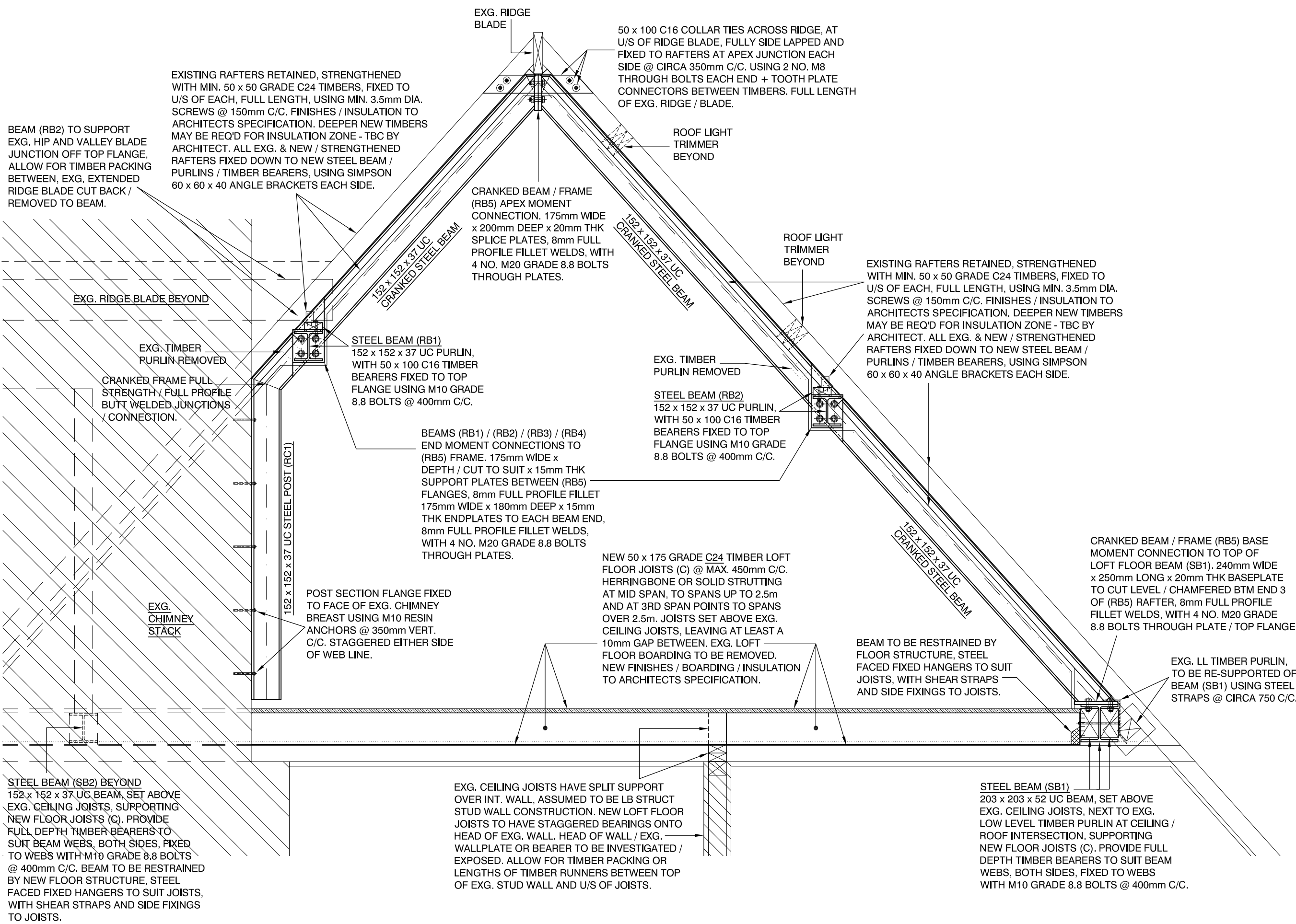


LOFT FLOOR PLAN - PROPOSED STRUCTURE OVER GA (1:50)



