

2.6.2. 水平構面の負担水平力に対する検定

2階(屋根) X方向地震 (→)

$$C'_{i} = 0.2441$$

$$\textcircled{1} = \sum P_{ij} = 11.421 \text{ (kN)}$$

$$\textcircled{2} = C'_{i} \times \sum (\alpha_{ij-1} \times W_{ij-1, j}) = 39.247 \text{ (kN)}$$

$$\textcircled{3} = C'_{i} \times \sum (\alpha_{ij} \times W_{ij-1, j}) = 38.713 \text{ (kN)}$$

$$\textcircled{4} = \sum V_{ij} = 50.315 \text{ (kN)}$$

$$C\alpha = (\textcircled{4} - \textcircled{1} - \textcircled{3}) / (\textcircled{2} - \textcircled{3}) = 0.339$$

通り	負担地震力 QE _{ij} (kN) (=V _{ij})	ねじれ補正係数 α_e	W _{ij} W _{ij-1, j} (kN)	P _{ij} w _{j-1, j} (kN)	Q _a (kN)	Q _i 下端 (kN)	判定	Q _i 上端 (kN)	判定
Y0	12.686	1.035	14.266	3.605					
		1.020	45.143	11.241	6.243	9.080	NG	-2.160	OK
Y3		1.012	5.879	1.453					
		1.010	11.746	2.895	6.243	-3.613	OK	-6.508	NG
Y3a	6.544	1.008	2.548	0.627					
		1.006	11.683	2.869	11.593	-0.592	OK	-3.460	OK
Y4	9.847	1.004	1.529	0.375					
		0.994	46.731	11.343	11.593	6.012	OK	-5.331	OK
Y6		0.989							
		0.984	23.365	5.613	11.593	-5.331	OK	-10.944	OK
Y7	5.329	0.981	4.259	1.020					
		0.976	20.699	4.934	8.026	-6.635	OK	-11.569	NG
Y8	15.909	0.974	18.259	4.340					
						0.000			
計	50.315		206.106	50.315					

2階(屋根) X方向地震 (←)

$$C'_{i} = 0.2441$$

$$\textcircled{1} = \sum P_{ij} = 11.421 \text{ (kN)}$$

$$\textcircled{2} = C'_{i} \times \sum (\alpha_{ij-1} \times W_{ij-1, j}) = 39.247 \text{ (kN)}$$

$$\textcircled{3} = C'_{i} \times \sum (\alpha_{ij} \times W_{ij-1, j}) = 38.713 \text{ (kN)}$$

$$\textcircled{4} = \sum V_{ij} = 50.315 \text{ (kN)}$$

$$C\alpha = (\textcircled{4} - \textcircled{1} - \textcircled{3}) / (\textcircled{2} - \textcircled{3}) = 0.339$$

通り	負担地震力 QE _{ij} (kN) (=V _{ij})	ねじれ補正係数 α_e	W _{ij} W _{ij-1, j} (kN)	P _{ij} w _{ij-1, j} (kN)	Q _a (kN)	Q _i 下端 (kN)	判定	Q _i 上端 (kN)	判定
Y0	12.686	1.035	14.266	3.605					
		1.020	45.143	11.241	6.243	9.080	NG	-2.160	OK
Y3		1.012	5.879	1.453					
		1.010	11.746	2.895	6.243	-3.613	OK	-6.508	NG
Y3a	6.544	1.008	2.548	0.627					
		1.006	11.683	2.869	11.593	-0.592	OK	-3.460	OK
Y4	9.847	1.004	1.529	0.375					
		0.994	46.731	11.343	11.593	6.012	OK	-5.331	OK
Y6		0.989							
		0.984	23.365	5.613	11.593	-5.331	OK	-10.944	OK
Y7	5.329	0.981	4.259	1.020					
		0.976	20.699	4.934	8.026	-6.635	OK	-11.569	NG
Y8	15.909	0.974	18.259	4.340					
						0.000			
計	50.315		206.106	50.315					

