

「木三郎4」

金物工法による横架材及び
梁接合金物の検定

木三郎 4 追加マニュアル

本マニュアルでは、木三郎Ver4.06で追加、変更を行った項目について説明しています。

1. 追加内容 (Ver4.06)

(1) 追加項目

- ①横架材のせん断を负担する金物の検討を追加
- ②水平構面の許容せん断耐力の計算書で選定に用いる金物リストを追加

①横架材のせん断を负担する金物の検討を追加

一般財団法人 日本住宅・木材技術センター「木造軸組工法住宅の許容応力度設計(2008年版)」の
2.5.2.鉛直荷重による横架材のせん断に対する検定で、接合金物によってせん断力を受ける場合の
接合金物の検討、

2.4.8.横架材接合部の許容引張耐力の検定にある横架材端部の複合応力の検討
の内容を行えるようにするため以下の項目を追加しました。

(※計算内容の詳細については、上記書籍を参照してください。)

<せん断負担金物で梁端部を接合した場合>以下の確認を追加しました。

横架材の検定で長期時に $Q/Qa \leq 1$ の確認

Qa:横架材端接合金物の許容せん断耐力

Q:設計用せん断力

横架材の検定で短期時に $(Q/Qa)^n + (T/Ta)^n \leq 1$ の確認

Qa:横架材端接合金物の許容せん断耐力 Q:設計用せん断力

Ta:横架材端接合金物の許容せん断耐力 T:横架材接合部の引抜き力

n:接合形式で決まる階乗の指数で、ドリフトピン等の曲げ降伏型接合具を用いる場合において、
木材の厚さが接合具の径の8倍以上である接合部については、 $n=2$ とすることができます。
その他は $n=1$ とします。

②水平構面の許容せん断耐力の計算書で選定に用いる金物リストを追加

- ・水平構面の許容せん断耐力の計算書で選定に用いていた金物について、
従来4種固定だったものをリスト化し、ユーザー入力可能な形に変更しました。

(2) プログラムに追加、変更された内容

< 入力 >

- ・「接合部」の入力画面に「横架材」タブを追加し、「継手」「梁受け」の横架材金物のリスト入力を追加
- ・「梁検定」の入力時「梁の計算指定」の入力画面に「接合金物によるせん断力の負担」に関する入力を追加

< 計算 >

- ・水平構面の許容せん断耐力の計算で選定にユーザー作成リストを用いるように変更
- ・横架材の断面検定の計算時にせん断を负担する横架材接合金物がある場合にはその検討を追加

以下の計算時メッセージを追加

[入力エラー]

「～の横架材の左接合部金物のせん断耐力が0以下です。」

「～の横架材の右接合部金物のせん断耐力が0以下です。」

「～の横架材の左接合部金物の引き抜き耐力が0以下です。」

「～の横架材の右接合部金物の引き抜き耐力が0以下です。」

[計算エラー]

「～の横架材の左接合部金物の耐力が不足しています。」

「～の横架材の右接合部金物の耐力が不足しています。」

< 出力 >

- ・横架材の金物リスト及び伏図を出力(せん断を负担する横架材接合金物使用時)
- ・横架材の断面検定の出力で横架材接合金物の検討計算を出力(せん断を负担する横架材接合金物使用時)

2. 使い方

①横架材のせん断を負担する金物リストの作成

(1) 「接合部・筋かい」で横架材用の接合部リストを作成

- ・「接合部・筋かい」の「横架材」の「梁受け」の項目でせん断負担金物の接合部リストを作成します。

(入力値は短期耐力)

- ・「使う」のチェックボックスにチェックした部材が計算に使用されます。

※ ファイル(F) ウインドウ(W)												
一般事項		一般事項 2		通り	荷重	木材等	設計方針	使用材料	算定条件	接合部・筋かい	2次部材	基礎
柱頭柱脚		横架材		筋かい								
継手・仕口		梁受け										
使う	番号	記号	仕様	引張り耐力(kN)	せん断耐力(kN)							
<input checked="" type="checkbox"/>	1	GU1	ドリフトピン梁受け金物 K仕様	5	10							
<input checked="" type="checkbox"/>	2	GU2	ドリフトピン梁受け金物 T仕様	10	20							
<input type="checkbox"/>	3			0	0							
<input type="checkbox"/>	4			0	0							
<input type="checkbox"/>	5			0	0							
<input type="checkbox"/>	6			0	0							

(2) 「梁検定」でせん断を負担する金物の入力を作成

- ・「梁検定」の「梁の計算指定」の「接合金物によるせん断力の負担」の項目で

(1) で作成した金物を左端、右端それぞれで選択し、

同時考慮する引き抜き力、接合形式によるnの値を入力します。

注) 引き抜き力は自動計算されません、ここで入力した引き抜き力だけがせん断力とともに考慮されます。

梁の計算指定

1階 Y2x通り X1 - X3 耐力壁

寸法 (cm) x

材種 1 7 2 8 3 9 4 10 5 11 6 12

切り欠き なし 圧縮側 引張り側 追加荷重を軸力伝達する

追加等分布荷重 (N/m)

たわみ計算用 断面2次モーメントの低減(中間仕口等による欠損用) (1.0 = 低減なし)

曲げ計算用 欠損等による Zの低減係数 (0は上の切り欠き条件で計算、数値入力時はその値で計算)

せん断計算用 欠損等による Aeの低減係数 (0は上の切り欠き条件で計算、数値入力時はその値で計算)

接合金物によるせん断力の負担

同時考慮する引き抜き力 接合形式による n

左端 kN

右端 kN

<接合形式によるnの値>

n: 接合形式で決まる階乗の指数で、ドリフトピン等の曲げ降伏型接合具を用いる場合において、木材の厚さが接合具の径の8倍以上である接合部については、 $n=2$ とすることができます。その他は $n=1$ とします。

- ・「接合金物によるせん断力の負担」の項目を入力し、「追加」で配置後、「計算」、「詳細計算」を行います。

②水平構面の許容せん断耐力の計算書で選定に用いる金物リストの作成

「接合部・筋かい」の「横架材」の「継手・仕口」の項目で接合部リストを作成します。

(入力値は短期耐力)

※水平構面の許容せん断耐力の計算書で接合仕様の選定時、「使う」がチェックされていて耐力が足りているものをリスト上からサーチして最初に見つかったものが自動選定されます。

※ ファイル(F) ウィンドウ(W)

一般事項	一般事項 2	通り	荷重	木材等	設計方針	使用材料	算定条件	接合部・筋かい	2次部材	基礎
柱頭柱脚	横架材	筋かい								
継手・仕口	梁受け									

注) 接合部を追加する場合は、接合引っ張り耐力が低い順になるように入力ください(継手時)

使う	番号	記号	仕様	引張り耐力(kN)	せん断耐力(kN)
<input checked="" type="checkbox"/>	1	T1	大入れ蟻掛け+短冊金物	10.1	0
<input checked="" type="checkbox"/>	2	T2	大入れ蟻掛け+短冊金物	15.1	0
<input checked="" type="checkbox"/>	3	T3	大入れ蟻掛け+短冊金物	20	0
<input checked="" type="checkbox"/>	4	T4	大入れ蟻掛け+短冊金物	25	0
<input type="checkbox"/>	5			0	0
<input type="checkbox"/>	6			0	0
<input type="checkbox"/>	7			0	0
<input type="checkbox"/>	8			0	0

金物工法による横架材及び 梁接合金物の検定出力例

1. 一般事項

1.1 建物概要

物件名称: 横架材金物テスト

建築場所: 東京

建築主: でんこ

設計者: 東京デンコー

用途:	住宅				
規模:	床面積	1階	24.843	m ²	
		2階	24.843	m ²	
構造:	延面積	2階建て	49.686	m ²	
		木造			
軒	高さ		5.900	m	
		最高高さ	6.200	m	
		1階	2.700	m	
		2階	2.700	m	
1階床高さ		0.500	m		
	屋根形状	陸屋根			
仕上	屋根	勾配	X 0.0/ 10	Y 0.0/ 10	
		軒出	X 0.000 m	Y 0.000 m	
外	壁	1階	亜鉛鉄板ぶき		
		2階	モルタル仕上		
建設地:	一般地域				
地盤:	0.0 kN/m ²				
地業:	布基礎				

梁・桁・胴差断面検定 凡例

w	: 等分布荷重(追加含む)	(N/cm)
P	: 集中荷重	(N)
I	: 断面2次モーメント	(cm ⁴)
Z	: 有効断面係数 $b \times (h - \text{欠込み高})^2 / 6$	(cm ³)
	圧縮側に欠込みがある場合 正味断面係数	
	引張側に欠込みがある場合 正味断面係数の0.6倍	
Ae	: 有効断面積	(cm ²)
fbL	: 長期曲げ許容応力度	(N/mm ²)
fbS	: 短期曲げ許容応力度	(N/mm ²)
fsL	: 長期せん断許容応力度	(N/mm ²)
fsS	: 短期せん断許容応力度	(N/mm ²)
E	: ヤング係数	(N/mm ²)
E0	: 有効ヤング係数	(N/mm ²)
fs0	: 長期有効せん断許容応力度	(N/mm ²)
Mmax	: 簡易出力時最大曲げモーメント	(kN・cm)
Md中央	: 詳細出力時中央曲げモーメント	(kN・cm)
Md1~	: 詳細出力時集中荷重位置の曲げモーメント	(kN・cm)
Md	: 詳細出力時片持梁端部曲げモーメント	(kN・cm)
Qa	: 左側のせん断力	(N)
Qb	: 右側のせん断力	(N)
δ	: たわみ	(cm)
lQa	: せん断力負担金物長期許容せん断耐力	(kN)
sQa	: せん断力負担金物短期許容せん断耐力	(kN)
T	: 当該接合部の引抜力	(kN)
Ta	: せん断力負担金物短期許容引張耐力	(kN)

3.3.2 梁・桁・胴差断面検定結果

階、通り、位置、グループ番号： 小屋梁 Y1通り X1-X2 RG2

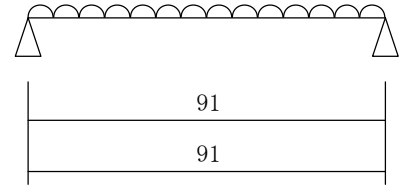
$w = 0.065 \times 45.5 + 0.099 \times 135.0 = 16.323 \text{ (N/cm)}$ (長期)

梁 (耐力壁上) 1種 10.5×12.0 (cm)

$I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $Ae = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	16.9	742.7	742.7	0.01
合計	16.9	742.7	742.7	0.01
Mmax/(Z×fbL)	= 16.90 / (252.00 × 1.03)			= 0.06 < 1.0 OK
$\alpha \times Q_{max} / (Ae \times fs0)$	= (1.50 × 742.67) / (126.00 × 90.00)			= 0.09 < 1.0 OK
$\delta \times (E/E0)$	= 0.010 (cm) = 1 / 9440.7			OK
せん断負担金物[左] (GU2)	$Qa/1Qa = 0.743 / (20.00 \times 0.55) = 0.07 < 1.0$			OK
せん断負担金物[右] (GU1)	$Qb/1Qa = 0.743 / (15.10 \times 0.55) = 0.09 < 1.0$			OK

短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	16.9	742.7	742.7	0.01
合計	16.9	742.7	742.7	0.01
Mmax/(Z×fbS)	= 16.90 / (252.00 × 1.88)			= 0.03 < 1.0 OK
$\alpha \times Q_{max} / (Ae \times fs0)$	= (1.50 × 742.67) / (126.00 × 160.00)			= 0.05 < 1.0 OK
$\delta = 0.010 \text{ (cm)} = 1 / 9440.7$				
せん断負担金物[左] (GU2)	$(Qa/sQa)^n + (T/Ta)^n = (0.743/20.00)^1 + (3.600/25.00)^1 = 0.181 < 1.0$			OK
せん断負担金物[右] (GU1)	$(Qa/sQa)^n + (T/Ta)^n = (0.743/15.10)^1 + (3.600/25.00)^1 = 0.193 < 1.0$			OK



階、通り、位置、グループ番号： 小屋梁 Y1通り X2-X3 RG2

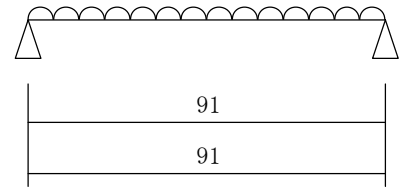
$w = 0.065 \times 45.5 + 0.099 \times 135.0 = 16.323 \text{ (N/cm)}$ (長期)

梁 (壁上) 1種 10.5×12.0 (cm)

$I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $Ae = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	16.9	742.7	742.7	0.01
合計	16.9	742.7	742.7	0.01
Mmax/(Z×fbL)	= 16.90 / (252.00 × 1.03)			= 0.06 < 1.0 OK
$\alpha \times Q_{max} / (Ae \times fs0)$	= (1.50 × 742.67) / (126.00 × 90.00)			= 0.09 < 1.0 OK
$\delta \times (E/E0)$	= 0.010 (cm) = 1 / 9440.7			OK
せん断負担金物[左] (GU1)	$Qa/1Qa = 0.743 / (15.10 \times 0.55) = 0.09 < 1.0$			OK
せん断負担金物[右] (GU1)	$Qb/1Qa = 0.743 / (15.10 \times 0.55) = 0.09 < 1.0$			OK

短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	16.9	742.7	742.7	0.01
合計	16.9	742.7	742.7	0.01
Mmax/(Z×fbS)	= 16.90 / (252.00 × 1.88)			= 0.03 < 1.0 OK
$\alpha \times Q_{max} / (Ae \times fs0)$	= (1.50 × 742.67) / (126.00 × 160.00)			= 0.05 < 1.0 OK
$\delta = 0.010 \text{ (cm)} = 1 / 9440.7$				
せん断負担金物[左] (GU1)	$(Qa/sQa)^n + (T/Ta)^n = (0.743/15.10)^1 + (3.600/25.00)^1 = 0.193 < 1.0$			OK
せん断負担金物[右] (GU1)	$(Qa/sQa)^n + (T/Ta)^n = (0.743/15.10)^1 + (3.600/25.00)^1 = 0.193 < 1.0$			OK



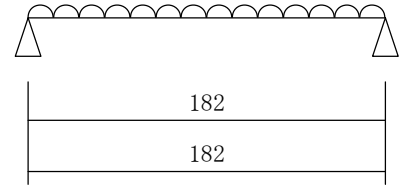
階、通り、位置、グループ番号： 小屋梁 Y1通り X3-X5 RG2

$w = 0.065 \times 91.0 + 0.099 \times 135.0 = 19.280 \text{ (N/cm)}$ (長期)

梁 (壁上) 1種 10.5×12.0 (cm)

$I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $A_e = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	79.8	1754.5	1754.5	0.18
合計	79.8	1754.5	1754.5	0.18
Mmax/(Z×fbL)	= 79.83 / (252.00 × 1.03)			= 0.30 < 1.0 OK
$\alpha \times Q_{max} / (A_e \times fs_0)$	= (1.50 × 1754.48) / (126.00 × 90.00)			= 0.23 < 1.0 OK
$\delta \times (E/E0)$	= 0.182 (cm) = 1 / 999.1			OK
せん断負担金物[左] (GU1)	$Qa/1Qa = 1.754 / (15.10 \times 0.55) = 0.21 < 1.0$			OK
せん断負担金物[右] (GU1)	$Qb/1Qa = 1.754 / (15.10 \times 0.55) = 0.21 < 1.0$			OK



短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	79.8	1754.5	1754.5	0.18
合計	79.8	1754.5	1754.5	0.18
Mmax/(Z×fbS)	= 79.83 / (252.00 × 1.88)			= 0.16 < 1.0 OK
$\alpha \times Q_{max} / (A_e \times fs_0)$	= (1.50 × 1754.48) / (126.00 × 160.00)			= 0.13 < 1.0 OK
$\delta = 0.182 \text{ (cm)} = 1 / 999.1$				
せん断負担金物[左] (GU1)	$(Qa/sQa)^n + (T/Ta)^n = (1.754/15.10)^1 + (3.600/25.00)^1 = 0.260 < 1.0$			OK
せん断負担金物[右] (GU1)	$(Qa/sQa)^n + (T/Ta)^n = (1.754/15.10)^1 + (3.600/25.00)^1 = 0.260 < 1.0$			OK

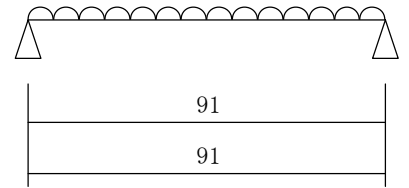
階、通り、位置、グループ番号： 小屋梁 Y1通り X5-X6 RG2

$w = 0.065 \times 91.0 + 0.099 \times 135.0 = 19.280 \text{ (N/cm)}$ (長期)

梁 (耐力壁上) 1種 10.5×12.0 (cm)

$I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $A_e = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	20.0	877.2	877.2	0.01
合計	20.0	877.2	877.2	0.01
Mmax/(Z×fbL)	= 19.96 / (252.00 × 1.03)			= 0.07 < 1.0 OK
$\alpha \times Q_{max} / (A_e \times fs_0)$	= (1.50 × 877.24) / (126.00 × 90.00)			= 0.11 < 1.0 OK
$\delta \times (E/E0)$	= 0.011 (cm) = 1 / 7992.5			OK
せん断負担金物[左] (GU1)	$Qa/1Qa = 0.877 / (15.10 \times 0.55) = 0.11 < 1.0$			OK
せん断負担金物[右] (GU1)	$Qb/1Qa = 0.877 / (15.10 \times 0.55) = 0.11 < 1.0$			OK



短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	20.0	877.2	877.2	0.01
合計	20.0	877.2	877.2	0.01
Mmax/(Z×fbS)	= 19.96 / (252.00 × 1.88)			= 0.04 < 1.0 OK
$\alpha \times Q_{max} / (A_e \times fs_0)$	= (1.50 × 877.24) / (126.00 × 160.00)			= 0.06 < 1.0 OK
$\delta = 0.011 \text{ (cm)} = 1 / 7992.5$				
せん断負担金物[左] (GU1)	$(Qa/sQa)^n + (T/Ta)^n = (0.877/15.10)^1 + (3.600/25.00)^1 = 0.202 < 1.0$			OK
せん断負担金物[右] (GU1)	$(Qa/sQa)^n + (T/Ta)^n = (0.877/15.10)^1 + (3.600/25.00)^1 = 0.202 < 1.0$			OK

階、通り、位置、グループ番号： 小屋梁 Y1通り X6-X7 RG2

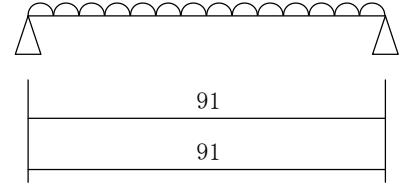
$w = 0.065 \times 91.0 + 0.099 \times 135.0 = 19.280 \text{ (N/cm)}$ (長期)

梁 (耐力壁上) 1種 10.5×12.0 (cm)

$I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $Ae = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	20.0	877.2	877.2	0.01
合計	20.0	877.2	877.2	0.01
Mmax/(Z×fbL)	= 19.96 / (252.00 × 1.03)			= 0.07 < 1.0 OK
$\alpha \times Q_{max}/(Ae \times fs0)$	= (1.50 × 877.24) / (126.00 × 90.00)			= 0.11 < 1.0 OK
$\delta \times (E/E0)$	= 0.011 (cm) = 1 / 7992.5			OK
せん断負担金物[左] (GU1)	$Qa/1Qa = 0.877 / (15.10 \times 0.55) = 0.11 < 1.0$			OK
せん断負担金物[右] (GU2)	$Qb/1Qa = 0.877 / (20.00 \times 0.55) = 0.08 < 1.0$			OK

短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	20.0	877.2	877.2	0.01
合計	20.0	877.2	877.2	0.01
Mmax/(Z×fbS)	= 19.96 / (252.00 × 1.88)			= 0.04 < 1.0 OK
$\alpha \times Q_{max}/(Ae \times fs0)$	= (1.50 × 877.24) / (126.00 × 160.00)			= 0.06 < 1.0 OK
$\delta = 0.011 \text{ (cm)} = 1 / 7992.5$				
せん断負担金物[左] (GU1)	$(Qa/sQa)^n + (T/Ta)^n = (0.877/15.10)^1 + (3.600/25.00)^1 = 0.202 < 1.0$			OK
せん断負担金物[右] (GU2)	$(Qa/sQa)^n + (T/Ta)^n = (0.877/20.00)^1 + (3.600/25.00)^1 = 0.188 < 1.0$			OK



階、通り、位置、グループ番号： 小屋梁 Y2通り X1-X3 RG2

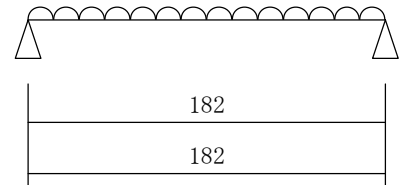
$w = 0.065 \times 45.5 + 0.065 \times 45.5 = 5.915 \text{ (N/cm)}$ (長期)

大梁 1種 10.5×12.0 (cm)

$I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $Ae = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	24.5	538.3	538.3	0.06
合計	24.5	538.3	538.3	0.06
Mmax/(Z×fbL)	= 24.49 / (252.00 × 1.03)			= 0.09 < 1.0 OK
$\alpha \times Q_{max}/(Ae \times fs0)$	= (1.50 × 538.27) / (126.00 × 90.00)			= 0.07 < 1.0 OK
$\delta \times (E/E0)$	= 0.056 (cm) = 1 / 3256.4			OK
せん断負担金物[左] (GU2)	$Qa/1Qa = 0.538 / (20.00 \times 0.55) = 0.05 < 1.0$			OK
せん断負担金物[右] (GU1)	$Qb/1Qa = 0.538 / (15.10 \times 0.55) = 0.06 < 1.0$			OK

短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	24.5	538.3	538.3	0.06
合計	24.5	538.3	538.3	0.06
Mmax/(Z×fbS)	= 24.49 / (252.00 × 1.88)			= 0.05 < 1.0 OK
$\alpha \times Q_{max}/(Ae \times fs0)$	= (1.50 × 538.27) / (126.00 × 160.00)			= 0.04 < 1.0 OK
$\delta = 0.056 \text{ (cm)} = 1 / 3256.4$				
せん断負担金物[左] (GU2)	$(Qa/sQa)^n + (T/Ta)^n = (0.538/20.00)^1 + (0.000/25.00)^1 = 0.027 < 1.0$			OK
せん断負担金物[右] (GU1)	$(Qa/sQa)^n + (T/Ta)^n = (0.538/15.10)^1 + (0.000/25.00)^1 = 0.036 < 1.0$			OK



階、通り、位置、グループ番号： 小屋梁 Y3通り X1-X3 RG2

$$w = 0.065 \times 45.5 + 0.065 \times 45.5 = 5.915 \text{ (N/cm)} \text{ (長期)}$$

大 梁 1種 10.5×12.0 (cm)

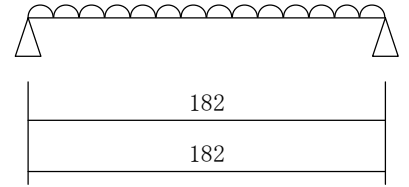
$$I = 1512.00 \text{ (cm}^4\text{)} \quad Z = 252.00 \text{ (cm}^3\text{)} \quad Ae = 126.00 \text{ (cm}^2\text{)}$$

$$fbL = 10.30 \text{ (N/mm}^2\text{)} \quad fsL = 0.90 \text{ (N/mm}^2\text{)} \quad E = 10000 \text{ (N/mm}^2\text{)}$$

$$fbS = 18.80 \text{ (N/mm}^2\text{)} \quad fsS = 1.60 \text{ (N/mm}^2\text{)}$$

$$fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2\text{)} \quad E0 = 1.0 \times E = 10000 \text{ (N/mm}^2\text{)}$$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	24.5	538.3	538.3	0.06
合計	24.5	538.3	538.3	0.06
Mmax/(Z×fbL)	= 24.49 / (252.00 × 1.03)			= 0.09 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 538.27) / (126.00 × 90.00)			= 0.07 < 1.0 OK
δ×(E/E0)	= 0.056 (cm) = 1 / 3256.4			OK
せん断負担金物[右] (GU1)	Qb/1Qa = 0.538/(15.10×0.55)			= 0.06 < 1.0 OK



短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	24.5	538.3	538.3	0.06
合計	24.5	538.3	538.3	0.06
Mmax/(Z×fbS)	= 24.49 / (252.00 × 1.88)			= 0.05 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 538.27) / (126.00 × 160.00)			= 0.04 < 1.0 OK
δ	= 0.056 (cm) = 1 / 3256.4			
せん断負担金物[右] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.538/15.10) ¹ +(0.000/25.00) ¹			= 0.036 < 1.0 OK

階、通り、位置、グループ番号： 小屋梁 Y3通り X3-X5 RG2

$$w = 0.065 \times 91.0 + 0.065 \times 91.0 = 11.830 \text{ (N/cm)} \text{ (長期)}$$

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)

$$P1 = 269.13 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$$

大 梁 1種 10.5×12.0 (cm)

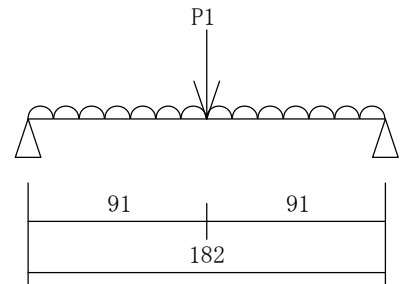
$$I = 1512.00 \text{ (cm}^4\text{)} \quad Z = 252.00 \text{ (cm}^3\text{)} \quad Ae = 126.00 \text{ (cm}^2\text{)}$$

$$fbL = 10.30 \text{ (N/mm}^2\text{)} \quad fsL = 0.90 \text{ (N/mm}^2\text{)} \quad E = 10000 \text{ (N/mm}^2\text{)}$$

$$fbS = 18.80 \text{ (N/mm}^2\text{)} \quad fsS = 1.60 \text{ (N/mm}^2\text{)}$$

$$fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2\text{)} \quad E0 = 1.0 \times E = 10000 \text{ (N/mm}^2\text{)}$$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	49.0	1076.5	1076.5	0.11
P1	12.2	134.6	134.6	0.02
合計	61.2	1211.1	1211.1	0.13
Mmax/(Z×fbL)	= 61.23 / (252.00 × 1.03)			= 0.23 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 1211.10) / (126.00 × 90.00)			= 0.16 < 1.0 OK
δ×(E/E0)	= 0.134 (cm) = 1 / 1356.9			OK
せん断負担金物[左] (GU1)	Qa/1Qa = 1.211/(15.10×0.55)			= 0.15 < 1.0 OK
せん断負担金物[右] (GU1)	Qb/1Qa = 1.211/(15.10×0.55)			= 0.15 < 1.0 OK

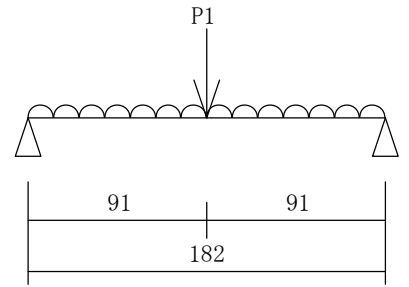


短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	49.0	1076.5	1076.5	0.11
P1	12.2	134.6	134.6	0.02
合計	61.2	1211.1	1211.1	0.13
Mmax/(Z×fbS)	= 61.23 / (252.00 × 1.88)			= 0.12 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 1211.10) / (126.00 × 160.00)			= 0.09 < 1.0 OK
δ	= 0.134 (cm) = 1 / 1356.9			
せん断負担金物[左] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(1.211/15.10) ¹ +(0.000/25.00) ¹			= 0.080 < 1.0 OK
せん断負担金物[右] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(1.211/15.10) ¹ +(0.000/25.00) ¹			= 0.080 < 1.0 OK

