

DESIGN OF MAIN FRAME 断面設計

* ALL STRESSES ARE REPLACED WITH SHORT TERM F = 2400. (KG/CM2)

柱の断面設計の別紙
参照せよ。

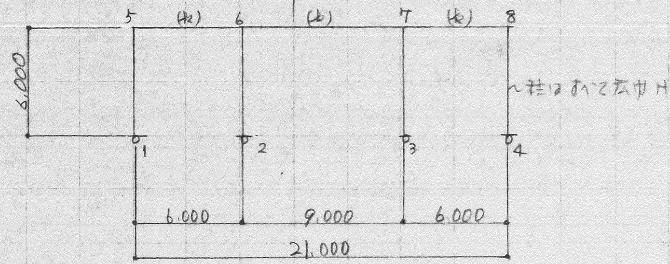
* 1 - FRAME

MEMBER	LOAD	M1	M2	M3	MOMENT	AXIAL	LX	LY	FC, FT	LB	C	FH	SIGMA/F	DESIGN MEMBER
J	NO.	(T.M)	(T.M)	(T.M)	SHEAR	(T)	(M)	(M)	(KG/CM2)	(M)		FS	TAU/F	
1	5	0	0.0 +- 6.2	12.4	12.4 2.1	-7.6	0.00	6.00	1400.	6.00	1.75	2400. 1350.	0.711 0.077	H- 248x 249x 8.0x13.0
2	6	5	-0.0 +- 7.7	-15.3	15.3 2.6	-11.3	0.00	6.00	1400.	6.00	1.75	2400. 1350.	0.894 0.095	H- 248x 249x 8.0x13.0
3	7	6	0.0 +- 7.7	15.3	15.3 2.6	-11.3	0.00	6.00	1400.	6.00	1.75	2400. 1350.	0.894 0.095	H- 248x 249x 8.0x13.0
4	8	5	-0.0 +- 6.2	-12.4	12.4 2.1	-7.6	0.00	6.00	1400.	6.00	1.75	2400. 1350.	0.711 0.077	H- 248x 249x 8.0x13.0
5	6	6'	-12.4 +- 5.1	-0.4	12.4 4.7	2.3	0.00	3.50	2400.	3.50	1.79	2176. 1350.	0.872 0.169	H- 346x 174x 6.0x 9.0
			0.4 +- 4.1	-5.8	5.8 2.6	2.3	0.00	3.50	2400.	3.50	1.67	2160. 1350.	0.403 0.093	
6	7	6	-9.0 +- 3.0	-1.1	9.0 4.0	-0.2	0.00	3.50	1484.	3.50	1.88	2137. 1350.	0.645 0.141	H- 346x 174x 5.0x 9.0
			1.1 +- 3.4	-3.7	3.7 1.8	-0.2	0.00	3.50	1484.	3.50	1.47	2127. 1350.	0.276 0.065	
7	8	5	5.8 +- 4.1	+0.4	5.8 2.6	2.3	0.00	3.50	2400.	3.50	1.67	2160. 1350.	0.403 0.093	H- 346x 174x 6.0x 9.0
			0.4 +- 5.1	12.4	12.4 4.7	2.3	0.00	3.50	2400.	3.50	1.79	2176. 1350.	0.872 0.169	