2階(屋根) Y方向地震 (↑)

$$C'_{i} = 0.2441$$

$$\textcircled{1} = \sum P_{ij} = 10.367 \text{ (kN)}$$

$$\textcircled{2} = C'_{i} \times \sum (\alpha_{ij-1} \times W_{ij-1, j}) = 39.507 \text{ (kN)}$$

$$\textcircled{3} = C'_{i} \times \sum (\alpha_{ij} \times W_{ij-1, j}) = 40.599 \text{ (kN)}$$

$$\textcircled{4} = \sum V_{ij} = 50.315 \text{ (kN)}$$

$$C\alpha = (\textcircled{4} - \textcircled{1} - \textcircled{3}) / (\textcircled{2} - \textcircled{3}) = 0.597$$

通り	負担地震力 QE _{ij} (kN) (=V _{ij})	ねじれ補正係数 α_e	W _{ij} W _{ij-1, j} (kN)	P _{ij} w _{j-1, j} (kN)	Q _a (kN)	Q _i 左端 (kN)	判定	Q _i 右端 (kN)	判定
X0	7.378	0.941	13.230	3.038					
		0.955	40.750	9.500	4.459	4.340	OK	-5.160	NG
X4	8.835	0.976	2.612	0.622					
		0.983	22.897	5.496	4.459	3.053	OK	-2.443	OK
X6	7.526	0.994	5.742	1.393					
		0.997	14.941	3.638	7.134	3.689	OK	0.051	OK
X7	11.486	1.003	2.548	0.624					
		1.010	29.883	7.367	7.134	10.913	NG	3.545	OK
X9	3.143	1.020	3.103	0.773					
		1.035	55.205	13.946	6.243	5.915	OK	-8.030	NG
X13	11.947	1.056	15.194	3.917					
						0.000			
計	50.315		206.106	50.315					

2階(屋根) Y方向地震 (↓)

$$\begin{aligned}
 C'_{i} &= 0.2441 \\
 \textcircled{1} &= \sum P_{ij} = 10.367 \text{ (kN)} \\
 \textcircled{2} &= C'_{i} \times \sum (\alpha_{ij-1} \times W_{ij-1, j}) = 39.507 \text{ (kN)} \\
 \textcircled{3} &= C'_{i} \times \sum (\alpha_{ij} \times W_{ij-1, j}) = 40.599 \text{ (kN)} \\
 \textcircled{4} &= \sum V_{ij} = 50.315 \text{ (kN)} \\
 C\alpha &= (\textcircled{4} - \textcircled{1} - \textcircled{3}) / (\textcircled{2} - \textcircled{3}) = 0.597
 \end{aligned}$$

通り	負担地震力 QE _{ij} (kN) (=V _{ij})	ねじれ補正係数 α_e	W _{ij} W _{ij-1, j} (kN)	P _{ij} w _{j-1, j} (kN)	Q _a (kN)	Q _i 左端 (kN)	判定	Q _i 右端 (kN)	判定
X0	7.378	0.941	13.230	3.038					
		0.955	40.750	9.500	4.459	4.340	OK	-5.160	NG
X4	8.835	0.976	2.612	0.622					
		0.983	22.897	5.496	4.459	3.053	OK	-2.443	OK
X6	7.526	0.994	5.742	1.393					
		0.997	14.941	3.638	7.134	3.689	OK	0.051	OK
X7	11.486	1.003	2.548	0.624					
		1.010	29.883	7.367	7.134	10.913	NG	3.545	OK
X9	3.143	1.020	3.103	0.773					
		1.035	55.205	13.946	6.243	5.915	OK	-8.030	NG
X13	11.947	1.056	15.194	3.917					
						0.000			
計	50.315		206.106	50.315					

1階(2階床) X方向地震 (→)

$$\begin{aligned}
 C'_{i} &= 0.1523 \\
 \textcircled{1} &= \sum P_{ij} = 57.533 \text{ (kN)} \\
 \textcircled{2} &= C'_{i} \times \sum (\alpha_{ij-1} \times W_{ij-1, j}) = 22.167 \text{ (kN)} \\
 \textcircled{3} &= C'_{i} \times \sum (\alpha_{ij} \times W_{ij-1, j}) = 21.700 \text{ (kN)} \\
 \textcircled{4} &= \sum V_{ij} = 79.311 \text{ (kN)} \\
 C\alpha &= (\textcircled{4} - \textcircled{1} - \textcircled{3}) / (\textcircled{2} - \textcircled{3}) = 0.168
 \end{aligned}$$