階、通り、位置、グループ番号： 小屋梁 Y3通り X5-X7 RG2
 $w = 0.065 \times 91.0 + 0.065 \times 91.0 = 11.830 \text{ (N/cm)}$ (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 $P1 = 269.13 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$
 大梁 1種 10.5×12.0 (cm)
 $I = 1512.00 \text{ (cm}^4\text{)} \quad Z = 252.00 \text{ (cm}^3\text{)} \quad Ae = 126.00 \text{ (cm}^2\text{)}$
 $fbL = 10.30 \text{ (N/mm}^2\text{)} \quad fsL = 0.90 \text{ (N/mm}^2\text{)} \quad E = 10000 \text{ (N/mm}^2\text{)}$
 $fbS = 18.80 \text{ (N/mm}^2\text{)} \quad fsS = 1.60 \text{ (N/mm}^2\text{)}$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2\text{)} \quad E0 = 1.0 \times E = 10000 \text{ (N/mm}^2\text{)}$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	49.0	1076.5	1076.5	0.11
P1	12.2	134.6	134.6	0.02
合計	61.2	1211.1	1211.1	0.13
Mmax/(Z×fbL)	= 61.23 / (252.00 × 1.03)			= 0.23 < 1.0 OK
$\alpha \times Q_{max} / (Ae \times fs0)$	= (1.50 × 1211.10) / (126.00 × 0.90)			= 0.16 < 1.0 OK
$\delta \times (E/E0)$	= 0.134 (cm) = 1 / 1356.9			OK
せん断負担金物[左] (GU1)	$Qa/1Qa = 1.211 / (15.10 \times 0.55) = 0.15 < 1.0$			OK
せん断負担金物[右] (GU1)	$Qb/1Qa = 1.211 / (15.10 \times 0.55) = 0.15 < 1.0$			OK

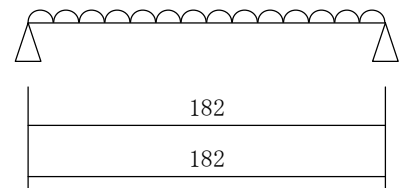


短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	49.0	1076.5	1076.5	0.11
P1	12.2	134.6	134.6	0.02
合計	61.2	1211.1	1211.1	0.13
Mmax/(Z×fbS)	= 61.23 / (252.00 × 1.88)			= 0.12 < 1.0 OK
$\alpha \times Q_{max} / (Ae \times fs0)$	= (1.50 × 1211.10) / (126.00 × 1.60)			= 0.09 < 1.0 OK
$\delta = 0.134 \text{ (cm)} = 1 / 1356.9$				OK
せん断負担金物[左] (GU1)	$(Qa/sQa)^n + (T/Ta)^n = (1.211/15.10)^1 + (0.000/25.00)^1 = 0.080 < 1.0$			OK
せん断負担金物[右] (GU1)	$(Qa/sQa)^n + (T/Ta)^n = (1.211/15.10)^1 + (0.000/25.00)^1 = 0.080 < 1.0$			OK

階、通り、位置、グループ番号： 小屋梁 Y4通り X1-X3 RG2
 $w = 0.065 \times 45.5 + 0.065 \times 45.5 = 5.915 \text{ (N/cm)}$ (長期)

大梁 1種 10.5×12.0 (cm)
 $I = 1512.00 \text{ (cm}^4\text{)} \quad Z = 252.00 \text{ (cm}^3\text{)} \quad Ae = 126.00 \text{ (cm}^2\text{)}$
 $fbL = 10.30 \text{ (N/mm}^2\text{)} \quad fsL = 0.90 \text{ (N/mm}^2\text{)} \quad E = 10000 \text{ (N/mm}^2\text{)}$
 $fbS = 18.80 \text{ (N/mm}^2\text{)} \quad fsS = 1.60 \text{ (N/mm}^2\text{)}$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2\text{)} \quad E0 = 1.0 \times E = 10000 \text{ (N/mm}^2\text{)}$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	24.5	538.3	538.3	0.06
合計	24.5	538.3	538.3	0.06
Mmax/(Z×fbL)	= 24.49 / (252.00 × 1.03)			= 0.09 < 1.0 OK
$\alpha \times Q_{max} / (Ae \times fs0)$	= (1.50 × 538.27) / (126.00 × 0.90)			= 0.07 < 1.0 OK
$\delta \times (E/E0)$	= 0.056 (cm) = 1 / 3256.4			OK
せん断負担金物[左] (GU2)	$Qa/1Qa = 0.538 / (20.00 \times 0.55) = 0.05 < 1.0$			OK
せん断負担金物[右] (GU1)	$Qb/1Qa = 0.538 / (15.10 \times 0.55) = 0.06 < 1.0$			OK



短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	24.5	538.3	538.3	0.06
合計	24.5	538.3	538.3	0.06
Mmax/(Z×fbS)	= 24.49 / (252.00 × 1.88)			= 0.05 < 1.0 OK
$\alpha \times Q_{max} / (Ae \times fs0)$	= (1.50 × 538.27) / (126.00 × 1.60)			= 0.04 < 1.0 OK
$\delta = 0.056 \text{ (cm)} = 1 / 3256.4$				OK
せん断負担金物[左] (GU2)	$(Qa/sQa)^n + (T/Ta)^n = (0.538/20.00)^1 + (0.000/25.00)^1 = 0.027 < 1.0$			OK
せん断負担金物[右] (GU1)	$(Qa/sQa)^n + (T/Ta)^n = (0.538/15.10)^1 + (0.000/25.00)^1 = 0.036 < 1.0$			OK

階、通り、位置、グループ番号： 小屋梁 Y4通り X4-X6 RG1

$w = 0.065 \times 45.5 + 0.065 \times 45.5 = 5.915 \text{ (N/cm)}$ (長期)

小 梁 1種 10.5×10.5 (cm)

$I = 1012.92 \text{ (cm}^4)$ $Z = 192.94 \text{ (cm}^3)$ $Ae = 110.25 \text{ (cm}^2)$

$fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$

$fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$

$fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)

w 24.5 538.3 538.3 0.08

合計 24.5 538.3 538.3 0.08

$Mmax / (Z \times fbL) = 24.49 / (192.94 \times 1.03) = 0.12 < 1.0$ OK

$\alpha \times Qmax / (Ae \times fs0) = (1.50 \times 538.27) / (110.25 \times 90.00) = 0.08 < 1.0$ OK

$\delta \times (E/E0) = 0.083 \text{ (cm)} = 1 / 2181.6$ OK

短期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)

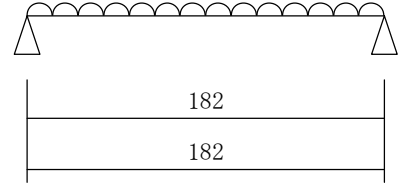
w 24.5 538.3 538.3 0.08

合計 24.5 538.3 538.3 0.08

$Mmax / (Z \times fbS) = 24.49 / (192.94 \times 1.88) = 0.06 < 1.0$ OK

$\alpha \times Qmax / (Ae \times fs0) = (1.50 \times 538.27) / (110.25 \times 160.00) = 0.04 < 1.0$ OK

$\delta = 0.083 \text{ (cm)} = 1 / 2181.6$



階、通り、位置、グループ番号： 小屋梁 Y5通り X1-X3 RG2

$w = 0.065 \times 45.5 + 0.065 \times 45.5 = 5.915 \text{ (N/cm)}$ (長期)

大 梁 1種 10.5×12.0 (cm)

$I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $Ae = 126.00 \text{ (cm}^2)$

$fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$

$fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$

$fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)

w 24.5 538.3 538.3 0.06

合計 24.5 538.3 538.3 0.06

$Mmax / (Z \times fbL) = 24.49 / (252.00 \times 1.03) = 0.09 < 1.0$ OK

$\alpha \times Qmax / (Ae \times fs0) = (1.50 \times 538.27) / (126.00 \times 90.00) = 0.07 < 1.0$ OK

$\delta \times (E/E0) = 0.056 \text{ (cm)} = 1 / 3256.4$ OK

せん断負担金物[左] (GU2) $Qa / lQa = 0.538 / (20.00 \times 0.55) = 0.05 < 1.0$ OK

せん断負担金物[右] (GU1) $Qb / lQa = 0.538 / (15.10 \times 0.55) = 0.06 < 1.0$ OK

短期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)

w 24.5 538.3 538.3 0.06

合計 24.5 538.3 538.3 0.06

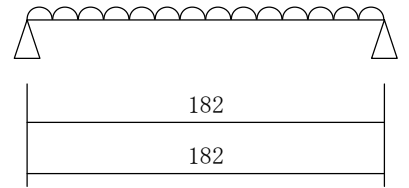
$Mmax / (Z \times fbS) = 24.49 / (252.00 \times 1.88) = 0.05 < 1.0$ OK

$\alpha \times Qmax / (Ae \times fs0) = (1.50 \times 538.27) / (126.00 \times 160.00) = 0.04 < 1.0$ OK

$\delta = 0.056 \text{ (cm)} = 1 / 3256.4$

せん断負担金物[左] (GU2) $(Qa / sQa)^n + (T / Ta)^n = (0.538 / 20.00)^1 + (3.600 / 25.00)^1 = 0.171 < 1.0$ OK

せん断負担金物[右] (GU1) $(Qa / sQa)^n + (T / Ta)^n = (0.538 / 15.10)^1 + (3.600 / 25.00)^1 = 0.180 < 1.0$ OK



階、通り、位置、グループ番号： 小屋梁 Y5通り X3-X4 RG2

$$w = 0.065 \times 91.0 + 0.065 \times 45.5 + 0.099 \times 135.0 = 22.238 \text{ (N/cm)} \text{ (長期)}$$

梁 (耐力壁上) 1種 10.5×12.0 (cm)

$$I = 1512.00 \text{ (cm}^4\text{)} \quad Z = 252.00 \text{ (cm}^3\text{)} \quad Ae = 126.00 \text{ (cm}^2\text{)}$$

$$fbL = 10.30 \text{ (N/mm}^2\text{)} \quad fsL = 0.90 \text{ (N/mm}^2\text{)} \quad E = 10000 \text{ (N/mm}^2\text{)}$$

$$fbS = 18.80 \text{ (N/mm}^2\text{)} \quad fsS = 1.60 \text{ (N/mm}^2\text{)}$$

$$fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2\text{)} \quad E0 = 1.0 \times E = 10000 \text{ (N/mm}^2\text{)}$$

長期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)

$$w \quad 23.0 \quad 1011.8 \quad 1011.8 \quad 0.01$$

$$\text{合計} \quad 23.0 \quad 1011.8 \quad 1011.8 \quad 0.01$$

$$Mmax / (Z \times fbL) = 23.02 / (252.00 \times 1.03) = 0.08 < 1.0 \quad \text{OK}$$

$$\alpha \times Qmax / (Ae \times fs0) = (1.50 \times 1011.81) / (126.00 \times 90.00) = 0.13 < 1.0 \quad \text{OK}$$

$$\delta \times (E/E0) = 0.013 \text{ (cm)} = 1 / 6929.5 \quad \text{OK}$$

$$\text{せん断負担金物[左] (GU1)} \quad Qa/1Qa = 1.012 / (15.10 \times 0.55) = 0.12 < 1.0 \quad \text{OK}$$

$$\text{せん断負担金物[右] (GU1)} \quad Qb/1Qa = 1.012 / (15.10 \times 0.55) = 0.12 < 1.0 \quad \text{OK}$$

短期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)

$$w \quad 23.0 \quad 1011.8 \quad 1011.8 \quad 0.01$$

$$\text{合計} \quad 23.0 \quad 1011.8 \quad 1011.8 \quad 0.01$$

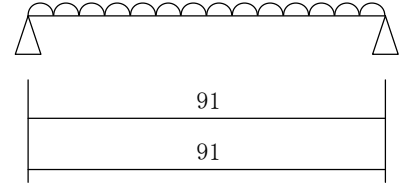
$$Mmax / (Z \times fbS) = 23.02 / (252.00 \times 1.88) = 0.04 < 1.0 \quad \text{OK}$$

$$\alpha \times Qmax / (Ae \times fs0) = (1.50 \times 1011.81) / (126.00 \times 160.00) = 0.07 < 1.0 \quad \text{OK}$$

$$\delta = 0.013 \text{ (cm)} = 1 / 6929.5$$

$$\text{せん断負担金物[左] (GU1)} \quad (Qa/sQa)^n + (T/Ta)^n = (1.012/15.10)^1 + (3.600/25.00)^1 = 0.211 < 1.0 \quad \text{OK}$$

$$\text{せん断負担金物[右] (GU1)} \quad (Qa/sQa)^n + (T/Ta)^n = (1.012/15.10)^1 + (3.600/25.00)^1 = 0.211 < 1.0 \quad \text{OK}$$



階、通り、位置、グループ番号： 小屋梁 Y5通り X4-X6 RG2

$$w = 0.065 \times 45.5 + 0.065 \times 45.5 + 0.099 \times 135.0 = 19.280 \text{ (N/cm)} \text{ (長期)}$$

梁 (壁上) 1種 10.5×12.0 (cm)

$$I = 1512.00 \text{ (cm}^4\text{)} \quad Z = 252.00 \text{ (cm}^3\text{)} \quad Ae = 126.00 \text{ (cm}^2\text{)}$$

$$fbL = 10.30 \text{ (N/mm}^2\text{)} \quad fsL = 0.90 \text{ (N/mm}^2\text{)} \quad E = 10000 \text{ (N/mm}^2\text{)}$$

$$fbS = 18.80 \text{ (N/mm}^2\text{)} \quad fsS = 1.60 \text{ (N/mm}^2\text{)}$$

$$fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2\text{)} \quad E0 = 1.0 \times E = 10000 \text{ (N/mm}^2\text{)}$$

長期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)

$$w \quad 79.8 \quad 1754.5 \quad 1754.5 \quad 0.18$$

$$\text{合計} \quad 79.8 \quad 1754.5 \quad 1754.5 \quad 0.18$$

$$Mmax / (Z \times fbL) = 79.83 / (252.00 \times 1.03) = 0.30 < 1.0 \quad \text{OK}$$

$$\alpha \times Qmax / (Ae \times fs0) = (1.50 \times 1754.48) / (126.00 \times 90.00) = 0.23 < 1.0 \quad \text{OK}$$

$$\delta \times (E/E0) = 0.182 \text{ (cm)} = 1 / 999.1 \quad \text{OK}$$

$$\text{せん断負担金物[左] (GU1)} \quad Qa/1Qa = 1.754 / (15.10 \times 0.55) = 0.21 < 1.0 \quad \text{OK}$$

$$\text{せん断負担金物[右] (GU1)} \quad Qb/1Qa = 1.754 / (15.10 \times 0.55) = 0.21 < 1.0 \quad \text{OK}$$

短期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)

$$w \quad 79.8 \quad 1754.5 \quad 1754.5 \quad 0.18$$

$$\text{合計} \quad 79.8 \quad 1754.5 \quad 1754.5 \quad 0.18$$

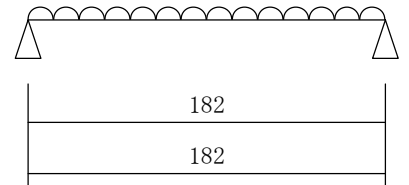
$$Mmax / (Z \times fbS) = 79.83 / (252.00 \times 1.88) = 0.16 < 1.0 \quad \text{OK}$$

$$\alpha \times Qmax / (Ae \times fs0) = (1.50 \times 1754.48) / (126.00 \times 160.00) = 0.13 < 1.0 \quad \text{OK}$$

$$\delta = 0.182 \text{ (cm)} = 1 / 999.1$$

$$\text{せん断負担金物[左] (GU1)} \quad (Qa/sQa)^n + (T/Ta)^n = (1.754/15.10)^1 + (3.600/25.00)^1 = 0.260 < 1.0 \quad \text{OK}$$

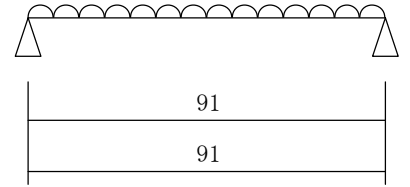
$$\text{せん断負担金物[右] (GU1)} \quad (Qa/sQa)^n + (T/Ta)^n = (1.754/15.10)^1 + (3.600/25.00)^1 = 0.260 < 1.0 \quad \text{OK}$$



階、通り、位置、グループ番号： 小屋梁 Y5通り X6-X7 RG2
 $w = 0.065 \times 91.0 + 0.065 \times 45.5 + 0.099 \times 135.0 = 22.238 \text{ (N/cm)}$ (長期)
 梁 (耐力壁上) 1種 10.5×12.0 (cm)
 $I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $Ae = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	23.0	1011.8	1011.8	0.01
合計	23.0	1011.8	1011.8	0.01

$M_{max}/(Z \times fbL) = 23.02 / (252.00 \times 1.03) = 0.08 < 1.0 \text{ OK}$
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1011.81) / (126.00 \times 90.00) = 0.13 < 1.0 \text{ OK}$
 $\delta \times (E/E0) = 0.013 \text{ (cm)} = 1 / 6929.5 \text{ OK}$
 せん断負担金物[左] (GU1) $Qa/1Qa = 1.012 / (15.10 \times 0.55) = 0.12 < 1.0 \text{ OK}$
 せん断負担金物[右] (GU2) $Qb/1Qa = 1.012 / (20.00 \times 0.55) = 0.09 < 1.0 \text{ OK}$



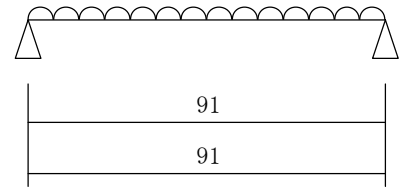
短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	23.0	1011.8	1011.8	0.01
合計	23.0	1011.8	1011.8	0.01

$M_{max}/(Z \times fbS) = 23.02 / (252.00 \times 1.88) = 0.04 < 1.0 \text{ OK}$
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1011.81) / (126.00 \times 160.00) = 0.07 < 1.0 \text{ OK}$
 $\delta = 0.013 \text{ (cm)} = 1 / 6929.5$
 せん断負担金物[左] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.012/15.10)^1 + (3.600/25.00)^1 = 0.211 < 1.0 \text{ OK}$
 せん断負担金物[右] (GU2) $(Qa/sQa)^n + (T/Ta)^n = (1.012/20.00)^1 + (3.600/25.00)^1 = 0.195 < 1.0 \text{ OK}$

階、通り、位置、グループ番号： 小屋梁 Y6通り X1-X2 RG2
 $w = 0.065 \times 45.5 + 0.099 \times 135.0 = 16.323 \text{ (N/cm)}$ (長期)
 梁 (耐力壁上) 1種 10.5×12.0 (cm)
 $I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $Ae = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	16.9	742.7	742.7	0.01
合計	16.9	742.7	742.7	0.01

$M_{max}/(Z \times fbL) = 16.90 / (252.00 \times 1.03) = 0.06 < 1.0 \text{ OK}$
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 742.67) / (126.00 \times 90.00) = 0.09 < 1.0 \text{ OK}$
 $\delta \times (E/E0) = 0.010 \text{ (cm)} = 1 / 9440.7 \text{ OK}$
 せん断負担金物[左] (GU2) $Qa/1Qa = 0.743 / (20.00 \times 0.55) = 0.07 < 1.0 \text{ OK}$
 せん断負担金物[右] (GU1) $Qb/1Qa = 0.743 / (15.10 \times 0.55) = 0.09 < 1.0 \text{ OK}$



短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	16.9	742.7	742.7	0.01
合計	16.9	742.7	742.7	0.01

$M_{max}/(Z \times fbS) = 16.90 / (252.00 \times 1.88) = 0.03 < 1.0 \text{ OK}$
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 742.67) / (126.00 \times 160.00) = 0.05 < 1.0 \text{ OK}$
 $\delta = 0.010 \text{ (cm)} = 1 / 9440.7$
 せん断負担金物[左] (GU2) $(Qa/sQa)^n + (T/Ta)^n = (0.743/20.00)^1 + (3.600/25.00)^1 = 0.181 < 1.0 \text{ OK}$
 せん断負担金物[右] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (0.743/15.10)^1 + (3.600/25.00)^1 = 0.193 < 1.0 \text{ OK}$

階、通り、位置、グループ番号： 小屋梁 Y6通り X2-X3 RG2

$$w = 0.065 \times 45.5 + 0.099 \times 135.0 = 16.323 \text{ (N/cm) (長期)}$$

梁 (耐力壁上) 1種 10.5×12.0 (cm)

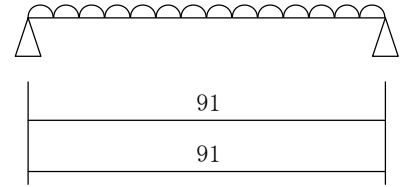
$$I = 1512.00 \text{ (cm}^4\text{)} \quad Z = 252.00 \text{ (cm}^3\text{)} \quad Ae = 126.00 \text{ (cm}^2\text{)}$$

$$fbL = 10.30 \text{ (N/mm}^2\text{)} \quad fsL = 0.90 \text{ (N/mm}^2\text{)} \quad E = 10000 \text{ (N/mm}^2\text{)}$$

$$fbS = 18.80 \text{ (N/mm}^2\text{)} \quad fsS = 1.60 \text{ (N/mm}^2\text{)}$$

$$fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2\text{)} \quad E0 = 1.0 \times E = 10000 \text{ (N/mm}^2\text{)}$$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	16.9	742.7	742.7	0.01
合計	16.9	742.7	742.7	0.01
Mmax/(Z×fbL)	= 16.90 / (252.00 × 1.03)			= 0.06 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 742.67) / (126.00 × 90.00)			= 0.09 < 1.0 OK
δ×(E/E0)	= 0.010 (cm) = 1 / 9440.7			OK
せん断負担金物[左] (GU1)	Qa/1Qa = 0.743 / (15.10 × 0.55)			= 0.09 < 1.0 OK
せん断負担金物[右] (GU1)	Qb/1Qa = 0.743 / (15.10 × 0.55)			= 0.09 < 1.0 OK



短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	16.9	742.7	742.7	0.01
合計	16.9	742.7	742.7	0.01
Mmax/(Z×fbS)	= 16.90 / (252.00 × 1.88)			= 0.03 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 742.67) / (126.00 × 160.00)			= 0.05 < 1.0 OK
δ	= 0.010 (cm) = 1 / 9440.7			
せん断負担金物[左] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.743/15.10) ¹ +(3.600/25.00) ¹			= 0.193 < 1.0 OK
せん断負担金物[右] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.743/15.10) ¹ +(3.600/25.00) ¹			= 0.193 < 1.0 OK

階、通り、位置、グループ番号： 小屋梁 Y6通り X3-X4 RG2

$$w = 0.065 \times 45.5 + 0.099 \times 135.0 = 16.323 \text{ (N/cm) (長期)}$$

梁 (壁上) 1種 10.5×12.0 (cm)

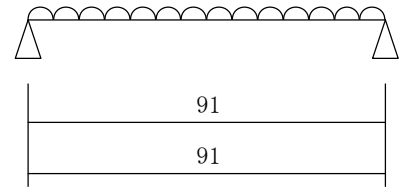
$$I = 1512.00 \text{ (cm}^4\text{)} \quad Z = 252.00 \text{ (cm}^3\text{)} \quad Ae = 126.00 \text{ (cm}^2\text{)}$$

$$fbL = 10.30 \text{ (N/mm}^2\text{)} \quad fsL = 0.90 \text{ (N/mm}^2\text{)} \quad E = 10000 \text{ (N/mm}^2\text{)}$$

$$fbS = 18.80 \text{ (N/mm}^2\text{)} \quad fsS = 1.60 \text{ (N/mm}^2\text{)}$$

$$fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2\text{)} \quad E0 = 1.0 \times E = 10000 \text{ (N/mm}^2\text{)}$$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	16.9	742.7	742.7	0.01
合計	16.9	742.7	742.7	0.01
Mmax/(Z×fbL)	= 16.90 / (252.00 × 1.03)			= 0.06 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 742.67) / (126.00 × 90.00)			= 0.09 < 1.0 OK
δ×(E/E0)	= 0.010 (cm) = 1 / 9440.7			OK
せん断負担金物[左] (GU1)	Qa/1Qa = 0.743 / (15.10 × 0.55)			= 0.09 < 1.0 OK
せん断負担金物[右] (GU1)	Qb/1Qa = 0.743 / (15.10 × 0.55)			= 0.09 < 1.0 OK



短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	16.9	742.7	742.7	0.01
合計	16.9	742.7	742.7	0.01
Mmax/(Z×fbS)	= 16.90 / (252.00 × 1.88)			= 0.03 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 742.67) / (126.00 × 160.00)			= 0.05 < 1.0 OK
δ	= 0.010 (cm) = 1 / 9440.7			
せん断負担金物[左] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.743/15.10) ¹ +(3.600/25.00) ¹			= 0.193 < 1.0 OK
せん断負担金物[右] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.743/15.10) ¹ +(3.600/25.00) ¹			= 0.193 < 1.0 OK

階、通り、位置、グループ番号： 小屋梁 Y6通り X4-X6 RG2

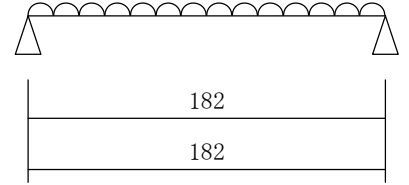
w = 0.065 × 45.5 = 2.957(N/cm) (長期)

大梁 1種 10.5×12.0 (cm)

I = 1512.00(cm⁴) Z = 252.00(cm³) Ae = 126.00(cm²)
 fbL = 10.30(N/mm²) fsL = 0.90(N/mm²) E = 10000(N/mm²)
 fbS = 18.80(N/mm²) fsS = 1.60(N/mm²)
 fs0 = 1.0×fsL = 0.900(N/mm²) E0 = 1.0×E = 10000(N/mm²)

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	12.2	269.1	269.1	0.03
合計	12.2	269.1	269.1	0.03
Mmax/(Z×fbL)	= 12.25 / (252.00 × 1.03)			= 0.04 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50×269.13)/(126.00×90.00)			= 0.03 < 1.0 OK
δ×(E/E0)	= 0.028 (cm) = 1 / 6512.9			OK
せん断負担金物[左] (GU1)	Qa/1Qa = 0.269/(15.10×0.55)			= 0.03 < 1.0 OK
せん断負担金物[右] (GU1)	Qb/1Qa = 0.269/(15.10×0.55)			= 0.03 < 1.0 OK

短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	12.2	269.1	269.1	0.03
合計	12.2	269.1	269.1	0.03
Mmax/(Z×fbS)	= 12.25 / (252.00 × 1.88)			= 0.02 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50×269.13)/(126.00×160.00)			= 0.02 < 1.0 OK
δ	= 0.028 (cm) = 1 / 6512.9			
せん断負担金物[左] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.269/15.10) ¹ +(3.600/25.00) ¹			= 0.162 < 1.0 OK
せん断負担金物[右] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.269/15.10) ¹ +(3.600/25.00) ¹			= 0.162 < 1.0 OK



階、通り、位置、グループ番号： 小屋梁 Y6通り X6-X7 RG2

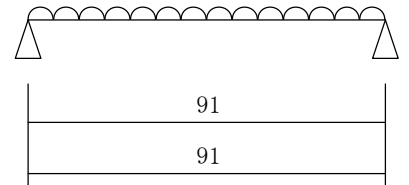
w = 0.065 × 45.5 + 0.099 × 135.0 = 16.323(N/cm) (長期)

梁 (壁上) 1種 10.5×12.0 (cm)

I = 1512.00(cm⁴) Z = 252.00(cm³) Ae = 126.00(cm²)
 fbL = 10.30(N/mm²) fsL = 0.90(N/mm²) E = 10000(N/mm²)
 fbS = 18.80(N/mm²) fsS = 1.60(N/mm²)
 fs0 = 1.0×fsL = 0.900(N/mm²) E0 = 1.0×E = 10000(N/mm²)

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	16.9	742.7	742.7	0.01
合計	16.9	742.7	742.7	0.01
Mmax/(Z×fbL)	= 16.90 / (252.00 × 1.03)			= 0.06 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50×742.67)/(126.00×90.00)			= 0.09 < 1.0 OK
δ×(E/E0)	= 0.010 (cm) = 1 / 9440.7			OK
せん断負担金物[左] (GU1)	Qa/1Qa = 0.743/(15.10×0.55)			= 0.09 < 1.0 OK
せん断負担金物[右] (GU2)	Qb/1Qa = 0.743/(20.00×0.55)			= 0.07 < 1.0 OK

