

STROP NAD PARTEREM

| <u>BETON</u> | <u>ZBROJENIE</u> |
|--|---|
| <p>Gestosc = 2400 daN/m³</p> <p>Modul Ev = 130000 kg/cm²</p> <p>Pow. styku z nadbetonem: D τ=6.0 kg/cm²</p> <p><u>Płyta strop.:</u></p> <p>fc odprezanie min. kostka 10 cm:</p> <p> Płyty stropowe<=8 cm fc=25 MPa</p> <p> Płyty stropowe >8 cm fc=35 MPa</p> <p>Beton płyty strop. : C40/50 USINE</p> <p><u>Budowa:</u></p> <p>Nadbeton : C25/30</p> | <p>STRUNY T5.2 2060 TBR (STRUNY T6.85 2060 TBR)</p> <p>Naprezenie poczatk. = 2375 (4873) daN</p> <p>5(12) min. strun/mb i 23 (23) maks. strun/mb</p> <p>32/26 (32/26) zginanie/zakotwienie strun + maks. dozbr./mb</p> <p><u>Zbrojenie podp.:</u> # B500B</p> <p> #6, #8, #10, #12, #16, #20, #25</p> <p><u>Wzmocnienie na ognioodpornosc:</u> # FeE500</p> <p> #8, #10, #12, #16, #20, #25</p> <p><u>Zbrojenie laczące:</u> # FeE500</p> <p> #8, #10, #12, #16, #20, #25, #6</p> |
| <p><u>Produkcja :</u></p> <p>Szerokosc separatora podluznego = 6 cm</p> <p>Zlacza miedzy plytami = 0.5 cm</p> <p>Typ skladowania : krótki</p> | <p><u>Zbr. poprzeczne:</u> # FeE500</p> <p> RP5/25, RP5/22, #8, #10, #12, #16, #20, #25</p> <p><u>Zbr. na rozwarstwienie:</u> Zbrojenie na rozw. #5/10 1155z</p> <p><u>Zbrojenie podwieszające i odgiete:</u> FeE 500</p> <p><u>Zakotwienie dodatkowe:</u> # 6 FeE 500</p> |
| <p><u>Tolerancje obliczeniowe (domyslne):</u></p> <p>- Tolerancja zakotwienia = 2 cm</p> | |

OBLICZENIA

- Obciazenie montazowe = 150 daN/m² - Szerokosc obliczeniowa = 1.00 ml

- Strefa sejsm.: 1 (b. niska) Kat. waznosci I

Metoda obliczania ciaglosci: (domyslne)

Wartosci graniczne:

- Maksymalna szerokosc podpory dla uwzglednienia ciaglosci = 80 cm
- Dopuszczalne przesuniecie poziomu w celu uwzglednienia ciaglosci = 2.00 cm
- Dokladna metoda obliczen ze współczynnikiem ciaglosci = 0.667

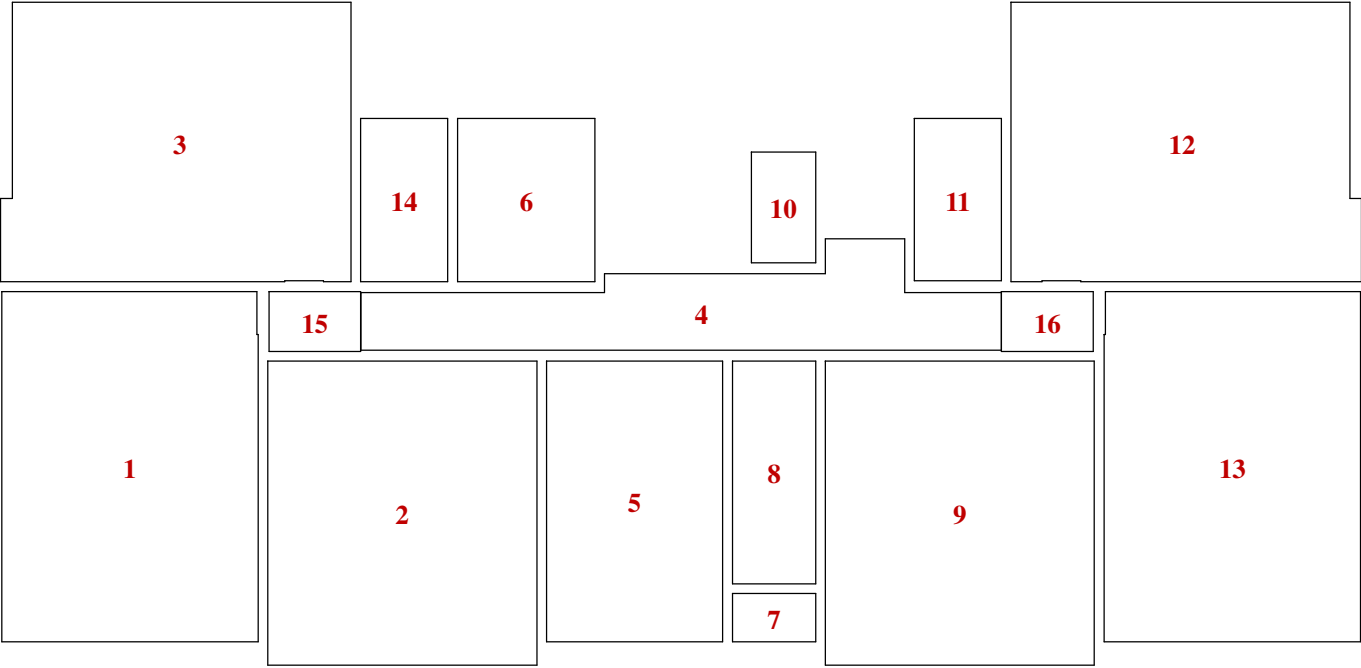
STROP NAD PARTEREM

Poziom nr1 NAD PARTEREM Rzedna : 50 cm

| Np | Sc. dz. | G.pos | Rodzaj | G | Q | Ψ 1 Ψ 2 | Stemple Wieze | Ht hp | Kl. eksp. | Szer. | Oparcie | Wyst. | Ogniodp. | | Poziom | Kl. eksp. | Tolerancje obliczeniowe | | |
|----------|---------|----------|--------|--------|-----|------------|------------------|----------|-----------------|-----------|------------|-------|----------|------|--------|-----------|-------------------------|---------|-----|
| | | | | | | | | | spód stropu | Maks. | Nosne | | c nom | cf | | górażropu | Faza | | |
| | | | | | | | | | c nom | Min. | Nienos. | | | | | c nom | montażu ostat. | ugiecie | |
| (daN/m²) | | (daN/m²) | | (cm) | | (mm) | | (cm) | | | | (h) | (cm) | (mm) | % | % | % | | |
| 1 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 2 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 3 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 4 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 5 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 6 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 7 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 8 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 9 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 10 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 11 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 12 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 13 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 14 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 15 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 16 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |

