

STA4-CAD Ver.12.0 RADYE PROGRAMI**RADYE MAT TEMELLERİN SONLU ELEMANLARLA ANALİZİ**ZEMİN YATAK KATSAYISI (t/m³) : 3000.0ZEMİN EMNİYET GERİMESİ (t/m²) : 20.0

BETONARME HESAP YÖNTEMİ:TAŞIMA GÜCÜ YÖNTEMİ (TS 500, 2000)

BETON ve ÇELİK MALZEME BİLGİLERİ

Beton dayanım gerilmesi (kg/cm²):200Çelik akma gerilmesi (kg/cm²):2200

Minimum donatı kesit porsantajı :.0.001

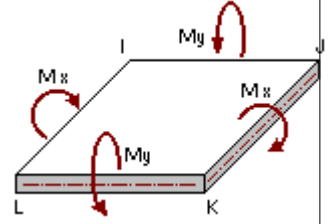
Winkler Yayları Opsiyonu:Ks=Ko

Nokta Tasarım Momenti Opsiyonu ..:Bağlı düğüm noktalarının tasarım momentlerinin ortalaması göre hesaplama

BETONARME HESAP YÜK KOMBİNASYON PARAMETRESİ

| Ölü yük Cg | Hareketli yük Cq | Zemin Cs | Deprem ±Ce | Rüzgar ±Cw |
|---------------|---------------------|-------------|---------------|---------------|
| 1.40 | 1.60 | 0.00 | 0.00 | 0.00 |
| 1.40 | 1.60 | 1.60 | 0.00 | 0.00 |
| 1.40 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1.00 | 1.00 | 0.00 | 1.00 | 0.00 |
| 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| 0.90 | 0.00 | 0.00 | 1.00 | 0.00 |
| 1.00 | 1.30 | 0.00 | 0.00 | 1.30 |
| 1.00 | 1.30 | 1.00 | 0.00 | 1.30 |
| 0.90 | 0.00 | 0.00 | 0.00 | 1.30 |
| 0.90 | 0.00 | 0.90 | 0.00 | 1.30 |

CODE:TS500T.COD

**ZEMİN GERİLMESİ YÜK KOMBİNASYONU**

| Ölü yük Cg | Hareketli yük Cq | Zemin Cs | Deprem ±Ce | Rüzgar ±Cw |
|---------------|---------------------|-------------|---------------|---------------|
| 1.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| 1.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| 0.67 | 0.67 | 0.67 | 0.67 | 0.00 |
| 0.80 | 0.80 | 0.80 | 0.00 | 0.80 |

STATİK ANALİZ YÜK KOMBİNASYON NOTASYONLARI:

| | |
|------------------|---------------------------------|
| 1. G+G+G+G | GENEL ÖLÜ YÜK |
| 2. Q+Q+Q+Q | 1. GENEL HAREKETLİ YÜK |
| 3. Q+o+Q+o+Q | 2. HAREKETLİ YÜK |
| 4. o+Q+o+Q+o | 3. HAREKETLİ YÜK |
| 5. Q+Q+o+Q+Q | 4. HAREKETLİ YÜK |
| 6. o+Q+Q+o+Q | 5. HAREKETLİ YÜK |
| 7. Q+o+Q+Q+o | 6. HAREKETLİ YÜK |
| 8. Gz | Yatay zemin itkisi |
| 9. Ex + %5 x 0 | +X yönü deprem |
| 10. Ex - %5 x 0 | -X yönü deprem |
| 11. Ey + %5 x 0 | +Y yönü deprem |
| 12. Ey - %5 x 0 | -Y yönü deprem |
| 13. Wx + %5 x ey | X yönü rüzgar + %5 eksantrisine |
| 14. Wx - %5 x ey | X yönü rüzgar - %5 eksantrisine |
| 15. Wy + %5 x ex | Y yönü rüzgar + %5 eksantrisine |
| 16. Wy - %5 x ex | Y yönü rüzgar - %5 eksantrisine |

