
 - No loose rubble fill permitted
 - Pinning stones to be inserted in wider joints where appropriate
- 2.5 Freestanding wall and coping
 - Re-use salvaged brickwork where possible supplementing with supplementary bricks matched to the existing as agreed by the conservation officer.
 - Re-lay bricks in NHL3.5 Lime and sand mortar colour matched with the existing
 - Original coping stones to be carefully salvaged and relaid where condition permits
 - New coping stones to match existing where replacement required
 - DPC to be provided beneath coping
 - Copings to be bedded on full mortar bed with fully filled joints between

4. CURING AND PROTECTION

- Freshly pointed areas to be protected from rapid drying, frost, and rain for minimum 3-7 days
- Protection: thin polythene and/or two layers of damp hessian held firmly in place
- No lime mortar works to be carried out in temperatures below 5°C or above 30°C
- Ensure slow consolidation of mortar rather than rapid set

5. CONSTRUCTION SEQUENCE

- Adapt scaffold propping locally to allow works to be completed in 4 separate phases/ lifts. Scaffolding to be designed to provide support to wall during construction. Details to contractors specification and specialist scaffold designer.
- Install temporary propping/support to adjacent sections of wall to contractors' temporary works designers details.
- Carefully dismantle section, salvaging stone/brickwork and coping for reuse. Number and photograph stones if necessary to aid reinstatement.
- Excavate to the rear of the wall from high level with a long reach excavator avoiding surcharging existing and neighboring walls.
- Construct blockwork backing wall.
- Build stone facing with ties to blockwork, packing core as work proceeds.
- Backfill with clean stone and install weep holes.
- Install DPC and bed coping stones.
- Protect and cure. Remove temporary works when fully cured.

6. QUALITY CONTROL AND INSPECTIONS

- All stonework to be carried out by experienced stonemason with proven track record in historic wall repairs
- Final inspection upon completion by competent person
- Rebuilt stonework shall blend with surrounding wall in texture, colour, and finish

7. NOTES

Party Wall: Where applicable, Party Wall Agreement to be in place before commencement of works.

CDM 2015 Hazards & Residual Risks



- Routing of existing services is unknown and must be confirmed prior to commencement of works.
- Contractor to provide temporary shoring to existing retaining wall during works to avoid destabilisation.
- Working at height- Contractor to provide suitable edge protection at all times. And access scaffolding.
- Scaffolding to be located outside the potential collapse zone of wall or designed to support wall during demolition/construction.
- Site compound to be established during works. Access at high level to be restricted.
- Avoid storing materials or equipment at high level- Weak retaining wall.
- Access is limited- hand tool and machine operations required. RAMS submitted.

ALL WORKS ARE SUBJECT
TO LISTED BUILDING
CONSENT

Notes

1. All works are to comply with current Building Regulations and relevant codes of practice

2. This drawing is to be read in conjunction with all relevant Architect's drawings and Engineer's detailed specifications.

3. This drawing is not to be scaled

4. The contractor shall be responsible for the design, fabrication, erection and removal of all temporary works and shall provide all temporary bracings and back-propping necessary to maintain structural stability during construction

5. Care should be taken to ensure that existing structures e.g. foundation, road, boundary walls and buildings are not undermined. Temporary works to contractors details and method statement.

6. For full set of notes refer to Structural Specification

7. Mesh Engineering is not appointed as the Principal Designer under CDM Regulations and these duties are assumed to be carried out by the Principal Contractor

CDM Residual Risks & Hazards

See project specific Mesh Engineering Ltd Specification document for CDM residual risks and hazards.

Project specific hazards are indicated on this drawing by an exclamation mark within a triangle adjacent box notes.

General notes :-

See notes above.

Preliminary Issue	P1	SL	06.07.26
Revisions	Ref	Initial	Date



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Client

IVO STOURTON

Description

Retaining Wall Repairs
and Strenghtening

Project

Bratton House
Bratton
Wiltshire, BA13 4RN

Drawing status	Reinf. Schedule No.s		
PRELIMINARY	NA		
Scale at A1	Scale at A3	Drawn by	Checked by
As shown	½ Shown	SL	MJ
Date	Project number	Drawing No.	Rev.
JULY 26	26-082	X04	P1