STROP NAD PARTEREM

Poziom nr1 NAD PARTEREM Rzedna : 50 cm



STROP NAD PARTEREM

Budowa : KONIECPOL
Budynek : WIELORODZINNY
Poziom : NAD PARTEREM

| Ozn. | Grubosc | Cnom | Pow. | Dlugosc | Szer. | Ciezar |
|------|---------|------|-------|---------|-------|--------|
| BH. | cm | mm | m² | cm | cm | kg |
| 1 | 6 | 22 | 16.83 | 673 | 250 | 2568 |
| 2 | 6 | 22 | 16.83 | 673 | 250 | 2573 |
| 3 | 6 | 22 | 16.83 | 673 | 250 | 2573 |
| 4 | 6 | 22 | 10.33 | 673 | 153.5 | 1580 |
| 5 | 6 | 22 | 17.65 | 706 | 250 | 2699 |
| 6 | 6 | 22 | 17.65 | 706 | 250 | 2699 |
| 7 | 6 | 22 | 8.61 | 706 | 122 | 1317 |
| 8 | 6 | 22 | 11.40 | 706 | 161.5 | 1743 |
| 9 | 6 | 22 | 18.33 | 733 | 250 | 2569 |
| 10 | 6 | 22 | 18.33 | 733 | 250 | 2802 |
| 11 | 6 | 22 | 18.33 | 733 | 250 | 2801 |
| 12 | 6 | 22 | 11.25 | 733 | 153.5 | 1717 |
| 13 | 6 | 22 | 4.00 | 160 | 250 | 612 |
| 14 | 6 | 22 | 4.00 | 160 | 250 | 612 |
| 15 | 6 | 22 | 2.05 | 160 | 128 | 313 |
| 16 | 6 | 22 | 5.23 | 209 | 250 | 799 |
| 17 | 6 | 22 | 2.55 | 209 | 122 | 390 |
| 18 | 6 | 22 | 4.11 | 209 | 196.5 | 628 |
| 19 | 6 | 22 | 6.13 | 299 | 205 | 937 |
| 20 | 6 | 22 | 3.98 | 160 | 249 | 609 |
| 21 | 6 | 22 | 11.65 | 466 | 250 | 1781 |
| 22 | 6 | 22 | 11.65 | 466 | 250 | 1781 |
| 23 | 6 | 22 | 10.44 | 466 | 224 | 1596 |
| 24 | 6 | 22 | 10.83 | 433 | 250 | 1655 |
| 25 | 6 | 22 | 4.52 | 433 | 104.5 | 692 |
| 26 | 6 | 22 | 2.83 | 226 | 125 | 432 |
| 27 | 6 | 22 | 5.65 | 226 | 250 | 864 |
| 28 | 6 | 22 | 5.65 | 226 | 250 | 864 |
| 29 | 6 | 22 | 1.67 | 226 | 74 | 256 |
| 30 | 6 | 22 | 17.65 | 706 | 250 | 2699 |
| 31 | 6 | 22 | 17.65 | 706 | 250 | 2699 |
| 32 | 6 | 22 | 8.61 | 706 | 122 | 1317 |
| 33 | 6 | 22 | 11.40 | 706 | 161.5 | 1743 |
| 34 | 6 | 22 | 4.83 | 291 | 166 | 739 |
| 35 | 6 | 22 | 9.68 | 430 | 225 | 1479 |
| 36 | 6 | 22 | 18.33 | 733 | 250 | 2569 |
| 37 | 6 | 22 | 18.33 | 733 | 250 | 2802 |
| 38 | 6 | 22 | 18.33 | 733 | 250 | 2801 |
| 39 | 6 | 22 | 11.25 | 733 | 153.5 | 1717 |
| 40 | 6 | 22 | 16.83 | 673 | 250 | 2568 |
| 41 | 6 | 22 | 16.83 | 673 | 250 | 2573 |
| 42 | 6 | 22 | 16.83 | 673 | 250 | 2573 |
| 43 | 6 | 22 | 10.33 | 673 | 153.5 | 1580 |
| 44 | 6 | 22 | 9.74 | 433 | 225 | 1490 |
| 45 | 6 | 22 | 3.76 | 242.6 | 155 | 575 |
| 46 | 6 | 22 | 3.76 | 242.6 | 155 | 575 |

STROP NAD PARTEREM

Budowa : KONIECPOL
Budynek : WIELORODZINNY
Poziom : NAD PARTEREM

Powierzchnia laczna = 493.39 m² Ciezar calkowity =74.96 t

| | | | |
|--------------|--------|-------|--------|
| Powierzchnie | L=250 | L=122 | Inne |
| plyty(m²) | 344.13 | 19.78 | 129.48 |

| | |
|-------------------|--------|
| Grubosc(cm) | 6.0 |
| Powierzchnie (m²) | 493.39 |

| | | |
|---------|-------------|--|
| Otworki | Obudowy | |
| 13 | elektryczne | |

STROP NAD PARTEREM

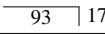
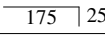
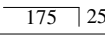
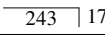
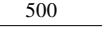
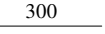
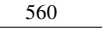
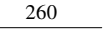
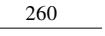
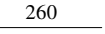
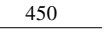
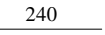
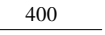
Budowa : KONIECPOL

Budynek : WIELORODZINNY

Poziom : NAD PARTEREM

ZESTAWIENIE ZBROJENIA PODPOROWEGO

Typ: B500B

| Ozn. | Oznaczenie | Kształt | Długość m | liczba | Ciezar kg |
|------|------------------|---|--------------|--------|--------------|
| 20 | Zagięte #8 e=25 |  | 1.10 | 323 | 140.34 |
| 21 | Zagięte #12 e=20 |  | 2.00 | 178 | 316.13 |
| 22 | Zagięte #12 e=10 |  | 2.00 | 32 | 56.77 |
| 23 | Zagięte #8 e=25 |  | 2.60 | 9 | 9.24 |
| 24 | Prosty #12 e=20 |  | 5.00 | 44 | 195.36 |
| 25 | Prosty #12 e=20 |  | 3.00 | 66 | 175.82 |
| 26 | Prosty #12 e=13 |  | 5.60 | 30 | 149.10 |
| 27 | Prosty #10 e=14 |  | 2.60 | 100 | 160.25 |
| 28 | Prosty #10 e=17 |  | 2.60 | 44 | 70.69 |
| 29 | Prosty #12 e=20 |  | 2.60 | 21 | 48.48 |
| 30 | Prosty #10 e=33 |  | 4.50 | 33 | 91.48 |
| 31 | Prosty #10 e=33 |  | 2.40 | 24 | 35.48 |
| 32 | Prosty #10 e=20 |  | 4.00 | 36 | 88.70 |

Ciezar całkowity = 1537.86 kg.

Ciezar/powierzchnia = 3.12 kg/m².

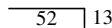
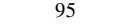
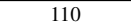
UWAGA: Zastosować zbrojenie rozdzielcze #6 e=30 (e - rozstaw). Długość dostosować do zbrojenia podporowego. Całkowita długość prętów rozdzielczych wynosi 601 mb.

STROP NAD PARTEREM

Budowa : KONIECPOL
Budynek : WIELORODZINNY
Poziom : NAD PARTEREM

ZESTAWIENIE ZBROJENIA NA ZŁACZACH PLYT

Typ: FeE 500

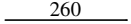
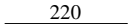
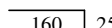
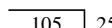
| Ozn. | Oznaczenie | Kształt | Długość cm | liczba | Ciezar kg |
|------|--------------|---|---------------|--------|--------------|
| 1 | #6 e= 33 cm |  52 13 | 65 | 356 | 51.36 |
| 2 | #8 e= 33 cm |  95 | 95 | 360 | 134.95 |
| 3 | #10 e= 20 cm |  110 | 110 | 16 | 10.85 |

Ciezar całkowity = 197.16 kg.

Ciezar/powierzchnia = 0.40 kg/m².

UWAGA: Zastosować pręty rozdzielcze #6 e=30 (e - rozstaw). Długość dostosować do zbrojenia na złączach. Całowita długość prętów rozdzielczych wynosi ok. 351 mb.

ZESTAWIENIE WZMOCNIEN OTWORÓW NA PLYTACH STROPOWYCH

| Ozn. | Oznaczenie | Kształt | Długość cm | liczba | Ciezar kg |
|------|------------|--|---------------|--------|--------------|
| F1 | #12 |  260 | 260 | 4 | 18.47 |
| F2 | #12 |  220 | 220 | 63 | 142.61 |
| F3 | #12 |  160 25 | 185 | 4 | 6.57 |
| F4 | #12 |  105 25 | 130 | 3 | 3.46 |

Ciezar całkowity = 171.11 kg.

Ciezar/powierzchnia = 0.34 kg/m².

STROP NAD 1 PIĘTREM

| <u>BETON</u> | <u>ZBROJENIE</u> |
|--|--|
| Gestosc = 2400 daN/m ³ Modul Ev = 130000 kg/cm ² Pow. styku z nadbetonem: D τ =6.0 kg/cm ² <u>Płyta strop.:</u> fc odprezanie min. kostka 10 cm: Płyty stropowe ≤ 8 cm fc=25 MPa Płyty stropowe > 8 cm fc=35 MPa Beton płyty strop. : C40/50 USINE <u>Budowa:</u> Nadbeton : C25/30 | STRUNY T5.2 2060 TBR (STRUNY T6.85 2060 TBR) Naprezenie poczatk. = 2375 (4873) daN 5(12) min. strun/mb i 23 (23) maks. strun/mb 32/26 (32/26) zginanie/zakotwienie strun + maks. dozbr./mb <u>Zbrojenie podp.:</u> # B500B #6, #8, #10, #12, #16, #20, #25 <u>Wzmocnienie na ognioodpornosc:</u> # FeE500 #8, #10, #12, #16, #20, #25 <u>Zbrojenie laczące:</u> # FeE500 #8, #10, #12, #16, #20, #25, #6 <u>Zbr. poprzeczne:</u> # FeE500 RP5/25, RP5/22, #8, #10, #12, #16, #20, #25 <u>Zbr. na rozwarstwienie:</u> Zbrojenie na rozw. #5/10 1155z <u>Zbrojenie podwieszające i odgiete:</u> FeE 500 <u>Zakotwienie dodatkowe:</u> # 6 FeE 500 |
| <u>Produkcja :</u> Szerokosc separatora podluznego = 6 cm Zlacza miedzy plytami = 0.5 cm Typ skladowania : krótki | |
| <u>Tolerancje obliczeniowe (domyslne):</u> - Tolerancja zakotwienia = 2 cm | |