WINKLER YAY YÜKLERİ (t)

| Nokta no | 1 g | 2 q | 3 q | 4 q | 5 q | 6 q | 7 q | 8 z | 9 e | 10 e | 11 e | 12 e | 13 w | 14 w | 15 w | 16 w |
|----------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|------|------|-------|-------|
| 124 | 1.06 | 0.09 | 0.04 | 0.03 | 0.04 | 0.05 | 0.05 | 0.00 | 0.08 | 0.08 | 0.13 | 0.12 | 0.00 | 0.01 | 0.02 | 0.02 |
| 125 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 126 | 2.14 | 0.20 | 0.08 | 0.08 | 0.10 | 0.11 | 0.11 | 0.00 | 0.01 | 0.02 | 0.31 | 0.29 | 0.00 | 0.00 | 0.04 | 0.04 |
| 127 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 128 | 1.06 | 0.10 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.00 | 0.01 | 0.02 | 0.16 | 0.14 | 0.00 | 0.00 | 0.02 | 0.02 |
| 129 | 2.09 | 0.18 | 0.07 | 0.07 | 0.08 | 0.10 | 0.09 | 0.00 | 0.17 | 0.15 | -0.21 | -0.18 | 0.01 | 0.01 | -0.03 | -0.03 |
| 130 | 2.09 | 0.18 | 0.07 | 0.07 | 0.08 | 0.11 | 0.09 | 0.00 | 0.14 | 0.13 | -0.25 | -0.23 | 0.01 | 0.01 | -0.04 | -0.03 |
| 131 | 3.82 | 0.31 | 0.12 | 0.12 | 0.15 | 0.18 | 0.15 | 0.00 | 0.28 | 0.26 | -0.32 | -0.27 | 0.02 | 0.02 | -0.05 | -0.04 |
| 132 | 3.64 | 0.27 | 0.11 | 0.11 | 0.15 | 0.15 | 0.12 | 0.00 | 0.37 | 0.35 | -0.23 | -0.19 | 0.02 | 0.02 | -0.03 | -0.03 |
| 133 | 0.90 | 0.06 | 0.03 | 0.02 | 0.04 | 0.03 | 0.03 | 0.00 | 0.14 | 0.13 | -0.04 | -0.04 | 0.01 | 0.01 | -0.01 | -0.01 |
| 134 | 2.08 | 0.21 | 0.09 | 0.09 | 0.12 | 0.12 | 0.12 | 0.00 | -0.04 | -0.03 | 0.24 | 0.22 | 0.00 | 0.00 | 0.03 | 0.03 |
| 135 | 4.14 | 0.35 | 0.13 | 0.13 | 0.16 | 0.20 | 0.17 | 0.00 | 0.32 | 0.32 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | 0.00 |
| 136 | 1.05 | 0.09 | 0.04 | 0.03 | 0.04 | 0.05 | 0.05 | 0.00 | 0.07 | 0.07 | 0.13 | 0.11 | 0.00 | 0.00 | 0.02 | 0.02 |
| 137 | 2.10 | 0.19 | 0.07 | 0.07 | 0.09 | 0.10 | 0.09 | 0.00 | 0.08 | 0.09 | 0.29 | 0.26 | 0.00 | 0.01 | 0.04 | 0.04 |
| 138 | 1.06 | 0.10 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.00 | 0.00 | 0.01 | 0.15 | 0.15 | 0.00 | 0.00 | 0.02 | 0.02 |
| 139 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 140 | 2.12 | 0.19 | 0.08 | 0.07 | 0.09 | 0.11 | 0.10 | 0.00 | 0.01 | 0.02 | 0.31 | 0.29 | 0.00 | 0.00 | 0.04 | 0.04 |
