

MasterSeries Sales Team

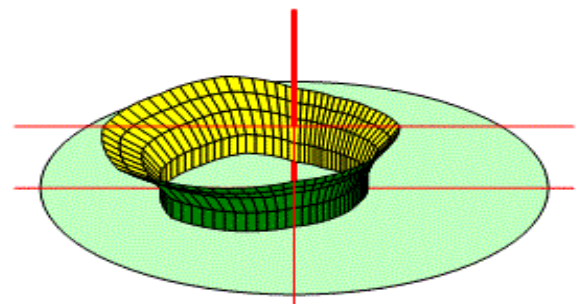
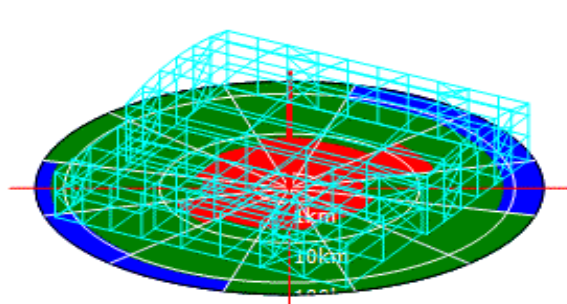
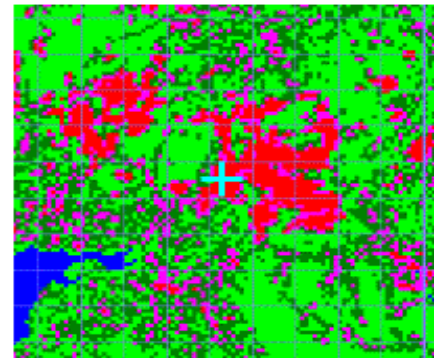
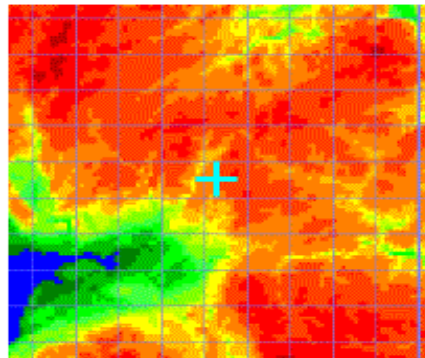
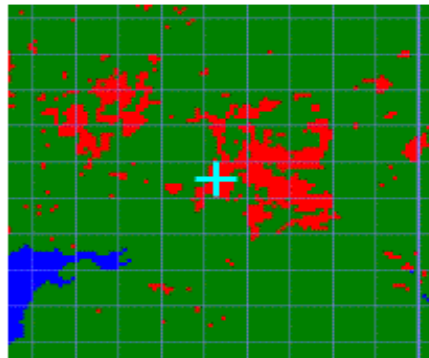
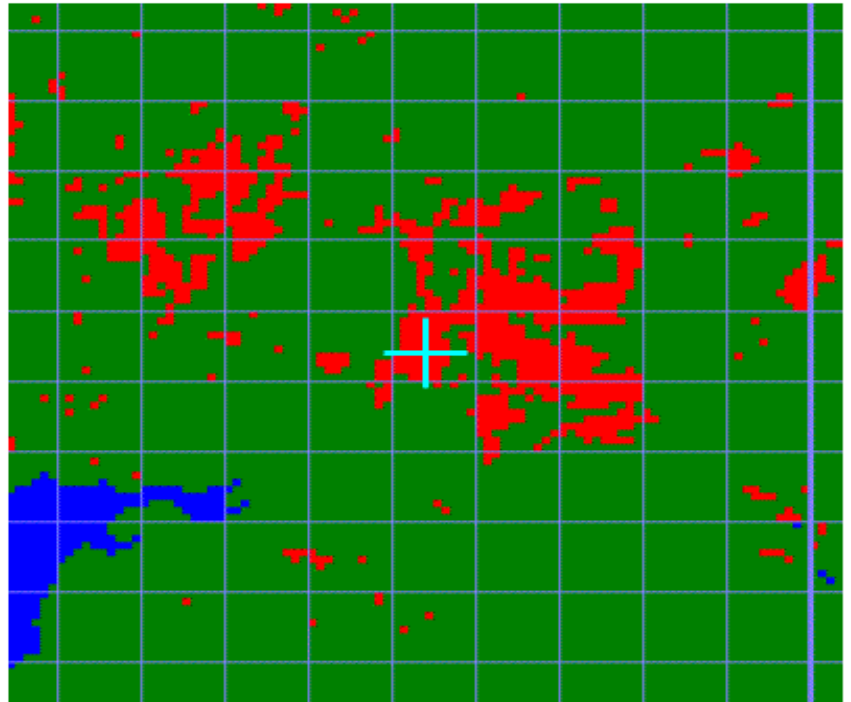
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Job ref : **Job Ref**
 Sheet : **Sheet Ref / 1 -**
 Made By :
 Date : **21 June 2015/ Version 2015.04**
 Checked :
 Approved :