短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	16.9	742.7	742.7	0.01
合計	16.9	742.7	742.7	0.01
Mmax/(Z×fbS)	= 16.90 / (252.00 × 1.88)			= 0.03 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50×742.67)/(126.00×160.00)			= 0.05 < 1.0 OK
δ	= 0.010 (cm) = 1 / 9440.7			
せん断負担金物[左] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.743/15.10) ¹ +(3.600/25.00) ¹			= 0.193 < 1.0 OK
せん断負担金物[右] (GU2)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.743/20.00) ¹ +(3.600/25.00) ¹			= 0.181 < 1.0 OK



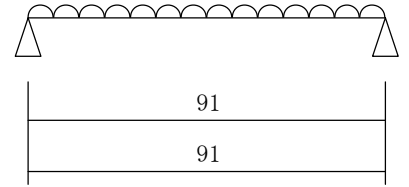
階、通り、位置、グループ番号： 小屋梁 X1通り Y1-Y2 RG2

w = 0.099 × 135.0 = 13.365 (N/cm) (長期)

梁 (耐力壁上) 1種 10.5 × 12.0 (cm)

I = 1512.00 (cm⁴) Z = 252.00 (cm³) Ae = 126.00 (cm²)
 fbL = 10.30 (N/mm²) fsL = 0.90 (N/mm²) E = 10000 (N/mm²)
 fbS = 18.80 (N/mm²) fsS = 1.60 (N/mm²)
 fs0 = 1.0 × fsL = 0.900 (N/mm²) E0 = 1.0 × E = 10000 (N/mm²)

長期	Mmax (kN·cm)	Qa (N)	Qb (N)	δ (cm)
w	13.8	608.1	608.1	0.01
合計	13.8	608.1	608.1	0.01
Mmax / (Z × fbL)	= 13.83 / (252.00 × 1.03)			= 0.05 < 1.0 OK
α × Qmax / (Ae × fs0)	= (1.50 × 608.11) / (126.00 × 90.00)			= 0.08 < 1.0 OK
δ × (E/E0)	= 0.008 (cm) = 1 / 11529.7			OK
せん断負担金物[左] (GU2)	Qa / lQa = 0.608 / (20.00 × 0.55)			= 0.06 < 1.0 OK
せん断負担金物[右] (GU1)	Qb / lQa = 0.608 / (15.10 × 0.55)			= 0.07 < 1.0 OK



短期	Mmax (kN·cm)	Qa (N)	Qb (N)	δ (cm)
w	13.8	608.1	608.1	0.01
合計	13.8	608.1	608.1	0.01
Mmax / (Z × fbS)	= 13.83 / (252.00 × 1.88)			= 0.02 < 1.0 OK
α × Qmax / (Ae × fs0)	= (1.50 × 608.11) / (126.00 × 160.00)			= 0.04 < 1.0 OK
δ	= 0.008 (cm) = 1 / 11529.7			
せん断負担金物[左] (GU2)	(Qa / sQa) ^ n + (T / Ta) ^ n = (0.608 / 20.00) ^ 1 + (3.600 / 25.00) ^ 1			= 0.174 < 1.0 OK
せん断負担金物[右] (GU1)	(Qa / sQa) ^ n + (T / Ta) ^ n = (0.608 / 15.10) ^ 1 + (3.600 / 25.00) ^ 1			= 0.184 < 1.0 OK

階、通り、位置、グループ番号： 小屋梁 X1通り Y2-Y4 RG2

w = 0.099 × 135.0 = 13.365 (N/cm) (長期)

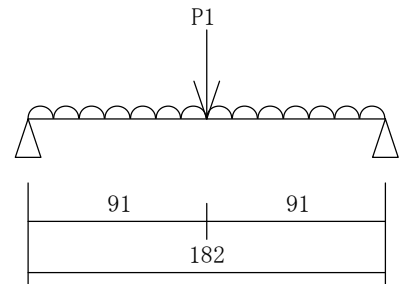
(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)

P1 = 538.27 0.00 0.00 0.00 0.00

梁 (壁上) 1種 10.5 × 12.0 (cm)

I = 1512.00 (cm⁴) Z = 252.00 (cm³) Ae = 126.00 (cm²)
 fbL = 10.30 (N/mm²) fsL = 0.90 (N/mm²) E = 10000 (N/mm²)
 fbS = 18.80 (N/mm²) fsS = 1.60 (N/mm²)
 fs0 = 1.0 × fsL = 0.900 (N/mm²) E0 = 1.0 × E = 10000 (N/mm²)

長期	Mmax (kN·cm)	Qa (N)	Qb (N)	δ (cm)
w	55.3	1216.2	1216.2	0.13
P1	24.5	269.1	269.1	0.04
合計	79.8	1485.3	1485.3	0.17
Mmax / (Z × fbL)	= 79.83 / (252.00 × 1.03)			= 0.30 < 1.0 OK
α × Qmax / (Ae × fs0)	= (1.50 × 1485.35) / (126.00 × 90.00)			= 0.19 < 1.0 OK
δ × (E/E0)	= 0.171 (cm) = 1 / 1064.4			OK
せん断負担金物[左] (GU1)	Qa / lQa = 1.485 / (15.10 × 0.55)			= 0.18 < 1.0 OK
せん断負担金物[右] (GU1)	Qb / lQa = 1.485 / (15.10 × 0.55)			= 0.18 < 1.0 OK



短期	Mmax (kN·cm)	Qa (N)	Qb (N)	δ (cm)
w	55.3	1216.2	1216.2	0.13
P1	24.5	269.1	269.1	0.04
合計	79.8	1485.3	1485.3	0.17
Mmax / (Z × fbS)	= 79.83 / (252.00 × 1.88)			= 0.16 < 1.0 OK
α × Qmax / (Ae × fs0)	= (1.50 × 1485.35) / (126.00 × 160.00)			= 0.11 < 1.0 OK
δ	= 0.171 (cm) = 1 / 1064.4			
せん断負担金物[左] (GU1)	(Qa / sQa) ^ n + (T / Ta) ^ n = (1.485 / 15.10) ^ 1 + (3.600 / 25.00) ^ 1			= 0.242 < 1.0 OK
せん断負担金物[右] (GU1)	(Qa / sQa) ^ n + (T / Ta) ^ n = (1.485 / 15.10) ^ 1 + (3.600 / 25.00) ^ 1			= 0.242 < 1.0 OK

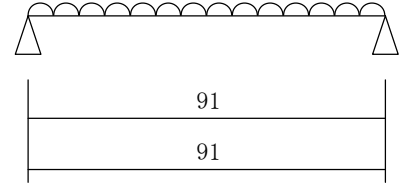
階、通り、位置、グループ番号： 小屋梁 X1通り Y4-Y5 RG2

w = 0.099 × 135.0 = 13.365(N/cm) (長期)

梁(壁上) 1種 10.5×12.0 (cm)

I = 1512.00(cm⁴) Z = 252.00(cm³) Ae = 126.00(cm²)
 fbL = 10.30(N/mm²) fsL = 0.90(N/mm²) E = 10000(N/mm²)
 fbS = 18.80(N/mm²) fsS = 1.60(N/mm²)
 fs0 = 1.0×fsL = 0.900(N/mm²) E0 = 1.0×E = 10000(N/mm²)

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	13.8	608.1	608.1	0.01
合計	13.8	608.1	608.1	0.01
Mmax/(Z×fbL)	= 13.83 / (252.00 × 1.03)			= 0.05 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50×608.11)/(126.00×90.00)			= 0.08 < 1.0 OK
δ×(E/E0)	= 0.008 (cm) = 1 / 11529.7			OK
せん断負担金物[左](GU1)	Qa/1Qa = 0.608/(15.10×0.55)			= 0.07 < 1.0 OK
せん断負担金物[右](GU1)	Qb/1Qa = 0.608/(15.10×0.55)			= 0.07 < 1.0 OK



短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	13.8	608.1	608.1	0.01
合計	13.8	608.1	608.1	0.01
Mmax/(Z×fbS)	= 13.83 / (252.00 × 1.88)			= 0.02 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50×608.11)/(126.00×160.00)			= 0.04 < 1.0 OK
δ	= 0.008 (cm) = 1 / 11529.7			
せん断負担金物[左](GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.608/15.10) ¹ +(3.600/25.00) ¹			= 0.184 < 1.0 OK
せん断負担金物[右](GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.608/15.10) ¹ +(3.600/25.00) ¹			= 0.184 < 1.0 OK

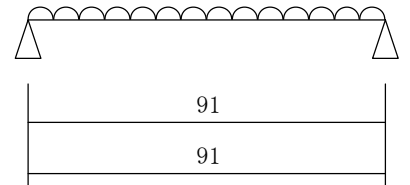
階、通り、位置、グループ番号： 小屋梁 X1通り Y5-Y6 RG2

w = 0.099 × 135.0 = 13.365(N/cm) (長期)

梁(耐力壁上) 1種 10.5×12.0 (cm)

I = 1512.00(cm⁴) Z = 252.00(cm³) Ae = 126.00(cm²)
 fbL = 10.30(N/mm²) fsL = 0.90(N/mm²) E = 10000(N/mm²)
 fbS = 18.80(N/mm²) fsS = 1.60(N/mm²)
 fs0 = 1.0×fsL = 0.900(N/mm²) E0 = 1.0×E = 10000(N/mm²)

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	13.8	608.1	608.1	0.01
合計	13.8	608.1	608.1	0.01
Mmax/(Z×fbL)	= 13.83 / (252.00 × 1.03)			= 0.05 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50×608.11)/(126.00×90.00)			= 0.08 < 1.0 OK
δ×(E/E0)	= 0.008 (cm) = 1 / 11529.7			OK
せん断負担金物[左](GU1)	Qa/1Qa = 0.608/(15.10×0.55)			= 0.07 < 1.0 OK
せん断負担金物[右](GU2)	Qb/1Qa = 0.608/(20.00×0.55)			= 0.06 < 1.0 OK



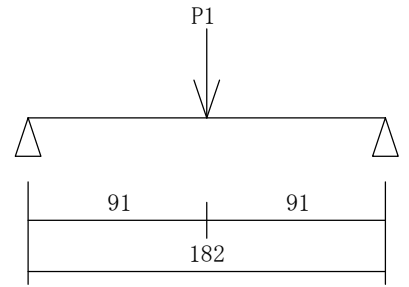
短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	13.8	608.1	608.1	0.01
合計	13.8	608.1	608.1	0.01
Mmax/(Z×fbS)	= 13.83 / (252.00 × 1.88)			= 0.02 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50×608.11)/(126.00×160.00)			= 0.04 < 1.0 OK
δ	= 0.008 (cm) = 1 / 11529.7			
せん断負担金物[左](GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.608/15.10) ¹ +(3.600/25.00) ¹			= 0.184 < 1.0 OK
せん断負担金物[右](GU2)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.608/20.00) ¹ +(3.600/25.00) ¹			= 0.174 < 1.0 OK

階、通り、位置、グループ番号： 小屋梁 X3通り Y1-Y3 RG2

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 P1 = 538.27 0.00 0.00 0.00 0.00
 大梁 1種 10.5×12.0 (cm)
 I = 1512.00(cm⁴) Z = 252.00(cm³) Ae = 126.00(cm²)
 fbL = 10.30(N/mm²) fsL = 0.90(N/mm²) E = 10000(N/mm²)
 fbS = 18.80(N/mm²) fsS = 1.60(N/mm²)
 fs0 = 1.0×fsL = 0.900(N/mm²) E0 = 1.0×E = 10000(N/mm²)

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
P1	24.5	269.1	269.1	0.04
合計	24.5	269.1	269.1	0.04
Mmax/(Z×fbL)	= 24.49 / (252.00 × 1.03)			= 0.09 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 269.13) / (126.00 × 90.00)			= 0.03 < 1.0 OK
δ×(E/E0)	= 0.045 (cm) = 1 / 4070.6			OK
せん断負担金物[左] (GU2)	Qa/1Qa = 0.269 / (20.00 × 0.55)			= 0.02 < 1.0 OK
せん断負担金物[右] (GU1)	Qb/1Qa = 0.269 / (15.10 × 0.55)			= 0.03 < 1.0 OK

短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
P1	24.5	269.1	269.1	0.04
合計	24.5	269.1	269.1	0.04
Mmax/(Z×fbS)	= 24.49 / (252.00 × 1.88)			= 0.05 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 269.13) / (126.00 × 160.00)			= 0.02 < 1.0 OK
δ	= 0.045 (cm) = 1 / 4070.6			
せん断負担金物[左] (GU2)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.269/20.00) ¹ +(3.600/25.00) ¹			= 0.157 < 1.0 OK
せん断負担金物[右] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.269/15.10) ¹ +(3.600/25.00) ¹			= 0.162 < 1.0 OK

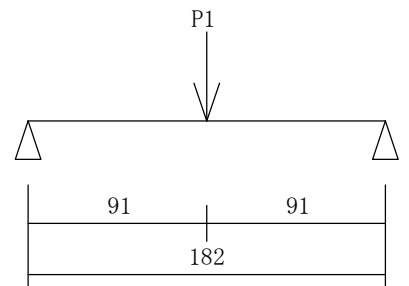


階、通り、位置、グループ番号： 小屋梁 X3通り Y3-Y5 RG2

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 P1 = 538.27 0.00 0.00 0.00 0.00
 大梁 1種 10.5×12.0 (cm)
 I = 1512.00(cm⁴) Z = 252.00(cm³) Ae = 126.00(cm²)
 fbL = 10.30(N/mm²) fsL = 0.90(N/mm²) E = 10000(N/mm²)
 fbS = 18.80(N/mm²) fsS = 1.60(N/mm²)
 fs0 = 1.0×fsL = 0.900(N/mm²) E0 = 1.0×E = 10000(N/mm²)

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
P1	24.5	269.1	269.1	0.04
合計	24.5	269.1	269.1	0.04
Mmax/(Z×fbL)	= 24.49 / (252.00 × 1.03)			= 0.09 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 269.13) / (126.00 × 90.00)			= 0.03 < 1.0 OK
δ×(E/E0)	= 0.045 (cm) = 1 / 4070.6			OK
せん断負担金物[左] (GU1)	Qa/1Qa = 0.269 / (15.10 × 0.55)			= 0.03 < 1.0 OK
せん断負担金物[右] (GU1)	Qb/1Qa = 0.269 / (15.10 × 0.55)			= 0.03 < 1.0 OK

短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
P1	24.5	269.1	269.1	0.04
合計	24.5	269.1	269.1	0.04
Mmax/(Z×fbS)	= 24.49 / (252.00 × 1.88)			= 0.05 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 269.13) / (126.00 × 160.00)			= 0.02 < 1.0 OK
δ	= 0.045 (cm) = 1 / 4070.6			
せん断負担金物[左] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.269/15.10) ¹ +(0.000/25.00) ¹			= 0.018 < 1.0 OK
せん断負担金物[右] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.269/15.10) ¹ +(0.000/25.00) ¹			= 0.018 < 1.0 OK



階、通り、位置、グループ番号： 小屋梁 X3通り Y5-Y6 RG1

w = 0.099 × 135.0 = 13.365 (N/cm) (長期)

梁 (耐力壁上) 1種 10.5 × 10.5 (cm)

I = 1012.92 (cm⁴) Z = 192.94 (cm³) Ae = 110.25 (cm²)

fbL = 10.30 (N/mm²) fsL = 0.90 (N/mm²) E = 10000 (N/mm²)

fbS = 18.80 (N/mm²) fsS = 1.60 (N/mm²)

fs0 = 1.0 × fsL = 0.900 (N/mm²) E0 = 1.0 × E = 10000 (N/mm²)

長期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)

w 13.8 608.1 608.1 0.01

合計 13.8 608.1 608.1 0.01

Mmax / (Z × fbL) = 13.83 / (192.94 × 1.03) = 0.06 < 1.0 OK

α × Qmax / (Ae × fs0) = (1.50 × 608.11) / (110.25 × 90.00) = 0.09 < 1.0 OK

δ × (E/E0) = 0.012 (cm) = 1 / 7724.0 OK

短期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)

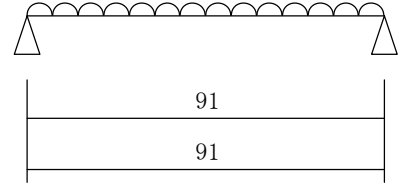
w 13.8 608.1 608.1 0.01

合計 13.8 608.1 608.1 0.01

Mmax / (Z × fbS) = 13.83 / (192.94 × 1.88) = 0.03 < 1.0 OK

α × Qmax / (Ae × fs0) = (1.50 × 608.11) / (110.25 × 160.00) = 0.05 < 1.0 OK

δ = 0.012 (cm) = 1 / 7724.0



階、通り、位置、グループ番号： 小屋梁 X4通り Y1-Y3 RG1

小梁 1種 10.5 × 10.5 (cm)

I = 1012.92 (cm⁴) Z = 192.94 (cm³) Ae = 110.25 (cm²)

fbL = 10.30 (N/mm²) fsL = 0.90 (N/mm²) E = 10000 (N/mm²)

fbS = 18.80 (N/mm²) fsS = 1.60 (N/mm²)

fs0 = 1.0 × fsL = 0.900 (N/mm²) E0 = 1.0 × E = 10000 (N/mm²)

長期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)

合計 0.0 0.0 0.0 0.00

Mmax / (Z × fbL) = 0.00 / (192.94 × 1.03) = 0.00 < 1.0 OK

α × Qmax / (Ae × fs0) = (1.50 × 0.00) / (110.25 × 90.00) = 0.00 < 1.0 OK

δ × (E/E0) = 0.000 (cm) = 1 / 999999.9 OK

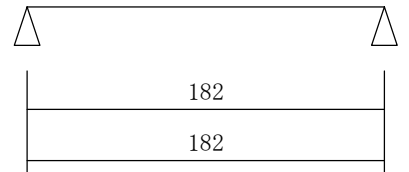
短期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)

合計 0.0 0.0 0.0 0.00

Mmax / (Z × fbS) = 0.00 / (192.94 × 1.88) = 0.00 < 1.0 OK

α × Qmax / (Ae × fs0) = (1.50 × 0.00) / (110.25 × 160.00) = 0.00 < 1.0 OK

δ = 0.000 (cm) = 1 / 999999.9

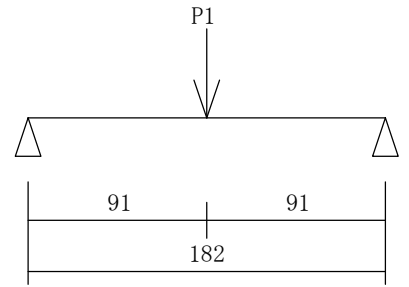


階、通り、位置、グループ番号： 小屋梁 X4通り Y3-Y5 RG2

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 P1 = 538.27 0.00 0.00 0.00 0.00
 大梁 1種 10.5×12.0 (cm)
 I = 1512.00 (cm⁴) Z = 252.00 (cm³) Ae = 126.00 (cm²)
 fbL = 10.30 (N/mm²) fsL = 0.90 (N/mm²) E = 10000 (N/mm²)
 fbS = 18.80 (N/mm²) fsS = 1.60 (N/mm²)
 fs0 = 1.0×fsL = 0.900 (N/mm²) E0 = 1.0×E = 10000 (N/mm²)

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
P1	24.5	269.1	269.1	0.04
合計	24.5	269.1	269.1	0.04
Mmax/(Z×fbL)	= 24.49 / (252.00 × 1.03)			= 0.09 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 269.13) / (126.00 × 90.00)			= 0.03 < 1.0 OK
δ×(E/E0)	= 0.045 (cm) = 1 / 4070.6			OK
せん断負担金物[右] (GU1)	Qb/1Qa = 0.269/(15.10×0.55)			= 0.03 < 1.0 OK

短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
P1	24.5	269.1	269.1	0.04
合計	24.5	269.1	269.1	0.04
Mmax/(Z×fbS)	= 24.49 / (252.00 × 1.88)			= 0.05 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 269.13) / (126.00 × 160.00)			= 0.02 < 1.0 OK
δ	= 0.045 (cm) = 1 / 4070.6			
せん断負担金物[右] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.269/15.10) ¹ +(0.000/25.00) ¹			= 0.018 < 1.0 OK

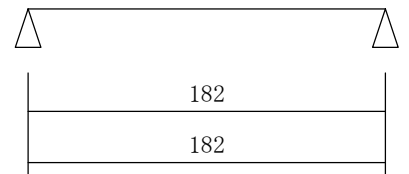


階、通り、位置、グループ番号： 小屋梁 X5通り Y1-Y3 RG2

大梁 1種 10.5×12.0 (cm)
 I = 1512.00 (cm⁴) Z = 252.00 (cm³) Ae = 126.00 (cm²)
 fbL = 10.30 (N/mm²) fsL = 0.90 (N/mm²) E = 10000 (N/mm²)
 fbS = 18.80 (N/mm²) fsS = 1.60 (N/mm²)
 fs0 = 1.0×fsL = 0.900 (N/mm²) E0 = 1.0×E = 10000 (N/mm²)

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
合計	0.0	0.0	0.0	0.00
Mmax/(Z×fbL)	= 0.00 / (252.00 × 1.03)			= 0.00 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 0.00) / (126.00 × 90.00)			= 0.00 < 1.0 OK
δ×(E/E0)	= 0.000 (cm) = 1 / 999999.9			OK
せん断負担金物[左] (GU2)	Qa/1Qa = 0.000/(20.00×0.55)			= 0.00 < 1.0 OK
せん断負担金物[右] (GU1)	Qb/1Qa = 0.000/(15.10×0.55)			= 0.00 < 1.0 OK

短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
合計	0.0	0.0	0.0	0.00
Mmax/(Z×fbS)	= 0.00 / (252.00 × 1.88)			= 0.00 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 0.00) / (126.00 × 160.00)			= 0.00 < 1.0 OK
δ	= 0.000 (cm) = 1 / 999999.9			
せん断負担金物[左] (GU2)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.000/20.00) ¹ +(3.600/25.00) ¹			= 0.144 < 1.0 OK
せん断負担金物[右] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.000/15.10) ¹ +(3.600/25.00) ¹			= 0.144 < 1.0 OK

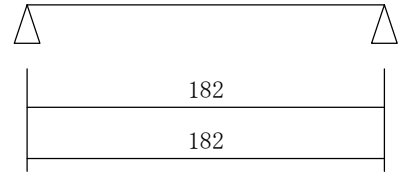


階、通り、位置、グループ番号： 小屋梁 X6通り Y1-Y3 RG2

大梁 1種 10.5×12.0 (cm)
 $I = 1512.00(\text{cm}^4)$ $Z = 252.00(\text{cm}^3)$ $A_e = 126.00(\text{cm}^2)$
 $fbL = 10.30(\text{N/mm}^2)$ $fsL = 0.90(\text{N/mm}^2)$ $E = 10000(\text{N/mm}^2)$
 $fbS = 18.80(\text{N/mm}^2)$ $fsS = 1.60(\text{N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900(\text{N/mm}^2)$ $E0 = 1.0 \times E = 10000(\text{N/mm}^2)$

長期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)
 合計 0.0 0.0 0.0 0.00
 $M_{max}/(Z \times fbL) = 0.00 / (252.00 \times 1.03) = 0.00 < 1.0$ OK
 $\alpha \times Q_{max}/(A_e \times fs0) = (1.50 \times 0.00) / (126.00 \times 90.00) = 0.00 < 1.0$ OK
 $\delta \times (E/E0) = 0.000(\text{cm}) = 1 / 999999.9$ OK
 せん断負担金物[左] (GU2) $Qa/1Qa = 0.000 / (20.00 \times 0.55) = 0.00 < 1.0$ OK
 せん断負担金物[右] (GU1) $Qb/1Qa = 0.000 / (15.10 \times 0.55) = 0.00 < 1.0$ OK

短期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)
 合計 0.0 0.0 0.0 0.00
 $M_{max}/(Z \times fbS) = 0.00 / (252.00 \times 1.88) = 0.00 < 1.0$ OK
 $\alpha \times Q_{max}/(A_e \times fs0) = (1.50 \times 0.00) / (126.00 \times 160.00) = 0.00 < 1.0$ OK
 $\delta = 0.000(\text{cm}) = 1 / 999999.9$
 せん断負担金物[左] (GU2) $(Qa/sQa)^n + (T/Ta)^n = (0.000/20.00)^1 + (0.000/25.00)^1 = 0.000 < 1.0$ OK
 せん断負担金物[右] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (0.000/15.10)^1 + (0.000/25.00)^1 = 0.000 < 1.0$ OK

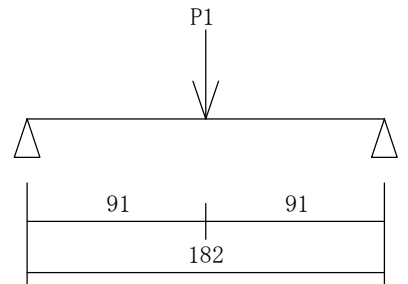


階、通り、位置、グループ番号： 小屋梁 X6通り Y3-Y5 RG2

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 $P1 = 538.27$ 0.00 0.00 0.00 0.00
 大梁 1種 10.5×12.0 (cm)
 $I = 1512.00(\text{cm}^4)$ $Z = 252.00(\text{cm}^3)$ $A_e = 126.00(\text{cm}^2)$
 $fbL = 10.30(\text{N/mm}^2)$ $fsL = 0.90(\text{N/mm}^2)$ $E = 10000(\text{N/mm}^2)$
 $fbS = 18.80(\text{N/mm}^2)$ $fsS = 1.60(\text{N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900(\text{N/mm}^2)$ $E0 = 1.0 \times E = 10000(\text{N/mm}^2)$

長期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)
 P1 24.5 269.1 269.1 0.04
 合計 24.5 269.1 269.1 0.04
 $M_{max}/(Z \times fbL) = 24.49 / (252.00 \times 1.03) = 0.09 < 1.0$ OK
 $\alpha \times Q_{max}/(A_e \times fs0) = (1.50 \times 269.13) / (126.00 \times 90.00) = 0.03 < 1.0$ OK
 $\delta \times (E/E0) = 0.045(\text{cm}) = 1 / 4070.6$ OK
 せん断負担金物[右] (GU1) $Qb/1Qa = 0.269 / (15.10 \times 0.55) = 0.03 < 1.0$ OK

短期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)
 P1 24.5 269.1 269.1 0.04
 合計 24.5 269.1 269.1 0.04
 $M_{max}/(Z \times fbS) = 24.49 / (252.00 \times 1.88) = 0.05 < 1.0$ OK
 $\alpha \times Q_{max}/(A_e \times fs0) = (1.50 \times 269.13) / (126.00 \times 160.00) = 0.02 < 1.0$ OK
 $\delta = 0.045(\text{cm}) = 1 / 4070.6$
 せん断負担金物[右] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (0.269/15.10)^1 + (0.000/25.00)^1 = 0.018 < 1.0$ OK



階、通り、位置、グループ番号： 小屋梁 X7通り Y1-Y2 RG2

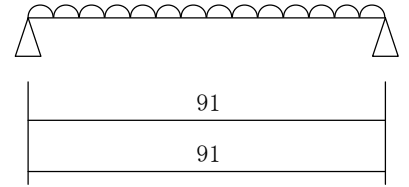
w = 0.099 × 135.0 = 13.365 (N/cm) (長期)

梁 (耐力壁上) 1種 10.5 × 12.0 (cm)

I = 1512.00 (cm⁴) Z = 252.00 (cm³) Ae = 126.00 (cm²)
 fbL = 10.30 (N/mm²) fsL = 0.90 (N/mm²) E = 10000 (N/mm²)
 fbS = 18.80 (N/mm²) fsS = 1.60 (N/mm²)
 fs0 = 1.0 × fsL = 0.900 (N/mm²) E0 = 1.0 × E = 10000 (N/mm²)

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	13.8	608.1	608.1	0.01
合計	13.8	608.1	608.1	0.01
Mmax/(Z × fbL)	= 13.83 / (252.00 × 1.03)			= 0.05 < 1.0 OK
α × Qmax/(Ae × fs0)	= (1.50 × 608.11) / (126.00 × 90.00)			= 0.08 < 1.0 OK
δ × (E/E0)	= 0.008 (cm) = 1 / 11529.7			OK
せん断負担金物[左] (GU2)	Qa/1Qa = 0.608 / (20.00 × 0.55)			= 0.06 < 1.0 OK
せん断負担金物[右] (GU1)	Qb/1Qa = 0.608 / (15.10 × 0.55)			= 0.07 < 1.0 OK

