

MW Consult Ltd

Civil & Structural Engineering Consultancy

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GENERAL SPECIFICATIONS

ALL UNSPECIFIED LEVELS AND SETTING OUT SHALL BE AS PER THE ARCHITECTURAL DRAWINGS AND CONFIRMED BY THE CONTRACTOR.

THE EXISTING FOUNDATIONS ARE ASSUMED TO BE ADEQUATE TO SUPPORT THE ADDITIONAL LOADINGS FROM THE ATTIC CONVERSION.

THE CONTRACTOR IS TO DESIGN, SUPPLY, INSTALL AND MAINTAIN ALL NECESSARY TEMPORARY PROPPING TO ENSURE VERTICAL AND LATERAL STABILITY TO ALL PARTS OF THE NEW AND EXISTING STRUCTURES.

THE LENGTHS OF ALL STRUCTURAL ELEMENTS (E.G. BEAMS, COLUMNS, RAFTERS ETC) MUST BE MEASURED BY THE CONTRACTOR TO SUIT ON SITE BEFORE PLACING ANY ORDERS ON MATERIALS – DO NOT SCALE FROM DRAWINGS OR TAKE ANY DIMENSIONS FROM THE CALCULATIONS.

STEELWORK SPECIFICATIONS

ALL STRUCTURAL STEELWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE 'NATIONAL STRUCTURAL STEELWORK SPECIFICATION FOR BUILDING CONSTRUCTION' 6TH EDITION PUBLISHED BY THE BRITISH CONSTRUCTION STEELWORK ASSOCIATION LIMITED AND BE CE MARKED.

ALL HOT ROLLED STRUCTURAL STEEL SHALL BE GRADE S355 JR (EXECUTION CLASS EXC2) IN ACCORDANCE WITH BS EN 10025-2. ALL STRUCTURAL BOX (SHS/RHS) AND TUBE (CHS) SECTIONS ARE TO BE HOT-FINISHED 'CELSIUS' GRADE S355 CONFIRMING WITH BS EN 10210. HOT FINISHED SECTIONS MUST NOT BE SUBSTITUTED FOR COLD FORMED 'HYBOX' SECTIONS WITHOUT PRIOR APPROVAL.

ALL STEEL PLATES FOR CONNECTIONS TO BE GRADE S275 JR.

ALL STEELWORK SHALL BE SHOT OR GRIT BLAST CLEANED TO SA2.5 STANDARD TO REMOVAL ALL MILLSALE, LOOSE MATERIAL ETC AND BE PAINTED WITH 1 COAT OF HIGH BUILD ZINC PHOSPHATE PRIMER TO A THICKNESS OF 80µm (micrometres), UNLESS NOTED AS GALVANISED OR STAINLESS. WHERE STEELWORK IS TO BE IN CONTACT WITH MASONRY WALLS IT SHALL ALSO RECEIVE 2 No. COATS OF BITUMINOUS PAINT.

ALL GALVANISED STEEL SHALL BE GALVANISED IN ACCORDANCE WITH BS EN ISO 1461 TO A MINIMUM THICKNESS OF 85µm (micrometres). STEEL SHALL BE ACID PICKLED PRIOR TO GALVANISING. ALL WELDING OF CONNECTION PLATES TO BE UNDERTAKEN PRIOR TO GALVANISING.

UNLESS NOTED OTHERWISE, ALL WELDS FOR STEELWORK CONNECTIONS SHALL BE 6mm FULL PROFILE FILLET AND ALL BOLTS SHALL BE GRADE 8.8 AND EITHER M16 OR M20 DIAMETER TO BS EN 15048.

ALL STEELWORK FIRE PROTECTION TO BE SPECIFIED BY OTHERS. THE ARCHITECT SHALL CONFIRM THE EXTENT OF PROTECTION REQUIRED.

