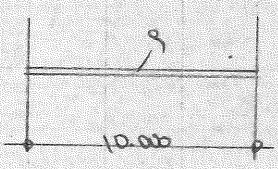


2-2: γ_1, γ_2 列に-xの設計

梁のc.No. Qの算定



$$\xi = 0.23 \times 1.605 + 0.445 \times 3.13$$

$$= 0.374 + 1.4 = 1.774$$

$$C = 1.78 \times 10^2 \times \frac{1}{12} = 14.83 \text{ t.m}$$

$$M_0 = 1.78 \times 10^2 \times \frac{1}{8} = 22.25 \text{ t.m}$$

$$Q = 1.78 \times 10 \times \frac{1}{2} = 8.9 \text{ t}$$

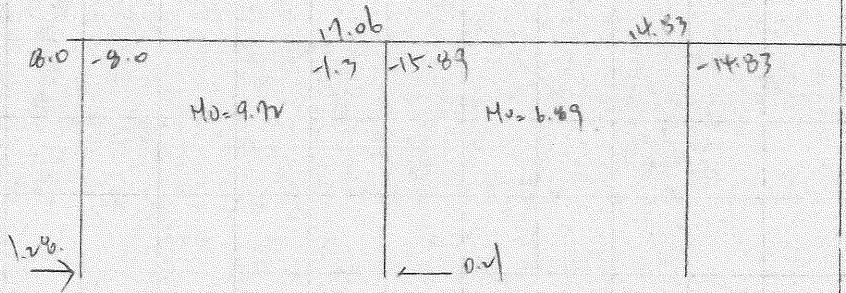
剛性の算定

C.	16-300 x 300 x 13	47.800	626	110.56	1.0
G.	11-500 x 200 x 10 x 16	47.800	1000	47.8	0.63

	1.78	0.63	2.01	0.63	0.63	0.63
E	0.84		1.68			
X	0.157		0.197			
D	0.12		0.14			
	0.95		0.75		0.75	0.75

鉛直時の応力

		(17.06)		(14.83)	
		-1.06			
		3.42			
		14.83		14.83	
		0.31		0.31	
0.64	0.46	0.38	0.31	0.38	0.31
8.0	-14.83	-1.3	-14.83	-14.83	-14.83
	6.83		-1.06		
(8.0)	(8.0)	(-1.3)	(-15.89)	(-14.83)	



地震力の算定

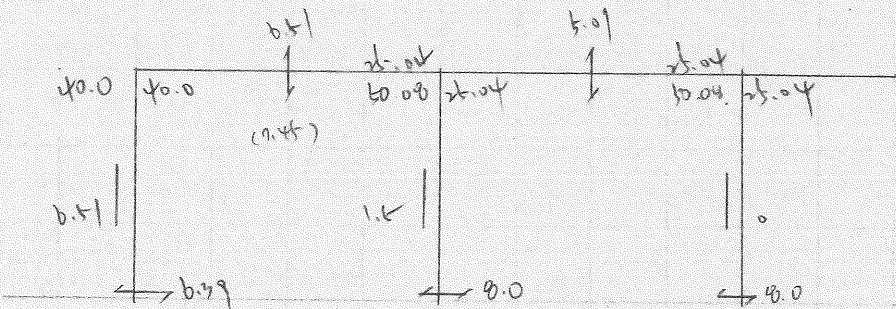
柱 $0.2 \times 0.195 \times 0.5 \times 40 = 10.14$