OBLICZENIA

- Obciazenie montazowe = 150 daN/m² - Szerokosc obliczeniowa = 1.00 ml

- Strefa sejsm.: 1 (b. niska) Kat. waznosci I

Metoda obliczania ciaglosci: (domyslne)

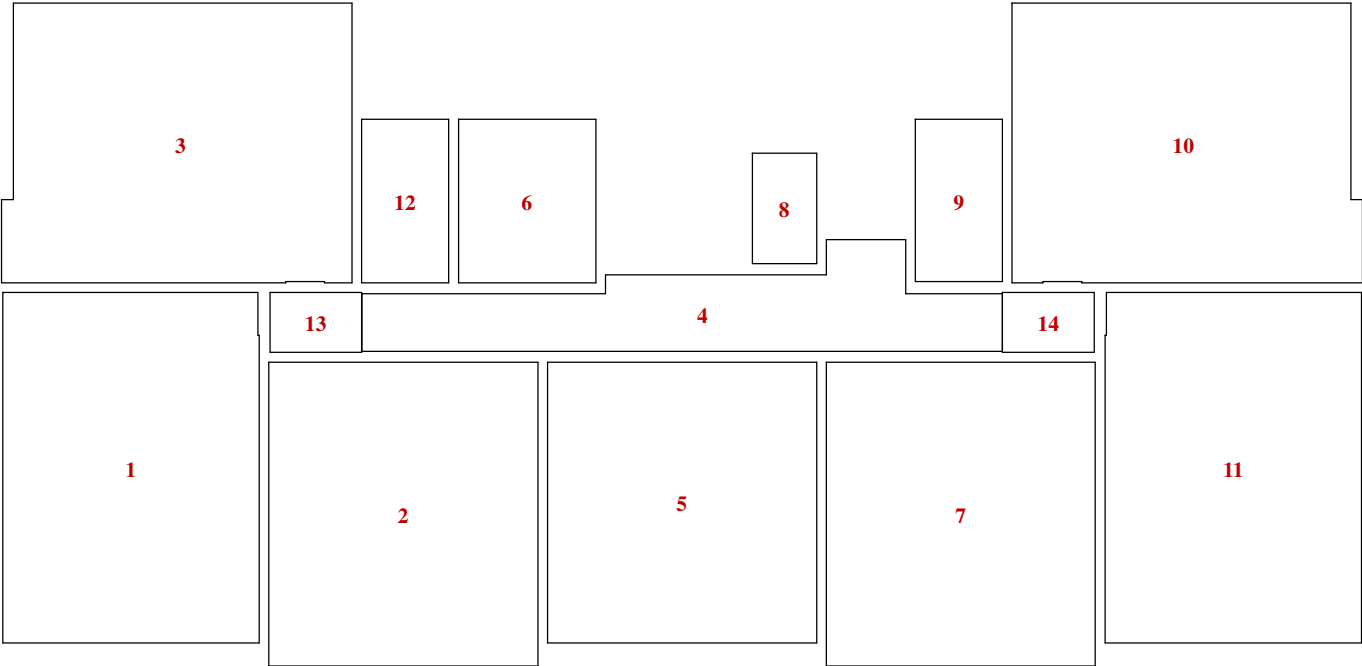
Wartosci graniczne:

- Maksymalna szerokosc podpory dla uwzglednienia ciaglosci = 80 cm
- Dopuszczalne przesuniecie poziomu w celu uwzglednienia ciaglosci = 2.00 cm
- Dokladna metoda obliczen ze współczynnikiem ciaglosci = 0.667

STROP NAD 1 PIĘTREM

Poziom nr1 NAD 1 PIETREM Rzedna : 50 cm

| Np | Sc. dz. | G.pos | Rodzaj | G | Q | Ψ 1 Ψ 2 | Stemple Wieze | Ht hp | Kl. eksp. | Szer. | Oparcie | Wyst. | Ogniodp. | | Poziom | Kl. eksp. | Tolerancje obliczeniowe | | | |
|----|---------|----------|--------|----------|-----|------------|------------------|----------|-----------------|-----------|------------|-------|----------|-----|--------|-----------|-------------------------|----------------|---------|---|
| | | | | | | | | | spód stropu | Maks. | Nosne | | c nom | cf | | górażropu | Faza | | | |
| | | | | | | | | | c nom | Min. | Nienos. | | | | | c nom | (mm) | montazu ostat. | ugiecie | |
| | | (daN/m²) | | (daN/m²) | | | | (cm) | (mm) | | (cm) | | | (h) | (cm) | (mm) | | % | % | % |
| 1 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | |
| 2 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | |
| 3 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | |
| 4 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | |
| 5 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | |
| 6 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | |
| 7 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | |
| 8 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | |
| 9 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | |
| 10 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | |
| 11 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | |
| 12 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | |
| 13 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | |
| 14 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | |



STROP NAD 1 PIĘTREM

Budowa : KONIECPOL
Budynek : WIELORODZINNY
Poziom : NAD 1 PIETREM

| Ozn. | Grubosc | Cnom | Pow. | Dlugosc | Szer. | Ciezar |
|------|---------|------|-------|---------|-------|--------|
| BH. | cm | mm | m² | cm | cm | kg |
| 101 | 6 | 22 | 16.83 | 673 | 250 | 2568 |
| 102 | 6 | 22 | 16.83 | 673 | 250 | 2573 |
| 103 | 6 | 22 | 16.83 | 673 | 250 | 2573 |
| 104 | 6 | 22 | 10.33 | 673 | 153.5 | 1580 |
| 105 | 6 | 22 | 17.65 | 706 | 250 | 2699 |
| 106 | 6 | 22 | 17.65 | 706 | 250 | 2699 |
| 107 | 6 | 22 | 8.61 | 706 | 122 | 1317 |
| 108 | 6 | 22 | 11.40 | 706 | 161.5 | 1743 |
| 109 | 6 | 22 | 18.33 | 733 | 250 | 2569 |
| 110 | 6 | 22 | 18.33 | 733 | 250 | 2802 |
| 111 | 6 | 22 | 18.33 | 733 | 250 | 2801 |
| 112 | 6 | 22 | 11.25 | 733 | 153.5 | 1717 |
| 113 | 6 | 22 | 4.00 | 160 | 250 | 612 |
| 114 | 6 | 22 | 4.00 | 160 | 250 | 612 |
| 115 | 6 | 22 | 2.05 | 160 | 128 | 313 |
| 116 | 6 | 22 | 5.23 | 209 | 250 | 799 |
| 117 | 6 | 22 | 2.55 | 209 | 122 | 390 |
| 118 | 6 | 22 | 4.11 | 209 | 196.5 | 628 |
| 119 | 6 | 22 | 6.13 | 299 | 205 | 937 |
| 120 | 6 | 22 | 3.98 | 160 | 249 | 609 |
| 121 | 6 | 22 | 17.65 | 706 | 250 | 2699 |
| 122 | 6 | 22 | 17.65 | 706 | 250 | 2699 |
| 123 | 6 | 22 | 15.81 | 706 | 224 | 2418 |
| 124 | 6 | 22 | 10.83 | 433 | 250 | 1655 |
| 125 | 6 | 22 | 4.52 | 433 | 104.5 | 692 |
| 126 | 6 | 22 | 17.65 | 706 | 250 | 2699 |
| 127 | 6 | 22 | 17.65 | 706 | 250 | 2699 |
| 128 | 6 | 22 | 8.61 | 706 | 122 | 1317 |
| 129 | 6 | 22 | 11.40 | 706 | 161.5 | 1743 |
| 130 | 6 | 22 | 4.83 | 291 | 166 | 739 |
| 131 | 6 | 22 | 9.68 | 430 | 225 | 1479 |
| 132 | 6 | 22 | 18.33 | 733 | 250 | 2569 |
| 133 | 6 | 22 | 18.33 | 733 | 250 | 2802 |
| 134 | 6 | 22 | 18.33 | 733 | 250 | 2801 |
| 135 | 6 | 22 | 11.25 | 733 | 153.5 | 1717 |
| 136 | 6 | 22 | 16.83 | 673 | 250 | 2568 |
| 137 | 6 | 22 | 16.83 | 673 | 250 | 2573 |
| 138 | 6 | 22 | 16.83 | 673 | 250 | 2573 |
| 139 | 6 | 22 | 10.33 | 673 | 153.5 | 1580 |
| 140 | 6 | 22 | 9.74 | 433 | 225 | 1490 |
| 141 | 6 | 22 | 3.76 | 242.6 | 155 | 575 |
| 142 | 6 | 22 | 3.76 | 242.6 | 155 | 575 |

Powierzchnia łączna = 494.97 m² Ciezar całkowity =75.20 t

| | | | |
|--------------|--------|-------|--------|
| Powierzchnie | L=250 | L=122 | Inne |
| plyty(m²) | 344.83 | 19.78 | 130.36 |

| | |
|-------------------|--------|
| Grubosc(cm) | 6.0 |
| Powierzchnie (m²) | 494.97 |

| | | |
|--------|------------------------|--|
| Otwory | Obudowy elektryczne | |
| 15 | | |