通り	負担地震力 QE _{ij} (kN) (=V _{ij})	ねじれ補正係数 α_e	W _{ij} W _{ij-1, j} (kN)	P _{ij} w _{ij-1, j} (kN)	Q _a (kN)	Q _i 下端 (kN)	判定	Q _i 上端 (kN)	判定
Y0	20.473	1.053	14.001	14.931					
		1.025	48.464	7.560	64.210	5.542	OK	-2.018	OK
Y3	11.882	1.019	5.929	0.920					
		1.014	9.874	1.524	92.747	8.945	OK	7.421	OK
Y3a		1.013	2.548	6.937					
		1.008	9.562	1.468	92.747	0.484	OK	-0.984	OK
Y4	9.399	1.007	2.575	10.242					
		0.988	37.201	5.597	85.613	-1.827	OK	-7.424	OK
Y6	7.654	0.984	4.971	0.745					
		0.975	20.170	2.994	53.508	-0.515	OK	-3.509	OK
Y7		0.973	2.548	5.707					
		0.963	17.967	2.635	53.508	-9.215	OK	-11.850	OK
Y8	29.902	0.961	14.638	18.052					
						0.000			
計	79.311		190.448	79.311					

1階(2階床) X方向地震 (←)

$$C'_{i} = 0.1523$$

$$\textcircled{1} = \sum P_{ij} = 57.533 \text{ (kN)}$$

$$\textcircled{2} = C'_{i} \times \sum (\alpha_{ij-1} \times W_{ij-1, j}) = 22.167 \text{ (kN)}$$

$$\textcircled{3} = C'_{i} \times \sum (\alpha_{ij} \times W_{ij-1, j}) = 21.700 \text{ (kN)}$$

$$\textcircled{4} = \sum V_{ij} = 79.311 \text{ (kN)}$$

$$C\alpha = (\textcircled{4} - \textcircled{1} - \textcircled{3}) / (\textcircled{2} - \textcircled{3}) = 0.168$$

通り	負担地震力 QEij (kN) (=Vij)	ねじれ補正係数 α_e	Wij Wij-1, j (kN)	Pij wj-1, j (kN)	Qa (kN)	Qi下端 (kN)	判定	Qi上端 (kN)	判定
Y0	20.473	1.053	14.001	14.931					
		1.025	48.464	7.560	64.210	5.542	OK	-2.018	OK
Y3	11.882	1.019	5.929	0.920					
		1.014	9.874	1.524	92.747	8.945	OK	7.421	OK
Y3a		1.013	2.548	6.937					
		1.008	9.562	1.468	92.747	0.484	OK	-0.984	OK
Y4	9.399	1.007	2.575	10.242					
		0.988	37.201	5.597	85.613	-1.827	OK	-7.424	OK
Y6	7.654	0.984	4.971	0.745					
		0.975	20.170	2.994	53.508	-0.515	OK	-3.509	OK
Y7		0.973	2.548	5.707					
		0.963	17.967	2.635	53.508	-9.215	OK	-11.850	OK
Y8	29.902	0.961	14.638	18.052					
						0.000			
計	79.311		190.448	79.311					

1階(2階床)Y方向地震(↑)

$$C'_{i} = 0.1523$$

$$\textcircled{1} = \sum P_{ij} = 56.419 \text{ (kN)}$$

$$\textcircled{2} = C'_{i} \times \sum (\alpha_{ij-1} \times W_{ij-1, j}) = 22.760 \text{ (kN)}$$

$$\textcircled{3} = C'_{i} \times \sum (\alpha_{ij} \times W_{ij-1, j}) = 23.030 \text{ (kN)}$$

$$\textcircled{4} = \sum V_{ij} = 79.311 \text{ (kN)}$$

$$C\alpha = (\textcircled{4} - \textcircled{1} - \textcircled{3}) / (\textcircled{2} - \textcircled{3}) = 0.512$$

