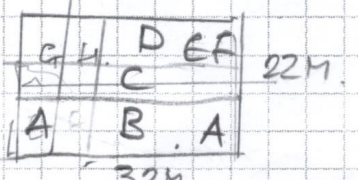
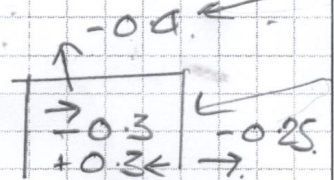




Calculation Sheet

Capital Programmes & Procurement Corporate Core Manchester City Council PO Box 532 Town Hall Manchester M60 2LA	Project Title <u>LIFESTYLE LEISURE CENTRE MANCHESTER</u>				Project No. <u>AMP00787-1</u>	
	Calculation Title <u>WIND LOADING</u>				Calculation No. <u>W/L 2.</u>	
	Calculation By <u>HY</u>	Date <u>Jan 2021</u>	Checked By	Date	Sheet No. <u>2 of 2</u>	Revision

Reference	Calculation	Output
	- REEF. TO CADD'S CALC FOR. EXTERNAL WIND PRESSURES:-  PLAN. q_s. $\pm 1.12 \text{ kN/m}^2 \text{ (SLS)}$ $\times 1.1$ $1.23 \text{ kN/m}^2 \text{ ULS}$ Wind. BASIC Wind Speed BS6399 Pt2: 22 m/s. Manchester. - In. Town, but 30m. away from residential buildings USE COUNTRY WIND CALC $V_s = V_b \times S_a \times S_d \times S_e \times S_p$ $= 22 \times 1.036 \times 1 \times 1 \times 1 = 22.8 \text{ m/s}$ $V_e = V_s S_b = 1.59 \times 22.8 = 36.2 \text{ m/s}$ $\therefore q_s = 0.613 \times 36.2^2 = 800 \text{ N/m}^2$ Consider Wall case only as only side cladding is to be replaced. Walls. C_{pe} Values: Zone A: -1.3, (max) Roof Zone B: -1.4 WALLS. Combined. $C_{pe} + C_{pi}$ for int. suction $= 0.7 - (-0.3) = \pm 1.0$ Use $C_{pe} \pm 1.3$ for Design of cladding rails for pressure ± 1.0 for suction. (see over)	COEFFICIENTS FROM BS6399 Pt2 - $h_e = 7 \text{ m}$.  SIDE WIND & INTERNAL SUCTION ELEVATION -0.4 0.3 0.3 -0.25