| 141 | 2.09 | 0.18 | 0.07 | 0.07 | 0.08 | 0.10 | 0.09 | 0.00 | 0.17 | 0.15 | -0.22 | -0.18 | 0.01 | 0.01 | -0.03 | -0.03 |
| 142 | 2.12 | 0.18 | 0.07 | 0.07 | 0.08 | 0.10 | 0.09 | 0.00 | 0.19 | 0.17 | -0.20 | -0.15 | 0.01 | 0.01 | -0.03 | -0.02 |
| 143 | 3.99 | 0.32 | 0.13 | 0.12 | 0.16 | 0.18 | 0.15 | 0.00 | 0.38 | 0.35 | -0.31 | -0.24 | 0.02 | 0.02 | -0.04 | -0.03 |
| 144 | 2.05 | 0.15 | 0.06 | 0.06 | 0.09 | 0.08 | 0.07 | 0.00 | 0.29 | 0.28 | -0.13 | -0.11 | 0.02 | 0.02 | -0.02 | -0.01 |
| 145 | 4.20 | 0.35 | 0.14 | 0.13 | 0.16 | 0.20 | 0.17 | 0.00 | 0.35 | 0.35 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | 0.00 |
| 146 | 2.09 | 0.18 | 0.07 | 0.07 | 0.08 | 0.10 | 0.09 | 0.00 | 0.15 | 0.17 | 0.21 | 0.18 | 0.01 | 0.01 | 0.03 | 0.03 |
| 147 | 2.09 | 0.18 | 0.07 | 0.07 | 0.08 | 0.10 | 0.09 | 0.00 | 0.13 | 0.14 | 0.25 | 0.23 | 0.01 | 0.01 | 0.04 | 0.03 |
| 148 | 4.01 | 0.36 | 0.14 | 0.14 | 0.17 | 0.20 | 0.18 | 0.00 | 0.10 | 0.11 | 0.49 | 0.45 | 0.01 | 0.01 | 0.07 | 0.06 |
| 149 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 150 | 2.12 | 0.20 | 0.08 | 0.08 | 0.10 | 0.11 | 0.10 | 0.00 | 0.01 | 0.02 | 0.31 | 0.29 | 0.00 | 0.00 | 0.04 | 0.04 |
| 151 | 2.12 | 0.18 | 0.07 | 0.07 | 0.08 | 0.10 | 0.09 | 0.00 | 0.19 | 0.17 | -0.20 | -0.15 | 0.01 | 0.01 | -0.03 | -0.02 |
| 152 | 1.10 | 0.09 | 0.04 | 0.03 | 0.04 | 0.05 | 0.04 | 0.00 | 0.11 | 0.09 | -0.11 | -0.07 | 0.01 | 0.01 | -0.02 | -0.01 |
| 153 | 2.14 | 0.17 | 0.07 | 0.06 | 0.09 | 0.10 | 0.08 | 0.00 | 0.25 | 0.23 | -0.16 | -0.12 | 0.02 | 0.01 | -0.02 | -0.02 |
| 154 | 2.20 | 0.18 | 0.07 | 0.07 | 0.09 | 0.11 | 0.09 | 0.00 | 0.20 | 0.20 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 |
| 155 | 2.12 | 0.18 | 0.07 | 0.07 | 0.08 | 0.10 | 0.09 | 0.00 | 0.17 | 0.19 | 0.20 | 0.15 | 0.01 | 0.01 | 0.03 | 0.02 |
| 156 | 2.09 | 0.18 | 0.07 | 0.07 | 0.08 | 0.10 | 0.09 | 0.00 | 0.15 | 0.17 | 0.22 | 0.18 | 0.01 | 0.01 | 0.03 | 0.03 |
| 157 | 3.83 | 0.33 | 0.13 | 0.13 | 0.16 | 0.18 | 0.16 | 0.00 | 0.19 | 0.20 | 0.38 | 0.34 | 0.01 | 0.01 | 0.05 | 0.05 |