通り	負担地震力 QE _{ij} (kN) (=V _{ij})	ねじれ補正係数 α_e	W _{ij} W _{ij-1, j} (kN)	P _{ij} w _{ij-1, j} (kN)	Q _a (kN)	Q _i 左端 (kN)	判定	Q _i 右端 (kN)	判定
X0	14.717	0.974	6.956	8.410					
		0.982	37.919	5.668	42.806	6.307	OK	0.640	OK
X4	11.212	0.990	8.619	10.134					
		0.993	26.842	4.059	32.105	1.718	OK	-2.341	OK
X6	18.078	0.997	7.765	8.704					
		0.999	11.896	1.810	57.075	7.032	OK	5.222	OK
X7	12.098	1.001	3.595	12.033					
		1.005	24.838	3.800	50.833	5.287	OK	1.487	OK
X9		1.009	3.722	3.715					
		1.016	48.833	7.555	50.833	-2.227	OK	-9.783	OK
X13	23.205	1.024	9.465	13.423					
						0.000			
計	79.311		190.448	79.311					

1階(2階床)Y方向地震(↓)

$$C'_{i} = 0.1523$$

$$\textcircled{1} = \sum P_{ij} = 56.419 \text{ (kN)}$$

$$\textcircled{2} = C'_{i} \times \sum (\alpha_{ij-1} \times W_{ij-1, j}) = 22.760 \text{ (kN)}$$

$$\textcircled{3} = C'_{i} \times \sum (\alpha_{ij} \times W_{ij-1, j}) = 23.030 \text{ (kN)}$$

$$\textcircled{4} = \sum V_{ij} = 79.311 \text{ (kN)}$$

$$C\alpha = (\textcircled{4} - \textcircled{1} - \textcircled{3}) / (\textcircled{2} - \textcircled{3}) = 0.512$$

通り	負担地震力 QE _{ij} (kN) (=V _{ij})	ねじれ補正係数 α_e	W _{ij} W _{ij-1, j} (kN)	P _{ij} w _{ij-1, j} (kN)	Q _a (kN)	Q _i 左端 (kN)	判定	Q _i 右端 (kN)	判定
X0	14.717	0.974	6.956	8.410					
		0.982	37.919	5.668	42.806	6.307	OK	0.640	OK
X4	11.212	0.990	8.619	10.134					
		0.993	26.842	4.059	32.105	1.718	OK	-2.341	OK
X6	18.078	0.997	7.765	8.704					
		0.999	11.896	1.810	57.075	7.032	OK	5.222	OK
X7	12.098	1.001	3.595	12.033					
		1.005	24.838	3.800	50.833	5.287	OK	1.487	OK
X9		1.009	3.722	3.715					
		1.016	48.833	7.555	50.833	-2.227	OK	-9.783	OK
X13	23.205	1.024	9.465	13.423					
						0.000			
計	79.311		190.448	79.311					

2階(屋根) X方向風 (→)

$$\begin{aligned}
 \textcircled{1} &= \sum P_{ij} &= & 1.426 \text{ (kN)} \\
 \textcircled{2} &= C'_{i} \times \sum (\alpha_{ij-1} \times W_{ij-1, j}) &= & 20.098 \text{ (kN)} \\
 \textcircled{3} &= C'_{i} \times \sum (\alpha_{ij} \times W_{ij-1, j}) &= & 19.334 \text{ (kN)} \\
 \textcircled{4} &= \sum V_{ij} &= & 20.895 \text{ (kN)} \\
 C_{\alpha} &= (\textcircled{4} - \textcircled{1} - \textcircled{3}) / (\textcircled{2} - \textcircled{3}) &= & 0.177
 \end{aligned}$$

通り	負担風圧力 QE _i W (kN) (=V _{ij})	ねじれ補正係数 α_w	W _{ij} W _{ij-1, j} (kN)	P _{ij} w _{j-1, j} (kN)	Q _a (kN)	Q _i 下端 (kN)	判定	Q _i 上端 (kN)	判定
Y0	5.561	1.093	0.705	0.770					
		1.043	7.307	7.620	6.243	4.791	OK	-2.829	OK
Y3		1.032							
		1.024	1.218	1.247	6.243	-2.829	OK	-4.076	OK
Y3a	2.754	1.022							
		1.014	1.218	1.234	11.593	-1.322	OK	-2.556	OK
Y4	4.119	1.012							
		0.979	4.872	4.767	11.593	1.563	OK	-3.204	OK
Y6		0.971							
		0.955	2.436	2.325	11.593	-3.204	OK	-5.529	OK
Y7	2.145	0.951							
		0.934	2.436	2.276	8.026	-3.384	OK	-5.660	OK
Y8	6.316	0.931	0.705	0.656					
						0.000			
計	20.895		20.895	20.895					

