

Proposed Residential Development Waterloo Street Bidulph

Structural Statement principal structural works to enable Retention of the existing walls along Barngate Street and Waterloo Street.

1. Scope.

I undertook a visual inspection of the existing Slimma factory Building at Waterloo Street Bidulph in December 2012. This statement provides my recommendation on principal items of structural work that will be necessary in order to retain portions of existing elevation walls along Waterloo Street and Langford Street as shown on Architect drawing 1600 (alternative). The existing elevations are generally high single brick walls with high sills and arched heads. The walls are buttressed by existing steel frames floors and roofs. The elevation walls contain corbelled brick projection bands and features above high window heads.

2. Factory Demolition Stage

- A. Verify location of all existing utilities in footpaths, protect services. Arrange footpath diversion and partial road closure, all to Highway consent.
- B. Underpin both walls to the same depth as proposed foundations. Allow approximately 71m x min 900mm deep x min 750 wide.
- C. Construct 2.8m high retaining wall 15m length along basement wall adjacent to proposed area parallel with Block 1. Alternatively allow for raking shores 44m prior to ground remodelling.
- D. Block all openings with cross braces.
- E. Provide Raking shores, and kentledge (counterweight blocks) along Barngate and Waterloo footpaths.
- F. Prop existing roof beams. Carefully cut existing connections and bearings onto the walls. Hand demolish remainder of factory building in vicinity of to be retained walls, or undertake specialist demolition procedure.

.3. Construction stage.

- A. Repair bulged low level brick work along Barngate Street approximately 15mx 1.5m
- B. Allow DPC injunction.
- C. Repair loose and damaged brick projections and corbels, clear out all vegetation around projection and gutters.
- D. Provide Lateral restraint beam horizontal say 203x133x30 71 m at current roof level. Provide M10 resin anchor fixings into existing brickwork at 45mm horizontal centres.
- E. Provide framing or buttressing masonry at approximately 4m centres approximately 6m high. Provide resin anchor fixings at 45mm vertical centres.
- F. Needle and prop and provide steel beams over existing arched head windows 26 number approx 2.2m long say 3 no 203x102 per opening.
- G. Repair replace frost damaged and decayed bricks, particularly at projecting and corbelled features. Allow resin dowelling approximately 20% of window head feature bands.
- H. Construct and tie in new buildings to existing walls.
- I. Remove temporary raking shoring. Make good connections to walls and ground surfaces.

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For and on behalf of ARJ Associates Ltd

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