WIND LOADING TO EN 1991-1-4 UK NA Results for site at NY540840 - Altitude 376 m Wind Reference 1 USING THE EN 1991-4 STANDARD METHOD

				HP		
				HT	HU	
				HY	HZ	
NA	NB	NC	ND			
NF	NG	NH	NJ	NK		
NL	NM	NN	NO			
	NR	NS	NT	NU		
	NW	NX	NY	NZ		
		SC	SD	SE	TA	
		SH	SJ	SK	TF	TG
	SM	SN	SO	SP	TL	TM
	SR	SS	ST	SU	TQ	TR
SV	SW	SX	SY	SZ	TV	



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Site Basic Data

Location and Base wind speed BREVe site data for NY540840 - Base wind speed, Vb 24.16 m/s
 Site Range 500 m
 Altitude and Obstructions Site altitude 376 m - Shelter effect from obstructions is included
 Seasonal factor, Ss Season length is All year - Seasonal factor, Ss 1.000
 Annual risk and probability factor Design annual risk 0.02 - Probability factor, Sp 1.000
 Topographic Increments Topographic increment from internal parameters
 Heights (m) Heights above ground 3; 6.29; 8.15 and 9.85
 Building height, h (m) For 0.6 h limit on h_{dis} 9.85 m

Direction Factors - Using UK direction Factors

Direction (°N)	0	30	60	90	120	150	180	210	240	270	300	330
Direction factor, Cdir	0.780	0.730	0.730	0.740	0.730	0.800	0.850	0.930	1.000	0.990	0.910	0.820

Topography

Crest Height (m)	36.2	26.0	38.0	80.7	101.0	27.0	18.0	89.0	101.0	134.0	102.0	42.0
Site Location (m)	300.0	999.0	0.0	0.0	129.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Upwind Length (m)	621.0	176.0	724.0	733.0	451.0	338.0	225.0	603.0	563.0	793.0	671.0	247.0
Downwind Length (m)	453.0	176.0	177.0	475.0	666.0	200.0	10000	10000	10000	1225.0	602.0	467.0
Base Altitude (m)	312.0	346.0	346.0	294.0	263.0	319.0	330.0	283.0	280.0	240.0	247.0	295.0
Upwind Slope	0.058	0.148	0.052	0.110	0.224	0.080	0.080	0.148	0.179	0.169	0.152	0.170

EN 1991-1-4 STANDARD METHOD

Direction (°N)	0	30	60	90	120	150	180	210	240	270	300	330
Direction factor, Cdir	0.780	0.730	0.730	0.740	0.730	0.800	0.850	0.930	1.000	0.990	0.910	0.820
Distance to Sea (km)	200.0	77.9	73.9	73.9	200.0	200.0	200.0	106.0	90.0	135.6	200.0	200.0
Distance in Town (km)	7.5	6.5	16.5	2.5	3.5	3.5	4.5	4.5	7.5	3.5	4.5	5.5
Altitude factor, Sa	1.312	1.346	1.346	1.294	1.263	1.319	1.330	1.283	1.280	1.240	1.247	1.295
Obstructions Height, Have (m)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Obstructions Spacing, Xo (m)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Displacement Height, Hdis (m)	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9

Height Above Ground = 3.0 m

Direction (°N)	0	30	60	90	120	150	180	210	240	270	300	330
Effective height, Ze (m)	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Orography factor, Co	0.037	0.000	0.106	0.222	0.320	0.160	0.159	0.297	0.361	0.341	0.306	0.339
Exposure factor, Ce	1.408	1.417	1.419	1.419	1.408	1.408	1.408	1.408	1.412	1.408	1.408	1.408
Roughness factor, Cr	0.724	0.726	0.727	0.727	0.724	0.724	0.724	0.724	0.725	0.724	0.724	0.724
Rough. Correction, CrT	0.563	0.565	0.552	0.582	0.576	0.576	0.571	0.571	0.563	0.576	0.571	0.568
Effective wind speed, Ve (m/s)	23.5	22.2	23.2	25.4	25.4	26.7	28.3	32.3	35.3	34.2	30.8	29.2
Dynamic Pressure, q (N/m ²)	339.6	303.4	329.6	395.9	396.1	436.0	492.6	638.1	764.7	717.4	582.6	522.1