短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	13.8	608.1	608.1	0.01
合計	13.8	608.1	608.1	0.01
Mmax/(Z × fbS)	= 13.83 / (252.00 × 1.88)			= 0.02 < 1.0 OK
α × Qmax/(Ae × fs0)	= (1.50 × 608.11) / (126.00 × 160.00)			= 0.04 < 1.0 OK
δ	= 0.008 (cm) = 1 / 11529.7			
せん断負担金物[左] (GU2)	(Qa/sQa) ⁿ + (T/Ta) ⁿ = (0.608/20.00) ¹ + (3.600/25.00) ¹			= 0.174 < 1.0 OK
せん断負担金物[右] (GU1)	(Qa/sQa) ⁿ + (T/Ta) ⁿ = (0.608/15.10) ¹ + (3.600/25.00) ¹			= 0.184 < 1.0 OK



階、通り、位置、グループ番号： 小屋梁 X7通り Y2-Y3 RG2

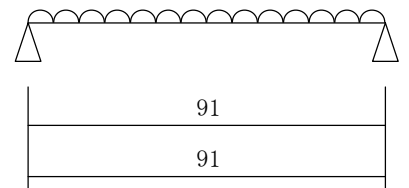
w = 0.099 × 135.0 = 13.365 (N/cm) (長期)

梁 (壁上) 1種 10.5 × 12.0 (cm)

I = 1512.00 (cm⁴) Z = 252.00 (cm³) Ae = 126.00 (cm²)
 fbL = 10.30 (N/mm²) fsL = 0.90 (N/mm²) E = 10000 (N/mm²)
 fbS = 18.80 (N/mm²) fsS = 1.60 (N/mm²)
 fs0 = 1.0 × fsL = 0.900 (N/mm²) E0 = 1.0 × E = 10000 (N/mm²)

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	13.8	608.1	608.1	0.01
合計	13.8	608.1	608.1	0.01
Mmax/(Z × fbL)	= 13.83 / (252.00 × 1.03)			= 0.05 < 1.0 OK
α × Qmax/(Ae × fs0)	= (1.50 × 608.11) / (126.00 × 90.00)			= 0.08 < 1.0 OK
δ × (E/E0)	= 0.008 (cm) = 1 / 11529.7			OK
せん断負担金物[左] (GU1)	Qa/1Qa = 0.608 / (15.10 × 0.55)			= 0.07 < 1.0 OK
せん断負担金物[右] (GU1)	Qb/1Qa = 0.608 / (15.10 × 0.55)			= 0.07 < 1.0 OK

短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	13.8	608.1	608.1	0.01
合計	13.8	608.1	608.1	0.01
Mmax/(Z × fbS)	= 13.83 / (252.00 × 1.88)			= 0.02 < 1.0 OK
α × Qmax/(Ae × fs0)	= (1.50 × 608.11) / (126.00 × 160.00)			= 0.04 < 1.0 OK
δ	= 0.008 (cm) = 1 / 11529.7			
せん断負担金物[左] (GU1)	(Qa/sQa) ⁿ + (T/Ta) ⁿ = (0.608/15.10) ¹ + (3.600/25.00) ¹			= 0.184 < 1.0 OK
せん断負担金物[右] (GU1)	(Qa/sQa) ⁿ + (T/Ta) ⁿ = (0.608/15.10) ¹ + (3.600/25.00) ¹			= 0.184 < 1.0 OK



階、通り、位置、グループ番号： 小屋梁 X7通り Y3-Y4 RG2

w = 0.099 × 135.0 = 13.365 (N/cm) (長期)

梁 (壁上) 1種 10.5 × 12.0 (cm)

I = 1512.00 (cm⁴) Z = 252.00 (cm³) Ae = 126.00 (cm²)

fbL = 10.30 (N/mm²) fsL = 0.90 (N/mm²) E = 10000 (N/mm²)

fbS = 18.80 (N/mm²) fsS = 1.60 (N/mm²)

fs0 = 1.0 × fsL = 0.900 (N/mm²) E0 = 1.0 × E = 10000 (N/mm²)

長期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)

w 13.8 608.1 608.1 0.01

合計 13.8 608.1 608.1 0.01

Mmax / (Z × fbL) = 13.83 / (252.00 × 1.03) = 0.05 < 1.0 OK

α × Qmax / (Ae × fs0) = (1.50 × 608.11) / (126.00 × 90.00) = 0.08 < 1.0 OK

δ × (E/E0) = 0.008 (cm) = 1 / 11529.7 OK

せん断負担金物[左] (GU1) Qa/1Qa = 0.608 / (15.10 × 0.55) = 0.07 < 1.0 OK

せん断負担金物[右] (GU1) Qb/1Qa = 0.608 / (15.10 × 0.55) = 0.07 < 1.0 OK

短期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)

w 13.8 608.1 608.1 0.01

合計 13.8 608.1 608.1 0.01

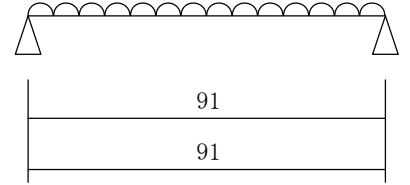
Mmax / (Z × fbS) = 13.83 / (252.00 × 1.88) = 0.02 < 1.0 OK

α × Qmax / (Ae × fs0) = (1.50 × 608.11) / (126.00 × 160.00) = 0.04 < 1.0 OK

δ = 0.008 (cm) = 1 / 11529.7

せん断負担金物[左] (GU1) (Qa/sQa)ⁿ + (T/Ta)ⁿ = (0.608/15.10)¹ + (3.600/25.00)¹ = 0.184 < 1.0 OK

せん断負担金物[右] (GU1) (Qa/sQa)ⁿ + (T/Ta)ⁿ = (0.608/15.10)¹ + (3.600/25.00)¹ = 0.184 < 1.0 OK



階、通り、位置、グループ番号： 小屋梁 X7通り Y4-Y5 RG2

w = 0.099 × 135.0 = 13.365 (N/cm) (長期)

梁 (耐力壁上) 1種 10.5 × 12.0 (cm)

I = 1512.00 (cm⁴) Z = 252.00 (cm³) Ae = 126.00 (cm²)

fbL = 10.30 (N/mm²) fsL = 0.90 (N/mm²) E = 10000 (N/mm²)

fbS = 18.80 (N/mm²) fsS = 1.60 (N/mm²)

fs0 = 1.0 × fsL = 0.900 (N/mm²) E0 = 1.0 × E = 10000 (N/mm²)

長期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)

w 13.8 608.1 608.1 0.01

合計 13.8 608.1 608.1 0.01

Mmax / (Z × fbL) = 13.83 / (252.00 × 1.03) = 0.05 < 1.0 OK

α × Qmax / (Ae × fs0) = (1.50 × 608.11) / (126.00 × 90.00) = 0.08 < 1.0 OK

δ × (E/E0) = 0.008 (cm) = 1 / 11529.7 OK

せん断負担金物[左] (GU1) Qa/1Qa = 0.608 / (15.10 × 0.55) = 0.07 < 1.0 OK

せん断負担金物[右] (GU1) Qb/1Qa = 0.608 / (15.10 × 0.55) = 0.07 < 1.0 OK

短期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)

w 13.8 608.1 608.1 0.01

合計 13.8 608.1 608.1 0.01

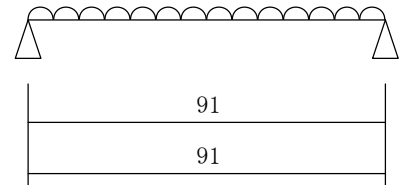
Mmax / (Z × fbS) = 13.83 / (252.00 × 1.88) = 0.02 < 1.0 OK

α × Qmax / (Ae × fs0) = (1.50 × 608.11) / (126.00 × 160.00) = 0.04 < 1.0 OK

δ = 0.008 (cm) = 1 / 11529.7

せん断負担金物[左] (GU1) (Qa/sQa)ⁿ + (T/Ta)ⁿ = (0.608/15.10)¹ + (3.600/25.00)¹ = 0.184 < 1.0 OK

せん断負担金物[右] (GU1) (Qa/sQa)ⁿ + (T/Ta)ⁿ = (0.608/15.10)¹ + (3.600/25.00)¹ = 0.184 < 1.0 OK

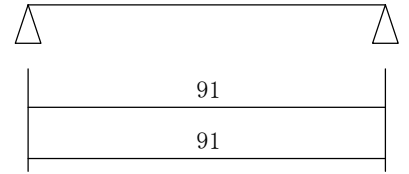


階、通り、位置、グループ番号： 小屋梁 X7通り Y5-Y6 RG2

大 梁 1種 10.5×12.0 (cm)
 $I = 1512.00(\text{cm}^4)$ $Z = 252.00(\text{cm}^3)$ $A_e = 126.00(\text{cm}^2)$
 $fbL = 10.30(\text{N/mm}^2)$ $fsL = 0.90(\text{N/mm}^2)$ $E = 10000(\text{N/mm}^2)$
 $fbS = 18.80(\text{N/mm}^2)$ $fsS = 1.60(\text{N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900(\text{N/mm}^2)$ $E0 = 1.0 \times E = 10000(\text{N/mm}^2)$

長期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)
 合計 0.0 0.0 0.0 0.00
 $M_{max}/(Z \times fbL) = 0.00 / (252.00 \times 1.03) = 0.00 < 1.0$ OK
 $\alpha \times Q_{max}/(A_e \times fs0) = (1.50 \times 0.00) / (126.00 \times 90.00) = 0.00 < 1.0$ OK
 $\delta \times (E/E0) = 0.000(\text{cm}) = 1 / 999999.9$ OK
 せん断負担金物[左] (GU1) $Qa/1Qa = 0.000 / (15.10 \times 0.55) = 0.00 < 1.0$ OK
 せん断負担金物[右] (GU2) $Qb/1Qa = 0.000 / (20.00 \times 0.55) = 0.00 < 1.0$ OK

短期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)
 合計 0.0 0.0 0.0 0.00
 $M_{max}/(Z \times fbS) = 0.00 / (252.00 \times 1.88) = 0.00 < 1.0$ OK
 $\alpha \times Q_{max}/(A_e \times fs0) = (1.50 \times 0.00) / (126.00 \times 160.00) = 0.00 < 1.0$ OK
 $\delta = 0.000(\text{cm}) = 1 / 999999.9$
 せん断負担金物[左] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (0.000/15.10)^1 + (3.600/25.00)^1 = 0.144 < 1.0$ OK
 せん断負担金物[右] (GU2) $(Qa/sQa)^n + (T/Ta)^n = (0.000/20.00)^1 + (3.600/25.00)^1 = 0.144 < 1.0$ OK



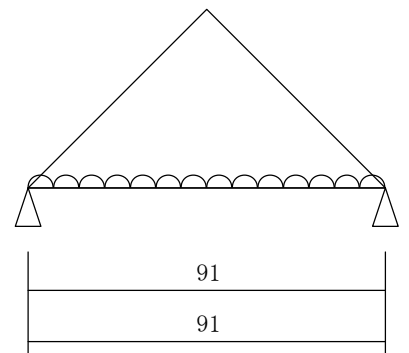
階、通り、位置、グループ番号： 2階梁 Y1通り X1-X2 2G2

$w = 0.099 \times 135.0 + 0.099 \times 135.0 = 26.730(\text{N/cm})$ (長期)
 $ww = (\text{単位荷重}) 1990.0(\text{N/m}^2) \times (\text{面積}) 0.2070(\text{m}^2) = 411.980(\text{N})$ (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 $ww = 411.98$ 0.00 0.00 0.00 0.00
 梁 (耐力壁上) 1種 10.5×12.0 (cm)
 $I = 1512.00(\text{cm}^4)$ $Z = 252.00(\text{cm}^3)$ $A_e = 126.00(\text{cm}^2)$
 $fbL = 10.30(\text{N/mm}^2)$ $fsL = 0.90(\text{N/mm}^2)$ $E = 10000(\text{N/mm}^2)$
 $fbS = 18.80(\text{N/mm}^2)$ $fsS = 1.60(\text{N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900(\text{N/mm}^2)$ $E0 = 1.0 \times E = 10000(\text{N/mm}^2)$

長期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)
 w 27.7 1216.2 1216.2 0.02
 ww 6.2 206.0 206.0 0.00
 合計 33.9 1422.2 1422.2 0.02
 $M_{max}/(Z \times fbL) = 33.92 / (252.00 \times 1.03) = 0.13 < 1.0$ OK
 $\alpha \times Q_{max}/(A_e \times fs0) = (1.50 \times 1422.20) / (126.00 \times 90.00) = 0.18 < 1.0$ OK
 $\delta \times (E/E0) = 0.019(\text{cm}) = 1 / 4737.8$ OK
 せん断負担金物[左] (GU2) $Qa/1Qa = 1.422 / (20.00 \times 0.55) = 0.13 < 1.0$ OK
 せん断負担金物[右] (GU1) $Qb/1Qa = 1.422 / (15.10 \times 0.55) = 0.17 < 1.0$ OK

短期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)
 w 27.7 1216.2 1216.2 0.02
 ww 6.2 206.0 206.0 0.00
 合計 33.9 1422.2 1422.2 0.02
 $M_{max}/(Z \times fbS) = 33.92 / (252.00 \times 1.88) = 0.07 < 1.0$ OK
 $\alpha \times Q_{max}/(A_e \times fs0) = (1.50 \times 1422.20) / (126.00 \times 160.00) = 0.10 < 1.0$ OK
 $\delta = 0.019(\text{cm}) = 1 / 4737.8$
 せん断負担金物[左] (GU2) $(Qa/sQa)^n + (T/Ta)^n = (1.422/20.00)^1 + (13.400/25.00)^1 = 0.607 < 1.0$ OK
 せん断負担金物[右] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.422/15.10)^1 + (13.400/25.00)^1 = 0.630 < 1.0$ OK

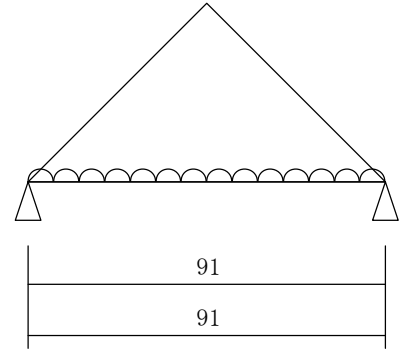


階、通り、位置、グループ番号： 2階梁 Y1通り X2-X3 2G2
 $w = 0.099 \times 135.0 + 0.099 \times 135.0 = 26.730 \text{ (N/cm)}$ (長期)
 $ww = (\text{単位荷重}) 1990.0 \text{ (N/m}^2) \times (\text{面積}) 0.2070 \text{ (m}^2) = 411.980 \text{ (N)}$ (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 $ww = 411.98 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$
 梁 (壁上) 1種 10.5×12.0 (cm)
 $I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $Ae = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	6.2	206.0	206.0	0.00
合計	33.9	1422.2	1422.2	0.02
Mmax/(Z×fbL)	= 33.92 / (252.00 × 1.03)			= 0.13 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 1422.20) / (126.00 × 0.90)			= 0.18 < 1.0 OK
δ × (E/E0)	= 0.019 (cm) = 1 / 4737.8			OK
せん断負担金物[左] (GU1)	Qa/1Qa = 1.422 / (15.10 × 0.55)			= 0.17 < 1.0 OK
せん断負担金物[右] (GU1)	Qb/1Qa = 1.422 / (15.10 × 0.55)			= 0.17 < 1.0 OK

短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	6.2	206.0	206.0	0.00
合計	33.9	1422.2	1422.2	0.02
Mmax/(Z×fbS)	= 33.92 / (252.00 × 1.88)			= 0.07 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 1422.20) / (126.00 × 1.60)			= 0.10 < 1.0 OK
δ = 0.019 (cm)	= 1 / 4737.8			
せん断負担金物[左] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(1.422/15.10) ¹ +(13.400/25.00) ¹			= 0.630 < 1.0 OK
せん断負担金物[右] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(1.422/15.10) ¹ +(13.400/25.00) ¹			= 0.630 < 1.0 OK

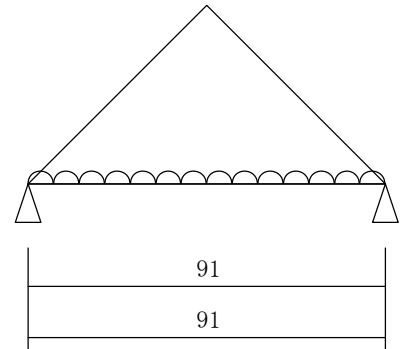


階、通り、位置、グループ番号： 2階梁 Y1通り X3-X4 2G2
 $w = 0.099 \times 135.0 + 0.099 \times 135.0 = 26.730 \text{ (N/cm)}$ (長期)
 $ww = (\text{単位荷重}) 1990.0 \text{ (N/m}^2) \times (\text{面積}) 0.2070 \text{ (m}^2) = 411.980 \text{ (N)}$ (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 $ww = 411.98 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$
 梁 (耐力壁上) 1種 10.5×12.0 (cm)
 $I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $Ae = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	6.2	206.0	206.0	0.00
合計	33.9	1422.2	1422.2	0.02
Mmax/(Z×fbL)	= 33.92 / (252.00 × 1.03)			= 0.13 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 1422.20) / (126.00 × 0.90)			= 0.18 < 1.0 OK
δ × (E/E0)	= 0.019 (cm) = 1 / 4737.8			OK
せん断負担金物[左] (GU1)	Qa/1Qa = 1.422 / (15.10 × 0.55)			= 0.17 < 1.0 OK
せん断負担金物[右] (GU1)	Qb/1Qa = 1.422 / (15.10 × 0.55)			= 0.17 < 1.0 OK

短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	6.2	206.0	206.0	0.00
合計	33.9	1422.2	1422.2	0.02
Mmax/(Z×fbS)	= 33.92 / (252.00 × 1.88)			= 0.07 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 1422.20) / (126.00 × 1.60)			= 0.10 < 1.0 OK
δ = 0.019 (cm)	= 1 / 4737.8			
せん断負担金物[左] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(1.422/15.10) ¹ +(13.400/25.00) ¹			= 0.630 < 1.0 OK
せん断負担金物[右] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(1.422/15.10) ¹ +(13.400/25.00) ¹			= 0.630 < 1.0 OK

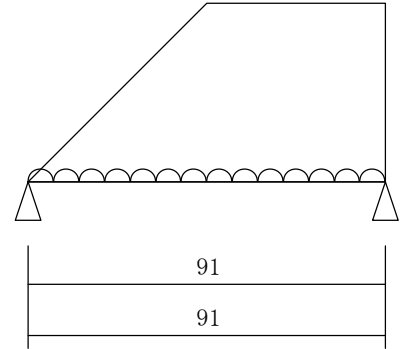


階、通り、位置、グループ番号： 2階梁 Y1通り X4-X5 2G2
 $w = 0.099 \times 135.0 + 0.099 \times 135.0 = 26.730 \text{ (N/cm)}$ (長期)
 $ww = (\text{単位荷重}) 1990.0 \text{ (N/m}^2) \times (\text{面積}) 0.3105 \text{ (m}^2) = 617.970 \text{ (N)}$ (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 $ww = 617.97 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$
 梁 (耐力壁上) 1種 $10.5 \times 12.0 \text{ (cm)}$
 $I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $Ae = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	7.8	240.3	377.6	0.00
合計	35.5	1456.5	1593.9	0.02

$M_{max}/(Z \times fbL) = 35.48 / (252.00 \times 1.03) = 0.13 < 1.0 \text{ OK}$
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1593.86) / (126.00 \times 90.00) = 0.21 < 1.0 \text{ OK}$
 $\delta \times (E/E0) = 0.020 \text{ (cm)} = 1 / 4511.7 \text{ OK}$
 せん断負担金物[左] (GU1) $Qa/1Qa = 1.457 / (15.10 \times 0.55) = 0.18 < 1.0 \text{ OK}$
 せん断負担金物[右] (GU1) $Qb/1Qa = 1.594 / (15.10 \times 0.55) = 0.19 < 1.0 \text{ OK}$



短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	7.8	240.3	377.6	0.00
合計	35.5	1456.5	1593.9	0.02

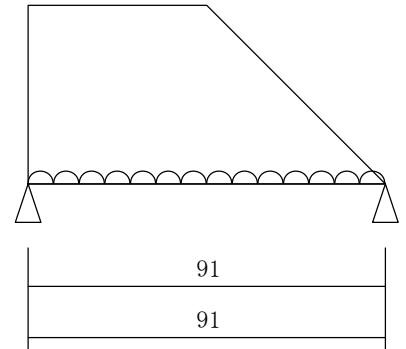
$M_{max}/(Z \times fbS) = 35.48 / (252.00 \times 1.88) = 0.07 < 1.0 \text{ OK}$
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1593.86) / (126.00 \times 160.00) = 0.11 < 1.0 \text{ OK}$
 $\delta = 0.020 \text{ (cm)} = 1 / 4511.7$
 せん断負担金物[左] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.594/15.10)^1 + (13.400/25.00)^1 = 0.642 < 1.0 \text{ OK}$
 せん断負担金物[右] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.594/15.10)^1 + (13.400/25.00)^1 = 0.642 < 1.0 \text{ OK}$

階、通り、位置、グループ番号： 2階梁 Y1通り X5-X6 2G2
 $w = 0.099 \times 135.0 + 0.099 \times 135.0 = 26.730 \text{ (N/cm)}$ (長期)
 $ww = (\text{単位荷重}) 1990.0 \text{ (N/m}^2) \times (\text{面積}) 0.3105 \text{ (m}^2) = 617.970 \text{ (N)}$ (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 $ww = 617.97 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$
 梁 (壁上) 1種 $10.5 \times 12.0 \text{ (cm)}$
 $I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $Ae = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	7.8	377.6	240.3	0.00
合計	35.5	1593.9	1456.5	0.02

$M_{max}/(Z \times fbL) = 35.48 / (252.00 \times 1.03) = 0.13 < 1.0 \text{ OK}$
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1593.86) / (126.00 \times 90.00) = 0.21 < 1.0 \text{ OK}$
 $\delta \times (E/E0) = 0.020 \text{ (cm)} = 1 / 4511.7 \text{ OK}$
 せん断負担金物[左] (GU1) $Qa/1Qa = 1.594 / (15.10 \times 0.55) = 0.19 < 1.0 \text{ OK}$
 せん断負担金物[右] (GU1) $Qb/1Qa = 1.457 / (15.10 \times 0.55) = 0.18 < 1.0 \text{ OK}$



短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	7.8	377.6	240.3	0.00
合計	35.5	1593.9	1456.5	0.02

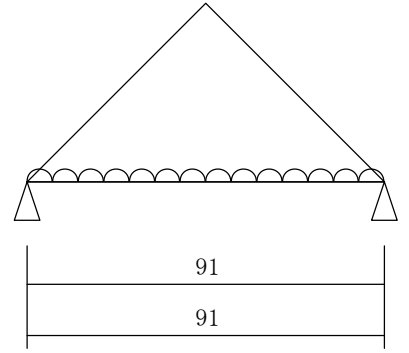
$M_{max}/(Z \times fbS) = 35.48 / (252.00 \times 1.88) = 0.07 < 1.0 \text{ OK}$
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1593.86) / (126.00 \times 160.00) = 0.11 < 1.0 \text{ OK}$
 $\delta = 0.020 \text{ (cm)} = 1 / 4511.7$
 せん断負担金物[左] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.457/15.10)^1 + (13.400/25.00)^1 = 0.632 < 1.0 \text{ OK}$
 せん断負担金物[右] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.457/15.10)^1 + (13.400/25.00)^1 = 0.632 < 1.0 \text{ OK}$

階、通り、位置、グループ番号： 2階梁 Y1通り X6-X7 2G2
 $w = 0.099 \times 135.0 + 0.099 \times 135.0 = 26.730 \text{ (N/cm)}$ (長期)
 $ww = (\text{単位荷重}) 1990.0 \text{ (N/m}^2) \times (\text{面積}) 0.2070 \text{ (m}^2) = 411.980 \text{ (N)}$ (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 $ww = 411.98 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$
 梁 (耐力壁上) 1種 10.5×12.0 (cm)
 $I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $Ae = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	6.2	206.0	206.0	0.00
合計	33.9	1422.2	1422.2	0.02
Mmax/(Z×fbL)	= 33.92 / (252.00 × 1.03)			= 0.13 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 1422.20) / (126.00 × 0.90)			= 0.18 < 1.0 OK
δ×(E/E0)	= 0.019 (cm) = 1 / 4737.8			OK
せん断負担金物[左] (GU1)	Qa/1Qa = 1.422 / (15.10 × 0.55)			= 0.17 < 1.0 OK
せん断負担金物[右] (GU2)	Qb/1Qa = 1.422 / (20.00 × 0.55)			= 0.13 < 1.0 OK

短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	6.2	206.0	206.0	0.00
合計	33.9	1422.2	1422.2	0.02
Mmax/(Z×fbS)	= 33.92 / (252.00 × 1.88)			= 0.07 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 1422.20) / (126.00 × 1.60)			= 0.10 < 1.0 OK
δ	= 0.019 (cm) = 1 / 4737.8			
せん断負担金物[左] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(1.422/15.10) ¹ +(13.400/25.00) ¹			= 0.630 < 1.0 OK
せん断負担金物[右] (GU2)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(1.422/20.00) ¹ +(13.400/25.00) ¹			= 0.607 < 1.0 OK

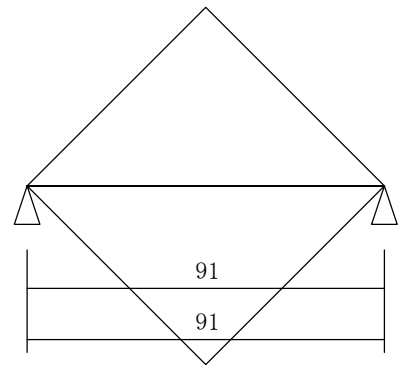


階、通り、位置、グループ番号： 2階梁 Y2通り X1-X2 2G1
 $ww = (\text{単位荷重}) 1990.0 \text{ (N/m}^2) \times (\text{面積}) 0.4141 \text{ (m}^2) = 823.960 \text{ (N)}$ (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 $ww = 823.96 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$
 小梁 1種 10.5×10.5 (cm)
 $I = 1012.92 \text{ (cm}^4)$ $Z = 192.94 \text{ (cm}^3)$ $Ae = 110.25 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
ww	12.5	412.0	412.0	0.01
合計	12.5	412.0	412.0	0.01
Mmax/(Z×fbL)	= 12.50 / (192.94 × 1.03)			= 0.06 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 411.98) / (110.25 × 0.90)			= 0.06 < 1.0 OK
δ×(E/E0)	= 0.010 (cm) = 1 / 8907.1			OK

短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
ww	12.5	412.0	412.0	0.01
合計	12.5	412.0	412.0	0.01
Mmax/(Z×fbS)	= 12.50 / (192.94 × 1.88)			= 0.03 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 411.98) / (110.25 × 1.60)			= 0.03 < 1.0 OK
δ	= 0.010 (cm) = 1 / 8907.1			

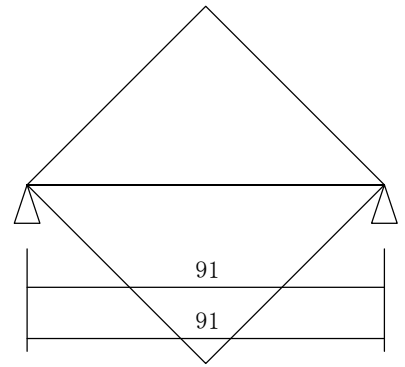


階、通り、位置、グループ番号： 2階梁 Y2通り X2-X3 2G1
 ww = (単位荷重) 1990.0(N/m²) × (面積) 0.4141(m²) = 823.960(N) (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 ww = 823.96 0.00 0.00 0.00 0.00
 小梁 1種 10.5 × 10.5 (cm)
 I = 1012.92(cm⁴) Z = 192.94(cm³) Ae = 110.25(cm²)
 fbL = 10.30(N/mm²) fsL = 0.90(N/mm²) E = 10000(N/mm²)
 fbS = 18.80(N/mm²) fsS = 1.60(N/mm²)
 fs0 = 1.0 × fsL = 0.900(N/mm²) E0 = 1.0 × E = 10000(N/mm²)