| 158 | 3.79 | 0.34 | 0.13 | 0.13 | 0.17 | 0.18 | 0.18 | 0.00 | 0.04 | 0.06 | 0.46 | 0.43 | 0.00 | 0.00 | 0.07 | 0.06 |
| 159 | 1.06 | 0.10 | 0.04 | 0.04 | 0.05 | 0.05 | 0.05 | 0.00 | 0.00 | 0.01 | 0.15 | 0.15 | 0.00 | 0.00 | 0.02 | 0.02 |
| 160 | 1.09 | 0.09 | 0.04 | 0.03 | 0.04 | 0.05 | 0.04 | 0.00 | 0.11 | 0.09 | -0.10 | -0.07 | 0.01 | 0.01 | -0.01 | -0.01 |
| 161 | 1.10 | 0.09 | 0.04 | 0.03 | 0.04 | 0.05 | 0.05 | 0.00 | 0.09 | 0.11 | 0.11 | 0.07 | 0.01 | 0.01 | 0.02 | 0.01 |
| 162 | 2.12 | 0.18 | 0.07 | 0.07 | 0.08 | 0.10 | 0.09 | 0.00 | 0.17 | 0.19 | 0.20 | 0.15 | 0.01 | 0.01 | 0.03 | 0.02 |
| 163 | 3.82 | 0.31 | 0.12 | 0.12 | 0.15 | 0.17 | 0.16 | 0.00 | 0.26 | 0.28 | 0.32 | 0.27 | 0.02 | 0.02 | 0.05 | 0.04 |
| 164 | 3.41 | 0.28 | 0.11 | 0.11 | 0.14 | 0.15 | 0.14 | 0.00 | 0.11 | 0.13 | 0.31 | 0.28 | 0.01 | 0.01 | 0.04 | 0.04 |
| 165 | 1.80 | 0.16 | 0.06 | 0.06 | 0.08 | 0.09 | 0.08 | 0.00 | 0.00 | 0.01 | 0.22 | 0.21 | 0.00 | 0.00 | 0.03 | 0.03 |
| 166 | 1.09 | 0.09 | 0.04 | 0.03 | 0.04 | 0.05 | 0.04 | 0.00 | 0.09 | 0.11 | 0.10 | 0.07 | 0.01 | 0.01 | 0.01 | 0.01 |
| 167 | 3.99 | 0.32 | 0.13 | 0.12 | 0.16 | 0.18 | 0.16 | 0.00 | 0.35 | 0.38 | 0.31 | 0.24 | 0.02 | 0.02 | 0.04 | 0.03 |
| 168 | 3.35 | 0.26 | 0.10 | 0.10 | 0.14 | 0.14 | 0.13 | 0.00 | 0.21 | 0.22 | 0.23 | 0.20 | 0.01 | 0.01 | 0.03 | 0.03 |
| 169 | 1.51 | 0.12 | 0.05 | 0.05 | 0.07 | 0.06 | 0.06 | 0.00 | 0.03 | 0.03 | 0.13 | 0.12 | 0.00 | 0.00 | 0.02 | 0.02 |
| 170 | 2.14 | 0.17 | 0.07 | 0.06 | 0.09 | 0.09 | 0.08 | 0.00 | 0.23 | 0.25 | 0.16 | 0.12 | 0.01 | 0.02 | 0.02 | 0.02 |
| 171 | 3.64 | 0.27 | 0.11 | 0.11 | 0.15 | 0.14 | 0.14 | 0.00 | 0.35 | 0.37 | 0.23 | 0.19 | 0.02 | 0.02 | 0.03 | 0.03 |
| 172 | 1.43 | 0.10 | 0.04 | 0.04 | 0.06 | 0.05 | 0.05 | 0.00 | 0.08 | 0.08 | 0.08 | 0.07 | 0.00 | 0.00 | 0.01 | 0.01 |
| 173 | 2.05 | 0.15 | 0.06 | 0.06 | 0.09 | 0.07 | 0.08 | 0.00 | 0.28 | 0.29 | 0.13 | 0.11 | 0.02 | 0.02 | 0.02 | 0.01 |
| 174 | 1.56 | 0.10 | 0.04 | 0.04 | 0.07 | 0.05 | 0.05 | 0.00 | 0.16 | 0.17 | 0.07 | 0.06 | 0.01 | 0.01 | 0.01 | 0.01 |
| 175 | 0.90 | 0.06 | 0.03 | 0.02 | 0.04 | 0.03 | 0.03 | 0.00 | 0.13 | 0.14 | 0.04 | 0.04 | 0.01 | 0.01 | 0.01 | 0.01 |