2階(屋根) X方向風 (←)

$$\begin{aligned}
 \textcircled{1} &= \sum P_{ij} &= & 1.426 \text{ (kN)} \\
 \textcircled{2} &= C'_{i} \times \sum (\alpha_{ij-1} \times W_{ij-1, j}) &= & 20.098 \text{ (kN)} \\
 \textcircled{3} &= C'_{i} \times \sum (\alpha_{ij} \times W_{ij-1, j}) &= & 19.334 \text{ (kN)} \\
 \textcircled{4} &= \sum V_{ij} &= & 20.895 \text{ (kN)} \\
 C_{\alpha} &= (\textcircled{4} - \textcircled{1} - \textcircled{3}) / (\textcircled{2} - \textcircled{3}) &= & 0.177
 \end{aligned}$$

通り	負担風圧力 QE _i W (kN) (=V _{ij})	ねじれ補正係数 α _w	W _{ij} W _{ij-1, j} (kN)	P _{ij} w _{j-1, j} (kN)	Q _a (kN)	Q _i 下端 (kN)	判定	Q _i 上端 (kN)	判定
Y0	5.561	1.093	0.705	0.770					
		1.043	7.307	7.620	6.243	4.791	OK	-2.829	OK
Y3		1.032							
		1.024	1.218	1.247	6.243	-2.829	OK	-4.076	OK
Y3a	2.754	1.022							
		1.014	1.218	1.234	11.593	-1.322	OK	-2.556	OK
Y4	4.119	1.012							
		0.979	4.872	4.767	11.593	1.563	OK	-3.204	OK
Y6		0.971							
		0.955	2.436	2.325	11.593	-3.204	OK	-5.529	OK
Y7	2.145	0.951							
		0.934	2.436	2.276	8.026	-3.384	OK	-5.660	OK
Y8	6.316	0.931	0.705	0.656					
						0.000			
計	20.895		20.895	20.895					

2階(屋根) Y方向風 (↑)

$$\begin{aligned}
 ① &= \sum P_{ij} &&= 1.691 \text{ (kN)} \\
 ② &= C'_{i'} \times \sum (\alpha_{ij-1} \times W_{ij-1, j}) &&= 35.517 \text{ (kN)} \\
 ③ &= C'_{i'} \times \sum (\alpha_{ij} \times W_{ij-1, j}) &&= 34.728 \text{ (kN)} \\
 ④ &= \sum V_{ij} &&= 36.763 \text{ (kN)} \\
 C\alpha &= (④-①-③) / (②-③) &&= 0.437
 \end{aligned}$$

通り	負担風圧力 QEiW (kN) (=Vij)	ねじれ補正係数 α_w	Wij Wij-1, j (kN)	Pij wj-1, j (kN)	Qa (kN)	Qi左端 (kN)	判定	Qi右端 (kN)	判定
X0	6.005	1.048	0.844	0.885					
		1.032	10.792	11.134	4.459	5.120	NG	-6.014	NG
X4	6.740	1.019							
		1.011	5.396	5.456	4.459	0.726	OK	-4.730	NG
X6	5.560	1.005							
		1.001	2.698	2.700	7.134	0.830	OK	-1.871	OK
X7	8.351	0.998							
		0.990	5.396	5.341	7.134	6.480	OK	1.139	OK
X9	2.213	0.984							
		0.967	10.792	10.441	6.243	3.353	OK	-7.088	NG
X13	7.895	0.955	0.844	0.806					
						0.000			
計	36.763		36.763	36.763					