長期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 ww 12.5 412.0 412.0 0.01
 合計 12.5 412.0 412.0 0.01
 $M_{max}/(Z \times fbL) = 12.50 / (192.94 \times 1.03) = 0.06 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 411.98) / (110.25 \times 90.00) = 0.06 < 1.0$ OK
 $\delta \times (E/E0) = 0.010$ (cm) = 1 / 8907.1 OK

短期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 ww 12.5 412.0 412.0 0.01
 合計 12.5 412.0 412.0 0.01
 $M_{max}/(Z \times fbS) = 12.50 / (192.94 \times 1.88) = 0.03 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 411.98) / (110.25 \times 160.00) = 0.03 < 1.0$ OK
 $\delta = 0.010$ (cm) = 1 / 8907.1

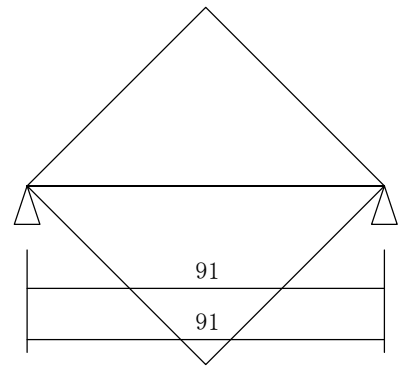


階、通り、位置、グループ番号： 2階梁 Y2通り X3-X4 2G1
 ww = (単位荷重) 1990.0(N/m²) × (面積) 0.4141(m²) = 823.960(N) (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 ww = 823.96 0.00 0.00 0.00 0.00
 小梁 1種 10.5 × 10.5 (cm)
 I = 1012.92(cm⁴) Z = 192.94(cm³) Ae = 110.25(cm²)
 fbL = 10.30(N/mm²) fsL = 0.90(N/mm²) E = 10000(N/mm²)
 fbS = 18.80(N/mm²) fsS = 1.60(N/mm²)
 fs0 = 1.0 × fsL = 0.900(N/mm²) E0 = 1.0 × E = 10000(N/mm²)

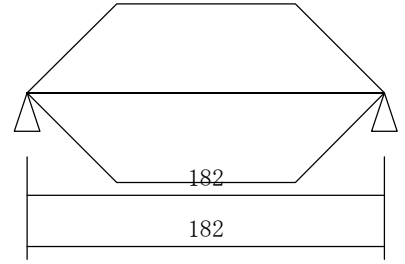
長期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 ww 12.5 412.0 412.0 0.01
 合計 12.5 412.0 412.0 0.01
 $M_{max}/(Z \times fbL) = 12.50 / (192.94 \times 1.03) = 0.06 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 411.98) / (110.25 \times 90.00) = 0.06 < 1.0$ OK
 $\delta \times (E/E0) = 0.010$ (cm) = 1 / 8907.1 OK

短期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 ww 12.5 412.0 412.0 0.01
 合計 12.5 412.0 412.0 0.01
 $M_{max}/(Z \times fbS) = 12.50 / (192.94 \times 1.88) = 0.03 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 411.98) / (110.25 \times 160.00) = 0.03 < 1.0$ OK
 $\delta = 0.010$ (cm) = 1 / 8907.1



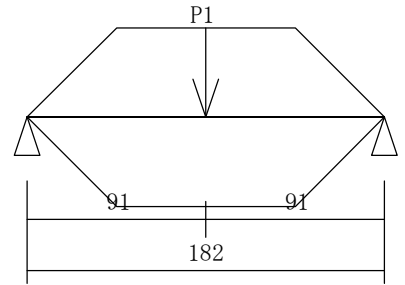
階、通り、位置、グループ番号： 2階梁 Y2通り X4-X6 2G1
 ww = (単位荷重) 1990.0(N/m²) × (面積) 1.2421(m²) = 2471.878(N) (長期)

	(長期)	(地震水平)	(地震直交)	(風圧水平)	(風圧直交)(N)
ww =	2471.88	0.00	0.00	0.00	0.00
小梁	1種	10.5 × 10.5 (cm)			
I =	1012.92(cm ⁴)	Z =	192.94(cm ³)	Ae =	110.25(cm ²)
fbL =	10.30(N/mm ²)	fsL =	0.90(N/mm ²)	E =	10000(N/mm ²)
fbS =	18.80(N/mm ²)	fsS =	1.60(N/mm ²)		
fs0 =	1.0 × fsL = 0.900(N/mm ²)	E0 =	1.0 × E = 10000(N/mm ²)		
長期	Mmax(kN·cm)	Qa(N)	Qb(N)	δ (cm)	
ww	68.7	1235.9	1235.9	0.23	
合計	68.7	1235.9	1235.9	0.23	
Mmax/(Z × fbL)	= 68.73 / (192.94 × 1.03)			= 0.34 < 1.0 OK	
α × Qmax/(Ae × fs0)	= (1.50 × 1235.94) / (110.25 × 90.00)			= 0.18 < 1.0 OK	
δ × (E/E0)	= 0.231 (cm) = 1 / 789.6			OK	
短期	Mmax(kN·cm)	Qa(N)	Qb(N)	δ (cm)	
ww	68.7	1235.9	1235.9	0.23	
合計	68.7	1235.9	1235.9	0.23	
Mmax/(Z × fbS)	= 68.73 / (192.94 × 1.88)			= 0.18 < 1.0 OK	
α × Qmax/(Ae × fs0)	= (1.50 × 1235.94) / (110.25 × 160.00)			= 0.10 < 1.0 OK	
δ	= 0.231 (cm) = 1 / 789.6				



階、通り、位置、グループ番号： 2階梁 Y3通り X4-X6 2G3
 ww = (単位荷重) 1990.0(N/m²) × (面積) 1.2421(m²) = 2471.878(N) (長期)

	(長期)	(地震水平)	(地震直交)	(風圧水平)	(風圧直交)(N)
P1 =	2018.49	0.00	0.00	0.00	0.00
ww =	2471.88	0.00	0.00	0.00	0.00
小梁	1種	10.5 × 13.0 (cm)			
I =	1922.38(cm ⁴)	Z =	295.75(cm ³)	Ae =	136.50(cm ²)
fbL =	10.30(N/mm ²)	fsL =	0.90(N/mm ²)	E =	10000(N/mm ²)
fbS =	18.80(N/mm ²)	fsS =	1.60(N/mm ²)		
fs0 =	1.0 × fsL = 0.900(N/mm ²)	E0 =	1.0 × E = 10000(N/mm ²)		
長期	Mmax(kN·cm)	Qa(N)	Qb(N)	δ (cm)	
P1	91.8	1009.2	1009.2	0.13	
ww	68.7	1235.9	1235.9	0.12	
合計	160.6	2245.2	2245.2	0.25	
Mmax/(Z × fbL)	= 160.57 / (295.75 × 1.03)			= 0.52 < 1.0 OK	
α × Qmax/(Ae × fs0)	= (1.50 × 2245.19) / (136.50 × 90.00)			= 0.27 < 1.0 OK	
δ × (E/E0)	= 0.253 (cm) = 1 / 718.4			OK	
短期	Mmax(kN·cm)	Qa(N)	Qb(N)	δ (cm)	
P1	91.8	1009.2	1009.2	0.13	
ww	68.7	1235.9	1235.9	0.12	
合計	160.6	2245.2	2245.2	0.25	
Mmax/(Z × fbS)	= 160.57 / (295.75 × 1.88)			= 0.28 < 1.0 OK	
α × Qmax/(Ae × fs0)	= (1.50 × 2245.19) / (136.50 × 160.00)			= 0.15 < 1.0 OK	
δ	= 0.253 (cm) = 1 / 718.4				

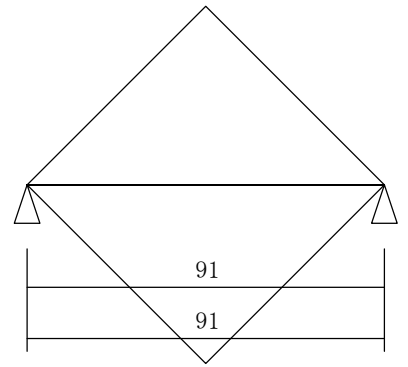


階、通り、位置、グループ番号： 2階梁 Y4通り X1-X2 2G2
 ww = (単位荷重) 1990.0(N/m²) × (面積) 0.4141(m²) = 823.960(N) (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 ww = 823.96 0.00 0.00 0.00 0.00
 大梁 1種 10.5 × 12.0 (cm)
 I = 1512.00(cm⁴) Z = 252.00(cm³) Ae = 126.00(cm²)
 fbL = 10.30(N/mm²) fsL = 0.90(N/mm²) E = 10000(N/mm²)
 fbS = 18.80(N/mm²) fsS = 1.60(N/mm²)
 fs0 = 1.0 × fsL = 0.900(N/mm²) E0 = 1.0 × E = 10000(N/mm²)

長期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 ww 12.5 412.0 412.0 0.01
 合計 12.5 412.0 412.0 0.01
 $M_{max}/(Z \times fbL) = 12.50 / (252.00 \times 1.03) = 0.04 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 411.98) / (126.00 \times 90.00) = 0.05 < 1.0$ OK
 $\delta \times (E/E0) = 0.007$ (cm) = 1 / 13295.8 OK
 せん断負担金物[左] (GU2) $Qa/1Qa = 0.412 / (20.00 \times 0.55) = 0.04 < 1.0$ OK
 せん断負担金物[右] (GU1) $Qb/1Qa = 0.412 / (15.10 \times 0.55) = 0.05 < 1.0$ OK

短期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 ww 12.5 412.0 412.0 0.01
 合計 12.5 412.0 412.0 0.01
 $M_{max}/(Z \times fbS) = 12.50 / (252.00 \times 1.88) = 0.02 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 411.98) / (126.00 \times 160.00) = 0.03 < 1.0$ OK
 $\delta = 0.007$ (cm) = 1 / 13295.8
 せん断負担金物[左] (GU2) $(Qa/sQa)^n + (T/Ta)^n = (0.412/20.00)^1 + (0.000/25.00)^1 = 0.021 < 1.0$ OK
 せん断負担金物[右] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (0.412/15.10)^1 + (0.000/25.00)^1 = 0.027 < 1.0$ OK

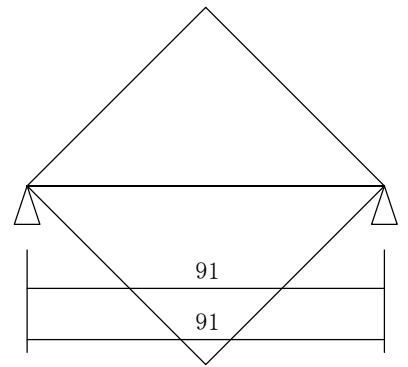


階、通り、位置、グループ番号： 2階梁 Y4通り X2-X3 2G2
 ww = (単位荷重) 1990.0(N/m²) × (面積) 0.4141(m²) = 823.960(N) (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 ww = 823.96 0.00 0.00 0.00 0.00
 大梁 1種 10.5 × 12.0 (cm)
 I = 1512.00(cm⁴) Z = 252.00(cm³) Ae = 126.00(cm²)
 fbL = 10.30(N/mm²) fsL = 0.90(N/mm²) E = 10000(N/mm²)
 fbS = 18.80(N/mm²) fsS = 1.60(N/mm²)
 fs0 = 1.0 × fsL = 0.900(N/mm²) E0 = 1.0 × E = 10000(N/mm²)

長期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 ww 12.5 412.0 412.0 0.01
 合計 12.5 412.0 412.0 0.01
 $M_{max}/(Z \times fbL) = 12.50 / (252.00 \times 1.03) = 0.04 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 411.98) / (126.00 \times 90.00) = 0.05 < 1.0$ OK
 $\delta \times (E/E0) = 0.007$ (cm) = 1 / 13295.8 OK
 せん断負担金物[左] (GU1) $Qa/1Qa = 0.412 / (15.10 \times 0.55) = 0.05 < 1.0$ OK
 せん断負担金物[右] (GU1) $Qb/1Qa = 0.412 / (15.10 \times 0.55) = 0.05 < 1.0$ OK

短期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 ww 12.5 412.0 412.0 0.01
 合計 12.5 412.0 412.0 0.01
 $M_{max}/(Z \times fbS) = 12.50 / (252.00 \times 1.88) = 0.02 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 411.98) / (126.00 \times 160.00) = 0.03 < 1.0$ OK
 $\delta = 0.007$ (cm) = 1 / 13295.8
 せん断負担金物[左] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (0.412/15.10)^1 + (0.000/25.00)^1 = 0.027 < 1.0$ OK
 せん断負担金物[右] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (0.412/15.10)^1 + (0.000/25.00)^1 = 0.027 < 1.0$ OK

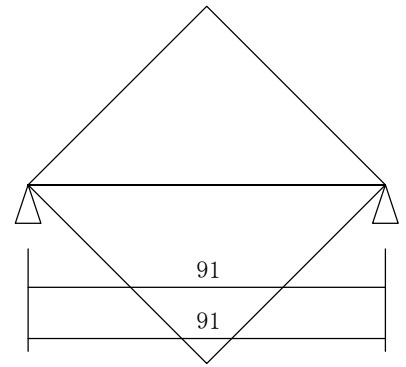


階、通り、位置、グループ番号： 2階梁 Y4通り X3-X4 2G2
 ww = (単位荷重) 1990.0(N/m²) × (面積) 0.4141(m²) = 823.960(N) (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 ww = 823.96 0.00 0.00 0.00 0.00
 大 梁 1種 10.5 × 12.0 (cm)
 I = 1512.00(cm⁴) Z = 252.00(cm³) Ae = 126.00(cm²)
 fbL = 10.30(N/mm²) fsL = 0.90(N/mm²) E = 10000(N/mm²)
 fbS = 18.80(N/mm²) fsS = 1.60(N/mm²)
 fs0 = 1.0 × fsL = 0.900(N/mm²) E0 = 1.0 × E = 10000(N/mm²)

長期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 ww 12.5 412.0 412.0 0.01
 合計 12.5 412.0 412.0 0.01
 Mmax/(Z × fbL) = 12.50 / (252.00 × 1.03) = 0.04 < 1.0 OK
 $\alpha \times Q_{max} / (Ae \times fs0) = (1.50 \times 411.98) / (126.00 \times 90.00) = 0.05 < 1.0$ OK
 $\delta \times (E/E0) = 0.007$ (cm) = 1 / 13295.8 OK
 せん断負担金物[左](GU1) Qa/1Qa = 0.412/(15.10 × 0.55) = 0.05 < 1.0 OK
 せん断負担金物[右](GU1) Qb/1Qa = 0.412/(15.10 × 0.55) = 0.05 < 1.0 OK

短期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 ww 12.5 412.0 412.0 0.01
 合計 12.5 412.0 412.0 0.01
 Mmax/(Z × fbS) = 12.50 / (252.00 × 1.88) = 0.02 < 1.0 OK
 $\alpha \times Q_{max} / (Ae \times fs0) = (1.50 \times 411.98) / (126.00 \times 160.00) = 0.03 < 1.0$ OK
 $\delta = 0.007$ (cm) = 1 / 13295.8
 せん断負担金物[左](GU1) $(Qa/sQa)^n + (T/Ta)^n = (0.412/15.10)^1 + (0.000/25.00)^1 = 0.027 < 1.0$ OK
 せん断負担金物[右](GU1) $(Qa/sQa)^n + (T/Ta)^n = (0.412/15.10)^1 + (0.000/25.00)^1 = 0.027 < 1.0$ OK

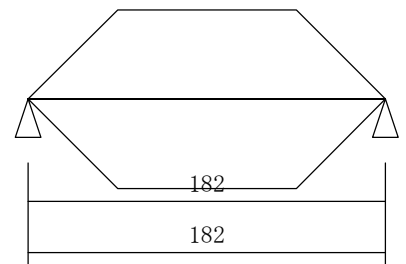


階、通り、位置、グループ番号： 2階梁 Y4通り X4-X6 2G2
 ww = (単位荷重) 1990.0(N/m²) × (面積) 1.2421(m²) = 2471.878(N) (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 ww = 2471.88 0.00 0.00 0.00 0.00
 大 梁 1種 10.5 × 12.0 (cm)
 I = 1512.00(cm⁴) Z = 252.00(cm³) Ae = 126.00(cm²)
 fbL = 10.30(N/mm²) fsL = 0.90(N/mm²) E = 10000(N/mm²)
 fbS = 18.80(N/mm²) fsS = 1.60(N/mm²)
 fs0 = 1.0 × fsL = 0.900(N/mm²) E0 = 1.0 × E = 10000(N/mm²)

長期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 ww 68.7 1235.9 1235.9 0.15
 合計 68.7 1235.9 1235.9 0.15
 Mmax/(Z × fbL) = 68.73 / (252.00 × 1.03) = 0.26 < 1.0 OK
 $\alpha \times Q_{max} / (Ae \times fs0) = (1.50 \times 1235.94) / (126.00 \times 90.00) = 0.16 < 1.0$ OK
 $\delta \times (E/E0) = 0.154$ (cm) = 1 / 1178.6 OK
 せん断負担金物[左](GU1) Qa/1Qa = 1.236/(15.10 × 0.55) = 0.15 < 1.0 OK
 せん断負担金物[右](GU1) Qb/1Qa = 1.236/(15.10 × 0.55) = 0.15 < 1.0 OK

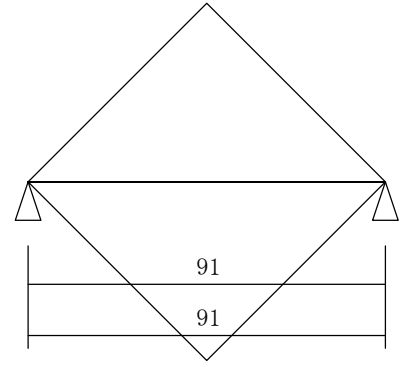
短期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 ww 68.7 1235.9 1235.9 0.15
 合計 68.7 1235.9 1235.9 0.15
 Mmax/(Z × fbS) = 68.73 / (252.00 × 1.88) = 0.14 < 1.0 OK
 $\alpha \times Q_{max} / (Ae \times fs0) = (1.50 \times 1235.94) / (126.00 \times 160.00) = 0.09 < 1.0$ OK
 $\delta = 0.154$ (cm) = 1 / 1178.6
 せん断負担金物[左](GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.236/15.10)^1 + (0.000/25.00)^1 = 0.082 < 1.0$ OK
 せん断負担金物[右](GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.236/15.10)^1 + (0.000/25.00)^1 = 0.082 < 1.0$ OK



階、通り、位置、グループ番号： 2階梁 Y4通り X6-X7 2G2
 ww = (単位荷重) 1990.0(N/m2) × (面積) 0.4141(m2) = 823.960(N) (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 ww = 823.96 0.00 0.00 0.00 0.00
 大梁 1種 10.5 × 12.0 (cm)
 I = 1512.00(cm4) Z = 252.00(cm3) Ae = 126.00(cm2)
 fbL = 10.30(N/mm2) fsL = 0.90(N/mm2) E = 10000(N/mm2)
 fbS = 18.80(N/mm2) fsS = 1.60(N/mm2)
 fs0 = 1.0 × fsL = 0.900(N/mm2) E0 = 1.0 × E = 10000(N/mm2)

長期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 ww 12.5 412.0 412.0 0.01
 合計 12.5 412.0 412.0 0.01
 $M_{max}/(Z \times fbL) = 12.50 / (252.00 \times 1.03) = 0.04 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 411.98) / (126.00 \times 90.00) = 0.05 < 1.0$ OK
 $\delta \times (E/E0) = 0.007$ (cm) = 1 / 13295.8 OK
 せん断負担金物[左](GU1) $Qa/1Qa = 0.412 / (15.10 \times 0.55) = 0.05 < 1.0$ OK
 せん断負担金物[右](GU2) $Qb/1Qa = 0.412 / (20.00 \times 0.55) = 0.04 < 1.0$ OK

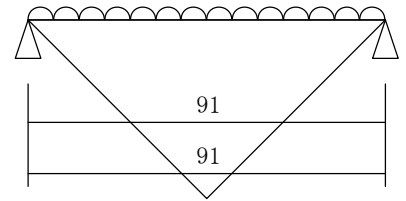


短期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 ww 12.5 412.0 412.0 0.01
 合計 12.5 412.0 412.0 0.01
 $M_{max}/(Z \times fbS) = 12.50 / (252.00 \times 1.88) = 0.02 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 411.98) / (126.00 \times 160.00) = 0.03 < 1.0$ OK
 $\delta = 0.007$ (cm) = 1 / 13295.8
 せん断負担金物[左](GU1) $(Qa/sQa)^n + (T/Ta)^n = (0.412/15.10)^1 + (0.000/25.00)^1 = 0.027 < 1.0$ OK
 せん断負担金物[右](GU2) $(Qa/sQa)^n + (T/Ta)^n = (0.412/20.00)^1 + (0.000/25.00)^1 = 0.021 < 1.0$ OK

階、通り、位置、グループ番号： 2階梁 Y5通り X3-X4 2G2
 w = 0.065 × 45.5 + 0.099 × 135.0 = 16.323(N/cm) (長期)
 ww = (単位荷重) 1990.0(N/m2) × (面積) 0.2070(m2) = 411.980(N) (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 ww = 411.98 0.00 0.00 0.00 0.00
 大梁 1種 10.5 × 12.0 (cm)
 I = 1512.00(cm4) Z = 252.00(cm3) Ae = 126.00(cm2)
 fbL = 10.30(N/mm2) fsL = 0.90(N/mm2) E = 10000(N/mm2)
 fbS = 18.80(N/mm2) fsS = 1.60(N/mm2)
 fs0 = 1.0 × fsL = 0.900(N/mm2) E0 = 1.0 × E = 10000(N/mm2)

長期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 w 16.9 742.7 742.7 0.01
 ww 6.2 206.0 206.0 0.00
 合計 23.1 948.7 948.7 0.01
 $M_{max}/(Z \times fbL) = 23.14 / (252.00 \times 1.03) = 0.08 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 948.66) / (126.00 \times 90.00) = 0.12 < 1.0$ OK
 $\delta \times (E/E0) = 0.013$ (cm) = 1 / 6967.1 OK
 せん断負担金物[左](GU1) $Qa/1Qa = 0.949 / (15.10 \times 0.55) = 0.11 < 1.0$ OK



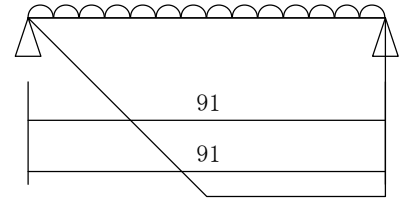
短期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 w 16.9 742.7 742.7 0.01
 ww 6.2 206.0 206.0 0.00
 合計 23.1 948.7 948.7 0.01
 $M_{max}/(Z \times fbS) = 23.14 / (252.00 \times 1.88) = 0.04 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 948.66) / (126.00 \times 160.00) = 0.07 < 1.0$ OK
 $\delta = 0.013$ (cm) = 1 / 6967.1
 せん断負担金物[左](GU1) $(Qa/sQa)^n + (T/Ta)^n = (0.949/15.10)^1 + (0.000/25.00)^1 = 0.063 < 1.0$ OK

階、通り、位置、ケルブ°番号： 2階梁 Y5通り X4-X5 2G2
 $w = 0.065 \times 45.5 + 0.099 \times 135.0 = 16.323 \text{ (N/cm)}$ (長期)
 $ww = (\text{単位荷重}) 1990.0 \text{ (N/m}^2) \times (\text{面積}) 0.3105 \text{ (m}^2) = 617.970 \text{ (N)}$ (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 $ww = 617.97 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$
 大 梁 1種 10.5×12.0 (cm)
 $I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $Ae = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN·cm)	Qa (N)	Qb (N)	δ (cm)
w	16.9	742.7	742.7	0.01
ww	7.8	240.3	377.6	0.00
合計	24.7	983.0	1120.3	0.01

$M_{max}/(Z \times fbL) = 24.71 / (252.00 \times 1.03) = 0.09 < 1.0 \text{ OK}$
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1120.32) / (126.00 \times 90.00) = 0.14 < 1.0 \text{ OK}$
 $\delta \times (E/E0) = 0.014 \text{ (cm)} = 1 / 6489.0 \text{ OK}$
 せん断負担金物[左] (GU1) $Qa/1Qa = 0.983 / (15.10 \times 0.55) = 0.12 < 1.0 \text{ OK}$
 せん断負担金物[右] (GU1) $Qb/1Qa = 1.120 / (15.10 \times 0.55) = 0.13 < 1.0 \text{ OK}$



短期	Mmax (kN·cm)	Qa (N)	Qb (N)	δ (cm)
w	16.9	742.7	742.7	0.01
ww	7.8	240.3	377.6	0.00
合計	24.7	983.0	1120.3	0.01

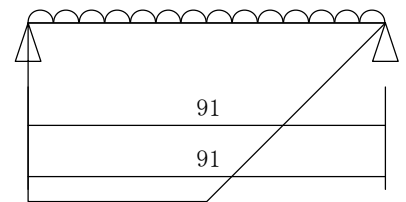
$M_{max}/(Z \times fbS) = 24.71 / (252.00 \times 1.88) = 0.05 < 1.0 \text{ OK}$
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1120.32) / (126.00 \times 160.00) = 0.08 < 1.0 \text{ OK}$
 $\delta = 0.014 \text{ (cm)} = 1 / 6489.0$
 せん断負担金物[左] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.120/15.10)^1 + (0.000/25.00)^1 = 0.074 < 1.0 \text{ OK}$
 せん断負担金物[右] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.120/15.10)^1 + (0.000/25.00)^1 = 0.074 < 1.0 \text{ OK}$

階、通り、位置、ケルブ°番号： 2階梁 Y5通り X5-X6 2G2
 $w = 0.065 \times 45.5 + 0.099 \times 135.0 = 16.323 \text{ (N/cm)}$ (長期)
 $ww = (\text{単位荷重}) 1990.0 \text{ (N/m}^2) \times (\text{面積}) 0.3105 \text{ (m}^2) = 617.970 \text{ (N)}$ (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 $ww = 617.97 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$
 大 梁 1種 10.5×12.0 (cm)
 $I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $Ae = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN·cm)	Qa (N)	Qb (N)	δ (cm)
w	16.9	742.7	742.7	0.01
ww	7.8	377.6	240.3	0.00
合計	24.7	1120.3	983.0	0.01

$M_{max}/(Z \times fbL) = 24.71 / (252.00 \times 1.03) = 0.09 < 1.0 \text{ OK}$
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1120.32) / (126.00 \times 90.00) = 0.14 < 1.0 \text{ OK}$
 $\delta \times (E/E0) = 0.014 \text{ (cm)} = 1 / 6489.0 \text{ OK}$
 せん断負担金物[左] (GU1) $Qa/1Qa = 1.120 / (15.10 \times 0.55) = 0.13 < 1.0 \text{ OK}$
 せん断負担金物[右] (GU1) $Qb/1Qa = 0.983 / (15.10 \times 0.55) = 0.12 < 1.0 \text{ OK}$



短期	Mmax (kN·cm)	Qa (N)	Qb (N)	δ (cm)
w	16.9	742.7	742.7	0.01
ww	7.8	377.6	240.3	0.00
合計	24.7	1120.3	983.0	0.01

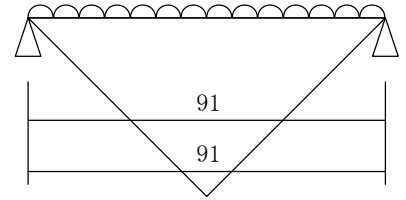
$M_{max}/(Z \times fbS) = 24.71 / (252.00 \times 1.88) = 0.05 < 1.0 \text{ OK}$
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1120.32) / (126.00 \times 160.00) = 0.08 < 1.0 \text{ OK}$
 $\delta = 0.014 \text{ (cm)} = 1 / 6489.0$
 せん断負担金物[左] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (0.983/15.10)^1 + (0.000/25.00)^1 = 0.065 < 1.0 \text{ OK}$
 せん断負担金物[右] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (0.983/15.10)^1 + (0.000/25.00)^1 = 0.065 < 1.0 \text{ OK}$