Height Above Ground = 6.29 m

Direction (°N)	0	30	60	90	120	150	180	210	240	270	300	330
Effective height, Ze (m)	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52	2.52
Orography factor, Co	0.037	0.000	0.106	0.221	0.319	0.159	0.159	0.297	0.360	0.340	0.306	0.338
Exposure factor, Ce	1.526	1.536	1.538	1.538	1.526	1.526	1.526	1.526	1.530	1.526	1.526	1.526
Roughness factor, Cr	0.764	0.766	0.767	0.767	0.764	0.764	0.764	0.764	0.765	0.764	0.764	0.764
Rough. Correction, CrT	0.599	0.601	0.587	0.618	0.612	0.607	0.607	0.607	0.599	0.612	0.607	0.604
Effective wind speed, Ve (m/s)	25.1	23.7	24.8	27.1	27.1	28.5	30.2	34.4	37.7	36.5	32.9	31.1
Dynamic Pressure, q (N/m ²)	386.9	345.7	375.5	450.9	451.0	496.5	560.8	726.6	870.7	817.0	663.5	594.0

Height Above Ground = 8.15 m

Direction (°N)	0	30	60	90	120	150	180	210	240	270	300	330
Effective height, Ze (m)	3.26	3.26	3.26	3.26	3.26	3.26	3.26	3.26	3.26	3.26	3.26	3.26
Orography factor, Co	0.036	0.000	0.105	0.221	0.318	0.158	0.158	0.296	0.359	0.340	0.305	0.336
Exposure factor, Ce	1.665	1.675	1.677	1.677	1.665	1.665	1.665	1.665	1.669	1.665	1.665	1.665
Roughness factor, Cr	0.809	0.811	0.812	0.812	0.809	0.809	0.809	0.809	0.810	0.809	0.809	0.809
Rough. Correction, CrT	0.634	0.637	0.622	0.655	0.648	0.648	0.643	0.643	0.634	0.648	0.643	0.640
Effective wind speed, Ve (m/s)	26.9	25.4	26.5	29.1	29.0	30.5	32.4	36.9	40.4	39.1	35.2	33.3
Dynamic Pressure, q (N/m ²)	444.0	396.8	430.9	517.4	517.2	569.4	643.0	833.4	998.4	937.2	761.1	680.4

Height Above Ground = 9.85 m

Direction (°N)	0	30	60	90	120	150	180	210	240	270	300	330
Effective height, Ze (m)	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94	3.94
Orography factor, Co	0.036	0.000	0.105	0.221	0.318	0.158	0.157	0.295	0.358	0.339	0.304	0.334
Exposure factor, Ce	1.770	1.781	1.783	1.783	1.770	1.770	1.770	1.770	1.774	1.770	1.770	1.770
Roughness factor, Cr	0.842	0.844	0.845	0.845	0.842	0.842	0.842	0.842	0.843	0.842	0.842	0.842
Rough. Correction, CrT	0.658	0.661	0.645	0.680	0.673	0.673	0.667	0.667	0.658	0.673	0.667	0.664
Effective wind speed, Ve (m/s)	28.2	26.7	27.8	30.5	30.4	32.0	33.9	38.7	42.3	41.0	36.9	34.9

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Dynamic Pressure, q (N/m²) 488.4 436.4 473.8 568.8 568.3 625.9 706.5 916.0 1097.3 1030.2 836.6 747.0

MASTERFRAME WIND PRESSURE VALUES

Dynamic Pressure Values, q (N/m²)

Wind Direction to X Axis	0	90	180	270	0	90	180	270
q (N/m ²) for H = 3	717.4	764.7	436.0	339.6	717.4	764.7	436.0	339.6
q (N/m ²) for H = 6.29	817.0	870.7	496.5	386.9	817.0	870.7	496.5	386.9
q (N/m ²) for H = 8.15	937.2	998.4	569.4	444.0	937.2	998.4	569.4	444.0
q (N/m ²) for H = 9.85	1030.2	1097.3	625.9	488.4	1030.2	1097.3	625.9	488.4

Ground level

Ground Level is at the user defined model Y coordinate of 0.45m
 0.9m of the structure is below ground level.
 CAUTION - Wind loading will NOT be applied to the members of the structure fully below ground level.