LOADS CHECK

DEAD LOADS CHECK

Wg=242.01 (t) (G JOINT LOADS) +143.20 (DEAD LOAD) =385.24 (t) (G WINKLER SPRING REACTION)

LIVE LOADS CHECK

Wq=35.31 (t) (Q JOINT LOADS) +0.00 (LIVE LOAD) =35.31 (t) (Q WINKLER SPRING REACTION)

NOKTA DEPLASMANLARI mm

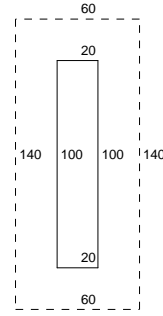
| Nokta no | 1 g | 2 q | 3 q | 4 q | 5 q | 6 q | 7 q | 8 z | 9 e | 10 e | 11 e | 12 e | 13 w | 14 w | 15 w | 16 w |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 127 | 1.413 | 0.130 | 0.051 | 0.050 | 0.063 | 0.071 | 0.067 | 0.000 | 0.005 | 0.011 | 0.210 | 0.195 | 0.000 | 0.001 | 0.030 | 0.028 |
| 128 | 1.412 | 0.128 | 0.049 | 0.049 | 0.061 | 0.070 | 0.065 | 0.000 | 0.014 | 0.020 | 0.209 | 0.193 | 0.001 | 0.001 | 0.030 | 0.028 |
| 129 | 1.395 | 0.120 | 0.046 | 0.045 | 0.055 | 0.069 | 0.057 | 0.000 | 0.111 | 0.102 | -0.14 | -0.12 | 0.007 | 0.007 | -0.02 | -0.01 |
| 130 | 1.395 | 0.122 | 0.046 | 0.046 | 0.056 | 0.070 | 0.059 | 0.000 | 0.093 | 0.086 | -0.16 | -0.15 | 0.006 | 0.006 | -0.02 | -0.02 |
| 131 | 1.273 | 0.105 | 0.040 | 0.040 | 0.050 | 0.061 | 0.050 | 0.000 | 0.094 | 0.087 | -0.10 | -0.08 | 0.006 | 0.006 | -0.01 | -0.01 |
| 132 | 1.212 | 0.089 | 0.036 | 0.035 | 0.051 | 0.050 | 0.042 | 0.000 | 0.123 | 0.117 | -0.07 | -0.06 | 0.008 | 0.007 | -0.01 | -0.00 |
| 133 | 1.194 | 0.077 | 0.034 | 0.031 | 0.055 | 0.040 | 0.035 | 0.000 | 0.182 | 0.179 | -0.05 | -0.05 | 0.011 | 0.011 | -0.00 | -0.00 |
| 134 | 1.387 | 0.142 | 0.061 | 0.060 | 0.083 | 0.081 | 0.078 | 0.000 | -0.02 | -0.02 | 0.162 | 0.147 | -0.00 | -0.00 | 0.023 | 0.021 |
| 135 | 1.380 | 0.118 | 0.045 | 0.045 | 0.054 | 0.067 | 0.057 | 0.000 | 0.107 | 0.107 | 0.000 | 0.000 | 0.007 | 0.007 | 0.000 | 0.000 |
| 136 | 1.401 | 0.123 | 0.047 | 0.046 | 0.057 | 0.068 | 0.061 | 0.000 | 0.093 | 0.100 | 0.170 | 0.153 | 0.006 | 0.006 | 0.024 | 0.022 |
| 137 | 1.403 | 0.125 | 0.048 | 0.047 | 0.059 | 0.069 | 0.063 | 0.000 | 0.050 | 0.057 | 0.192 | 0.175 | 0.003 | 0.004 | 0.028 | 0.025 |
