

## たて枠・まぐさ受けの計算

枠組太郎邸 新築工事

9-1

たて枠 1F 位置 : X5, Y4	
S-P-F 甲種2級	2-204
A=67.6cm <sup>2</sup> Z=100.3cm <sup>3</sup> I= 446cm <sup>4</sup> i=2.57cm Fc=17.4N/mm <sup>2</sup> Lk=233.6cm Kz= 1.0 $\lambda=Lk/i=233.60/2.57=90.92 \quad \lambda \leq 100 \quad \eta=1.3-0.01 \times \lambda=1.3-0.01 \times 90.92=0.39$	
[長期(常時)] 軸力(Nc)=10454N $\sigma=10454(Nc)/6764(A)=1.55N/mm^2$ $fk=1/3 \times 1.1 \times 17.40 \times 0.39=2.49N/mm^2$ 検定比 = $\sigma/fk=1.55/2.49=0.62 \leq 1 \dots OK$	
[短期(積雪時)] 軸力(Nc)=10454N $\sigma=10454(Nc)/6764(A)=1.55N/mm^2$ $fk=1/3 \times 0.8 \times 2.0 \times 17.40 \times 0.39=3.63N/mm^2$ 検定比 = $\sigma/fk=1.55/3.63=0.43 \leq 1 \dots OK$	

たて枠 1F 位置 : X6, Y4	
S-P-F 甲種2級	2-204
A=67.6cm <sup>2</sup> Z=100.3cm <sup>3</sup> I= 446cm <sup>4</sup> i=2.57cm Fc=17.4N/mm <sup>2</sup> Lk=233.6cm Kz= 1.0 $\lambda=Lk/i=233.60/2.57=90.92 \quad \lambda \leq 100 \quad \eta=1.3-0.01 \times \lambda=1.3-0.01 \times 90.92=0.39$	
[長期(常時)] 軸力(Nc)=5807N $\sigma=5807(Nc)/6764(A)=0.86N/mm^2$ $fk=1/3 \times 1.1 \times 17.40 \times 0.39=2.49N/mm^2$ 検定比 = $\sigma/fk=0.86/2.49=0.34 \leq 1 \dots OK$	
[短期(積雪時)] 軸力(Nc)=8577N $\sigma=8577(Nc)/6764(A)=1.27N/mm^2$ $fk=1/3 \times 0.8 \times 2.0 \times 17.40 \times 0.39=3.63N/mm^2$ 検定比 = $\sigma/fk=1.27/3.63=0.35 \leq 1 \dots OK$	

たて枠 1F 位置 : X:6.5, Y4	
S-P-F 甲種2級	2-204
A=67.6cm <sup>2</sup> Z=100.3cm <sup>3</sup> I= 446cm <sup>4</sup> i=2.57cm Fc=17.4N/mm <sup>2</sup> Lk=233.6cm Kz= 1.0 $\lambda=Lk/i=233.60/2.57=90.92 \quad \lambda \leq 100 \quad \eta=1.3-0.01 \times \lambda=1.3-0.01 \times 90.92=0.39$	
[長期(常時)] 軸力(Nc)=7569N $\sigma=7569(Nc)/6764(A)=1.12N/mm^2$ $fk=1/3 \times 1.1 \times 17.40 \times 0.39=2.49N/mm^2$ 検定比 = $\sigma/fk=1.12/2.49=0.45 \leq 1 \dots OK$	
[短期(積雪時)] 軸力(Nc)=10476N $\sigma=10476(Nc)/6764(A)=1.55N/mm^2$ $fk=1/3 \times 0.8 \times 2.0 \times 17.40 \times 0.39=3.63N/mm^2$ 検定比 = $\sigma/fk=1.55/3.63=0.43 \leq 1 \dots OK$	