EXISTING MASONRY WALL ASSUMPTIONS

IT HAS BEEN ASSUMED THAT ALL EXISTING MASONRY IS MEDIUM DENSE THERMALITE TYPE CONCRETE BLOCKWORK WITH A MINIMUM ALLOWABLE COMPRESSIVE STRENGTH OF 3.6N/mm² AND IS IN GOOD CONDITION TO SUPPORT NEW BEAM ENDS. THE PADSTONES BENEATH THE BEAM ENDS ARE DESIGNED TO SPREAD THE BEAM LOADS TO ACCORD WITH MASONRY WALLS HAVING A STRENGTH AS SPECIFIED ABOVE. THE CONTRACTOR IS TO CHECK THAT MASONRY WALLS ARE IN GOOD CONDITION ON SITE AND REPORT IF FOUND TO BE OTHERWISE.

FLOOR/ROOF JOIST STRUTTING REQUIREMENTS

PROVIDE HERRING BONE OR SOLID STRUTTING FOR THE VARIOUS JOIST SPANS AS FOLLOWS:

- LESS THAN 2.5m SPAN – NO STRUTTING REQUIRED.
- 2.5m TO 4.5m SPAN – 1 ROW AT MID SPAN.
- MORE THAN 4.5m SPAN – 2 ROWS AT 3RD SPAN.

TRIMMERS

ALL MULTIPLE (I.E. DOUBLE AND TRIPLE) TIMBER TRIMMERS AND LINTELS ETC. ARE TO BE BOLTED TOGETHER AT 600mm STAGGERED CENTRES USING M12 BOLTS WITH 36mm DIAMETER BY 3mm THICK WASHERS.

Contractor to allow for all necessary temporary works.

Carefully form a pocket in the wall inner skin. Provide a 500mm long by 100mm wide by 215mm deep precast concrete padstone beneath both ends of both steel floor beams. Beams to have 100mm bearing onto the padstones.

Arrows denote provide extra 47x220mm deep C24 grade floor joists at 400mm ctrs alongside the existing ceiling ties and fix to the existing as necessary (see section).

Floor beams may be splice jointed at third points along the span – refer to details.

Carefully form a pocket in the wall inner skin. Provide a 500mm long by 100mm wide by 215mm deep precast concrete padstone beneath both ends of both steel floor beams. Beams to have 100mm bearing onto the padstones.

305 x 165 x 54kg UB Steel Floor Beam

Padstone.

All joists including trimmers to be suitably fixed to the steel floor beams with joist hangers.

Trimmer joists to be pocketed into the wall, pack tight around bearings.

Lightweight timber staircase by carpenters.

Provide suitable joist hangers between trimmers.

Padstone.

2 No. Trimmer Joist
3 No. 47mm wide by 220mm deep C24 trimmer joist

2 No. Trimmer Joist

305 x 165 x 54kg UB Steel Floor Beam

ORIGINAL DRAWING SIZE: A3. WORK TO FIGURED DIMENSIONS ONLY – DO NOT SCALE.
ALL WORKS MUST BE UNDERTAKEN BY A SUITABLY COMPETENT AND EXPERIENCED CONTRACTOR.
THE CONTRACTOR IS TO CHECK ALL LEVELS AND DIMENSIONS BEFORE WORK COMMENCES, AND ANY DISCREPANCIES MUST BE REPORTED IMMEDIATELY TO MW CONSULT LTD.
THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER MW CONSULT PROJECT DRAWINGS AND SPECIFICATIONS AND ALL OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS RELATING TO THIS PROJECT.

CLIENT:
Mr & Mrs Morgan

PROJECT:
Proposed Attic Conversion at
73 Mill Race, Neath

DRAWING TITLE:
Proposed First Floor Plan
(showing attic floor structure above)

REV.	DESCRIPTION	DRAWN	CHECK	DATE
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Drawing Status: For Comment

DRAWN BY: MW	DESIGN BY: MW	CHECKED BY: MW	DATE: 26/05/20
SCALE: 1:50 (A3)	DRAWING No.: 20/095(02)	REVISION:	-