2階(屋根) Y方向風 (↓)

$$\begin{aligned}
 ① &= \sum P_{ij} &&= 1.691 \text{ (kN)} \\
 ② &= C'_{i} \times \sum (\alpha_{ij-1} \times W_{ij-1, j}) &&= 35.517 \text{ (kN)} \\
 ③ &= C'_{i} \times \sum (\alpha_{ij} \times W_{ij-1, j}) &&= 34.728 \text{ (kN)} \\
 ④ &= \sum V_{ij} &&= 36.763 \text{ (kN)} \\
 C_{\alpha} &= (④ - ① - ③) / (② - ③) &&= 0.437
 \end{aligned}$$

通り	負担風圧力 QE _i W (kN) (=V _{ij})	ねじれ補正係数 α_w	W _{ij} W _{ij-1, j} (kN)	P _{ij} w _{j-1, j} (kN)	Q _a (kN)	Q _i 左端 (kN)	判定	Q _i 右端 (kN)	判定
X0	6.005	1.048	0.844	0.885					
		1.032	10.792	11.134	4.459	5.120	NG	-6.014	NG
X4	6.740	1.019							
		1.011	5.396	5.456	4.459	0.726	OK	-4.730	NG
X6	5.560	1.005							
		1.001	2.698	2.700	7.134	0.830	OK	-1.871	OK
X7	8.351	0.998							
		0.990	5.396	5.341	7.134	6.480	OK	1.139	OK
X9	2.213	0.984							
		0.967	10.792	10.441	6.243	3.353	OK	-7.088	NG
X13	7.895	0.955	0.844	0.806					
						0.000			
計	36.763		36.763	36.763					

1階(2階床) X方向風 (→)

$$\begin{aligned}
 \textcircled{1} &= \sum P_{ij} &&= 22.471 \text{ (kN)} \\
 \textcircled{2} &= C'_{i1} \times \sum (\alpha_{ij-1} \times W_{ij-1,j}) &&= 24.170 \text{ (kN)} \\
 \textcircled{3} &= C'_{i2} \times \sum (\alpha_{ij} \times W_{ij-1,j}) &&= 23.096 \text{ (kN)} \\
 \textcircled{4} &= \sum V_{ij} &&= 45.595 \text{ (kN)} \\
 C_{\alpha} &= (\textcircled{4} - \textcircled{1} - \textcircled{3}) / (\textcircled{2} - \textcircled{3}) &&= 0.025
 \end{aligned}$$

通り	負担風圧力 QE _i W (kN) (=V _{ij})	ねじれ補正係数 α_w	W _{ij} W _{ij-1,j} (kN)	P _{ij} w _{j-1,j} (kN)	Q _a (kN)	Q _i 下端 (kN)	判定	Q _i 上端 (kN)	判定
Y0	12.409	1.110	1.420	7.137					
		1.041	8.730	9.086	64.210	5.272	OK	-3.814	OK
Y3	6.966	1.039							
		1.027	1.455	1.495	92.747	3.152	OK	1.657	OK
Y3a		1.027		2.754					
		1.015	1.455	1.477	92.747	-1.097	OK	-2.574	OK
Y4	5.445	1.015		4.119					
		0.969	5.820	5.638	85.613	-1.248	OK	-6.886	OK
Y6	4.325	0.968							
		0.944	2.910	2.748	53.508	-2.561	OK	-5.309	OK
Y7		0.944		2.145					
		0.921	2.910	2.679	53.508	-7.454	OK	-10.133	OK
Y8	16.449	0.920		6.316					
						0.000			
計	45.595		24.699	45.595					

1階(2階床) X方向風 (←)

$$\begin{aligned}
 ① &= \sum P_{ij} &= & 22.471 \text{ (kN)} \\
 ② &= C'_{i1} \times \sum (\alpha_{ij-1} \times W_{ij-1,j}) &= & 24.170 \text{ (kN)} \\
 ③ &= C'_{i2} \times \sum (\alpha_{ij} \times W_{ij-1,j}) &= & 23.096 \text{ (kN)} \\
 ④ &= \sum V_{ij} &= & 45.595 \text{ (kN)} \\
 C\alpha &= (④-①-③) / (②-③) &= & 0.025
 \end{aligned}$$