TYPICAL CROSS SECTIONAL DETAILS THROUGH CRANKED STEEL FRAME (1:20)

STRUCTURAL KEY / NOTES:-

- (A) :DENOTES SPANS OF EXISTING RAFTERS, (50 x 100 @ CIRCA 350 C/C.) TO BE RETAINED AND STRENGTHENED WITH MIN. 50 x 50 GRADE C24 TIMBERS, FIXED TO U/S OF EACH, FULL LENGTH, USING MIN. 3.5mm DIA. SCREWS @ 150mm C/C. FINISHES / INSULATION TO ARCHITECTS SPECIFICATION. DEEPER NEW TIMBERS MAY BE REQ'D FOR INSULATION ZONE - TBC BY ARCHITECT. ALL EXG. & NEW / STRENGTHENED RAFTERS FIXED DOWN TO NEW STEEL BEAMS / PURLINS / TIMBER BEARERS, USING SIMPSON 60 x 60 x 40 ANGLE BRACKETS EACH SIDE.
- (B) :DENOTES SPAN OF 50 x 75 GRADE C16 TIMBER DORMER FLAT ROOF JOISTS @ 350mm C/C. FINISHES TO ARCHITECTS SPECIFICATION. MIN. 18mm PLYWOOD DECKING OVER, DEEPER JOISTS MAY BE REQUIRED FOR INSULATION ZONE - TBC BY ARCHITECT.
- ↑ EXG. RE ↓ :DENOTES SPANS OF EXISTING ROOF / RAFTERS RETAINED, STRENGTHENED WHERE NOTED TO LOFT AREA.
- STEEL BEAMS (RB1) AND (RB2) :DENOTES MIN. 152 x 152 x 37 UC PURLINS, WITH 50 x 100 C16 TIMBER BEARERS FIXED TO TOP FLANGES USING M10 GRADE 8.8 BOLTS @ 400mm C/C. STAGGERED EITHER SIDE OF WEB LINE. BEAM (RB2) TO SUPPORT EXG. HIP AND VALLEY BLADE, JUNCTION OFF TOP FLANGE, ALLOW FOR TIMBER PACKING BETWEEN, EXG. EXTENDED RIDGE BLADE CUT BACK / REMOVED TO BEAM.
- STEEL BEAMS (RB3) AND (RB4) :DENOTES MIN. 152 x 152 x 37 UC PURLINS, SUPPORTED / CANTILEVERED OFF FRAME (RB5), WITH 50 x 100 C16 TIMBER BEARERS FIXED TO TOP FLANGES USING M10 GRADE 8.8 BOLTS @ 400mm C/C. STAGGERED EITHER SIDE OF WEB LINE. 75 x 75 C16 TIMBERS FIXED TO CANT. BEAM END OUTER WEBS, EACH SIDE, USING 2 NO. M10 GRADE 8.8 BOLTS, TIMBERS PROJECTED TO U/S OF EXG. HIP BLADES FOR SUPPORT, PROVIDE 90 x 90 SIMPSON ANGLE BRACKET CONNECTION OFF END OF TOP BEARER TO FACE OF HIP BLADES.
- CRANKED STEEL BEAM / FRAME (RB5) & STEEL POST (RC1) :DENOTES DOUBLE CRANKED STEEL FRAME WITH PITCHED SECTIONS TO SUIT ROOF PROFILE. FORMED FROM MIN. 152 x 152 x 37 UC RAFTER SECTIONS & POST, WITH FULL STRENGTH / FULL PROFILE BUTT WELDED JUNCTIONS / CONNECTIONS. 152 UC 37 POST SECTION FLANGE FIXED TO FACE OF EXG. CHIMNEY BREAST USING M10 RESIN ANCHORS @ 350mm VERT. C/C. THROUGH FLANGE STAGGERED EITHER SIDE OF WEB LINE. FRAME SUPPORTS ENDS OF PURLINS (RB1), (RB2), (RB3) & (RB4).
- (DR1) :DENOTES DORMER WINDOW / SIDE WALL SUPPORT TRIMMERS, FORMED FROM MIN. 3 NO. 75 x 200 GRADE C24 TIMBER RAFTERS, FIXED TOGETHER USING M12 GRADE 8.8 BOLTS @ 350mm C/C.
- (DR2) :DENOTES ROOF LIGHT SIDE TRIMMERS FORMED FROM MIN. 2 NO. 50 x 150 GRADE C16 RAFTERS, FIXED TOGETHER WITH M10 GRADE 8.8 BOLTS @ 400mm C/C.
- (TB1) PURLIN :DENOTES SUPPORT PURLIN TO EXG. PITCHED AND DORMER FLAT ROOF, FORMED FROM 2 NO. 50 x 125 GRADE C16 TIMBER JOISTS, FIXED TOGETHER USING M10 GRADE 8.8 BOLTS @ 250mm C/C.
- (TB2) - HL & (TB3) - HL :DENOTES DORMER FLAT ROOF SIDE AND FRONT EDGE BEAMS, FORMED FROM 2 NO. 50 x 75 GRADE C16 TIMBER JOISTS, FIXED TOGETHER USING M10 GRADE 8.8 BOLTS @ 350mm C/C. FORMING RING BEAM RESTRAINT.