STROP NAD 1 PIĘTREM

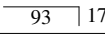
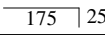
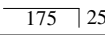
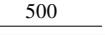
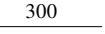
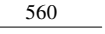
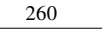
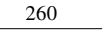
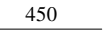
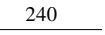
Budowa : KONIECPOL

Budynek : WIELORODZINNY

Poziom : NAD 1 PIETREM

ZESTAWIENIE ZBROJENIA PODPOROWEGO

Typ: B500B

| Ozn. | Oznaczenie | Kształt | Długość m | liczba | Ciezar kg |
|------|------------------|---|--------------|--------|--------------|
| 20 | Zagięte #8 e=25 |  | 1.10 | 333 | 144.69 |
| 21 | Zagięte #12 e=20 |  | 2.00 | 178 | 316.13 |
| 22 | Zagięte #12 e=10 |  | 2.00 | 32 | 56.77 |
| 23 | Prosty #12 e=20 |  | 5.00 | 44 | 195.36 |
| 24 | Prosty #12 e=20 |  | 3.00 | 66 | 175.82 |
| 25 | Prosty #12 e=13 |  | 5.60 | 30 | 149.10 |
| 26 | Prosty #10 e=14 |  | 2.60 | 202 | 323.70 |
| 27 | Prosty #12 e=20 |  | 2.60 | 21 | 48.48 |
| 28 | Prosty #10 e=33 |  | 4.50 | 33 | 91.48 |
| 29 | Prosty #10 e=33 |  | 2.40 | 24 | 35.48 |

Ciezar całkowity = 1537.02 kg.

Ciezar/powierzchnia = 3.11 kg/m².

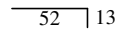
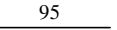
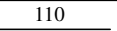
UWAGA: Zastosować zbrojenie rozdzielcze #6 e=30 (e - rozstaw). Długość dostosować do zbrojenia podporowego. Całkowita długość prętów rozdzielczych wynosi 625 mb.

STROP NAD 1 PIĘTREM

Budowa : KONIECPOL
Budynek : WIELORODZINNY
Poziom : NAD 1 PIĘTREM

ZESTAWIENIE ZBROJENIA NA ZŁACZACH PLYT

Typ: FeE 500

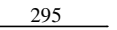
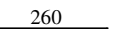
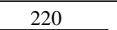
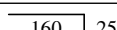
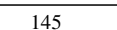
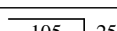
| Ozn. | Oznaczenie | Kształt | Długość cm | liczba | Ciezar kg |
|------|--------------|---|---------------|--------|--------------|
| 1 | #6 e= 33 cm |  | 65 | 344 | 49.63 |
| 2 | #8 e= 33 cm |  | 95 | 362 | 135.70 |
| 3 | #10 e= 20 cm |  | 110 | 16 | 10.85 |

Ciezar całkowity = 196.18 kg.

Ciezar/powierzchnia = 0.40 kg/m².

UWAGA: Zastosować zbrojenie rozdzielcze #6 e=30 (e - rozstaw). Długość dostosować do zbrojenia na złączach. Całkowita długość prętów rozdzielczych wynosi 348 mb.

ZESTAWIENIE WZMOCNIEN OTWORÓW NA PLYTACH STROPOWYCH

| Ozn. | Oznaczenie | Kształt | Długość cm | liczba | Ciezar kg |
|------|------------|---|---------------|--------|--------------|
| F1 | #12 |  | 295 | 2 | 5.24 |
| F2 | #12 |  | 260 | 8 | 18.47 |
| F3 | #12 |  | 220 | 77 | 150.43 |
| F4 | #12 |  | 185 | 4 | 6.57 |
| F5 | #12 |  | 145 | 2 | 2.57 |
| F6 | #12 |  | 130 | 6 | 6.93 |

Ciezar całkowity = 190.21 kg.

Ciezar/powierzchnia = 0.38 kg/m².

STROP NAD 2 PIĘTREM

| <u>BETON</u> | <u>ZBROJENIE</u> |
|--|---|
| <p>Gęstość = 2400 daN/m³</p> <p>Moduł E_v = 130000 kg/cm²</p> <p>Pow. styku z nadbetonem: $D \quad \tau = 6.0 \text{ kg/cm}^2$</p> <p><u>Płyta strop.:</u></p> <p>f_c odprezanie min. kostka 10 cm:</p> <p style="padding-left: 40px;">Płyty stropowe $\leq 8 \text{ cm}$ $f_c = 25 \text{ MPa}$</p> <p style="padding-left: 40px;">Płyty stropowe $> 8 \text{ cm}$ $f_c = 35 \text{ MPa}$</p> <p>Beton płyty strop. : C40/50 USINE</p> <p><u>Budowa:</u></p> <p>Nadbeton : C25/30</p> | <p>STRUNY T5.2 2060 TBR (STRUNY T6.85 2060 TBR)</p> <p>Napreżenie początk. = 2375 (4873) daN</p> <p>5(12) min. strun/mb i 23 (23) maks. strun/mb</p> <p>32/26 (32/26) zginanie/zakotwienie strun + maks. dozbr./mb</p> <p><u>Zbrojenie podp.:</u> # B500B</p> <p style="padding-left: 40px;">#6, #8, #10, #12, #16, #20, #25</p> <p><u>Wzmocnienie na ognioodporność:</u> # FeE500</p> <p style="padding-left: 40px;">#8, #10, #12, #16, #20, #25</p> <p><u>Zbrojenie łączące:</u> # FeE500</p> <p style="padding-left: 40px;">#8, #10, #12, #16, #20, #25, #6</p> <p><u>Zbr. poprzeczne:</u> # FeE500</p> <p style="padding-left: 40px;">RP5/25, RP5/22, #8, #10, #12, #16, #20, #25</p> <p><u>Zbr. na rozwarstwienie:</u> Zbrojenie na rozw. #5/10 1155z</p> <p><u>Zbrojenie podwieszające i odgiete:</u> FeE 500</p> <p><u>Zakotwienie dodatkowe:</u> # 6 FeE 500</p> |
| <u>Produkcja :</u> | |
| <p>Szerokość separatora podłużnego = 6 cm</p> <p>Złącza między płytami = 0.5 cm</p> <p>Typ składowania : krótki</p> | |
| <p style="text-align: center;"><u>Tolerancje obliczeniowe (domyslnie):</u></p> <p style="text-align: right;">- Tolerancja zakotwienia = 2 cm</p> | |

OBLICZENIA

- Obciążenie montażowe = 150 daN/m² - Szerokość obliczeniowa = 1.00 m

- Strefa sejsm.: 1 (b. niska) Kat. ważności I

Metoda obliczania ciągłości: (domyslnie)

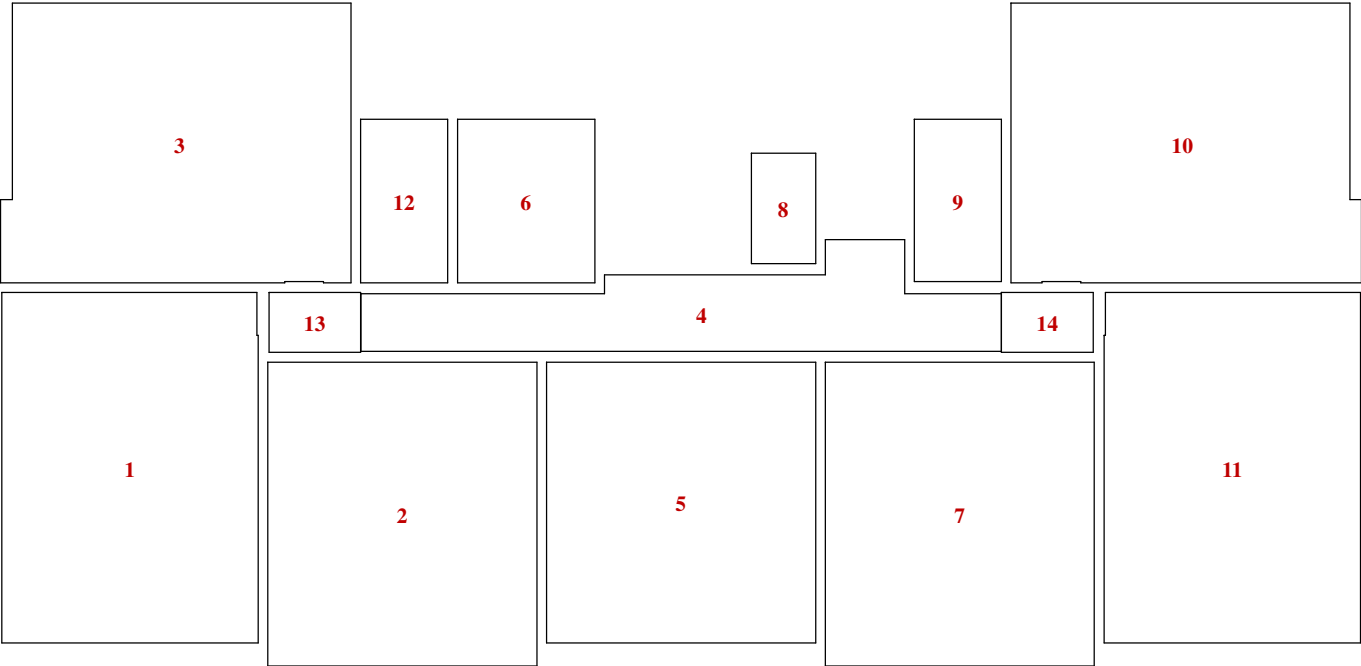
Wartości graniczne:

- Maksymalna szerokość podpory dla uwzględnienia ciągłości = 80 cm
- Dopuszczalne przesunięcie poziomu w celu uwzględnienia ciągłości = 2.00 cm
- Dokładna metoda obliczeń ze współczynnikiem ciągłości = 0.667

STROP NAD 2 PIĘTREM

Poziom nr1 NAD 2 PIETREM Rzedna : 50 cm

| Np | Sc. dz. | G.pos | Rodzaj | G | Q | Ψ 1 Ψ 2 | Stemple Wieze | Ht hp | Kl. eksp. | Szer. | Oparcie | Wyst. | Ogniodp. | | Poziom | Kl. eksp. | Tolerancje obliczeniowe | | | | |
|----|---------|----------|--------|---|----------|------------|------------------|----------|-----------------|-----------|------------|-------|----------|-----|--------|--------------|-------------------------|---------|-----|---|---|
| | | | | | | | | | spód stropu | Maks. | Nosne | | c nom | cf | | góraż stropu | Faza | | | | |
| | | | | | | | | | c nom | Min. | Nienos. | | | | | c nom | montazu ostat. | ugiecie | | | |
| | | (daN/m²) | | | (daN/m²) | | | (cm) | (mm) | | (cm) | | | | (h) | (cm) | (mm) | | % | % | % |
| 1 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | | |
| 2 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | | |
| 3 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | | |
| 4 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | | |
| 5 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | | |
| 6 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | | |
| 7 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | | |
| 8 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | | |
| 9 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | | |
| 10 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | | |
| 11 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | | |
| 12 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | | |
| 13 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | | |
| 14 | | 180 | 0/K | | 200 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 | | |



STROP NAD 2 PIĘTREM

Budowa : KONIECPOL
Budynek : WIELORODZINNY
Poziom : NAD 2 PIETREM

| Ozn. | Grubosc | Cnom | Pow. | Dlugosc | Szer. | Ciezar |
|------|---------|------|-------|---------|-------|--------|
| BH. | cm | mm | m² | cm | cm | kg |
| 201 | 6 | 22 | 16.83 | 673 | 250 | 2568 |
| 202 | 6 | 22 | 16.83 | 673 | 250 | 2573 |
| 203 | 6 | 22 | 16.83 | 673 | 250 | 2573 |
| 204 | 6 | 22 | 10.33 | 673 | 153.5 | 1580 |
| 205 | 6 | 22 | 17.65 | 706 | 250 | 2699 |
| 206 | 6 | 22 | 17.65 | 706 | 250 | 2699 |
| 207 | 6 | 22 | 8.61 | 706 | 122 | 1317 |
| 208 | 6 | 22 | 11.40 | 706 | 161.5 | 1743 |
| 209 | 6 | 22 | 18.33 | 733 | 250 | 2569 |
| 210 | 6 | 22 | 18.33 | 733 | 250 | 2802 |
| 211 | 6 | 22 | 18.33 | 733 | 250 | 2801 |
| 212 | 6 | 22 | 11.25 | 733 | 153.5 | 1717 |
| 213 | 6 | 22 | 4.00 | 160 | 250 | 612 |
| 214 | 6 | 22 | 4.00 | 160 | 250 | 612 |
| 215 | 6 | 22 | 2.05 | 160 | 128 | 313 |
| 216 | 6 | 22 | 5.23 | 209 | 250 | 799 |
| 217 | 6 | 22 | 2.55 | 209 | 122 | 390 |
| 218 | 6 | 22 | 4.11 | 209 | 196.5 | 628 |
| 219 | 6 | 22 | 6.13 | 299 | 205 | 937 |
| 220 | 6 | 22 | 3.98 | 160 | 249 | 609 |
| 221 | 6 | 22 | 17.65 | 706 | 250 | 2699 |
| 222 | 6 | 22 | 17.65 | 706 | 250 | 2699 |
| 223 | 6 | 22 | 15.81 | 706 | 224 | 2418 |
| 224 | 6 | 22 | 10.83 | 433 | 250 | 1655 |
| 225 | 6 | 22 | 4.52 | 433 | 104.5 | 692 |
| 226 | 6 | 22 | 17.65 | 706 | 250 | 2699 |
| 227 | 6 | 22 | 17.65 | 706 | 250 | 2699 |
| 228 | 6 | 22 | 8.61 | 706 | 122 | 1317 |
| 229 | 6 | 22 | 11.40 | 706 | 161.5 | 1743 |
| 230 | 6 | 22 | 4.83 | 291 | 166 | 739 |
| 231 | 6 | 22 | 9.68 | 430 | 225 | 1479 |
| 232 | 6 | 22 | 18.33 | 733 | 250 | 2569 |
| 233 | 6 | 22 | 18.33 | 733 | 250 | 2802 |
| 234 | 6 | 22 | 18.33 | 733 | 250 | 2801 |
| 235 | 6 | 22 | 11.25 | 733 | 153.5 | 1717 |
| 236 | 6 | 22 | 16.83 | 673 | 250 | 2568 |
| 237 | 6 | 22 | 16.83 | 673 | 250 | 2573 |
| 238 | 6 | 22 | 16.83 | 673 | 250 | 2573 |
| 239 | 6 | 22 | 10.33 | 673 | 153.5 | 1580 |
| 240 | 6 | 22 | 9.74 | 433 | 225 | 1490 |
| 241 | 6 | 22 | 3.76 | 242.6 | 155 | 575 |
| 242 | 6 | 22 | 3.76 | 242.6 | 155 | 575 |

Powierzchnia łączna = 494.97 m² Ciezar całkowity =75.20 t

| | | | |
|--------------|--------|-------|--------|
| Powierzchnie | L=250 | L=122 | Inne |
| plyty(m²) | 344.83 | 19.78 | 130.36 |

| | |
|-------------------|--------|
| Grubosc(cm) | 6.0 |
| Powierzchnie (m²) | 494.97 |

| | | |
|--------|------------------------|--|
| Otwory | Obudowy elektryczne | |
| 15 | | |

STROP NAD 2 PIĘTREM

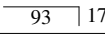
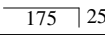
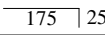
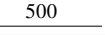
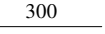
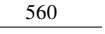
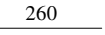
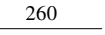
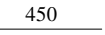
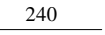
Budowa : KONIECPOL

Budynek : WIELORODZINNY

Poziom : NAD 2 PIETREM

ZESTAWIENIE ZBROJENIA PODPOROWEGO

Typ: B500B

| Ozn. | Oznaczenie | Kształt | Długość m | liczba | Ciezar kg |
|------|------------------|---|--------------|--------|--------------|
| 20 | Zagięte #8 e=25 |  | 1.10 | 333 | 144.69 |
| 21 | Zagięte #12 e=20 |  | 2.00 | 178 | 316.13 |
| 22 | Zagięte #12 e=10 |  | 2.00 | 32 | 56.77 |
| 23 | Prosty #12 e=20 |  | 5.00 | 44 | 195.36 |
| 24 | Prosty #12 e=20 |  | 3.00 | 66 | 175.82 |
| 25 | Prosty #12 e=13 |  | 5.60 | 30 | 149.10 |
| 26 | Prosty #10 e=14 |  | 2.60 | 202 | 323.70 |
| 27 | Prosty #12 e=20 |  | 2.60 | 21 | 48.48 |
| 28 | Prosty #10 e=33 |  | 4.50 | 33 | 91.48 |
| 29 | Prosty #10 e=33 |  | 2.40 | 24 | 35.48 |

Ciezar całkowity = 1537.02 kg.

Ciezar/powierzchnia = 3.11 kg/m².

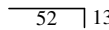
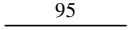
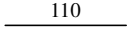
UWAGA: Zastosować zbrojenie rozdzielcze #6 e=30 (e - rozstaw). Długość dostosować do zbrojenia podporowego. Całkowita długość prętów rozdzielczych wynosi 625 mb.