梁 $0.2 \times 0.06 \times 7.75 \times 40 = 11.8$

柱 $0.2 \times 0.445 \times 0.26 \times 89.0 \times \sqrt{\quad} = 24.8$

$\Sigma KW = 36.74$

$IV = 0.69 \quad \theta/IV = 36.74 / 0.69 = 53.26$



木梁の断面設計

$M = 40 \quad 17.06$

$HM = 40.0 \quad 21.03$

$SM = 48.0 \quad 42.14 \text{ t.m}$

$H = 596 \times 199 \times 10 \times .5 \quad t_x = 2310 \quad \bar{c} = 495$

$M_2/M_1 = -11.17 / 43.0 = -0.26 \quad c = 716 \quad \sqrt{c} = 0.68$

$\lambda = 0.68 \times 500 / 4.95 = 69 \quad f_y = 1.78 (2107)$

$$f_n/f_n = 4800 / 2310 \times 2.01 = 1.004 > 1.0$$

$$\therefore H = 600 \times 200 \times 11 \times 11$$

L.O.	X	Y	X	Y
VM	25.87	1.3	LN	41.73
HM	37.84	50.0%	HN	5.8
SM	63.75	41.30	SN	47.53
				43.23

Y 方向に決定 $IM = 41.30 + 25.87 = 67.17 \text{ t.m}$

$$\textcircled{11} - 394 \times 394 \times 16 \quad A = 246.1 \quad Z = 3000$$

$$\bar{c} = 15.5$$

$$l = 125 \quad \lambda = 81 \quad f_c = 1.29 (1.935)$$

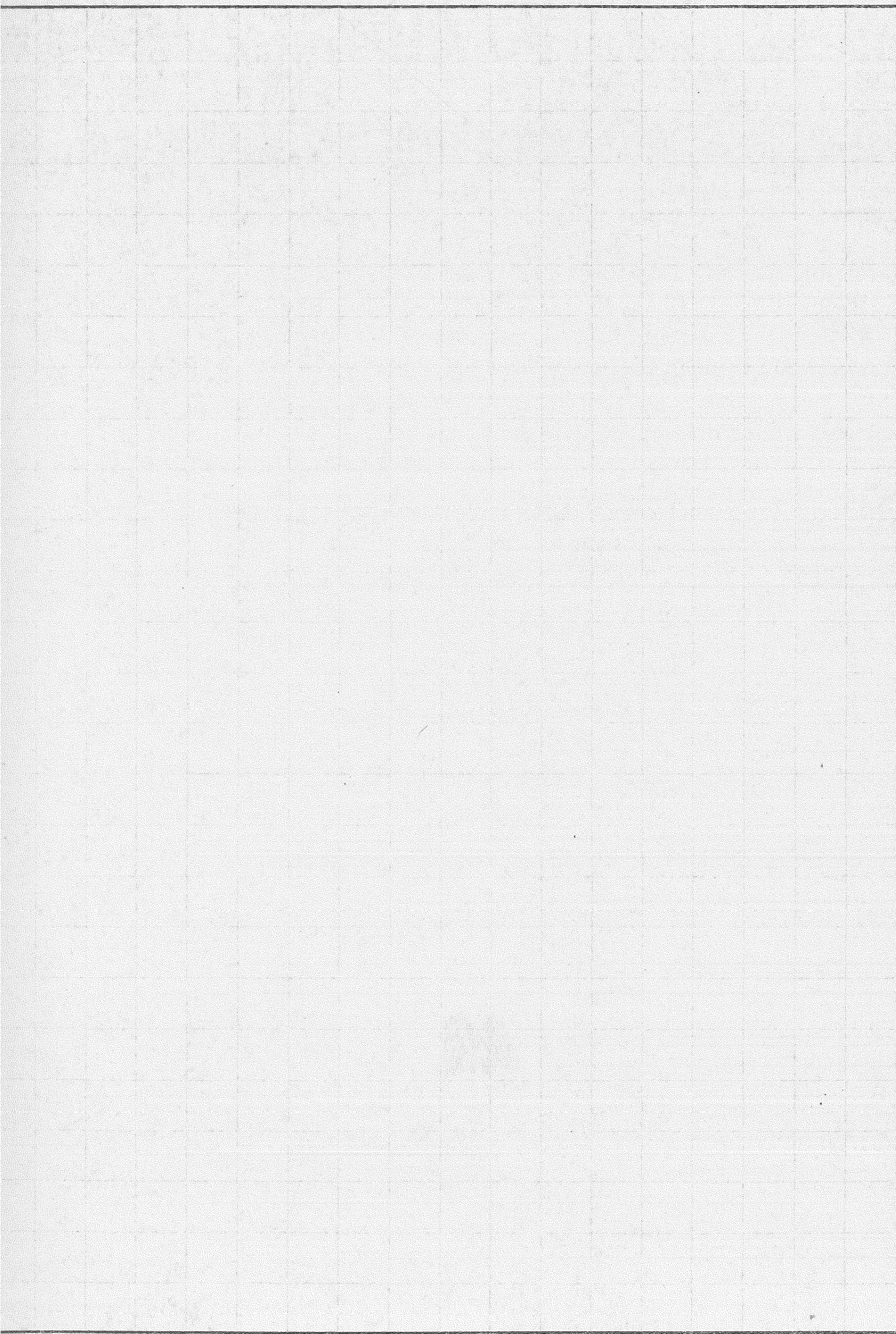
$$f_n = 2.2 (3.3)$$

$$\sigma_c / f_c = 43.23 / 246.1 \times 1.935 = 0.689$$

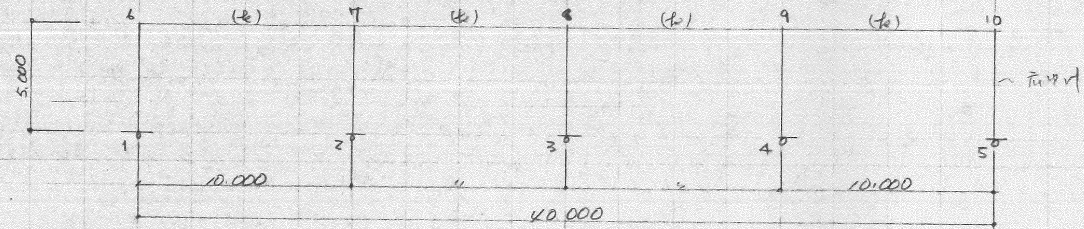
$$\sigma_n / f_n = 67.17 / 3000 \times 3.3 = 0.747$$

$$0.747 < 1.0 \quad \text{o.k.}$$

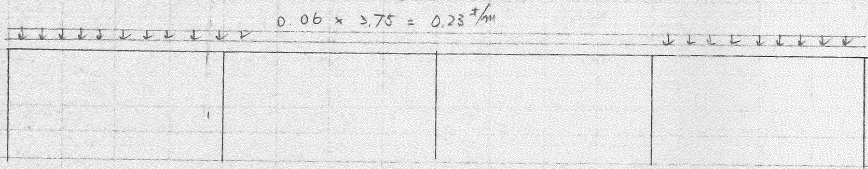
No. 75



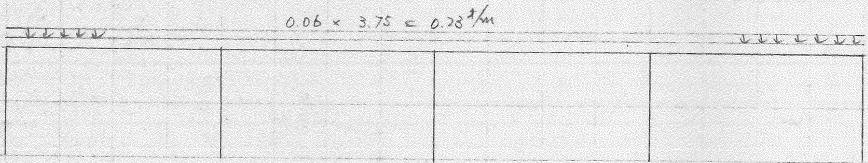
2-3 10列1-F 伊勢崎卸売市場水産冷蔵庫棟-12



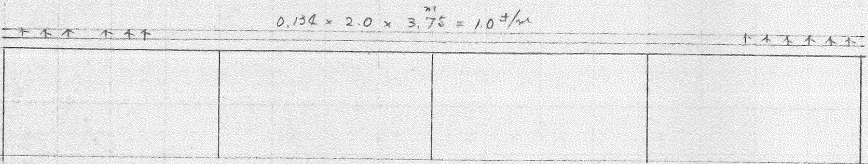