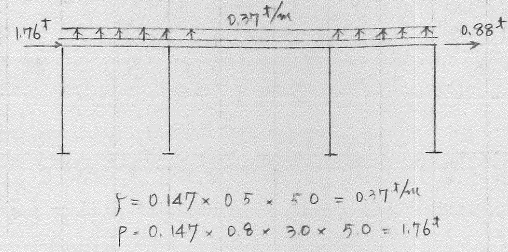
**	COLUMN	**	10	20	30	40	50	60	70	80
**	INPUT DATA	**	(START	007	8026B					G8170010)
**	INPUT DATA	**	(ISEZAKI SEIKAREIZOKO SOKO(I)							G8170020)
**	INPUT DATA	**	(	-G817	80-	2-17	3	2	2	G8170030)
**	INPUT DATA	**	(	2	4	7	1			G8170100)
**	INPUT DATA	**	(	1110	0.	0.	2110	7.	0.	G8170111)
**	INPUT DATA	**	(	4110	21.	0.	5	0.	6.	G8170112)
**	INPUT DATA	**	(	7	14.	6.	8	21.	6.	G8170113)
**	INPUT DATA	**	(	3						G8170200)
**	INPUT DATA	**	(	1	1	1	2	1	1	G8170211)
**	INPUT DATA	**	(	1	1	1	3			G8170301)
**	INPUT DATA	**	(	2	3	5	7			G8170302)
**	INPUT DATA	**	(	4	4	8				G8170303)
**	INPUT DATA	**	(	5	5	6	1	1	1	G8170304)
**	INPUT DATA	**	(	6	6	7	1	1	1	G8170305)
**	INPUT DATA	**	(	7	7	8	1	1	1	G8170306)
**	INPUT DATA	**	(	2						G8170307)
**	INPUT DATA	**	(	1	1	2	3	4	5	G8170400)
**	INPUT DATA	**	(	6						G8170411)
**	INPUT DATA	**	(	1	1					G8170600)
**	INPUT DATA	**	(	2	1	1	0	2		G8170601)
**	INPUT DATA	**	(	3	1	1	0	3		G8170602)
**	INPUT DATA	**	(	4	1	1	0	4		G8170603)
**	INPUT DATA	**	(	5	1	1	0	5		G8170604)
**	INPUT DATA	**	(	6	1	1	0	6		G8170605)
**	INPUT DATA	**	(	6	6	8				G8170606)
**	INPUT DATA	**	(	DEAD+LIV	2SMOW	3WIND (R)	4WIND (L)	5SEIS (R)	6SEIS (L)	G8170700)
**	INPUT DATA	**	(	1						G8170711)
**	INPUT DATA	**	(	1						G8170801)
**	INPUT DATA	**	(	3	2.	38				G8170802)
**	INPUT DATA	**	(	3	1.	17				G8170803)
**	INPUT DATA	**	(	4	-1.	19				G8170804)
**	INPUT DATA	**	(	4	-2.	38				G8170805)
**	INPUT DATA	**	(	5	4.	39				G8170806)
**	INPUT DATA	**	(	6	-4.	39				G8170807)
**	INPUT DATA	**	(	1GZ	-1.	14				G8170808)
**	INPUT DATA	**	(	1GZ	-1.	09				G8170901)
**	INPUT DATA	**	(	1GZ	-0.	61				G8170902)
**	INPUT DATA	**	(	2GZ	-1.	41				G8170903)
**	INPUT DATA	**	(	3LZ	0.	5				G8170904)
**	INPUT DATA	**	(	4LZ	0.	5				G8170905)
**	INPUT DATA	**	(							G8170906)

伊勢崎卸売市場 青果冷蔵庫 倉庫棟(2)

2-2 X4~X8列ラ-ンイン-ト-テ-9-



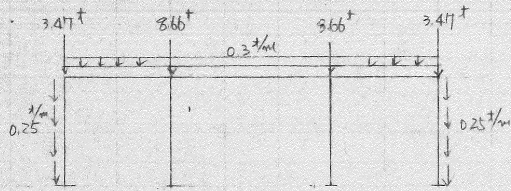
3) 風荷重時 →



$$f = 0.147 \times 0.5 \times 5.0 = 0.27 \text{ t/m}$$

$$P = 0.147 \times 0.8 \times 3.0 \times 5.0 = 1.76 \text{ t}$$

1) 鉛直荷重時



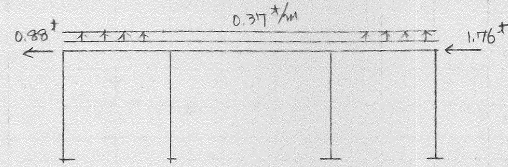
$$f = 0.06 \times 5.0 = 0.3 \text{ t/m}$$

$$P = 0.05 \times 5.0 = 0.25 \text{ t/m}$$

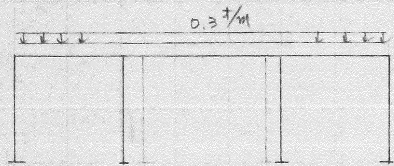
$$P = 0.385 \times 3.0 \times 3.0 = 3.47 \text{ t}$$