STROP NAD 2 PIĘTREM

Budowa : KONIECPOL
Budynek : WIELORODZINNY
Poziom : NAD 2 PIĘTREM

ZESTAWIENIE ZBROJENIA NA ZŁACZACH PŁYT

Typ: FeE 500

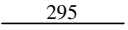
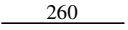
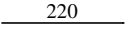
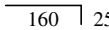
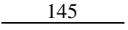
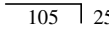
| Ozn. | Oznaczenie | Kształt | Długość cm | liczba | Ciezar kg | Szer. m | Panele Rolki | liczba /Panele RAZEM |
|------|--------------|--|---------------|--------|--------------|------------|-----------------|-------------------------|
| 1 | #6 e= 33 cm |  13 | 65 | 344 | 49.63 | 110.44 | 43 p x 2.64 | 8 344 |
| 2 | #8 e= 33 cm |  | 95 | 362 | 135.70 | 116.21 | 33 p x 3.63 | 11 363 |
| 3 | #10 e= 20 cm |  | 110 | 16 | 10.85 | 3.15 | 1 p x 3.20 | 16 16 |

Ciezar całkowity = 196.18 kg.

Ciezar/powierzchnia = 0.40 kg/m².

UWAGA: Zastosować zbrojenie rozdzielcze #6 e=30 (e - rozstaw). Długość dostosować do zbrojenia na złączach.
Całkowita długość prętów rozdzielczych wynosi 348 mb.

ZESTAWIENIE WZMOCNIEN OTWORÓW NA PŁYTACH STROPOWYCH

| Ozn. | Oznaczenie | Kształt | Długość cm | liczba | Ciezar kg |
|------|------------|--|---------------|--------|--------------|
| F1 | #12 |  | 295 | 2 | 5.24 |
| F2 | #12 |  | 260 | 8 | 18.47 |
| F3 | #12 |  | 220 | 77 | 150.43 |
| F4 | #12 |  25 | 185 | 4 | 6.57 |
| F5 | #12 |  | 145 | 2 | 2.57 |
| F6 | #12 |  25 | 130 | 6 | 6.93 |

Ciezar całkowity = 190.21 kg.

Ciezar/powierzchnia = 0.38 kg/m².

STROP NAD 3 PIĘTREM

| <u>BETON</u> | <u>ZBROJENIE</u> |
|---|---|
| <p>Gęstość = 2400 daN/m³</p> <p>Moduł E_v = 130000 kg/cm²</p> <p>Pow. styku z nadbetonem: D τ=6.0 kg/cm²</p> <p><u>Płyta strop.:</u></p> <p>fc odprezanie min. kostka 10 cm:</p> <p style="padding-left: 40px;">Płyty stropowe ≤ 8 cm f_c=25 MPa</p> <p style="padding-left: 40px;">Płyty stropowe > 8 cm f_c=35 MPa</p> <p>Beton płyty strop. : C40/50 USINE</p> <p><u>Budowa:</u></p> <p>Nadbeton : C25/30</p> | <p>STRUNY T5.2 2060 TBR (STRUNY T6.85 2060 TBR)</p> <p>Napreżenie początk. = 2375 (4873) daN</p> <p>5 (12) min. strun/mb i 23 (0) maks. strun/mb</p> <p>32/26 (32/26) zginanie/zakotwienie strun + maks. dozbr./mb</p> <p><u>Zbrojenie podp.:</u> # B500B</p> <p>#6, #8, #10, #12, #16, #20, #25</p> <p><u>Wzmocnienie na ognioodporność:</u> # FeE500</p> <p>#8, #10, #12, #16, #20, #25</p> <p><u>Zbrojenie łączące:</u> # FeE500</p> <p>#8, #10, #12, #16, #20, #25, #6</p> |
| <p><u>Produkcja :</u></p> <p>Szerokość separatora podłużnego = 6 cm</p> <p>Złącza między płytami = 0.5 cm</p> <p>Typ składowania : krótki</p> | <p><u>Zbr. poprzeczne:</u> # FeE500</p> <p>RP5/25, RP5/22, #8, #10, #12, #16, #20, #25</p> <p><u>Zbr. na rozwarstwienie:</u> Zbrojenie na rozw. #5/10 1155z</p> <p><u>Zbrojenie podwieszające i odgięte:</u> FeE 500</p> <p><u>Zakotwienie dodatkowe:</u> # 6 FeE 500</p> |
| <p style="text-align: center;"><u>Tolerancje obliczeniowe (domyslnie):</u></p> <p style="text-align: right;">- Tolerancja zakotwienia = 2 cm</p> | |

OBLICZENIA

- Obciążenie montażowe = 150 daN/m² - Szerokość obliczeniowa = 1.00 m

- Strefa sejsm.: 1 (b. niska) Kat. ważności I

Metoda obliczania ciągłości: (domyslnie)

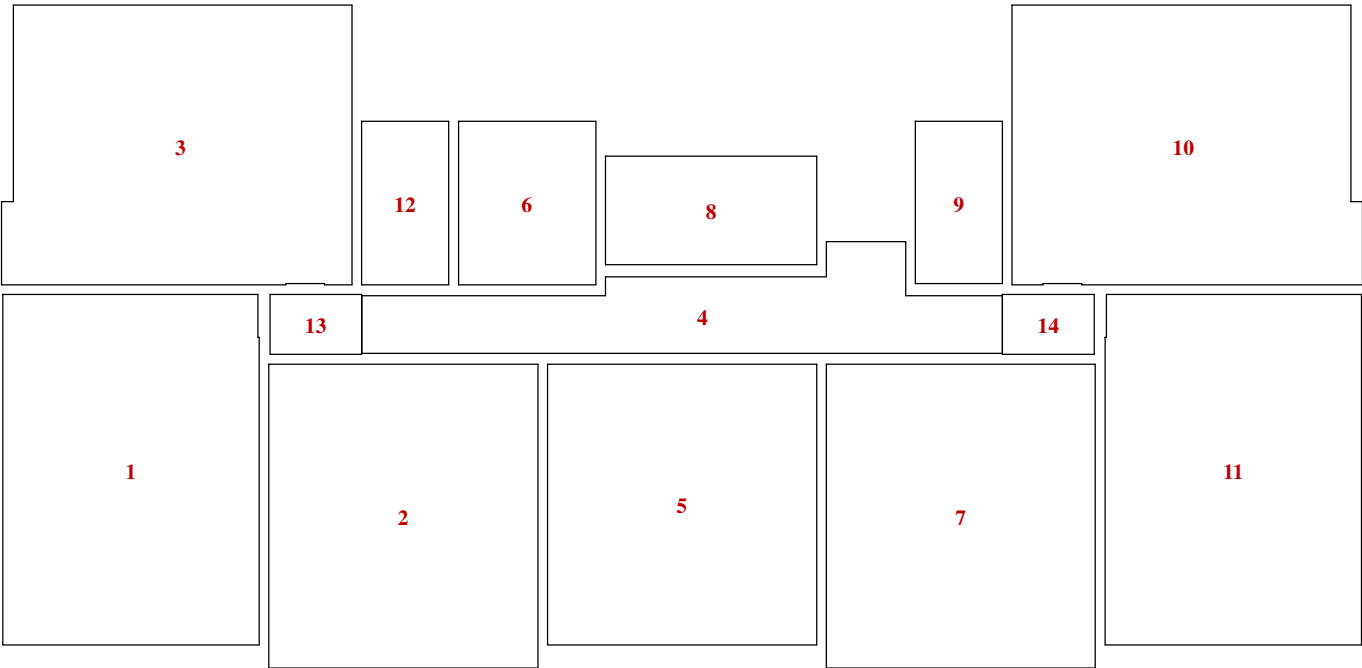
Wartości graniczne:

- Maksymalna szerokość podpory dla uwzględnienia ciągłości = 80 cm
- Dopuszczalne przesunięcie poziomu w celu uwzględnienia ciągłości = 2.00 cm
- Dokładna metoda obliczeń ze współczynnikiem ciągłości = 0.667