たて枠 1F 位置 : X8, Y4	
S-P-F 甲種2級	2-204
A=67.6cm <sup>2</sup> Z=100.3cm <sup>3</sup> I= 446cm <sup>4</sup> i=2.57cm Fc=17.4N/mm <sup>2</sup> Lk=233.6cm Kz= 1.0 $\lambda=Lk/i=233.60/2.57=90.92 \quad \lambda \leq 100 \quad \eta=1.3-0.01 \times \lambda=1.3-0.01 \times 90.92=0.39$	
[長期(常時)] 軸力(Nc)=9766N $\sigma=9766(Nc)/6764(A)=1.44N/mm^2$ $fk=1/3 \times 1.1 \times 17.40 \times 0.39=2.49N/mm^2$ 検定比 = $\sigma/fk=1.44/2.49=0.58 \leq 1 \dots OK$	
[短期(積雪時)] 軸力(Nc)=12007N $\sigma=12007(Nc)/6764(A)=1.78N/mm^2$ $fk=1/3 \times 0.8 \times 2.0 \times 17.40 \times 0.39=3.63N/mm^2$ 検定比 = $\sigma/fk=1.78/3.63=0.49 \leq 1 \dots OK$	

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たて枠 1F 位置 : X:10.5, Y4	
S-P-F 甲種2級	2-204
A=67.6cm <sup>2</sup> Z=100.3cm <sup>3</sup> I= 446cm <sup>4</sup> i=2.57cm Fc=17.4N/mm <sup>2</sup> Lk=233.6cm Kz= 1.0 $\lambda=Lk/i=233.60/2.57=90.92 \quad \lambda \leq 100 \quad \eta=1.3-0.01 \times \lambda=1.3-0.01 \times 90.92=0.39$	
[長期(常時)] 軸力(Nc)=13112N $\sigma=13112(Nc)/6764(A)=1.94N/mm^2$ $fk=1/3 \times 1.1 \times 17.40 \times 0.39=2.49N/mm^2$ 検定比 = $\sigma/fk=1.94/2.49=0.78 \leq 1.0$ OK	
[短期(積雪時)] 軸力(Nc)=16864N $\sigma=16864(Nc)/6764(A)=2.49N/mm^2$ $fk=1/3 \times 0.8 \times 2.0 \times 17.40 \times 0.39=3.63N/mm^2$ 検定比 = $\sigma/fk=2.49/3.63=0.69 \leq 1.0$ OK	

たて枠 1F 位置 : X1, Y1	
S-P-F 甲種2級	2-204
A=67.6cm <sup>2</sup> Z=100.3cm <sup>3</sup> I= 446cm <sup>4</sup> i=2.57cm Fc=17.4N/mm <sup>2</sup> Lk=233.6cm Kz= 1.0 $\lambda=Lk/i=233.60/2.57=90.92 \quad \lambda \leq 100 \quad \eta=1.3-0.01 \times \lambda=1.3-0.01 \times 90.92=0.39$	
[長期(常時)] 軸力(Nc)=5382N $\sigma=5382(Nc)/6764(A)=0.80N/mm^2$ $fk=1/3 \times 1.1 \times 17.40 \times 0.39=2.49N/mm^2$ 検定比 = $\sigma/fk=0.80/2.49=0.32 \leq 1.0$ OK	
[短期(積雪時)] 軸力(Nc)=6304N $\sigma=6304(Nc)/6764(A)=0.93N/mm^2$ $fk=1/3 \times 0.8 \times 2.0 \times 17.40 \times 0.39=3.63N/mm^2$ 検定比 = $\sigma/fk=0.93/3.63=0.26 \leq 1.0$ OK	

たて枠 1F 位置 : X1, Y3	
S-P-F 甲種2級	2-204
A=67.6cm <sup>2</sup> Z=100.3cm <sup>3</sup> I= 446cm <sup>4</sup> i=2.57cm Fc=17.4N/mm <sup>2</sup> Lk=233.6cm Kz= 1.0 $\lambda=Lk/i=233.60/2.57=90.92 \quad \lambda \leq 100 \quad \eta=1.3-0.01 \times \lambda=1.3-0.01 \times 90.92=0.39$	
[長期(常時)] 軸力(Nc)=5476N $\sigma=5476(Nc)/6764(A)=0.81N/mm^2$ $fk=1/3 \times 1.1 \times 17.40 \times 0.39=2.49N/mm^2$ 検定比 = $\sigma/fk=0.81/2.49=0.32 \leq 1.0$ OK	
[短期(積雪時)] 軸力(Nc)=6398N $\sigma=6398(Nc)/6764(A)=0.95N/mm^2$ $fk=1/3 \times 0.8 \times 2.0 \times 17.40 \times 0.39=3.63N/mm^2$ 検定比 = $\sigma/fk=0.95/3.63=0.26 \leq 1.0$ OK	