階、通り、位置、グループ番号： 2階梁 Y5通り X6-X7 2G2
 $w = 0.065 \times 45.5 + 0.099 \times 135.0 = 16.323 \text{ (N/cm)}$ (長期)
 $ww = (\text{単位荷重}) 1990.0 \text{ (N/m}^2) \times (\text{面積}) 0.2070 \text{ (m}^2) = 411.980 \text{ (N)}$ (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 $ww = 411.98 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$
 大 梁 1種 10.5×12.0 (cm)
 $I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $Ae = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	16.9	742.7	742.7	0.01
ww	6.2	206.0	206.0	0.00
合計	23.1	948.7	948.7	0.01

$M_{max}/(Z \times fbL) = 23.14 / (252.00 \times 1.03) = 0.08 < 1.0 \text{ OK}$
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 948.66) / (126.00 \times 90.00) = 0.12 < 1.0 \text{ OK}$
 $\delta \times (E/E0) = 0.013 \text{ (cm)} = 1 / 6967.1 \text{ OK}$
 せん断負担金物[左] (GU1) $Qa/1Qa = 0.949 / (15.10 \times 0.55) = 0.11 < 1.0 \text{ OK}$
 せん断負担金物[右] (GU1) $Qb/1Qa = 0.949 / (15.10 \times 0.55) = 0.11 < 1.0 \text{ OK}$



短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	16.9	742.7	742.7	0.01
ww	6.2	206.0	206.0	0.00
合計	23.1	948.7	948.7	0.01

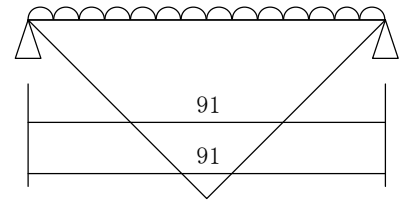
$M_{max}/(Z \times fbS) = 23.14 / (252.00 \times 1.88) = 0.04 < 1.0 \text{ OK}$
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 948.66) / (126.00 \times 160.00) = 0.07 < 1.0 \text{ OK}$
 $\delta = 0.013 \text{ (cm)} = 1 / 6967.1$
 せん断負担金物[左] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (0.949/15.10)^1 + (0.000/25.00)^1 = 0.063 < 1.0 \text{ OK}$
 せん断負担金物[右] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (0.949/15.10)^1 + (0.000/25.00)^1 = 0.063 < 1.0 \text{ OK}$

階、通り、位置、グループ番号： 2階梁 Y6通り X1-X2 2G2
 $w = 0.099 \times 135.0 + 0.099 \times 135.0 = 26.730 \text{ (N/cm)}$ (長期)
 $ww = (\text{単位荷重}) 1990.0 \text{ (N/m}^2) \times (\text{面積}) 0.2070 \text{ (m}^2) = 411.980 \text{ (N)}$ (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 $ww = 411.98 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$
 梁 (耐力壁上) 1種 10.5×12.0 (cm)
 $I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $Ae = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	6.2	206.0	206.0	0.00
合計	33.9	1422.2	1422.2	0.02

$M_{max}/(Z \times fbL) = 33.92 / (252.00 \times 1.03) = 0.13 < 1.0 \text{ OK}$
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1422.20) / (126.00 \times 90.00) = 0.18 < 1.0 \text{ OK}$
 $\delta \times (E/E0) = 0.019 \text{ (cm)} = 1 / 4737.8 \text{ OK}$
 せん断負担金物[左] (GU2) $Qa/1Qa = 1.422 / (20.00 \times 0.55) = 0.13 < 1.0 \text{ OK}$
 せん断負担金物[右] (GU1) $Qb/1Qa = 1.422 / (15.10 \times 0.55) = 0.17 < 1.0 \text{ OK}$



短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	6.2	206.0	206.0	0.00
合計	33.9	1422.2	1422.2	0.02

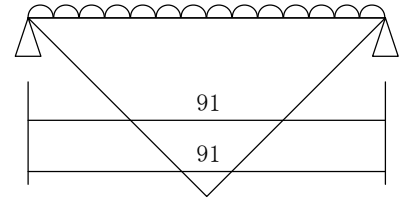
$M_{max}/(Z \times fbS) = 33.92 / (252.00 \times 1.88) = 0.07 < 1.0 \text{ OK}$
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1422.20) / (126.00 \times 160.00) = 0.10 < 1.0 \text{ OK}$
 $\delta = 0.019 \text{ (cm)} = 1 / 4737.8$
 せん断負担金物[左] (GU2) $(Qa/sQa)^n + (T/Ta)^n = (1.422/20.00)^1 + (13.400/25.00)^1 = 0.607 < 1.0 \text{ OK}$
 せん断負担金物[右] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.422/15.10)^1 + (13.400/25.00)^1 = 0.630 < 1.0 \text{ OK}$

階、通り、位置、グループ番号： 2階梁 Y6通り X2-X3 2G2
 $w = 0.099 \times 135.0 + 0.099 \times 135.0 = 26.730$ (N/cm) (長期)
 $ww = (\text{単位荷重}) 1990.0$ (N/m²) \times (面積) 0.2070 (m²) = 411.980 (N) (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 $ww = 411.98 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$
 梁 (壁上) 1種 10.5×12.0 (cm)
 $I = 1512.00$ (cm⁴) $Z = 252.00$ (cm³) $Ae = 126.00$ (cm²)
 $fbL = 10.30$ (N/mm²) $fsL = 0.90$ (N/mm²) $E = 10000$ (N/mm²)
 $fbS = 18.80$ (N/mm²) $fsS = 1.60$ (N/mm²)
 $fs0 = 1.0 \times fsL = 0.900$ (N/mm²) $E0 = 1.0 \times E = 10000$ (N/mm²)

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	6.2	206.0	206.0	0.00
合計	33.9	1422.2	1422.2	0.02

$M_{max}/(Z \times fbL) = 33.92 / (252.00 \times 1.03) = 0.13 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1422.20) / (126.00 \times 90.00) = 0.18 < 1.0$ OK
 $\delta \times (E/E0) = 0.019$ (cm) = $1 / 4737.8$ OK
 せん断負担金物[左] (GU1) $Qa/1Qa = 1.422 / (15.10 \times 0.55) = 0.17 < 1.0$ OK
 せん断負担金物[右] (GU1) $Qb/1Qa = 1.422 / (15.10 \times 0.55) = 0.17 < 1.0$ OK



短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	6.2	206.0	206.0	0.00
合計	33.9	1422.2	1422.2	0.02

$M_{max}/(Z \times fbS) = 33.92 / (252.00 \times 1.88) = 0.07 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1422.20) / (126.00 \times 160.00) = 0.10 < 1.0$ OK
 $\delta = 0.019$ (cm) = $1 / 4737.8$
 せん断負担金物[左] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.422/15.10)^1 + (13.400/25.00)^1 = 0.630 < 1.0$ OK
 せん断負担金物[右] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.422/15.10)^1 + (13.400/25.00)^1 = 0.630 < 1.0$ OK

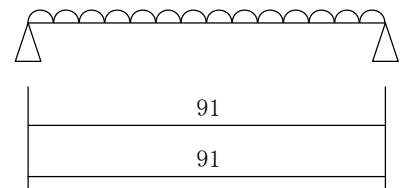
階、通り、位置、グループ番号： 2階梁 Y6通り X3-X4 2G2
 $w = 0.065 \times 45.5 + 0.099 \times 135.0 + 0.099 \times 135.0 = 29.688$ (N/cm) (長期)
 梁 (耐力壁上) 1種 10.5×12.0 (cm)
 $I = 1512.00$ (cm⁴) $Z = 252.00$ (cm³) $Ae = 126.00$ (cm²)
 $fbL = 10.30$ (N/mm²) $fsL = 0.90$ (N/mm²) $E = 10000$ (N/mm²)
 $fbS = 18.80$ (N/mm²) $fsS = 1.60$ (N/mm²)
 $fs0 = 1.0 \times fsL = 0.900$ (N/mm²) $E0 = 1.0 \times E = 10000$ (N/mm²)

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	30.7	1350.8	1350.8	0.02
合計	30.7	1350.8	1350.8	0.02

$M_{max}/(Z \times fbL) = 30.73 / (252.00 \times 1.03) = 0.11 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1350.78) / (126.00 \times 90.00) = 0.17 < 1.0$ OK
 $\delta \times (E/E0) = 0.018$ (cm) = $1 / 5190.6$ OK
 せん断負担金物[左] (GU1) $Qa/1Qa = 1.351 / (15.10 \times 0.55) = 0.16 < 1.0$ OK
 せん断負担金物[右] (GU1) $Qb/1Qa = 1.351 / (15.10 \times 0.55) = 0.16 < 1.0$ OK

短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	30.7	1350.8	1350.8	0.02
合計	30.7	1350.8	1350.8	0.02

$M_{max}/(Z \times fbS) = 30.73 / (252.00 \times 1.88) = 0.06 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1350.78) / (126.00 \times 160.00) = 0.10 < 1.0$ OK
 $\delta = 0.018$ (cm) = $1 / 5190.6$
 せん断負担金物[左] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.351/15.10)^1 + (13.400/25.00)^1 = 0.625 < 1.0$ OK
 せん断負担金物[右] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.351/15.10)^1 + (13.400/25.00)^1 = 0.625 < 1.0$ OK



階、通り、位置、ケルプ°番号： 2階梁 Y6通り X4-X5 2G2

$$w = 0.065 \times 45.5 + 0.099 \times 135.0 = 16.323 \text{ (N/cm)} \text{ (長期)}$$

梁 (耐力壁上) 1種 10.5×12.0 (cm)

$$I = 1512.00 \text{ (cm}^4\text{)} \quad Z = 252.00 \text{ (cm}^3\text{)} \quad Ae = 126.00 \text{ (cm}^2\text{)}$$

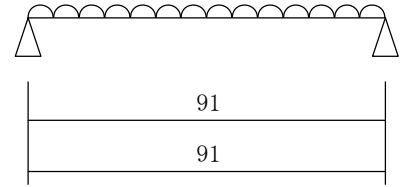
$$fbL = 10.30 \text{ (N/mm}^2\text{)} \quad fsL = 0.90 \text{ (N/mm}^2\text{)} \quad E = 10000 \text{ (N/mm}^2\text{)}$$

$$fbS = 18.80 \text{ (N/mm}^2\text{)} \quad fsS = 1.60 \text{ (N/mm}^2\text{)}$$

$$fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2\text{)} \quad E0 = 1.0 \times E = 10000 \text{ (N/mm}^2\text{)}$$

長期	Mmax (kN·cm)	Qa (N)	Qb (N)	δ (cm)
w	16.9	742.7	742.7	0.01
合計	16.9	742.7	742.7	0.01
Mmax/(Z×fbL)	= 16.90 / (252.00 × 1.03)			= 0.06 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 742.67) / (126.00 × 90.00)			= 0.09 < 1.0 OK
δ×(E/E0)	= 0.010 (cm) = 1 / 9440.7			OK
せん断負担金物[左] (GU1)	Qa/1Qa = 0.743 / (15.10 × 0.55)			= 0.09 < 1.0 OK
せん断負担金物[右] (GU1)	Qb/1Qa = 0.743 / (15.10 × 0.55)			= 0.09 < 1.0 OK

短期	Mmax (kN·cm)	Qa (N)	Qb (N)	δ (cm)
w	16.9	742.7	742.7	0.01
合計	16.9	742.7	742.7	0.01
Mmax/(Z×fbS)	= 16.90 / (252.00 × 1.88)			= 0.03 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 742.67) / (126.00 × 160.00)			= 0.05 < 1.0 OK
δ	= 0.010 (cm) = 1 / 9440.7			
せん断負担金物[左] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.743/15.10) ¹ +(13.400/25.00) ¹			= 0.585 < 1.0 OK
せん断負担金物[右] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.743/15.10) ¹ +(13.400/25.00) ¹			= 0.585 < 1.0 OK



階、通り、位置、ケルプ°番号： 2階梁 Y6通り X5-X6 2G2

$$w = 0.065 \times 45.5 + 0.099 \times 135.0 = 16.323 \text{ (N/cm)} \text{ (長期)}$$

梁 (壁上) 1種 10.5×12.0 (cm)

$$I = 1512.00 \text{ (cm}^4\text{)} \quad Z = 252.00 \text{ (cm}^3\text{)} \quad Ae = 126.00 \text{ (cm}^2\text{)}$$

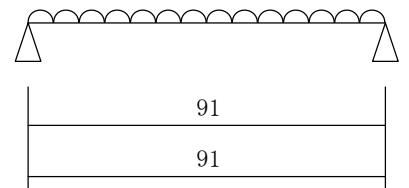
$$fbL = 10.30 \text{ (N/mm}^2\text{)} \quad fsL = 0.90 \text{ (N/mm}^2\text{)} \quad E = 10000 \text{ (N/mm}^2\text{)}$$

$$fbS = 18.80 \text{ (N/mm}^2\text{)} \quad fsS = 1.60 \text{ (N/mm}^2\text{)}$$

$$fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2\text{)} \quad E0 = 1.0 \times E = 10000 \text{ (N/mm}^2\text{)}$$

長期	Mmax (kN·cm)	Qa (N)	Qb (N)	δ (cm)
w	16.9	742.7	742.7	0.01
合計	16.9	742.7	742.7	0.01
Mmax/(Z×fbL)	= 16.90 / (252.00 × 1.03)			= 0.06 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 742.67) / (126.00 × 90.00)			= 0.09 < 1.0 OK
δ×(E/E0)	= 0.010 (cm) = 1 / 9440.7			OK
せん断負担金物[左] (GU1)	Qa/1Qa = 0.743 / (15.10 × 0.55)			= 0.09 < 1.0 OK
せん断負担金物[右] (GU1)	Qb/1Qa = 0.743 / (15.10 × 0.55)			= 0.09 < 1.0 OK

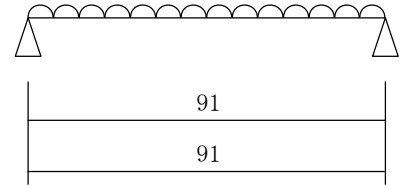
短期	Mmax (kN·cm)	Qa (N)	Qb (N)	δ (cm)
w	16.9	742.7	742.7	0.01
合計	16.9	742.7	742.7	0.01
Mmax/(Z×fbS)	= 16.90 / (252.00 × 1.88)			= 0.03 < 1.0 OK
α×Qmax/(Ae×fs0)	= (1.50 × 742.67) / (126.00 × 160.00)			= 0.05 < 1.0 OK
δ	= 0.010 (cm) = 1 / 9440.7			
せん断負担金物[左] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.743/15.10) ¹ +(13.400/25.00) ¹			= 0.585 < 1.0 OK
せん断負担金物[右] (GU1)	(Qa/sQa) ⁿ +(T/Ta) ⁿ =(0.743/15.10) ¹ +(13.400/25.00) ¹			= 0.585 < 1.0 OK



階、通り、位置、グループ番号： 2階梁 Y6通り X6-X7 2G2
 $w = 0.065 \times 45.5 + 0.099 \times 135.0 + 0.099 \times 135.0 = 29.688(N/cm)$ (長期)
 梁 (耐力壁上) 1種 10.5×12.0 (cm)
 $I = 1512.00(cm^4)$ $Z = 252.00(cm^3)$ $Ae = 126.00(cm^2)$
 $fbL = 10.30(N/mm^2)$ $fsL = 0.90(N/mm^2)$ $E = 10000(N/mm^2)$
 $fbS = 18.80(N/mm^2)$ $fsS = 1.60(N/mm^2)$
 $fs0 = 1.0 \times fsL = 0.900(N/mm^2)$ $E0 = 1.0 \times E = 10000(N/mm^2)$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	30.7	1350.8	1350.8	0.02
合計	30.7	1350.8	1350.8	0.02
Mmax/(Z×fbL)	= 30.73 / (252.00 × 1.03)			= 0.11 < 1.0 OK
$\alpha \times Qmax / (Ae \times fs0)$	= (1.50 × 1350.78) / (126.00 × 90.00)			= 0.17 < 1.0 OK
$\delta \times (E/E0)$	= 0.018 (cm) = 1 / 5190.6			OK
せん断負担金物[左] (GU1)	$Qa/1Qa = 1.351 / (15.10 \times 0.55) = 0.16 < 1.0$			OK
せん断負担金物[右] (GU1)	$Qb/1Qa = 1.351 / (15.10 \times 0.55) = 0.16 < 1.0$			OK

短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	30.7	1350.8	1350.8	0.02
合計	30.7	1350.8	1350.8	0.02
Mmax/(Z×fbS)	= 30.73 / (252.00 × 1.88)			= 0.06 < 1.0 OK
$\alpha \times Qmax / (Ae \times fs0)$	= (1.50 × 1350.78) / (126.00 × 160.00)			= 0.10 < 1.0 OK
$\delta = 0.018$ (cm) = 1 / 5190.6				
せん断負担金物[左] (GU1)	$(Qa/sQa)^n + (T/Ta)^n = (1.351/15.10)^1 + (13.400/25.00)^1 = 0.625 < 1.0$			OK
せん断負担金物[右] (GU1)	$(Qa/sQa)^n + (T/Ta)^n = (1.351/15.10)^1 + (13.400/25.00)^1 = 0.625 < 1.0$			OK



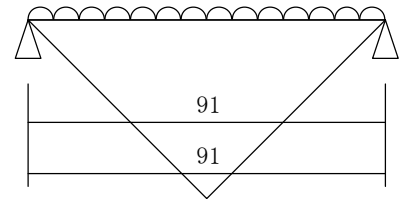
階、通り、位置、グループ番号： 2階梁 X1通り Y1-Y2 2G2
 $w = 0.099 \times 135.0 + 0.099 \times 135.0 = 26.730(N/cm)$ (長期)
 $ww = (\text{単位荷重}) 1990.0(N/m^2) \times (\text{面積}) 0.2070(m^2) = 411.980(N)$ (長期)

(長期)	(地震水平)	(地震直交)	(風圧水平)	(風圧直交)	(N)
ww	411.98	0.00	0.00	0.00	0.00

梁 (耐力壁上) 1種 10.5×12.0 (cm)
 $I = 1512.00(cm^4)$ $Z = 252.00(cm^3)$ $Ae = 126.00(cm^2)$
 $fbL = 10.30(N/mm^2)$ $fsL = 0.90(N/mm^2)$ $E = 10000(N/mm^2)$
 $fbS = 18.80(N/mm^2)$ $fsS = 1.60(N/mm^2)$
 $fs0 = 1.0 \times fsL = 0.900(N/mm^2)$ $E0 = 1.0 \times E = 10000(N/mm^2)$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	6.2	206.0	206.0	0.00
合計	33.9	1422.2	1422.2	0.02
Mmax/(Z×fbL)	= 33.92 / (252.00 × 1.03)			= 0.13 < 1.0 OK
$\alpha \times Qmax / (Ae \times fs0)$	= (1.50 × 1422.20) / (126.00 × 90.00)			= 0.18 < 1.0 OK
$\delta \times (E/E0)$	= 0.019 (cm) = 1 / 4737.8			OK
せん断負担金物[左] (GU2)	$Qa/1Qa = 1.422 / (20.00 \times 0.55) = 0.13 < 1.0$			OK
せん断負担金物[右] (GU1)	$Qb/1Qa = 1.422 / (15.10 \times 0.55) = 0.17 < 1.0$			OK

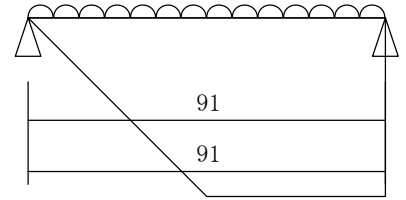
短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	6.2	206.0	206.0	0.00
合計	33.9	1422.2	1422.2	0.02
Mmax/(Z×fbS)	= 33.92 / (252.00 × 1.88)			= 0.07 < 1.0 OK
$\alpha \times Qmax / (Ae \times fs0)$	= (1.50 × 1422.20) / (126.00 × 160.00)			= 0.10 < 1.0 OK
$\delta = 0.019$ (cm) = 1 / 4737.8				
せん断負担金物[左] (GU2)	$(Qa/sQa)^n + (T/Ta)^n = (1.422/20.00)^1 + (16.100/25.00)^1 = 0.715 < 1.0$			OK
せん断負担金物[右] (GU1)	$(Qa/sQa)^n + (T/Ta)^n = (1.422/15.10)^1 + (16.100/25.00)^1 = 0.738 < 1.0$			OK



階、通り、位置、グループ番号： 2階梁 X1通り Y2-Y3 2G2
 $w = 0.099 \times 135.0 + 0.099 \times 135.0 = 26.730 \text{ (N/cm)}$ (長期)
 $ww = (\text{単位荷重}) 1990.0 \text{ (N/m}^2) \times (\text{面積}) 0.3105 \text{ (m}^2) = 617.970 \text{ (N)}$ (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 $ww = 617.97 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$
 梁 (壁上) 1種 10.5×12.0 (cm)
 $I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $Ae = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	7.8	240.3	377.6	0.00
合計	35.5	1456.5	1593.9	0.02
Mmax/(Z×fbL)	= 35.48 / (252.00 × 1.03)			= 0.13 < 1.0 OK
$\alpha \times Q_{max} / (Ae \times fs0)$	= (1.50 × 1593.86) / (126.00 × 90.00)			= 0.21 < 1.0 OK
$\delta \times (E/E0)$	= 0.020 (cm) = 1 / 4511.7			OK
せん断負担金物[左] (GU1)	$Qa/1Qa = 1.457 / (15.10 \times 0.55)$			= 0.18 < 1.0 OK
せん断負担金物[右] (GU1)	$Qb/1Qa = 1.594 / (15.10 \times 0.55)$			= 0.19 < 1.0 OK

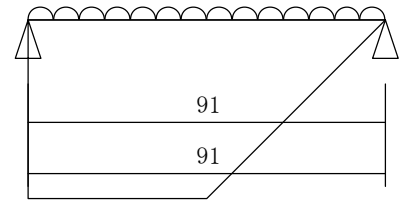


短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	7.8	240.3	377.6	0.00
合計	35.5	1456.5	1593.9	0.02
Mmax/(Z×fbS)	= 35.48 / (252.00 × 1.88)			= 0.07 < 1.0 OK
$\alpha \times Q_{max} / (Ae \times fs0)$	= (1.50 × 1593.86) / (126.00 × 160.00)			= 0.11 < 1.0 OK
$\delta = 0.020 \text{ (cm)} = 1 / 4511.7$				
せん断負担金物[左] (GU1)	$(Qa/sQa)^n + (T/Ta)^n = (1.594/15.10)^1 + (16.100/25.00)^1$			= 0.750 < 1.0 OK
せん断負担金物[右] (GU1)	$(Qa/sQa)^n + (T/Ta)^n = (1.594/15.10)^1 + (16.100/25.00)^1$			= 0.750 < 1.0 OK

階、通り、位置、グループ番号： 2階梁 X1通り Y3-Y4 2G2
 $w = 0.099 \times 135.0 + 0.099 \times 135.0 = 26.730 \text{ (N/cm)}$ (長期)
 $ww = (\text{単位荷重}) 1990.0 \text{ (N/m}^2) \times (\text{面積}) 0.3105 \text{ (m}^2) = 617.970 \text{ (N)}$ (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 $ww = 617.97 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$
 梁 (耐力壁上) 1種 10.5×12.0 (cm)
 $I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $Ae = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	7.8	377.6	240.3	0.00
合計	35.5	1593.9	1456.5	0.02
Mmax/(Z×fbL)	= 35.48 / (252.00 × 1.03)			= 0.13 < 1.0 OK
$\alpha \times Q_{max} / (Ae \times fs0)$	= (1.50 × 1593.86) / (126.00 × 90.00)			= 0.21 < 1.0 OK
$\delta \times (E/E0)$	= 0.020 (cm) = 1 / 4511.7			OK
せん断負担金物[左] (GU1)	$Qa/1Qa = 1.594 / (15.10 \times 0.55)$			= 0.19 < 1.0 OK
せん断負担金物[右] (GU1)	$Qb/1Qa = 1.457 / (15.10 \times 0.55)$			= 0.18 < 1.0 OK

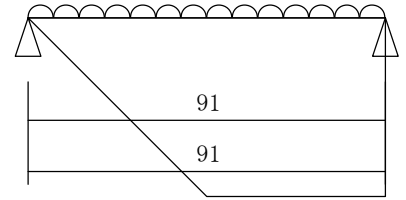


短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	7.8	377.6	240.3	0.00
合計	35.5	1593.9	1456.5	0.02
Mmax/(Z×fbS)	= 35.48 / (252.00 × 1.88)			= 0.07 < 1.0 OK
$\alpha \times Q_{max} / (Ae \times fs0)$	= (1.50 × 1593.86) / (126.00 × 160.00)			= 0.11 < 1.0 OK
$\delta = 0.020 \text{ (cm)} = 1 / 4511.7$				
せん断負担金物[左] (GU1)	$(Qa/sQa)^n + (T/Ta)^n = (1.457/15.10)^1 + (16.100/25.00)^1$			= 0.740 < 1.0 OK
せん断負担金物[右] (GU1)	$(Qa/sQa)^n + (T/Ta)^n = (1.457/15.10)^1 + (16.100/25.00)^1$			= 0.740 < 1.0 OK

階、通り、位置、グループ番号： 2階梁 X1通り Y4-Y5 2G2
 $w = 0.099 \times 135.0 + 0.099 \times 135.0 = 26.730 \text{ (N/cm)}$ (長期)
 $ww = (\text{単位荷重}) 1990.0 \text{ (N/m}^2) \times (\text{面積}) 0.3105 \text{ (m}^2) = 617.970 \text{ (N)}$ (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 $ww = 617.97 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$
 梁 (壁上) 1種 10.5×12.0 (cm)
 $I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $Ae = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	7.8	240.3	377.6	0.00
合計	35.5	1456.5	1593.9	0.02
$M_{max}/(Z \times fbL) = 35.48 / (252.00 \times 1.03) = 0.13 < 1.0 \text{ OK}$				
$\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1593.86) / (126.00 \times 90.00) = 0.21 < 1.0 \text{ OK}$				
$\delta \times (E/E0) = 0.020 \text{ (cm)} = 1 / 4511.7 \text{ OK}$				
せん断負担金物[左] (GU1) $Qa/1Qa = 1.457 / (15.10 \times 0.55) = 0.18 < 1.0 \text{ OK}$				
せん断負担金物[右] (GU1) $Qb/1Qa = 1.594 / (15.10 \times 0.55) = 0.19 < 1.0 \text{ OK}$				

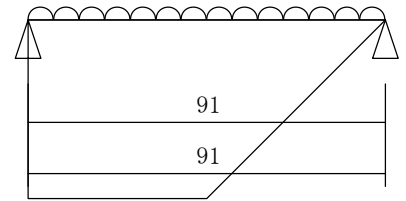


短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	7.8	240.3	377.6	0.00
合計	35.5	1456.5	1593.9	0.02
$M_{max}/(Z \times fbS) = 35.48 / (252.00 \times 1.88) = 0.07 < 1.0 \text{ OK}$				
$\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1593.86) / (126.00 \times 160.00) = 0.11 < 1.0 \text{ OK}$				
$\delta = 0.020 \text{ (cm)} = 1 / 4511.7$				
せん断負担金物[左] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.594/15.10)^1 + (16.100/25.00)^1 = 0.750 < 1.0 \text{ OK}$				
せん断負担金物[右] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.594/15.10)^1 + (16.100/25.00)^1 = 0.750 < 1.0 \text{ OK}$				

階、通り、位置、グループ番号： 2階梁 X1通り Y5-Y6 2G2
 $w = 0.099 \times 135.0 + 0.099 \times 135.0 = 26.730 \text{ (N/cm)}$ (長期)
 $ww = (\text{単位荷重}) 1990.0 \text{ (N/m}^2) \times (\text{面積}) 0.3105 \text{ (m}^2) = 617.970 \text{ (N)}$ (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 $ww = 617.97 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$
 梁 (耐力壁上) 1種 10.5×12.0 (cm)
 $I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $Ae = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	7.8	377.6	240.3	0.00
合計	35.5	1593.9	1456.5	0.02
$M_{max}/(Z \times fbL) = 35.48 / (252.00 \times 1.03) = 0.13 < 1.0 \text{ OK}$				
$\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1593.86) / (126.00 \times 90.00) = 0.21 < 1.0 \text{ OK}$				
$\delta \times (E/E0) = 0.020 \text{ (cm)} = 1 / 4511.7 \text{ OK}$				
せん断負担金物[左] (GU1) $Qa/1Qa = 1.594 / (15.10 \times 0.55) = 0.19 < 1.0 \text{ OK}$				
せん断負担金物[右] (GU2) $Qb/1Qa = 1.457 / (20.00 \times 0.55) = 0.13 < 1.0 \text{ OK}$				