通り	負担風圧力 QE _{iW} (kN) (=V _{ij})	ねじれ補正係数 α_w	W _{ij} W _{ij-1,j} (kN)	P _{ij} w _{j-1,j} (kN)	Q _a (kN)	Q _i 下端 (kN)	判定	Q _i 上端 (kN)	判定
Y0	12.409	1.110	1.420	7.137					
		1.041	8.730	9.086	64.210	5.272	OK	-3.814	OK
Y3	6.966	1.039							
		1.027	1.455	1.495	92.747	3.152	OK	1.657	OK
Y3a		1.027		2.754					
		1.015	1.455	1.477	92.747	-1.097	OK	-2.574	OK
Y4	5.445	1.015		4.119					
		0.969	5.820	5.638	85.613	-1.248	OK	-6.886	OK
Y6	4.325	0.968							
		0.944	2.910	2.748	53.508	-2.561	OK	-5.309	OK
Y7		0.944		2.145					
		0.921	2.910	2.679	53.508	-7.454	OK	-10.133	OK
Y8	16.449	0.920		6.316					
						0.000			
計	45.595		24.699	45.595					

1階(2階床)Y方向風(↑)

$$\begin{aligned}
 ① &= \sum P_{ij} &&= 36.763 \text{ (kN)} \\
 ② &= C'_{i} \times \sum (\alpha_{ij-1} \times W_{ij-1, j}) &&= 37.413 \text{ (kN)} \\
 ③ &= C'_{i} \times \sum (\alpha_{ij} \times W_{ij-1, j}) &&= 36.575 \text{ (kN)} \\
 ④ &= \sum V_{ij} &&= 73.698 \text{ (kN)} \\
 C\alpha &= (④-①-③) / (②-③) &&= 0.429
 \end{aligned}$$

通り	負担風圧力 QE _i W (kN) (=V _{ij})	ねじれ補正係数 α_w	W _{ij} W _{ij-1, j} (kN)	P _{ij} w _{j-1, j} (kN)	Q _a (kN)	Q _i 左端 (kN)	判定	Q _i 右端 (kN)	判定
X0	14.717	1.048		6.005					
		1.032	11.365	11.728	42.806	8.712	OK	-3.015	OK
X4	10.735	1.020		6.740					
		1.011	5.682	5.747	32.105	0.979	OK	-4.768	OK
X6	16.933	1.005		5.560					
		1.001	2.841	2.844	57.075	6.605	OK	3.761	OK
X7	11.208	0.998		8.351					
		0.990	5.682	5.624	50.833	6.618	OK	0.994	OK
X9		0.984		2.213					
		0.967	11.365	10.991	50.833	-1.219	OK	-12.211	OK
X13	20.105	0.955		7.895					
						0.000			
計	73.698		36.935	73.698					

1階(2階床)Y方向風(↓)

$$\begin{aligned}
 ① &= \sum P_{ij} &&= 36.763 \text{ (kN)} \\
 ② &= C'_{i1} \times \sum (\alpha_{ij-1} \times W_{ij-1,j}) &&= 37.413 \text{ (kN)} \\
 ③ &= C'_{i2} \times \sum (\alpha_{ij} \times W_{ij-1,j}) &&= 36.575 \text{ (kN)} \\
 ④ &= \sum V_{ij} &&= 73.698 \text{ (kN)} \\
 C\alpha &= (④-①-③) / (②-③) &&= 0.429
 \end{aligned}$$

通り	負担風圧力 QE _i W (kN) (=V _{ij})	ねじれ補正係数 α_w	W _{ij} W _{ij-1,j} (kN)	P _{ij} w _{j-1,j} (kN)	Q _a (kN)	Q _i 左端 (kN)	判定	Q _i 右端 (kN)	判定
X0	14.717	1.048		6.005					
		1.032	11.365	11.728	42.806	8.712	OK	-3.015	OK
X4	10.735	1.020		6.740					
		1.011	5.682	5.747	32.105	0.979	OK	-4.768	OK
X6	16.933	1.005		5.560					
		1.001	2.841	2.844	57.075	6.605	OK	3.761	OK
X7	11.208	0.998		8.351					
		0.990	5.682	5.624	50.833	6.618	OK	0.994	OK
X9		0.984		2.213					
		0.967	11.365	10.991	50.833	-1.219	OK	-12.211	OK
X13	20.105	0.955		7.895					
						0.000			
計	73.698		36.935	73.698					