1) 鉛直荷重時



2) 積雪荷重時



3) 風荷重時



4) 地震荷重時



$$\begin{aligned} \text{梁} & 0.06 \times 3.75 \times 40 \times 0.2 = 1.8 \text{ t} \\ \text{柱} & 0.02 \times 3 \times 0.2 = 0.02 \\ & 1.82 \text{ t} \end{aligned}$$

** ASSUMED CONDITION ON MAIN FRAME ANALYSIS

* ITERATION TIMES --- 2 + 1 CYCLES

** MAIN FRAME TYPE NO. 0 - 0

* CONTROL DATA

NUMBER OF NODAL POINTS 10
NUMBER OF SUPPORTING POINTS 5
NUMBER OF MEMBERS 9
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	10.00	0.00	3	110	20.00	0.00
4	110	30.00	0.00	5	110	40.00	0.00	6	0	0.00	5.00
7	0	10.00	5.00	8	0	20.00	5.00	9	0	30.00	5.00
10	0	40.00	5.00								

* MEMBER SECTION TABLE

SECTION NO.	MEMB. TYPE NO.	TRUSS DEPTH (CM)	LATTICE TYPE N	MEMB. TYPE
1	1 H.N	0.0	0 0	
2	1 H.M	0.0	0 0	
5	1 H.W	0.0	0 0	

** LOAD DATA

*NUMBER OF LOAD CASE 4

* JOINT FORCE (INPUT NUMBER 1)

FORCE NO.	H- FORCE (T)	V- FORCE (T)	MOMENT (T.M)	NODAL POINT NO.
4	0.91	0.00	0.00	5 10 0 0 0

* MEMBER FORCE (INPUT NUMBER 3)

NOTE CASE G GLOBAL CO-ORDINATE W-TYPE 1 UNIFORM LOAD
L LOCAL CO-ORDINATE
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	6	7	8	9	0	
1	G	Z	1	-0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6	7	8	9	0
2	G	Z	1	-0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6	7	8	9	0
3	L	Z	1	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6	7	8	9	0