- (TB4) :DENOTES ROOF LIGHT TRIMMERS, FORMED FROM 2 NO. 50 x 150 GRADE C16 TIMBER JOISTS, FIXED TOGETHER USING M10 GRADE 8.8 BOLTS @ 250mm C/C.
- (CB1) - LL :DENOTES DORMER WINDOW SUPPORT CILL, FORMED FROM 2 NO. 50 x 75 GRADE C16 TIMBER JOISTS, FIXED TOGETHER USING M10 GRADE 8.8 BOLTS @ 250mm C/C. FORMING RING BEAM RESTRAINT.
- (CB2) - LL PURLIN :DENOTES SUPPORT BEAM TO BTM END OF DORMER TRIMMERS (DR1) AND EXG. ROOF. SET NEXT TO & FIXED TO EXG. LOW LEVEL PURLIN AT CEILING / ROOF INTERSECTION. FORMED FROM MIN. 2 NO. 75 x 175 GRADE C24 TIMBER JOISTS, FIXED TOGETHER USING M12 GRADE 8.8 BOLTS @ 400mm C/C. SPANNING OVER STAIRWELL BELOW. 100mm END BEARINGS ON EXG. SIDE WALLS.
- EXG. HIPS (HB1) :DENOTES EXISTING HIP BLADES. (CIRCA 50 x 225), RETAINED AND STRENGTHENED WITH CONT. 50 x 125 GRADE C24 TIMBERS, FIXED EACH SIDE TO BTM FREE SECTION BELOW U/S OF RAFTERS, USING M8 GRADE 8.8 THROUGH BOLTS @ 400mm C/C.
- POSTS (P1) & (P2) :DENOTES MIN. 100 x 100 GRADE C24 TIMBER SUPPORT POSTS TO EXG. VALLEY BLADE AND RIDGE BLADE / ROOF STRUCTURE, OFF LOFT FLOOR STEEL BEAM (SB1) TOP FLANGE BELOW, BASES FIXED TO TOP OF STEEL BEAM USING SIMPSON 90 x 90 HD ANGLE BRACKETS EACH SIDE OF EACH POST, M6 SELF DRILL ANCHORS TO BEAM FLANGE.
- POSTS (P3) & (P4) :DENOTES MIN. 100 x 100 GRADE C24 TIMBER SUPPORT POSTS TO EXG. VALLEY BLADES / ROOF STRUCTURE, OFF LOFT FLOOR STEEL BEAM (SB2) TOP FLANGE BELOW, BASES FIXED TO TOP OF STEEL BEAM USING SIMPSON 90 x 90 HD ANGLE BRACKETS EACH SIDE OF EACH POST, M6 SELF DRILL ANCHORS TO BEAM FLANGE.