たて枠 1F 位置 : X:10.5, Y8	
S-P-F 甲種2級	2-204
A=67.6cm <sup>2</sup> Z=100.3cm <sup>3</sup> I= 446cm <sup>4</sup> i=2.57cm Fc=17.4N/mm <sup>2</sup> Lk=233.6cm Kz= 1.0 $\lambda=Lk/i=233.60/2.57=90.92 \quad \lambda \leq 100 \quad \eta=1.3-0.01 \times \lambda=1.3-0.01 \times 90.92=0.39$	
[長期(常時)] 軸力(Nc)=8372N $\sigma=8372(Nc)/6764(A)=1.24N/mm^2$ $fk=1/3 \times 1.1 \times 17.40 \times 0.39=2.49N/mm^2$ 検定比 = $\sigma/fk=1.24/2.49=0.50 \leq 1.0$ OK	
[短期(積雪時)] 軸力(Nc)=10846N $\sigma=10846(Nc)/6764(A)=1.60N/mm^2$ $fk=1/3 \times 0.8 \times 2.0 \times 17.40 \times 0.39=3.63N/mm^2$ 検定比 = $\sigma/fk=1.60/3.63=0.44 \leq 1.0$ OK	

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たて枠 1F 位置 : X5, Y0		たて枠 1F 位置 : X:8.5, Y0	
S-P-F 甲種2級	2-204	S-P-F 甲種2級	2-204
<p>A=67.6cm<sup>2</sup> Z=100.3cm<sup>3</sup> I= 446cm<sup>4</sup></p> <p>i=2.57cm Fc=17.4N/mm<sup>2</sup> Lk=233.6cm</p> <p>Kz= 1.0</p> <p><math>\lambda=Lk/i=233.60/2.57=90.92 \quad \lambda \leq 100 \quad \eta=1.3-0.01 \times \lambda=1.3-0.01 \times 90.92=0.39</math></p>		<p>A=67.6cm<sup>2</sup> Z=100.3cm<sup>3</sup> I= 446cm<sup>4</sup></p> <p>i=2.57cm Fc=17.4N/mm<sup>2</sup> Lk=233.6cm</p> <p>Kz= 1.0</p> <p><math>\lambda=Lk/i=233.60/2.57=90.92 \quad \lambda \leq 100 \quad \eta=1.3-0.01 \times \lambda=1.3-0.01 \times 90.92=0.39</math></p>	
<p>[長期(常時)] 軸力(Nc)=11016N</p> <p><math>\sigma=11016(Nc)/6764(A)=1.63N/mm^2</math></p> <p><math>f_k=1/3 \times 1.1 \times 17.40 \times 0.39=2.49N/mm^2</math></p> <p>検定比 = <math>\sigma/f_k=1.63/2.49=0.65 \leq 1.0</math> OK</p>		<p>[長期(常時)] 軸力(Nc)=6379N</p> <p><math>\sigma=6379(Nc)/6764(A)=0.94N/mm^2</math></p> <p><math>f_k=1/3 \times 1.1 \times 17.40 \times 0.39=2.49N/mm^2</math></p> <p>検定比 = <math>\sigma/f_k=0.94/2.49=0.38 \leq 1.0</math> OK</p>	
<p>[短期(積雪時)] 軸力(Nc)=11486N</p> <p><math>\sigma=11486(Nc)/6764(A)=1.70N/mm^2</math></p> <p><math>f_k=1/3 \times 0.8 \times 2.0 \times 17.40 \times 0.39=3.63N/mm^2</math></p> <p>検定比 = <math>\sigma/f_k=1.70/3.63=0.47 \leq 1.0</math> OK</p>		<p>[短期(積雪時)] 軸力(Nc)=8076N</p> <p><math>\sigma=8076(Nc)/6764(A)=1.19N/mm^2</math></p> <p><math>f_k=1/3 \times 0.8 \times 2.0 \times 17.40 \times 0.39=3.63N/mm^2</math></p> <p>検定比 = <math>\sigma/f_k=1.19/3.63=0.33 \leq 1.0</math> OK</p>	