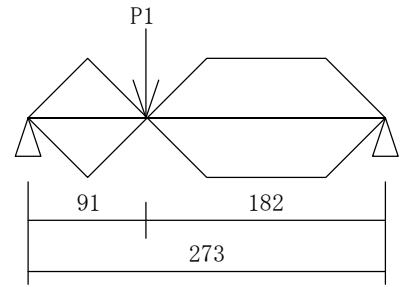
短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	7.8	377.6	240.3	0.00
合計	35.5	1593.9	1456.5	0.02
$M_{max}/(Z \times fbS) = 35.48 / (252.00 \times 1.88) = 0.07 < 1.0 \text{ OK}$				
$\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1593.86) / (126.00 \times 160.00) = 0.11 < 1.0 \text{ OK}$				
$\delta = 0.020 \text{ (cm)} = 1 / 4511.7$				
せん断負担金物[左] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.457/15.10)^1 + (16.100/25.00)^1 = 0.740 < 1.0 \text{ OK}$				
せん断負担金物[右] (GU2) $(Qa/sQa)^n + (T/Ta)^n = (1.457/20.00)^1 + (16.100/25.00)^1 = 0.717 < 1.0 \text{ OK}$				

階、通り、位置、グループ番号： 2階梁 X2通り Y1-Y4 2G4
 ww = (単位荷重) 1990.0(N/m2) × (面積) 1.6562(m2) = 3295.838(N) (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 P1 = 823.96 0.00 0.00 0.00 0.00
 ww = 3295.84 0.00 0.00 0.00 0.00
 大 梁 1種 10.5 × 17.0 (cm)
 I = 4298.88(cm4) Z = 505.75(cm3) Ae = 178.50(cm2)
 fbL = 10.30(N/mm2) fsL = 0.90(N/mm2) E = 10000(N/mm2)
 fbS = 18.80(N/mm2) fsS = 1.60(N/mm2)
 fs0 = 1.0 × fsL = 0.900(N/mm2) E0 = 1.0 × E = 10000(N/mm2)

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
P1	50.0	549.3	274.7	0.07
ww	125.0	1510.6	1785.2	0.22
合計	175.0	2059.9	2059.9	0.29

Mmax/(Z × fbL) = 174.95 / (505.75 × 1.03) = 0.33 < 1.0 OK
 α × Qmax/(Ae × fs0) = (1.50 × 2059.90) / (178.50 × 90.00) = 0.19 < 1.0 OK
 δ × (E/E0) = 0.293 (cm) = 1 / 930.3 OK
 せん断負担金物[左] (GU2) Qa/1Qa = 2.060/(20.00 × 0.55) = 0.19 < 1.0 OK
 せん断負担金物[右] (GU1) Qb/1Qa = 2.060/(15.10 × 0.55) = 0.25 < 1.0 OK



短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
P1	50.0	549.3	274.7	0.07
ww	125.0	1510.6	1785.2	0.22
合計	175.0	2059.9	2059.9	0.29

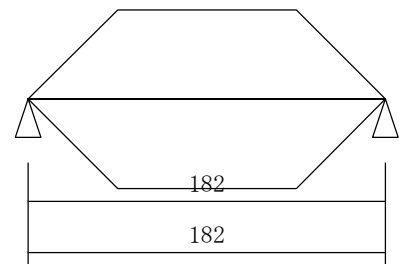
Mmax/(Z × fbS) = 174.95 / (505.75 × 1.88) = 0.18 < 1.0 OK
 α × Qmax/(Ae × fs0) = (1.50 × 2059.90) / (178.50 × 160.00) = 0.10 < 1.0 OK
 δ = 0.293 (cm) = 1 / 930.3
 せん断負担金物[左] (GU2) (Qa/sQa) ^ n + (T/Ta) ^ n = (2.060/20.00) ^ 1 + (0.000/25.00) ^ 1 = 0.103 < 1.0 OK
 せん断負担金物[右] (GU1) (Qa/sQa) ^ n + (T/Ta) ^ n = (2.060/15.10) ^ 1 + (0.000/25.00) ^ 1 = 0.136 < 1.0 OK

階、通り、位置、グループ番号： 2階梁 X2通り Y4-Y6 2G2
 ww = (単位荷重) 1990.0(N/m2) × (面積) 1.2421(m2) = 2471.878(N) (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 ww = 2471.88 0.00 0.00 0.00 0.00
 大 梁 1種 10.5 × 12.0 (cm)
 I = 1512.00(cm4) Z = 252.00(cm3) Ae = 126.00(cm2)
 fbL = 10.30(N/mm2) fsL = 0.90(N/mm2) E = 10000(N/mm2)
 fbS = 18.80(N/mm2) fsS = 1.60(N/mm2)
 fs0 = 1.0 × fsL = 0.900(N/mm2) E0 = 1.0 × E = 10000(N/mm2)

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
ww	68.7	1235.9	1235.9	0.15
合計	68.7	1235.9	1235.9	0.15

Mmax/(Z × fbL) = 68.73 / (252.00 × 1.03) = 0.26 < 1.0 OK
 α × Qmax/(Ae × fs0) = (1.50 × 1235.94) / (126.00 × 90.00) = 0.16 < 1.0 OK
 δ × (E/E0) = 0.154 (cm) = 1 / 1178.6 OK
 せん断負担金物[左] (GU1) Qa/1Qa = 1.236/(15.10 × 0.55) = 0.15 < 1.0 OK
 せん断負担金物[右] (GU2) Qb/1Qa = 1.236/(20.00 × 0.55) = 0.11 < 1.0 OK



短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
ww	68.7	1235.9	1235.9	0.15
合計	68.7	1235.9	1235.9	0.15

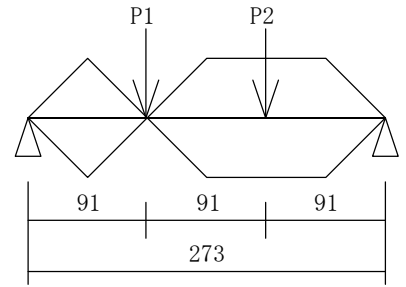
Mmax/(Z × fbS) = 68.73 / (252.00 × 1.88) = 0.14 < 1.0 OK
 α × Qmax/(Ae × fs0) = (1.50 × 1235.94) / (126.00 × 160.00) = 0.09 < 1.0 OK
 δ = 0.154 (cm) = 1 / 1178.6
 せん断負担金物[左] (GU1) (Qa/sQa) ^ n + (T/Ta) ^ n = (1.236/15.10) ^ 1 + (0.000/25.00) ^ 1 = 0.082 < 1.0 OK
 せん断負担金物[右] (GU2) (Qa/sQa) ^ n + (T/Ta) ^ n = (1.236/20.00) ^ 1 + (0.000/25.00) ^ 1 = 0.062 < 1.0 OK

階、通り、位置、グループ番号： 2階梁 X3通り Y1-Y4 2G4
 ww = (単位荷重) 1990.0(N/m2) × (面積) 1.6562(m2) = 3295.838(N) (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 P1 = 823.96 0.00 0.00 0.00 0.00
 P2 = 2220.34 0.00 0.00 0.00 0.00
 ww = 3295.84 0.00 0.00 0.00 0.00
 大 梁 1種 10.5 × 17.0 (cm)
 I = 4298.88(cm4) Z = 505.75(cm3) Ae = 178.50(cm2)
 fbL = 10.30(N/mm2) fsL = 0.90(N/mm2) E = 10000(N/mm2)
 fbS = 18.80(N/mm2) fsS = 1.60(N/mm2)
 fs0 = 1.0 × fsL = 0.900(N/mm2) E0 = 1.0 × E = 10000(N/mm2)

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
P1	25.0	549.3	274.7	0.07
P2	134.7	740.1	1480.2	0.19
ww	125.0	1510.6	1785.2	0.22
合計	284.7	2800.0	3540.1	0.48

$M_{max}/(Z \times fbL) = 284.66 / (505.75 \times 1.03) = 0.54 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 3540.13) / (178.50 \times 90.00) = 0.33 < 1.0$ OK
 $\delta \times (E/E0) = 0.482$ (cm) = 1 / 566.6 OK
 せん断負担金物[左] (GU2) $Qa/1Qa = 2.800 / (20.00 \times 0.55) = 0.25 < 1.0$ OK
 せん断負担金物[右] (GU1) $Qb/1Qa = 3.540 / (15.10 \times 0.55) = 0.43 < 1.0$ OK



短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
P1	25.0	549.3	274.7	0.07
P2	134.7	740.1	1480.2	0.19
ww	125.0	1510.6	1785.2	0.22
合計	284.7	2800.0	3540.1	0.48

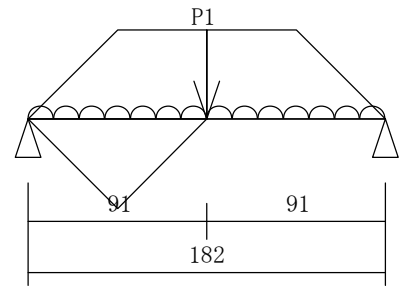
$M_{max}/(Z \times fbS) = 284.66 / (505.75 \times 1.88) = 0.29 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 3540.13) / (178.50 \times 160.00) = 0.18 < 1.0$ OK
 $\delta = 0.482$ (cm) = 1 / 566.6
 せん断負担金物[左] (GU2) $(Qa/sQa)^n + (T/Ta)^n = (3.540/20.00)^1 + (0.000/25.00)^1 = 0.177 < 1.0$ OK
 せん断負担金物[右] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (3.540/15.10)^1 + (0.000/25.00)^1 = 0.234 < 1.0$ OK

階、通り、位置、グループ番号： 2階梁 X3通り Y4-Y6 2G5
 w = 0.099 × 67.5 = 6.682(N/cm) (長期)
 ww = (単位荷重) 1990.0(N/m2) × (面積) 0.8281(m2) = 1647.919(N) (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 P1 = 3984.08 10584.00 10584.00 10584.00 10584.00
 ww = 1647.92 0.00 0.00 0.00 0.00
 大 梁 1種 10.5 × 24.0 (cm)
 I = 12096.00(cm4) Z = 1008.00(cm3) Ae = 252.00(cm2)
 fbL = 10.30(N/mm2) fsL = 0.90(N/mm2) E = 10000(N/mm2)
 fbS = 18.80(N/mm2) fsS = 1.60(N/mm2)
 fs0 = 1.0 × fsL = 0.900(N/mm2) E0 = 1.0 × E = 10000(N/mm2)

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	608.1	608.1	0.01
P1	181.3	1992.0	1992.0	0.04
ww	43.7	927.0	721.0	0.01
合計	252.7	3527.1	3321.1	0.06

$M_{max}/(Z \times fbL) = 252.68 / (1008.00 \times 1.03) = 0.24 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 3527.10) / (252.00 \times 90.00) = 0.23 < 1.0$ OK
 $\delta \times (E/E0) = 0.062$ (cm) = 1 / 2948.9 OK
 せん断負担金物[左] (GU1) $Qa/1Qa = 3.527 / (15.10 \times 0.55) = 0.42 < 1.0$ OK
 せん断負担金物[右] (GU2) $Qb/1Qa = 3.321 / (20.00 \times 0.55) = 0.30 < 1.0$ OK



短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	608.1	608.1	0.01
P1	662.8	7284.0	7284.0	0.15
ww	43.7	927.0	721.0	0.01
合計	734.3	8819.1	8613.1	0.17

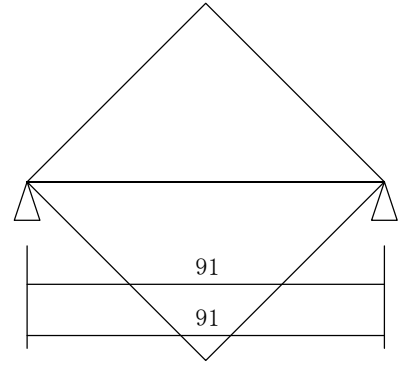
$M_{max}/(Z \times fbS) = 734.26 / (1008.00 \times 1.88) = 0.38 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 8819.10) / (252.00 \times 160.00) = 0.32 < 1.0$ OK
 $\delta = 0.172$ (cm) = 1 / 1060.5
 せん断負担金物[左] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (8.613/15.10)^1 + (0.000/25.00)^1 = 0.570 < 1.0$ OK
 せん断負担金物[右] (GU2) $(Qa/sQa)^n + (T/Ta)^n = (8.613/20.00)^1 + (0.000/25.00)^1 = 0.431 < 1.0$ OK

階、通り、位置、グループ番号： 2階梁 X4通り Y1-Y2 2G2
 ww = (単位荷重) 1990.0(N/m²) × (面積) 0.4141(m²) = 823.960(N) (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 ww = 823.96 0.00 0.00 0.00 0.00
 大 梁 1種 10.5 × 12.0 (cm)
 I = 1512.00(cm⁴) Z = 252.00(cm³) Ae = 126.00(cm²)
 fbL = 10.30(N/mm²) fsL = 0.90(N/mm²) E = 10000(N/mm²)
 fbS = 18.80(N/mm²) fsS = 1.60(N/mm²)
 fs0 = 1.0 × fsL = 0.900(N/mm²) E0 = 1.0 × E = 10000(N/mm²)

長期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 ww 12.5 412.0 412.0 0.01
 合計 12.5 412.0 412.0 0.01
 $M_{max}/(Z \times fbL) = 12.50 / (252.00 \times 1.03) = 0.04 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 411.98) / (126.00 \times 90.00) = 0.05 < 1.0$ OK
 $\delta \times (E/E0) = 0.007$ (cm) = 1 / 13295.8 OK
 せん断負担金物[左](GU2) $Qa/1Qa = 0.412 / (20.00 \times 0.55) = 0.04 < 1.0$ OK
 せん断負担金物[右](GU1) $Qb/1Qa = 0.412 / (15.10 \times 0.55) = 0.05 < 1.0$ OK

短期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 ww 12.5 412.0 412.0 0.01
 合計 12.5 412.0 412.0 0.01
 $M_{max}/(Z \times fbS) = 12.50 / (252.00 \times 1.88) = 0.02 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 411.98) / (126.00 \times 160.00) = 0.03 < 1.0$ OK
 $\delta = 0.007$ (cm) = 1 / 13295.8
 せん断負担金物[左](GU2) $(Qa/sQa)^n + (T/Ta)^n = (0.412/20.00)^1 + (0.000/25.00)^1 = 0.021 < 1.0$ OK
 せん断負担金物[右](GU1) $(Qa/sQa)^n + (T/Ta)^n = (0.412/15.10)^1 + (0.000/25.00)^1 = 0.027 < 1.0$ OK

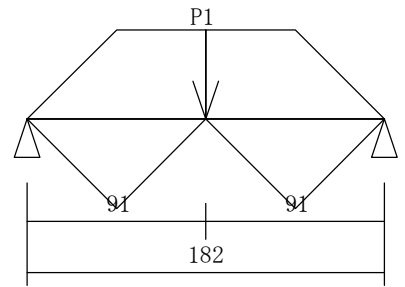


階、通り、位置、グループ番号： 2階梁 X4通り Y2-Y4 2G2
 ww = (単位荷重) 1990.0(N/m²) × (面積) 1.0351(m²) = 2059.899(N) (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 P1 = 2245.19 0.00 0.00 0.00 0.00
 ww = 2059.90 0.00 0.00 0.00 0.00
 大 梁 1種 10.5 × 12.0 (cm)
 I = 1512.00(cm⁴) Z = 252.00(cm³) Ae = 126.00(cm²)
 fbL = 10.30(N/mm²) fsL = 0.90(N/mm²) E = 10000(N/mm²)
 fbS = 18.80(N/mm²) fsS = 1.60(N/mm²)
 fs0 = 1.0 × fsL = 0.900(N/mm²) E0 = 1.0 × E = 10000(N/mm²)

長期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 P1 102.2 1122.6 1122.6 0.19
 ww 53.1 1029.9 1029.9 0.12
 合計 155.3 2152.5 2152.5 0.31
 $M_{max}/(Z \times fbL) = 155.27 / (252.00 \times 1.03) = 0.59 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 2152.54) / (126.00 \times 90.00) = 0.28 < 1.0$ OK
 $\delta \times (E/E0) = 0.309$ (cm) = 1 / 589.7 OK
 せん断負担金物[左](GU1) $Qa/1Qa = 2.153 / (15.10 \times 0.55) = 0.26 < 1.0$ OK
 せん断負担金物[右](GU1) $Qb/1Qa = 2.153 / (15.10 \times 0.55) = 0.26 < 1.0$ OK

短期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 P1 102.2 1122.6 1122.6 0.19
 ww 53.1 1029.9 1029.9 0.12
 合計 155.3 2152.5 2152.5 0.31
 $M_{max}/(Z \times fbS) = 155.27 / (252.00 \times 1.88) = 0.32 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 2152.54) / (126.00 \times 160.00) = 0.16 < 1.0$ OK
 $\delta = 0.309$ (cm) = 1 / 589.7
 せん断負担金物[左](GU1) $(Qa/sQa)^n + (T/Ta)^n = (2.153/15.10)^1 + (0.000/25.00)^1 = 0.143 < 1.0$ OK
 せん断負担金物[右](GU1) $(Qa/sQa)^n + (T/Ta)^n = (2.153/15.10)^1 + (0.000/25.00)^1 = 0.143 < 1.0$ OK

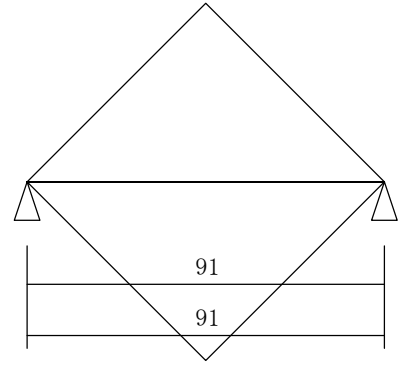


階、通り、位置、グループ番号： 2階梁 X4通り Y4-Y5 2G2
 ww = (単位荷重) 1990.0(N/m2) × (面積) 0.4141(m2) = 823.960(N) (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 ww = 823.96 0.00 0.00 0.00 0.00
 大梁 1種 10.5 × 12.0 (cm)
 I = 1512.00(cm4) Z = 252.00(cm3) Ae = 126.00(cm2)
 fbL = 10.30(N/mm2) fsL = 0.90(N/mm2) E = 10000(N/mm2)
 fbS = 18.80(N/mm2) fsS = 1.60(N/mm2)
 fs0 = 1.0 × fsL = 0.900(N/mm2) E0 = 1.0 × E = 10000(N/mm2)

長期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 ww 12.5 412.0 412.0 0.01
 合計 12.5 412.0 412.0 0.01
 $M_{max}/(Z \times fbL) = 12.50 / (252.00 \times 1.03) = 0.04 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 411.98) / (126.00 \times 90.00) = 0.05 < 1.0$ OK
 $\delta \times (E/E0) = 0.007$ (cm) = 1 / 13295.8 OK
 せん断負担金物[左] (GU1) $Qa/1Qa = 0.412 / (15.10 \times 0.55) = 0.05 < 1.0$ OK
 せん断負担金物[右] (GU1) $Qb/1Qa = 0.412 / (15.10 \times 0.55) = 0.05 < 1.0$ OK

短期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 ww 12.5 412.0 412.0 0.01
 合計 12.5 412.0 412.0 0.01
 $M_{max}/(Z \times fbS) = 12.50 / (252.00 \times 1.88) = 0.02 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 411.98) / (126.00 \times 160.00) = 0.03 < 1.0$ OK
 $\delta = 0.007$ (cm) = 1 / 13295.8
 せん断負担金物[左] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (0.412/15.10)^1 + (0.000/25.00)^1 = 0.027 < 1.0$ OK
 せん断負担金物[右] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (0.412/15.10)^1 + (0.000/25.00)^1 = 0.027 < 1.0$ OK

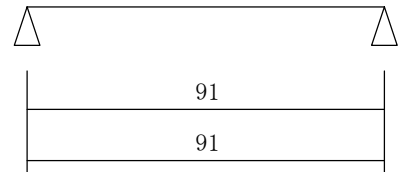


階、通り、位置、グループ番号： 2階梁 X4通り Y5-Y6 2G2

大梁 1種 10.5 × 12.0 (cm)
 I = 1512.00(cm4) Z = 252.00(cm3) Ae = 126.00(cm2)
 fbL = 10.30(N/mm2) fsL = 0.90(N/mm2) E = 10000(N/mm2)
 fbS = 18.80(N/mm2) fsS = 1.60(N/mm2)
 fs0 = 1.0 × fsL = 0.900(N/mm2) E0 = 1.0 × E = 10000(N/mm2)

長期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 合計 0.0 0.0 0.0 0.00
 $M_{max}/(Z \times fbL) = 0.00 / (252.00 \times 1.03) = 0.00 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 0.00) / (126.00 \times 90.00) = 0.00 < 1.0$ OK
 $\delta \times (E/E0) = 0.000$ (cm) = 1 / 999999.9 OK
 せん断負担金物[左] (GU1) $Qa/1Qa = 0.000 / (15.10 \times 0.55) = 0.00 < 1.0$ OK
 せん断負担金物[右] (GU2) $Qb/1Qa = 0.000 / (20.00 \times 0.55) = 0.00 < 1.0$ OK

短期 Mmax(kN・cm) Qa(N) Qb(N) δ(cm)
 合計 0.0 0.0 0.0 0.00
 $M_{max}/(Z \times fbS) = 0.00 / (252.00 \times 1.88) = 0.00 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 0.00) / (126.00 \times 160.00) = 0.00 < 1.0$ OK
 $\delta = 0.000$ (cm) = 1 / 999999.9
 せん断負担金物[左] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (0.000/15.10)^1 + (0.000/25.00)^1 = 0.000 < 1.0$ OK
 せん断負担金物[右] (GU2) $(Qa/sQa)^n + (T/Ta)^n = (0.000/20.00)^1 + (0.000/25.00)^1 = 0.000 < 1.0$ OK



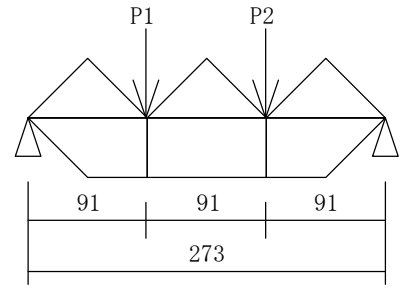
階、通り、位置、グループ番号： 2階梁 X6通り Y1-Y4 2G4
 ww = (単位荷重) 1990.0(N/m²) × (面積) 1.6562(m²) = 3295.838(N) (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 P1 = 1235.94 0.00 0.00 0.00 0.00
 P2 = 2245.19 0.00 0.00 0.00 0.00
 ww = 3295.84 0.00 0.00 0.00 0.00

大 梁 1種 10.5 × 17.0 (cm)
 I = 4298.88(cm⁴) Z = 505.75(cm³) Ae = 178.50(cm²)
 fbL = 10.30(N/mm²) fsL = 0.90(N/mm²) E = 10000(N/mm²)
 fbS = 18.80(N/mm²) fsS = 1.60(N/mm²)
 fs0 = 1.0 × fsL = 0.900(N/mm²) E0 = 1.0 × E = 10000(N/mm²)

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
P1	37.5	824.0	412.0	0.10
P2	136.2	748.4	1496.8	0.19
ww	125.0	1647.9	1647.9	0.22
合計	298.7	3220.3	3556.7	0.52

Mmax/(Z × fbL) = 298.67 / (505.75 × 1.03) = 0.57 < 1.0 OK
 α × Qmax / (Ae × fs0) = (1.50 × 3556.69) / (178.50 × 90.00) = 0.33 < 1.0 OK
 δ × (E/E0) = 0.519 (cm) = 1 / 526.2 OK
 せん断負担金物[左] (GU2) Qa/1Qa = 3.220 / (20.00 × 0.55) = 0.29 < 1.0 OK
 せん断負担金物[右] (GU1) Qb/1Qa = 3.557 / (15.10 × 0.55) = 0.43 < 1.0 OK



短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
P1	37.5	824.0	412.0	0.10
P2	136.2	748.4	1496.8	0.19
ww	125.0	1647.9	1647.9	0.22
合計	298.7	3220.3	3556.7	0.52

Mmax/(Z × fbS) = 298.67 / (505.75 × 1.88) = 0.31 < 1.0 OK
 α × Qmax / (Ae × fs0) = (1.50 × 3556.69) / (178.50 × 160.00) = 0.18 < 1.0 OK
 δ = 0.519 (cm) = 1 / 526.2
 せん断負担金物[左] (GU2) (Qa/sQa)ⁿ + (T/Ta)ⁿ = (3.557/20.00)¹ + (0.000/25.00)¹ = 0.178 < 1.0 OK
 せん断負担金物[右] (GU1) (Qa/sQa)ⁿ + (T/Ta)ⁿ = (3.557/15.10)¹ + (0.000/25.00)¹ = 0.236 < 1.0 OK

階、通り、位置、グループ番号： 2階梁 X6通り Y4-Y5 2G1
 ww = (単位荷重) 1990.0(N/m²) × (面積) 0.4141(m²) = 823.960(N) (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 ww = 823.96 0.00 0.00 0.00 0.00

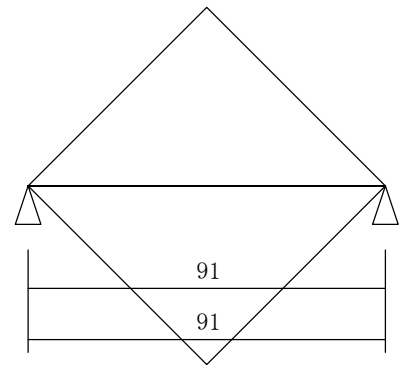
小 梁 1種 10.5 × 10.5 (cm)
 I = 1012.92(cm⁴) Z = 192.94(cm³) Ae = 110.25(cm²)
 fbL = 10.30(N/mm²) fsL = 0.90(N/mm²) E = 10000(N/mm²)
 fbS = 18.80(N/mm²) fsS = 1.60(N/mm²)
 fs0 = 1.0 × fsL = 0.900(N/mm²) E0 = 1.0 × E = 10000(N/mm²)

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
ww	12.5	412.0	412.0	0.01
合計	12.5	412.0	412.0	0.01

Mmax/(Z × fbL) = 12.50 / (192.94 × 1.03) = 0.06 < 1.0 OK
 α × Qmax / (Ae × fs0) = (1.50 × 411.98) / (110.25 × 90.00) = 0.06 < 1.0 OK
 δ × (E/E0) = 0.010 (cm) = 1 / 8907.1 OK

短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
ww	12.5	412.0	412.0	0.01
合計	12.5	412.0	412.0	0.01

Mmax/(Z × fbS) = 12.50 / (192.94 × 1.88) = 0.03 < 1.0 OK
 α × Qmax / (Ae × fs0) = (1.50 × 411.98) / (110.25 × 160.00) = 0.03 < 1.0 OK
 δ = 0.010 (cm) = 1 / 8907.1

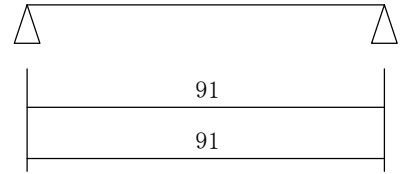


階、通り、位置、グループ番号： 2階梁 X6通り Y5-Y6 2G1

小 梁 1種 10.5×10.5 (cm)
 $I = 1012.92(\text{cm}^4)$ $Z = 192.94(\text{cm}^3)$ $A_e = 110.25(\text{cm}^2)$
 $fbL = 10.30(\text{N/mm}^2)$ $fsL = 0.90(\text{N/mm}^2)$ $E = 10000(\text{N/mm}^2)$
 $fbS = 18.80(\text{N/mm}^2)$ $fsS = 1.60(\text{N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900(\text{N/mm}^2)$ $E0 = 1.0 \times E = 10000(\text{N/mm}^2)$