$$P = 0.385 \times 3.0 \times 11.5 = 3.66 \text{ t}$$

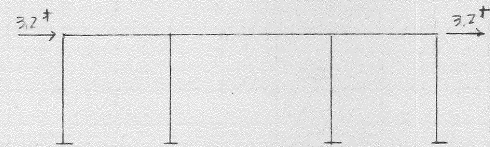
4) 風荷重時 ←



2) 積雪荷重時



5) 地震荷重時 →
6) " ←



$$\text{マ} 0.06 \times 5 \times 21 \times 0.2 = 1.26 \text{ t}$$

$$\text{カ} 0.05 \times 3.0 \times 5.0 \times 2 \times 0.2 = 0.3$$

$$\text{ク} 0.385 \times 3.0 \times 21 \times 0.2 = 4.85$$

$$\text{Total } 6.41 \text{ t}$$

** ASSUMED CONDITION ON MAIN FRAME ANALYSIS

* ITERATION TIMES --- 2 + 1 CYCLES

** MAIN FRAME TYPE NO. 0 - 0

* CONTROL DATA

NUMBER OF NODAL POINTS 8
 NUMBER OF SUPPORTING POINTS 4
 NUMBER OF MEMBERS 7
 NUMBER OF FRAMES 1

* NODAL POINT TABLE

NODE NO.	SUPPORT UVS	X-COORD. (M)	Z-COORD. (M)	NODE NO.	SUPPORT UVS	X-COORD. (M)	Z-COORD. (M)	NODE NO.	SUPPORT UVS	X-COORD. (M)	Z-COORD. (M)
1	110	0.00	0.00	2	110	6.00	0.00	3	110	15.00	0.00
4	110	21.00	0.00	5	0	0.00	6.00	6	0	6.00	6.00
7	0	15.00	6.00			21.00	6.00				

* MEMBER SECTION TABLE

SECTION NO.	MEMB. TYPE NO.	TRUSS DEPTH (CM)	LATTICE TYPE N	MEMB. TYPE
1	1	H.W	0.0	0 0
2	1	H.W	0.0	0 0
3	1	H.W	0.0	0 0

* MEMBER TABLE

MEMBER NO.	I	K	J	END COND. NO. IJ	SECT. NO. #	SUPPORTING N	NUMBER (FROM I-END) (M)					* : INITIAL SIZE NO.				LXX (M)						
							(1)	(2)	(3)	(4)	(5)	I-END TYPE NO.	HAUNCH L (M)	B (CM)	D (CM)		J-END TYPE NO.	HAUNCH L (M)	B (CM)	D (CM)		
1	1	0	5	00	3	3	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.0	0.0	0	0.00	0.0	0.0	0.0	0.00?
2	2	0	6	00	3	3	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.0	0.0	0	0.00	0.0	0.0	0.0	0.00?
3	3	0	7	00	3	3	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.0	0.0	0	0.00	0.0	0.0	0.0	0.00?
4	4	0	8	00	3	3	0	0.00	0.00	0.00	0.00	0.00	0	0.00	0.0	0.0	0	0.00	0.0	0.0	0.0	0.00?
5	5	0	6	00	1	1	1	3.00	0.00	0.00	0.00	0.00	0	0.00	0.0	0.0	0	0.00	0.0	0.0	0.0	0.00?
6	6	0	7	00	1	2	1	4.50	0.00	0.00	0.00	0.00	0	0.00	0.0	0.0	0	0.00	0.0	0.0	0.0	0.00?
7	7	0	8	00	1	2	1	3.00	0.00	0.00	0.00	0.00	0	0.00	0.0	0.0	0	0.00	0.0	0.0	0.0	0.00?

< WARNING---WAD00016> ?BUCKLING LENGTH(LXX) ISN'T CONSIDERED.

* MEMBER CONTROL TABLE (SAME SIZE, SAME SERIES, ETC.)

MEMBER NO.	CONT. TYPE	MEMBERS					MEMBER NO.	CONT. TYPE	MEMBERS				
		(1)	(2)	(3)	(4)	(5)			(1)	(2)	(3)	(4)	(5)
1	1	2	3	4	0	0	5	1	6	7	0	0	0

** LOAD DATA

* NUMBER OF LOAD CASE 6

* JOINT FORCE (INPUT NUMBER 3)

FORCE NO	H- FORCE (T)	V- FORCE (T)	MOMENT (T.M)	NO. OF JOINTS	NO. OF MEMBERS	NO. OF ELEMENTS	NO. OF POINTS
1	0.00	-3.47	0.00	8	0	0	0
2	0.00	-3.56	0.00	7	0	0	0
3	1.76	0.00	0.00	0	0	0	0
4	0.88	0.00	0.00	0	0	0	0
5	-0.88	0.00	0.00	0	0	0	0
6	-1.76	0.00	0.00	0	0	0	0
7	3.20	0.00	0.00	0	0	0	0
8	-3.20	0.00	0.00	0	0	0	0

* MEMBER FORCE (INPUT NUMBER 5)

NOTE

CASE

G GLOBAL CO-ORDINATE
 L LOCAL CO-ORDINATE

w-TYPE 1 UNIFORM LOAD

DIRECTION

X X-DIRECTION LOAD
 Z Z-DIRECTION LOAD

FORCE NO	CASE	DIRECTION	w TYPE	w (T/M)	CONCENTRATED LOAD (T.M)					MEMBER NO.						
					P1	L1	P2	L2	P3	L3	5	6	7	8		
1	G	Z	1	-0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5	6	7	8
2	L	Z	1	-0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5	6	7	8
3	L	Z	1	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5	6	7	8
4	L	Z	1	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5	6	7	8
5	G	Z	1	-0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1	4	0	0