| 138 | 1.417 | 0.132 | 0.053 | 0.052 | 0.067 | 0.072 | 0.070 | 0.000 | 0.003 | 0.008 | 0.206 | 0.194 | 0.000 | 0.001 | 0.030 | 0.028 |
| 139 | 1.418 | 0.131 | 0.052 | 0.051 | 0.066 | 0.072 | 0.069 | 0.000 | 0.006 | 0.011 | 0.208 | 0.195 | 0.000 | 0.001 | 0.030 | 0.028 |
| 140 | 1.412 | 0.129 | 0.051 | 0.050 | 0.063 | 0.071 | 0.067 | 0.000 | 0.006 | 0.012 | 0.205 | 0.191 | 0.000 | 0.001 | 0.029 | 0.027 |
| 141 | 1.394 | 0.119 | 0.045 | 0.045 | 0.055 | 0.069 | 0.057 | 0.000 | 0.111 | 0.102 | -0.14 | -0.12 | 0.007 | 0.007 | -0.02 | -0.01 |
| 142 | 1.414 | 0.119 | 0.046 | 0.045 | 0.055 | 0.070 | 0.057 | 0.000 | 0.125 | 0.112 | -0.13 | -0.10 | 0.008 | 0.007 | -0.01 | -0.01 |
| 143 | 1.330 | 0.107 | 0.042 | 0.041 | 0.053 | 0.062 | 0.051 | 0.000 | 0.125 | 0.116 | -0.10 | -0.08 | 0.008 | 0.007 | -0.01 | -0.01 |
| 144 | 1.364 | 0.100 | 0.042 | 0.039 | 0.061 | 0.054 | 0.046 | 0.000 | 0.190 | 0.184 | -0.08 | -0.07 | 0.012 | 0.012 | -0.01 | -0.01 |
| 145 | 1.401 | 0.118 | 0.045 | 0.045 | 0.055 | 0.068 | 0.057 | 0.000 | 0.117 | 0.117 | 0.000 | 0.000 | 0.007 | 0.007 | 0.000 | 0.000 |
| 146 | 1.394 | 0.120 | 0.046 | 0.045 | 0.055 | 0.067 | 0.059 | 0.000 | 0.102 | 0.111 | 0.142 | 0.120 | 0.007 | 0.007 | 0.020 | 0.017 |
| 147 | 1.395 | 0.122 | 0.047 | 0.046 | 0.056 | 0.068 | 0.061 | 0.000 | 0.086 | 0.093 | 0.168 | 0.150 | 0.006 | 0.006 | 0.024 | 0.021 |
| 148 | 1.337 | 0.119 | 0.046 | 0.046 | 0.058 | 0.066 | 0.061 | 0.000 | 0.032 | 0.037 | 0.163 | 0.150 | 0.002 | 0.002 | 0.023 | 0.021 |
| 149 | 1.417 | 0.132 | 0.053 | 0.052 | 0.067 | 0.072 | 0.070 | 0.000 | 0.004 | 0.009 | 0.206 | 0.194 | 0.000 | 0.001 | 0.030 | 0.028 |
| 150 | 1.413 | 0.131 | 0.052 | 0.051 | 0.065 | 0.071 | 0.069 | 0.000 | 0.005 | 0.011 | 0.207 | 0.194 | 0.000 | 0.001 | 0.030 | 0.028 |
| 151 | 1.415 | 0.119 | 0.046 | 0.045 | 0.055 | 0.070 | 0.057 | 0.000 | 0.126 | 0.112 | -0.13 | -0.10 | 0.008 | 0.007 | -0.01 | -0.01 |
| 152 | 1.463 | 0.122 | 0.047 | 0.046 | 0.057 | 0.073 | 0.058 | 0.000 | 0.143 | 0.124 | -0.14 | -0.09 | 0.009 | 0.008 | -0.02 | -0.01 |