STEELWORK CONNECTIONS:-

- BEAMS (RB1) / (RB2) / (RB3) / (RB4) END MOMENT CONNECTIONS TO (RB5) FRAME. PROVIDE 175mm WIDE x DEPTH / CUT TO SUIT x 15mm THK SUPPORT PLATES BETWEEN (RB5) FLANGES, 8mm FULL PROFILE FILLET WELDS, PROVIDE 175mm WIDE x 180mm DEEP x 15mm THK ENDPLATES TO EACH BEAM END, 8mm FULL PROFILE FILLET WELDS, WITH 4 NO. M20 GRADE 8.8 BOLTS THROUGH PLATES.
- CRANKED BEAM / FRAME (RB5) APEX MOMENT CONNECTION. PROVIDE 175mm WIDE x 200mm DEEP x 20mm THK SPLICE PLATES, 8mm FULL PROFILE FILLET WELDS, WITH 4 NO. M20 GRADE 8.8 BOLTS THROUGH PLATES.
- CRANKED BEAM / FRAME (RB5) BASE MOMENT CONNECTION TO TOP OF LOFT FLOOR BEAM (SB1). PROVIDE 240mm WIDE x 250mm LONG x 20mm THK BASEPLATE TO CUT LEVEL / CHAMFERED BTM END OF (RB5) RAFTER, 8mm 8mm FULL PROFILE FILLET WELDS, WITH 4 NO. M20 GRADE 8.8 BOLTS THROUGH PLATE / TOP FLANGE.
- LB STUD WALL #01 - SPECIFICATION. INTERNAL LOAD-BEARING STUD WALLS OFF TOP OF LOFT FLOOR TRIMMERS (ST1), SUPPORTING EXG. PITCHED ROOF STRUCTURE. FORMED FROM MIN. 50 x 100 GRADE C16 TIMBER STUDS @ MAX. 450mm C/C. WITH 50 x 100 C16 SOLEPLATE FIXED TO TOP TRIMMERS. 75 x 100 C16 HEAD PLATE FIXED ACROSS STUDS. CUT WEDGE TIMBERS TO EXG. RAFTER BEARINGS, RAFTERS FIXED DOWN USING SIMPSON 60 x 60 x 40 ANGLE BRACKETS EACH SIDE OF EACH RAFTER.

GENERAL NOTES:-

- CONTRACTOR TO ADEQUATELY PROP / SUPPORT EXISTING STRUCTURE WHERE NECESSARY, TO ENABLE INSTALLATION OF NEW SUPPORT MEMBERS INDICATED.
- ALL SETTING OUT TO BE CONFIRMED BY ARCHITECT.
- WIDTH OF PADSTONES TO SUIT WIDTH OF EXISTING WALLS / LEAFS WHERE NECESSARY, WIDTH TO BE CONFIRMED ON SITE.

NOTES:

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- DRAWINGS MUST NOT BE SCALED. WORK TO FIGURED DIMENSIONS ONLY.
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2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK ALL SETTING OUT INFORMATION, LEVELS, DIMENSIONS, CO-ORDINATES ETC.) INDICATED ON THIS DRAWING PRIOR TO COMMENCEMENT OF THE WORKS. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES AND NO WORKS SHALL BE COMMENCED UNTIL FURTHER INSTRUCTIONS ARE RECEIVED IN WRITING.
3. FOR SETTING OUT OF STRUCTURE REFER TO ARCHITECTS DRAWINGS.

P1	01.11.22	CROSS SECTIONAL DETAILS ADDED.	MNC
P0	29.09.22	DRAFT FIRST ISSUE	MNC
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MNC
Design Services Ltd

57 Eastview,
Glascote,
Tamworth,
Staffs B77 2BG

Telephone:
07432 679112
E-mail:
mncuff@sky.com

DRAWING STATUS:			
DRAFT			
CLIENT			
Mr Dominic Green			
PROJECT			
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