長期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)
 合計 0.0 0.0 0.0 0.00
 $M_{max}/(Z \times fbL) = 0.00 / (192.94 \times 1.03) = 0.00 < 1.0$ OK
 $\alpha \times Q_{max}/(A_e \times fs0) = (1.50 \times 0.00) / (110.25 \times 0.90) = 0.00 < 1.0$ OK
 $\delta \times (E/E0) = 0.000(\text{cm}) = 1 / 999999.9$ OK

短期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)
 合計 0.0 0.0 0.0 0.00
 $M_{max}/(Z \times fbS) = 0.00 / (192.94 \times 1.88) = 0.00 < 1.0$ OK
 $\alpha \times Q_{max}/(A_e \times fs0) = (1.50 \times 0.00) / (110.25 \times 160.00) = 0.00 < 1.0$ OK
 $\delta = 0.000(\text{cm}) = 1 / 999999.9$



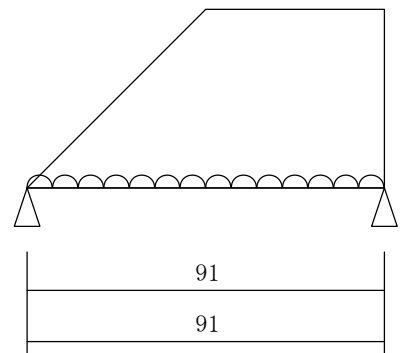
階、通り、位置、グループ番号： 2階梁 X7通り Y1-Y2 2G2

$w = 0.099 \times 135.0 + 0.099 \times 135.0 = 26.730(\text{N/cm})$ (長期)
 $ww = (\text{単位荷重}) 1990.0(\text{N/m}^2) \times (\text{面積}) 0.3105(\text{m}^2) = 617.970(\text{N})$ (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 $ww = 617.97$ 0.00 0.00 0.00 0.00
 梁 (耐力壁上) 1種 10.5×12.0 (cm)
 $I = 1512.00(\text{cm}^4)$ $Z = 252.00(\text{cm}^3)$ $A_e = 126.00(\text{cm}^2)$
 $fbL = 10.30(\text{N/mm}^2)$ $fsL = 0.90(\text{N/mm}^2)$ $E = 10000(\text{N/mm}^2)$
 $fbS = 18.80(\text{N/mm}^2)$ $fsS = 1.60(\text{N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900(\text{N/mm}^2)$ $E0 = 1.0 \times E = 10000(\text{N/mm}^2)$

長期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)
 w 27.7 1216.2 1216.2 0.02
 ww 7.8 240.3 377.6 0.00
 合計 35.5 1456.5 1593.9 0.02
 $M_{max}/(Z \times fbL) = 35.48 / (252.00 \times 1.03) = 0.13 < 1.0$ OK
 $\alpha \times Q_{max}/(A_e \times fs0) = (1.50 \times 1593.86) / (126.00 \times 0.90) = 0.21 < 1.0$ OK
 $\delta \times (E/E0) = 0.020(\text{cm}) = 1 / 4511.7$ OK
 せん断負担金物[左] (GU2) $Qa/1Qa = 1.457 / (20.00 \times 0.55) = 0.13 < 1.0$ OK
 せん断負担金物[右] (GU1) $Qb/1Qa = 1.594 / (15.10 \times 0.55) = 0.19 < 1.0$ OK

短期 Mmax (kN・cm) Qa (N) Qb (N) δ (cm)
 w 27.7 1216.2 1216.2 0.02
 ww 7.8 240.3 377.6 0.00
 合計 35.5 1456.5 1593.9 0.02
 $M_{max}/(Z \times fbS) = 35.48 / (252.00 \times 1.88) = 0.07 < 1.0$ OK
 $\alpha \times Q_{max}/(A_e \times fs0) = (1.50 \times 1593.86) / (126.00 \times 160.00) = 0.11 < 1.0$ OK
 $\delta = 0.020(\text{cm}) = 1 / 4511.7$
 せん断負担金物[左] (GU2) $(Qa/sQa) \wedge n + (T/Ta) \wedge n = (1.594/20.00) \wedge 1 + (16.100/25.00) \wedge 1 = 0.724 < 1.0$ OK
 せん断負担金物[右] (GU1) $(Qa/sQa) \wedge n + (T/Ta) \wedge n = (1.594/15.10) \wedge 1 + (16.100/25.00) \wedge 1 = 0.750 < 1.0$ OK

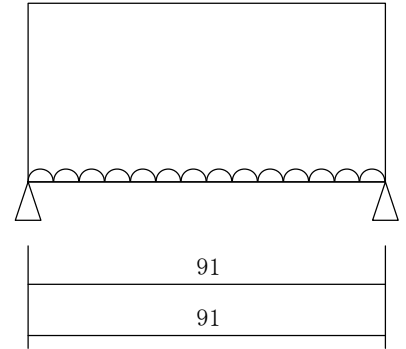


階、通り、位置、グループ番号： 2階梁 X7通り Y2-Y3 2G2
 $w = 0.099 \times 135.0 + 0.099 \times 135.0 = 26.730 \text{ (N/cm)}$ (長期)
 $ww = (\text{単位荷重}) 1990.0 \text{ (N/m}^2) \times (\text{面積}) 0.4141 \text{ (m}^2) = 823.960 \text{ (N)}$ (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 $ww = \begin{matrix} 823.96 & 0.00 & 0.00 & 0.00 & 0.00 \end{matrix}$
 梁 (壁上) 1種 10.5×12.0 (cm)
 $I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $Ae = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN·cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	9.4	412.0	412.0	0.01
合計	37.0	1628.2	1628.2	0.02

$M_{max}/(Z \times fbL) = 37.04 / (252.00 \times 1.03) = 0.14 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1628.19) / (126.00 \times 90.00) = 0.21 < 1.0$ OK
 $\delta \times (E/E0) = 0.021 \text{ (cm)} = 1 / 4306.2$ OK
 せん断負担金物[左] (GU1) $Qa/1Qa = 1.628 / (15.10 \times 0.55) = 0.20 < 1.0$ OK
 せん断負担金物[右] (GU1) $Qb/1Qa = 1.628 / (15.10 \times 0.55) = 0.20 < 1.0$ OK



短期	Mmax (kN·cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	9.4	412.0	412.0	0.01
合計	37.0	1628.2	1628.2	0.02

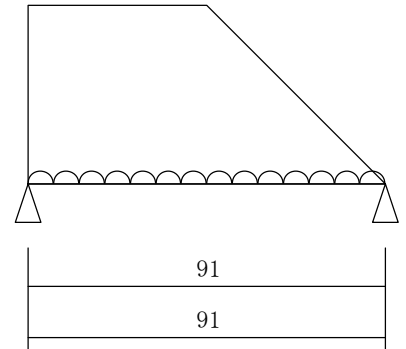
$M_{max}/(Z \times fbS) = 37.04 / (252.00 \times 1.88) = 0.07 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1628.19) / (126.00 \times 160.00) = 0.12 < 1.0$ OK
 $\delta = 0.021 \text{ (cm)} = 1 / 4306.2$
 せん断負担金物[左] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.628/15.10)^1 + (16.100/25.00)^1 = 0.752 < 1.0$ OK
 せん断負担金物[右] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.628/15.10)^1 + (16.100/25.00)^1 = 0.752 < 1.0$ OK

階、通り、位置、グループ番号： 2階梁 X7通り Y3-Y4 2G2
 $w = 0.099 \times 135.0 + 0.099 \times 135.0 = 26.730 \text{ (N/cm)}$ (長期)
 $ww = (\text{単位荷重}) 1990.0 \text{ (N/m}^2) \times (\text{面積}) 0.3105 \text{ (m}^2) = 617.970 \text{ (N)}$ (長期)

(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 $ww = \begin{matrix} 617.97 & 0.00 & 0.00 & 0.00 & 0.00 \end{matrix}$
 梁 (耐力壁上) 1種 10.5×12.0 (cm)
 $I = 1512.00 \text{ (cm}^4)$ $Z = 252.00 \text{ (cm}^3)$ $Ae = 126.00 \text{ (cm}^2)$
 $fbL = 10.30 \text{ (N/mm}^2)$ $fsL = 0.90 \text{ (N/mm}^2)$ $E = 10000 \text{ (N/mm}^2)$
 $fbS = 18.80 \text{ (N/mm}^2)$ $fsS = 1.60 \text{ (N/mm}^2)$
 $fs0 = 1.0 \times fsL = 0.900 \text{ (N/mm}^2)$ $E0 = 1.0 \times E = 10000 \text{ (N/mm}^2)$

長期	Mmax (kN·cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	7.8	377.6	240.3	0.00
合計	35.5	1593.9	1456.5	0.02

$M_{max}/(Z \times fbL) = 35.48 / (252.00 \times 1.03) = 0.13 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1593.86) / (126.00 \times 90.00) = 0.21 < 1.0$ OK
 $\delta \times (E/E0) = 0.020 \text{ (cm)} = 1 / 4511.7$ OK
 せん断負担金物[左] (GU1) $Qa/1Qa = 1.594 / (15.10 \times 0.55) = 0.19 < 1.0$ OK
 せん断負担金物[右] (GU1) $Qb/1Qa = 1.457 / (15.10 \times 0.55) = 0.18 < 1.0$ OK



短期	Mmax (kN·cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	7.8	377.6	240.3	0.00
合計	35.5	1593.9	1456.5	0.02

$M_{max}/(Z \times fbS) = 35.48 / (252.00 \times 1.88) = 0.07 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1593.86) / (126.00 \times 160.00) = 0.11 < 1.0$ OK
 $\delta = 0.020 \text{ (cm)} = 1 / 4511.7$
 せん断負担金物[左] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.457/15.10)^1 + (16.100/25.00)^1 = 0.740 < 1.0$ OK
 せん断負担金物[右] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.457/15.10)^1 + (16.100/25.00)^1 = 0.740 < 1.0$ OK

階、通り、位置、グループ番号： 2階梁 X7通り Y4-Y5 2G2
 $w = 0.099 \times 135.0 + 0.099 \times 135.0 = 26.730$ (N/cm) (長期)
 $ww = (\text{単位荷重}) 1990.0$ (N/m²) \times (面積) 0.2070 (m²) = 411.980 (N) (長期)

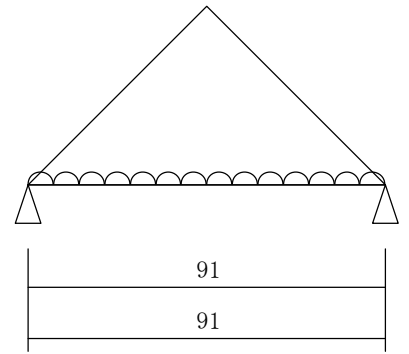
(長期) (地震水平) (地震直交) (風圧水平) (風圧直交) (N)
 $ww = 411.98 \quad 0.00 \quad 0.00 \quad 0.00 \quad 0.00$
 梁 (壁上) 1種 10.5×12.0 (cm)
 $I = 1512.00$ (cm⁴) $Z = 252.00$ (cm³) $Ae = 126.00$ (cm²)
 $fbL = 10.30$ (N/mm²) $fsL = 0.90$ (N/mm²) $E = 10000$ (N/mm²)
 $fbS = 18.80$ (N/mm²) $fsS = 1.60$ (N/mm²)
 $fs0 = 1.0 \times fsL = 0.900$ (N/mm²) $E0 = 1.0 \times E = 10000$ (N/mm²)

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	6.2	206.0	206.0	0.00
合計	33.9	1422.2	1422.2	0.02

$M_{max}/(Z \times fbL) = 33.92 / (252.00 \times 1.03) = 0.13 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1422.20) / (126.00 \times 90.00) = 0.18 < 1.0$ OK
 $\delta \times (E/E0) = 0.019$ (cm) = $1 / 4737.8$ OK
 せん断負担金物[左] (GU1) $Qa/1Qa = 1.422 / (15.10 \times 0.55) = 0.17 < 1.0$ OK
 せん断負担金物[右] (GU1) $Qb/1Qa = 1.422 / (15.10 \times 0.55) = 0.17 < 1.0$ OK

短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	27.7	1216.2	1216.2	0.02
ww	6.2	206.0	206.0	0.00
合計	33.9	1422.2	1422.2	0.02

$M_{max}/(Z \times fbS) = 33.92 / (252.00 \times 1.88) = 0.07 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 1422.20) / (126.00 \times 160.00) = 0.10 < 1.0$ OK
 $\delta = 0.019$ (cm) = $1 / 4737.8$
 せん断負担金物[左] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.422/15.10)^1 + (16.100/25.00)^1 = 0.738 < 1.0$ OK
 せん断負担金物[右] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (1.422/15.10)^1 + (16.100/25.00)^1 = 0.738 < 1.0$ OK



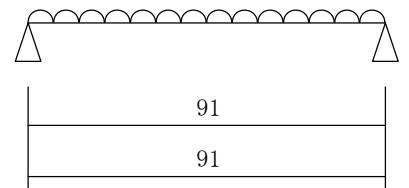
階、通り、位置、グループ番号： 2階梁 X7通り Y5-Y6 2G2
 $w = 0.099 \times 135.0 = 13.365$ (N/cm) (長期)
 梁 (耐力壁上) 1種 10.5×12.0 (cm)
 $I = 1512.00$ (cm⁴) $Z = 252.00$ (cm³) $Ae = 126.00$ (cm²)
 $fbL = 10.30$ (N/mm²) $fsL = 0.90$ (N/mm²) $E = 10000$ (N/mm²)
 $fbS = 18.80$ (N/mm²) $fsS = 1.60$ (N/mm²)
 $fs0 = 1.0 \times fsL = 0.900$ (N/mm²) $E0 = 1.0 \times E = 10000$ (N/mm²)

長期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	13.8	608.1	608.1	0.01
合計	13.8	608.1	608.1	0.01

$M_{max}/(Z \times fbL) = 13.83 / (252.00 \times 1.03) = 0.05 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 608.11) / (126.00 \times 90.00) = 0.08 < 1.0$ OK
 $\delta \times (E/E0) = 0.008$ (cm) = $1 / 11529.7$ OK
 せん断負担金物[左] (GU1) $Qa/1Qa = 0.608 / (15.10 \times 0.55) = 0.07 < 1.0$ OK
 せん断負担金物[右] (GU2) $Qb/1Qa = 0.608 / (20.00 \times 0.55) = 0.06 < 1.0$ OK

短期	Mmax (kN・cm)	Qa (N)	Qb (N)	δ (cm)
w	13.8	608.1	608.1	0.01
合計	13.8	608.1	608.1	0.01

$M_{max}/(Z \times fbS) = 13.83 / (252.00 \times 1.88) = 0.02 < 1.0$ OK
 $\alpha \times Q_{max}/(Ae \times fs0) = (1.50 \times 608.11) / (126.00 \times 160.00) = 0.04 < 1.0$ OK
 $\delta = 0.008$ (cm) = $1 / 11529.7$
 せん断負担金物[左] (GU1) $(Qa/sQa)^n + (T/Ta)^n = (0.608/15.10)^1 + (16.100/25.00)^1 = 0.684 < 1.0$ OK
 せん断負担金物[右] (GU2) $(Qa/sQa)^n + (T/Ta)^n = (0.608/20.00)^1 + (16.100/25.00)^1 = 0.674 < 1.0$ OK



柱接合部伏図凡例

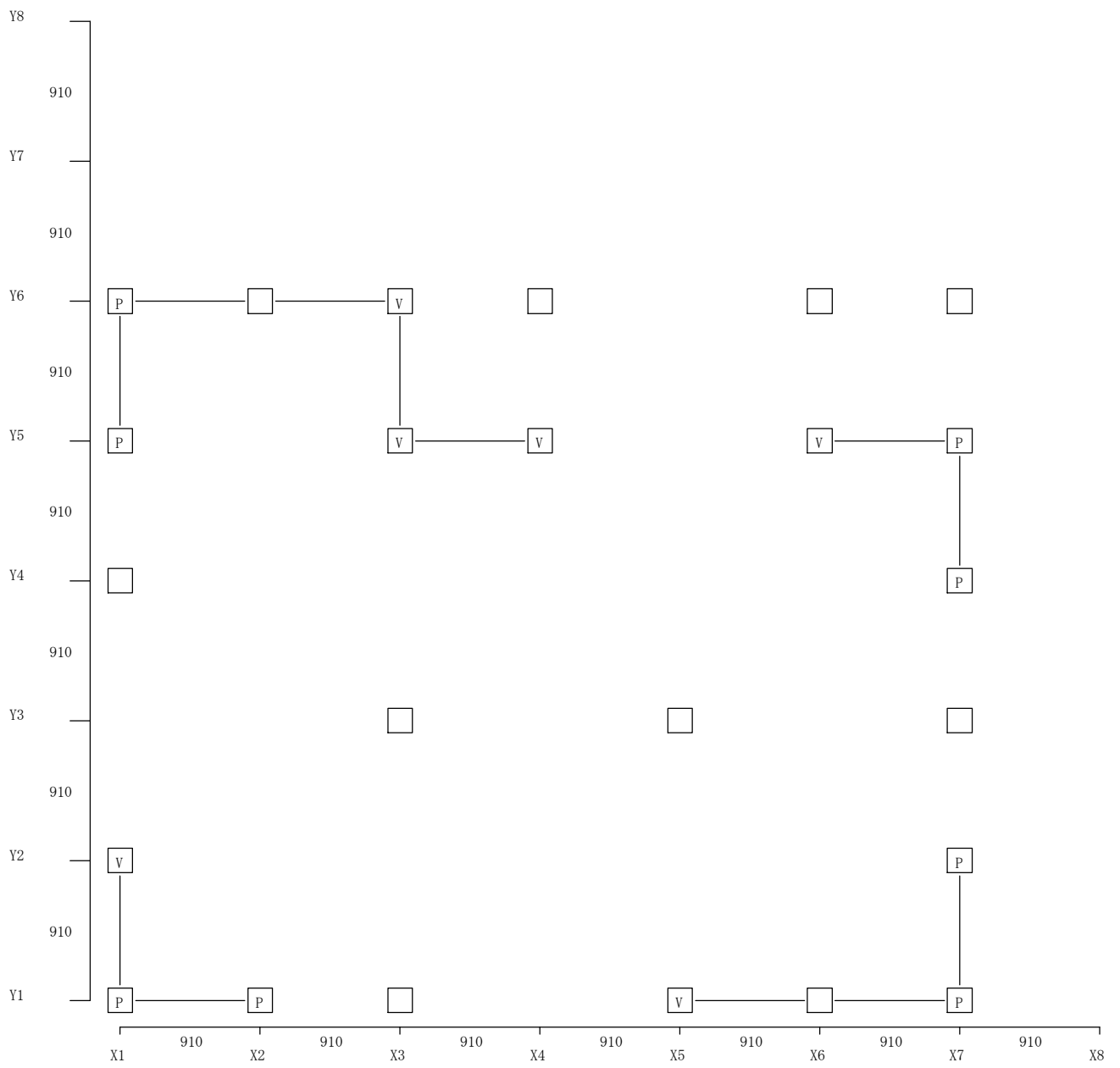
①部位	②記号	③仕様		④接合部倍率
柱頭・柱脚	N	短	短ほぞ差し	0.00
	L	長	長ほぞ差し込み栓	0.65
	V	C	CP-L	0.65
	T	山	山型プレート	1.00
	P	T	T字かど金物	1.00
	I	羽	羽子板ボルト	1.40
	Ps	短	短冊金物	1.40
	Is	ス	スクリュー釘50+羽子板ボルト	1.60
	2	ス	スクリュー釘50+短冊金物	1.60
	3	1	10KN引き寄せ金物	1.80
	4	1	15KN引き寄せ金物	2.80
	5	2	20KN引き寄せ金物	3.70
	6	2	25KN引き寄せ金物	4.70
	*	1	15KN引き寄せ金物X2 (ぬ)を超える	5.60

梁接合部伏図凡例

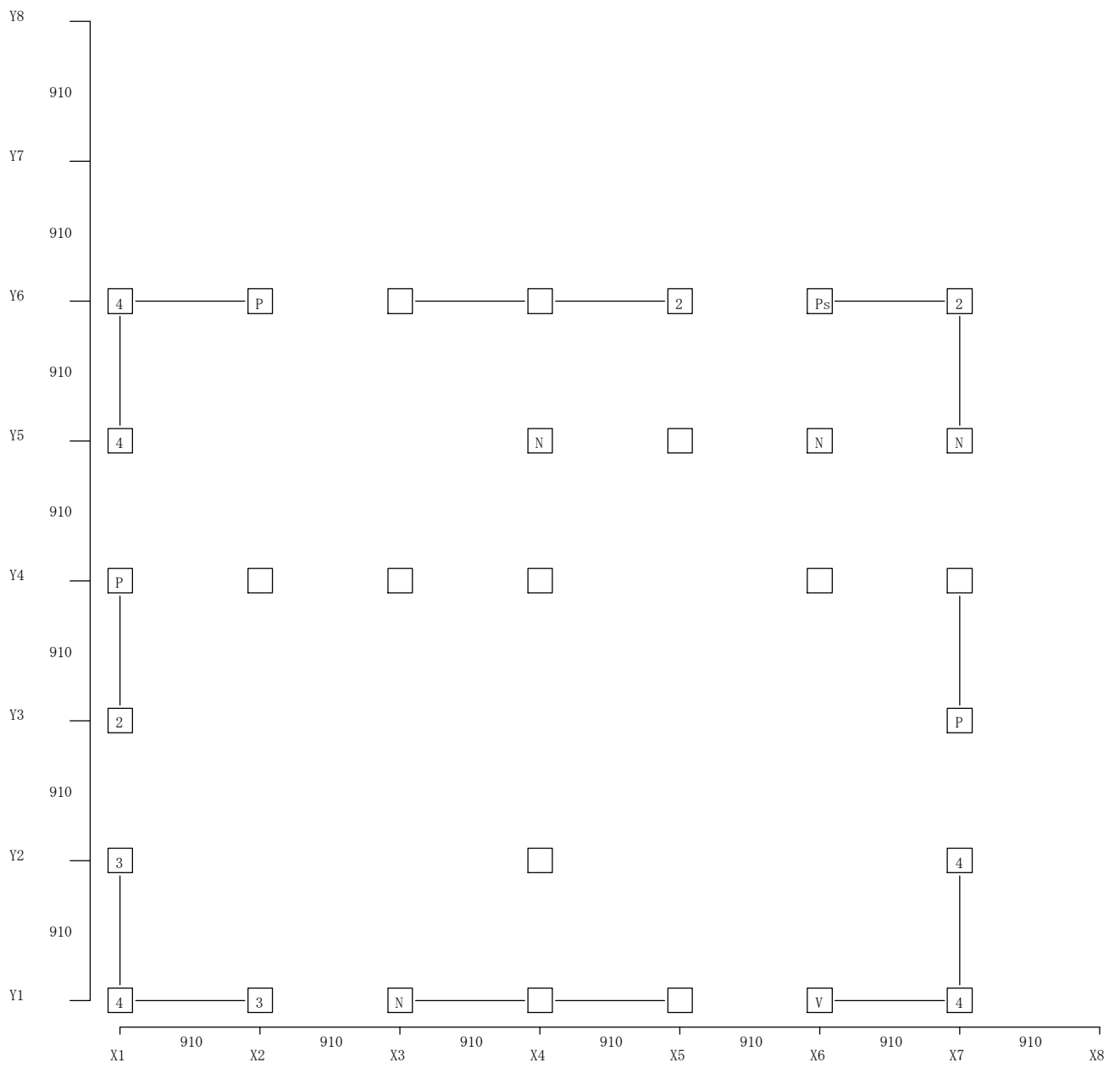
記号	仕様	引張耐力(kN)	せん断耐力(kN)
GU1	梁受け金物仕様1	25.000	15.100
GU2	梁受け金物仕様1	25.000	20.000

3.5.2 接合部伏図

2 階 (○は通し柱を示す)



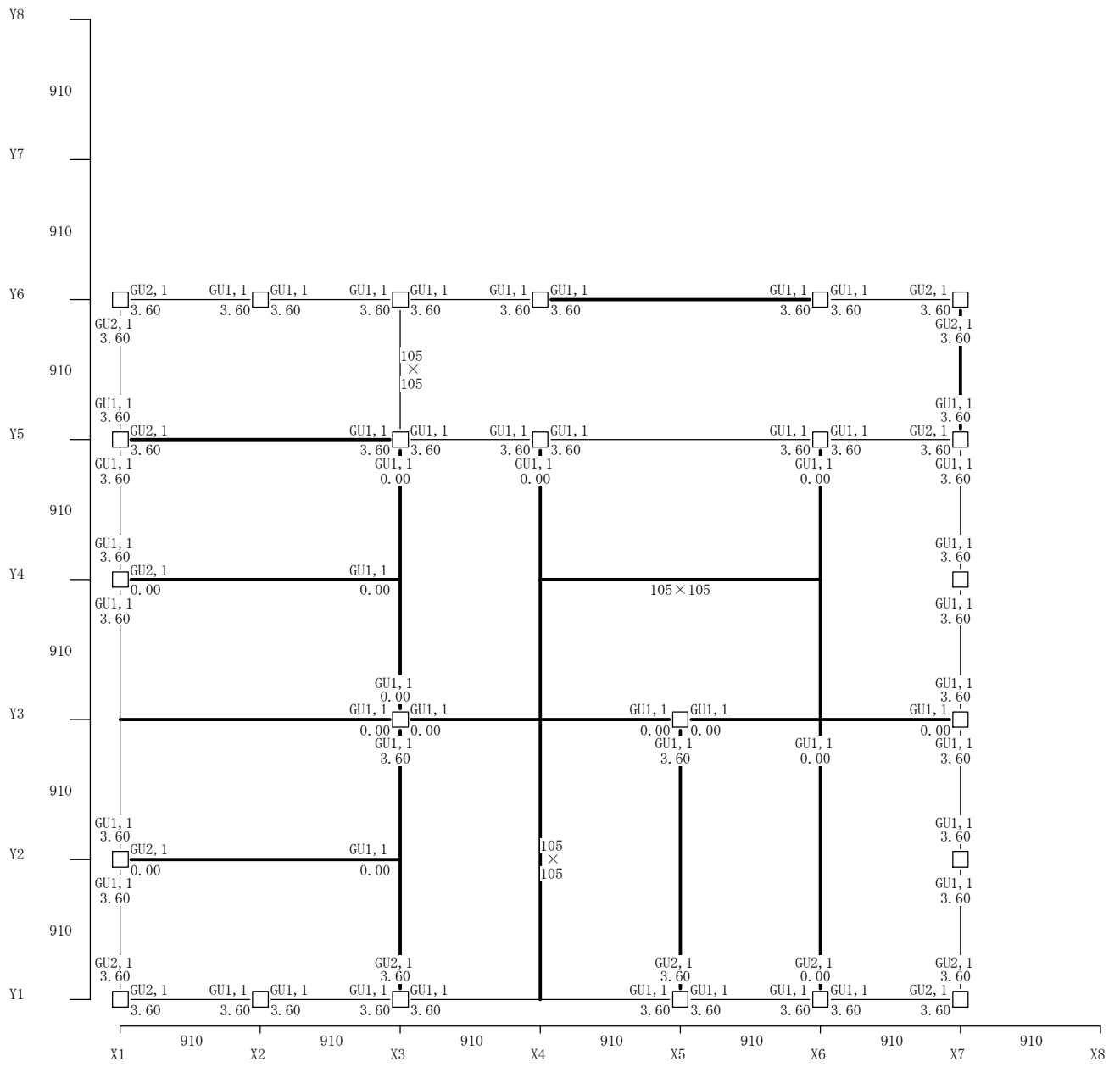
1 階 (○は通し柱を示す)



梁接合部伏図

2 階(○は通し柱を示す) 左端・右端：上段:金物名, 接合形式 n 下段:引抜き力(kN)
 部材中央：寸法(mm)

特記なき梁は105×120とする



1 階(○は通し柱を示す) 左端・右端：上段：金物名, 接合形式 n 下段：引抜き力(kN)
 部材中央：寸法(mm)

特記なき梁は105×120とする