STROP NAD 3 PIĘTREM

Poziom nr1 NAD 3 PIETREM Rzedna : 50 cm

| Np | Sc. dz. | G.pos | Rodzaj | G | Q | Ψ 1 Ψ 2 | Stemple Wieze | Ht hp | Kl. eksp. | Szer. | Oparcie | Wyst. | Ogniodp. | | Poziom | Kl. eksp. | Tolerancje obliczeniowe | | |
|----------|---------|----------|--------|--------|----|------------|------------------|----------|-----------------|-----------|------------|-------|----------|------|--------|--------------|-------------------------|---------|-----|
| | | | | | | | | | spód stropu | Maks. | Nosne | | c nom | cf | | góraż stropu | Faza | | |
| | | | | | | | | | c nom | Min. | Nienos. | | | | | c nom | montazu ostat. | ugiecie | |
| (daN/m²) | | (daN/m²) | | (cm) | | (mm) | | (cm) | | | | (h) | | (cm) | (mm) | % | % | % | |
| 1 | | 150 | 0/K | | 50 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 2 | | 150 | 0/K | | 50 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 3 | | 150 | 0/K | | 50 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 4 | | 150 | 0/K | | 50 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 5 | | 150 | 0/K | | 50 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 6 | | 150 | 0/K | | 50 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 7 | | 150 | 0/K | | 50 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 8 | | 150 | 0/K | | 50 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 9 | | 150 | 0/K | | 50 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 10 | | 150 | 0/K | | 50 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 11 | | 150 | 0/K | | 50 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 12 | | 150 | 0/K | | 50 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 13 | | 150 | 0/K | | 50 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |
| 14 | | 150 | 0/K | | 50 | 0.5 0.3 | 3 E | 20 6 | XC1 USINE 22 | 250 50 | 5.5 0.0 | 10 | sp.C | 1.0 | 50 | XC1 25 | 0.0 | 0.0 | 0.0 |



STROP NAD 3 PIĘTREM

Budowa : KONIECPOL
Budynek : WIELORODZINNY
Poziom : NAD 3 PIETREM

| Ozn. | Grubosc | Cnom | Pow. | Dlugosc | Szer. | Ciezar |
|------|---------|------|-------|---------|-------|--------|
| BH. | cm | mm | m² | cm | cm | kg |
| 301 | 6 | 22 | 16.83 | 673 | 250 | 2568 |
| 302 | 6 | 22 | 16.83 | 673 | 250 | 2573 |
| 303 | 6 | 22 | 16.83 | 673 | 250 | 2573 |
| 304 | 6 | 22 | 10.33 | 673 | 153.5 | 1580 |
| 305 | 6 | 22 | 17.65 | 706 | 250 | 2699 |
| 306 | 6 | 22 | 17.65 | 706 | 250 | 2699 |
| 307 | 6 | 22 | 8.61 | 706 | 122 | 1317 |
| 308 | 6 | 22 | 11.40 | 706 | 161.5 | 1743 |
| 309 | 6 | 22 | 18.33 | 733 | 250 | 2569 |
| 310 | 6 | 22 | 18.33 | 733 | 250 | 2802 |
| 311 | 6 | 22 | 18.33 | 733 | 250 | 2801 |
| 312 | 6 | 22 | 11.25 | 733 | 153.5 | 1717 |
| 313 | 6 | 22 | 4.00 | 160 | 250 | 612 |
| 314 | 6 | 22 | 4.00 | 160 | 250 | 612 |
| 315 | 6 | 22 | 2.05 | 160 | 128 | 313 |
| 316 | 6 | 22 | 5.23 | 209 | 250 | 799 |
| 317 | 6 | 22 | 2.55 | 209 | 122 | 390 |
| 318 | 6 | 22 | 4.11 | 209 | 196.5 | 628 |
| 319 | 6 | 22 | 6.13 | 299 | 205 | 937 |
| 320 | 6 | 22 | 3.98 | 160 | 249 | 609 |
| 321 | 6 | 22 | 17.65 | 706 | 250 | 2699 |
| 322 | 6 | 22 | 17.65 | 706 | 250 | 2699 |
| 323 | 6 | 22 | 15.81 | 706 | 224 | 2418 |
| 324 | 6 | 22 | 10.83 | 433 | 250 | 1655 |
| 325 | 6 | 22 | 4.52 | 433 | 104.5 | 692 |
| 326 | 6 | 22 | 17.65 | 706 | 250 | 2699 |
| 327 | 6 | 22 | 17.65 | 706 | 250 | 2699 |
| 328 | 6 | 22 | 8.61 | 706 | 122 | 1317 |
| 329 | 6 | 22 | 11.40 | 706 | 161.5 | 1743 |
| 330 | 6 | 22 | 7.28 | 291 | 250 | 1112 |
| 331 | 6 | 22 | 3.55 | 291 | 122 | 543 |
| 332 | 6 | 22 | 5.01 | 291 | 172 | 765 |
| 333 | 6 | 22 | 9.68 | 430 | 225 | 1479 |
| 334 | 6 | 22 | 18.33 | 733 | 250 | 2569 |
| 335 | 6 | 22 | 18.33 | 733 | 250 | 2802 |
| 336 | 6 | 22 | 18.33 | 733 | 250 | 2801 |
| 337 | 6 | 22 | 11.25 | 733 | 153.5 | 1717 |
| 338 | 6 | 22 | 16.83 | 673 | 250 | 2568 |
| 339 | 6 | 22 | 16.83 | 673 | 250 | 2573 |
| 340 | 6 | 22 | 16.83 | 673 | 250 | 2573 |
| 341 | 6 | 22 | 10.33 | 673 | 153.5 | 1580 |
| 342 | 6 | 22 | 9.74 | 433 | 225 | 1490 |
| 343 | 6 | 22 | 3.76 | 242.6 | 155 | 575 |
| 344 | 6 | 22 | 3.76 | 242.6 | 155 | 575 |

Powierzchnia laczna = 505.97 m² Ciezar calkowity =76.88 t

| | | | |
|--------------|--------|-------|--------|
| Powierzchnie | L=250 | L=122 | Inne |
| plyty(m²) | 352.11 | 23.33 | 130.53 |

| | |
|-------------------|--------|
| Grubosc(cm) | 6.0 |
| Powierzchnie (m²) | 505.97 |

| | | |
|--------|------------------------|--|
| Otwory | Obudowy elektryczne | |
| 16 | | |

STROP NAD 3 PIĘTREM

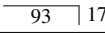
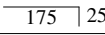
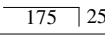
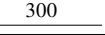
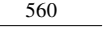
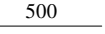
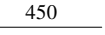
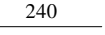
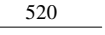
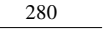
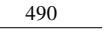
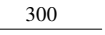
Budowa : KONIECPOL

Budynek : WIELORODZINNY

Poziom : NAD 3 PIETREM

ZESTAWIENIE ZBROJENIA PODPOROWEGO

Typ: B500B

| Ozn. | Oznaczenie | Kształt | Długość m | liczba | Ciezar kg |
|------|------------------|---|--------------|--------|--------------|
| 20 | Zagięte #8 e=25 |  | 1.10 | 305 | 132.52 |
| 21 | Zagięte #12 e=20 |  | 2.00 | 178 | 316.13 |
| 22 | Zagięte #12 e=10 |  | 2.00 | 32 | 56.77 |
| 23 | Prosty #12 e=20 |  | 3.00 | 87 | 231.77 |
| 24 | Prosty #12 e=13 |  | 5.60 | 30 | 149.10 |
| 25 | Prosty #12 e=20 |  | 5.00 | 23 | 102.12 |
| 26 | Prosty #10 e=33 |  | 4.50 | 28 | 77.62 |
| 27 | Prosty #10 e=33 |  | 2.40 | 16 | 23.66 |
| 28 | Prosty #12 e=20 |  | 5.20 | 21 | 96.97 |
| 29 | Prosty #10 e=14 |  | 2.80 | 201 | 346.87 |
| 30 | Prosty #10 e=33 |  | 4.90 | 16 | 48.30 |
| 31 | Prosty #10 e=33 |  | 3.00 | 6 | 11.09 |

Ciezar całkowity = 1592.91 kg.

Ciezar/powierzchnia = 3.15 kg/m².

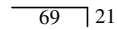
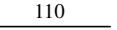
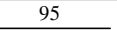
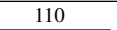
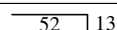
UWAGA: Zastosować zbrojenie rozdzielcze #6 e=30 (e - rozstaw). Długość dostosować do zbrojenia podporowego. Całkowita długość prętów rozdzielczych wynosi 679 mb.

STROP NAD 3 PIĘTREM

Budowa : KONIECPOL
Budynek : WIELORODZINNY
Poziom : NAD 3 PIĘTREM

ZESTAWIENIE ZBROJENIA NA ZŁACZACH PŁYT

Typ: FeE 500

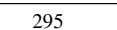
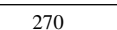
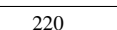
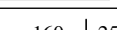
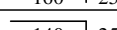
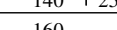
| Ozn. | Oznaczenie | Kształt | Długość cm | liczba | Ciezar kg |
|------|--------------|---|---------------|--------|--------------|
| 1 | #10 e= 25 cm |  | 90 | 282 | 156.48 |
| 2 | #10 e= 25 cm |  | 110 | 394 | 267.21 |
| 3 | #8 e= 33 cm |  | 95 | 78 | 29.24 |
| 4 | #10 e= 20 cm |  | 110 | 16 | 10.85 |
| 5 | #6 e= 33 cm |  | 65 | 124 | 17.89 |

Ciezar całkowity = 481.66 kg.

