POSSIBLE OPTION 2 - SIMPLE OPTION 340mm BEAM DEPTH - 2.3m CLEAR

5A

200x500 JOISTS
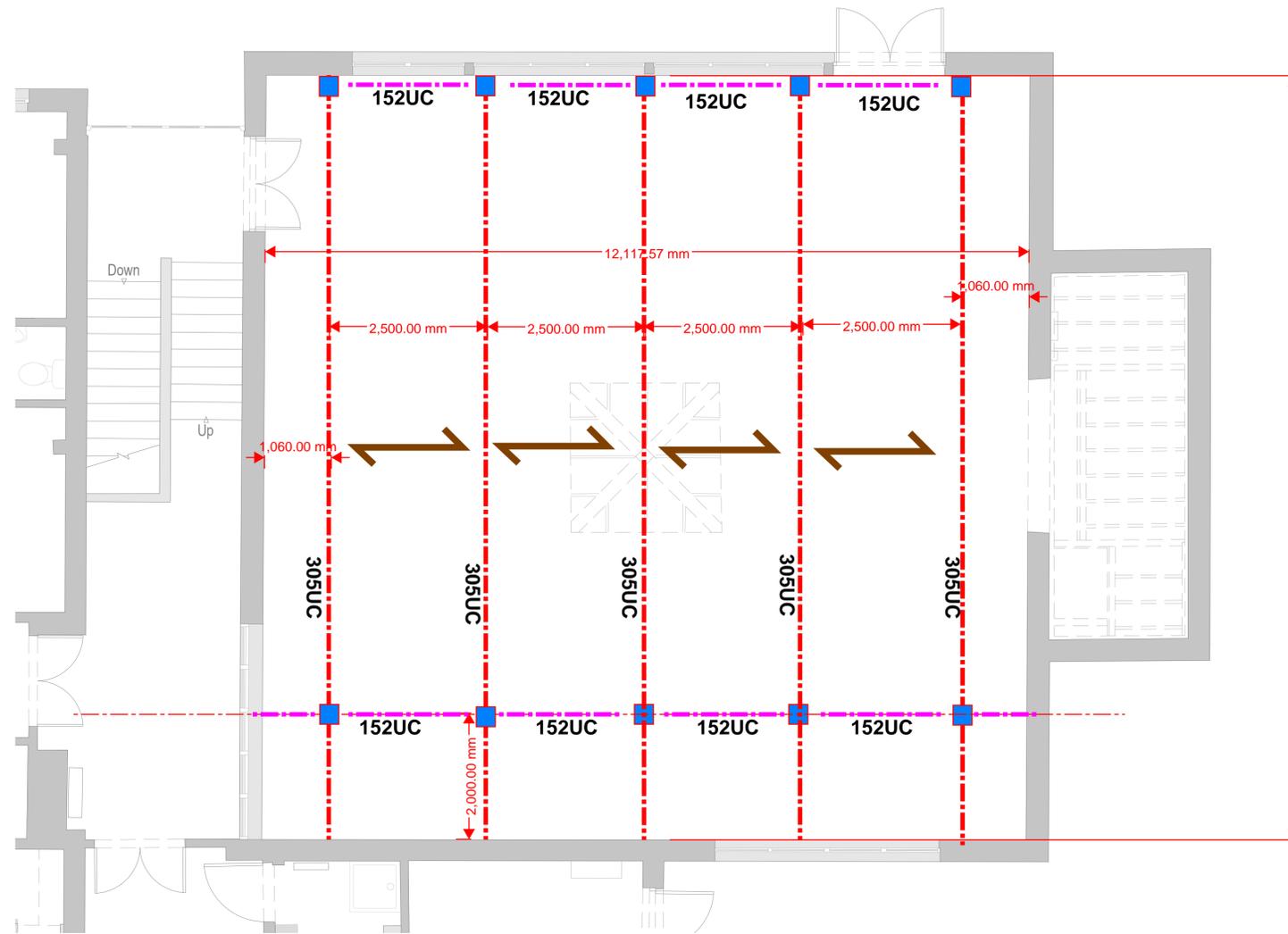
5000mm

2300mm
2300mm
50mm FINISHES
50mm CEILING

340mm STEEL DEPTH

152UC   152UC   152UC   152UC

305UC   305UC   305UC   305UC   305UC

152UC   152UC   152UC   152UC

12,117.57 mm

2,500.00 mm   2,500.00 mm   2,500.00 mm   2,500.00 mm

1,060.00 mm

1,060.00 mm

2,000.00 mm

12,104.88 mm

Down

Up

DL = 0.5kN/m2 FINISHES / 0.25kNm2 CEILING / 1.0kN/m2 PARTITIONS / JOISTS/INSULATION/ 0.25kN/m2

DL = 2.00kN/m2
LL = 2.50kN/m2

DL = 2.5 x 2 = 5kN/m
LL 2.5 x 2.5 = 6.25kN/m

DEAD DEFLECTION: 7.8mm
IMPOSED DEFLECTION: 7mm

DEAD + 10% IMPOSED = 8.5mm

$(18/6)^2$ = 9mm - MAX DEFLECTION