Ciezar/powierzchnia = 0.95 kg/m².

UWAGA: Zastosować zbrojenie rozdzielcze #6 e=30 (e - rozstaw). Długość dostosować do zbrojenia na złączach płyt. Całkowita długość prętów rozdzielczych wynosi 359 mb.

ZESTAWIENIE WZMOCNIEN OTWORÓW NA PŁYTACH STROPOWYCH

| Ozn. | Oznaczenie | Kształt | Długość cm | liczba | Ciezar kg |
|------|------------|---|---------------|--------|--------------|
| F1 | #12 |  | 295 | 2 | 5.24 |
| F2 | #12 |  | 270 | 7 | 16.79 |
| F3 | #12 |  | 220 | 77 | 150.43 |
| F4 | #12 |  | 185 | 2 | 3.28 |
| F5 | #12 |  | 165 | 6 | 8.80 |
| F6 | #12 |  | 160 | 8 | 11.37 |

Ciezar całkowity = 195.91 kg.

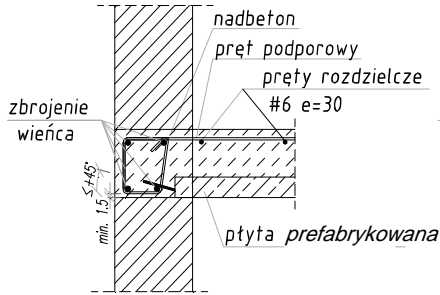
Ciezar/powierzchnia = 0.39 kg/m².

DETALE OPARCIA

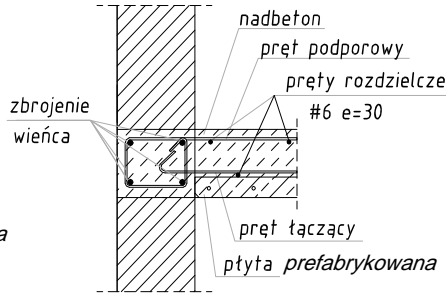
*e - rozstaw prętów [cm]

UWAGA: ZBROJENIE ROZDZIELCZE NIE JEST UWZGLĘDNIONE W ZESTAWIENIU

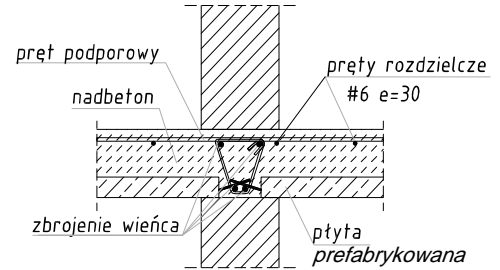
OPRACIE STROPU NA ŚCIANIE
W KIERUNKU NOŚNYM



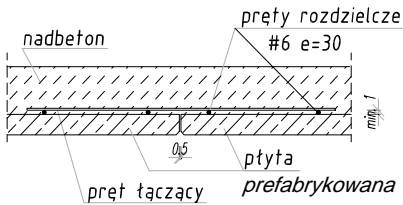
DETAL OPARCIA NA ŚCIANIE
W KIERUNKU NIENOŚNYM



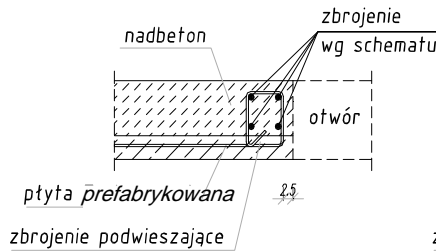
OPRACIE STROPU NA ŚCIANIE
Z DWÓCH STRON



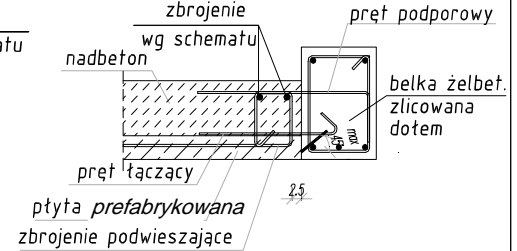
DETAL ZBROJENIA ŁĄCZĄCEGO
NA STYKU PŁYT



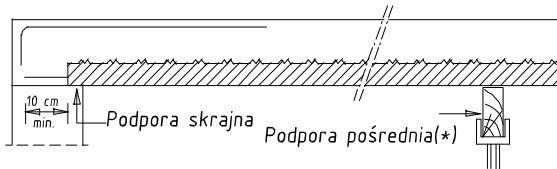
DETAL DOZBROJENIA OTWORU



DETAL OPARCIA NA BELCE
ŻELBETOWEJ ZLICOWANEJ DOŁEM



PODPORY MONTAŻOWE



(*) Podpory pośrednie w przypadku płyt z ujemną strzałką ugięcia ustawiać z zachowaniem ujemnej strzałki. W przeciwnym przypadku wy poziomować do linii podpór skrajnych.

WAŻNE:

Dodatkowe podpory należy umieszczać w miejscach osłabionych (np. duże otwory stropowe)

Wartość reakcji charakterystycznej podano w daN/ml (100 daN/ml = 1 kN/m)

| | TYP PODPORY | RZECZYWISTA MINIMALNA GŁĘBOKOŚĆ OPARCIA (*) |
|---------------------------|----------------------|---|
| Z PODPARCIEM POŚREDNIM | STAŁOWA LUB BETONOWA | 2 cm |
| | MUROWANA | 4 cm |
| BEZ PODPARCIA POŚREDNIEGO | STAŁOWA LUB BETONOWA | 3 cm |
| | MUROWANA | 5 cm |

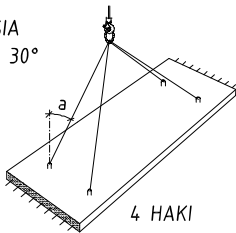
(*) Wartości podane dla typowych grubości stropu (≤ 25cm).

WAŻNE:

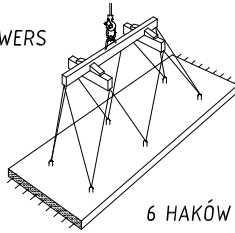
Jeżeli po sprawdzeniu rzeczywistej głębokości oparcia, minimalna wartość nie jest spełniona, konieczne jest ustawienie dodatkowej podpory montażowej skrajnej.

TRANSPORT

ZAWIESIA
kąt $\alpha \leq 30^\circ$



TRAWERS

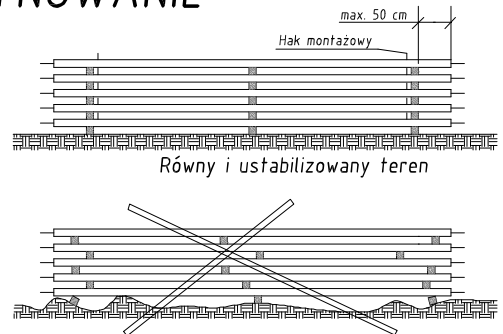


WAŻNE:

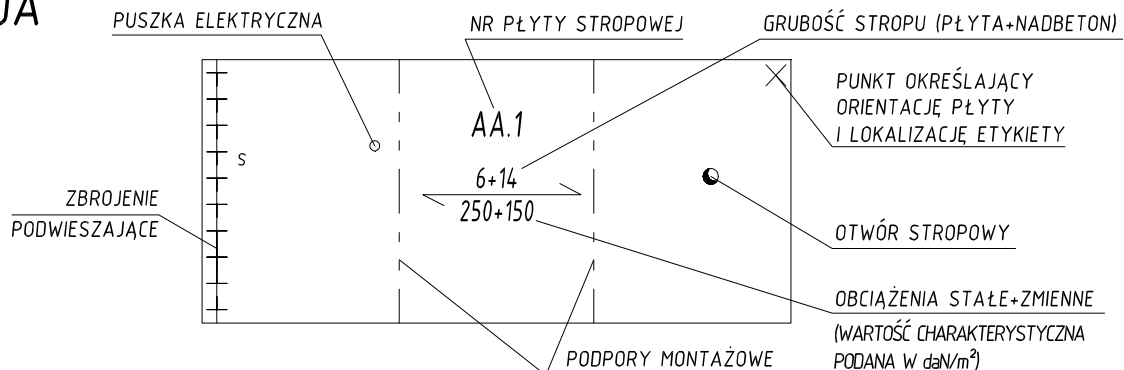
W przypadku niesymetrycznego rozmieszczenia haków transportowych na płycie należy bezwzględnie dostosować długość zawiesi na budowie, tak by płyta była podnoszona równomiernie.

MAGAZYNOWANIE

Przekładki 8 x 12



LEGENDA



WAŻNE:

Na krawędzi zbrojenia podwieszającego należy zawsze ustawić linię podpór montażowych.

Nie dopuszcza się bruzdowania płyt stropowych.