| 153 | 1.424 | 0.113 | 0.045 | 0.043 | 0.059 | 0.064 | 0.053 | 0.000 | 0.165 | 0.153 | -0.10 | -0.08 | 0.010 | 0.010 | -0.01 | -0.01 |
| 154 | 1.464 | 0.122 | 0.047 | 0.046 | 0.057 | 0.071 | 0.059 | 0.000 | 0.134 | 0.134 | 0.000 | 0.000 | 0.009 | 0.009 | 0.000 | 0.000 |
| 155 | 1.414 | 0.119 | 0.046 | 0.045 | 0.055 | 0.067 | 0.059 | 0.000 | 0.112 | 0.125 | 0.133 | 0.102 | 0.007 | 0.008 | 0.019 | 0.014 |
| 156 | 1.394 | 0.119 | 0.046 | 0.045 | 0.055 | 0.067 | 0.059 | 0.000 | 0.102 | 0.111 | 0.144 | 0.121 | 0.007 | 0.007 | 0.020 | 0.017 |
| 157 | 1.277 | 0.109 | 0.042 | 0.042 | 0.052 | 0.060 | 0.055 | 0.000 | 0.062 | 0.068 | 0.126 | 0.112 | 0.004 | 0.004 | 0.018 | 0.016 |
| 158 | 1.265 | 0.112 | 0.044 | 0.044 | 0.057 | 0.062 | 0.059 | 0.000 | 0.015 | 0.019 | 0.154 | 0.143 | 0.001 | 0.001 | 0.022 | 0.020 |
| 159 | 1.412 | 0.131 | 0.052 | 0.052 | 0.066 | 0.072 | 0.070 | 0.000 | 0.004 | 0.009 | 0.206 | 0.193 | 0.000 | 0.001 | 0.030 | 0.028 |
| 160 | 1.453 | 0.121 | 0.047 | 0.046 | 0.057 | 0.072 | 0.057 | 0.000 | 0.142 | 0.124 | -0.13 | -0.09 | 0.009 | 0.008 | -0.01 | -0.01 |
| 161 | 1.463 | 0.122 | 0.047 | 0.047 | 0.057 | 0.070 | 0.060 | 0.000 | 0.124 | 0.143 | 0.143 | 0.097 | 0.008 | 0.009 | 0.020 | 0.013 |
| 162 | 1.415 | 0.119 | 0.046 | 0.045 | 0.056 | 0.068 | 0.059 | 0.000 | 0.112 | 0.126 | 0.135 | 0.103 | 0.007 | 0.008 | 0.019 | 0.014 |
| 163 | 1.273 | 0.105 | 0.040 | 0.040 | 0.051 | 0.058 | 0.052 | 0.000 | 0.087 | 0.094 | 0.106 | 0.089 | 0.006 | 0.006 | 0.015 | 0.012 |
| 164 | 1.138 | 0.093 | 0.037 | 0.037 | 0.048 | 0.051 | 0.048 | 0.000 | 0.038 | 0.042 | 0.104 | 0.093 | 0.002 | 0.003 | 0.015 | 0.013 |
| 165 | 1.198 | 0.105 | 0.043 | 0.042 | 0.056 | 0.058 | 0.056 | 0.000 | 0.002 | 0.006 | 0.146 | 0.137 | 0.000 | 0.000 | 0.021 | 0.020 |
| 166 | 1.453 | 0.121 | 0.047 | 0.046 | 0.057 | 0.069 | 0.060 | 0.000 | 0.124 | 0.142 | 0.138 | 0.096 | 0.008 | 0.009 | 0.019 | 0.013 |
| 167 | 1.330 | 0.107 | 0.042 | 0.041 | 0.054 | 0.059 | 0.053 | 0.000 | 0.116 | 0.125 | 0.103 | 0.080 | 0.007 | 0.008 | 0.014 | 0.011 |
| 168 | 1.115 | 0.085 | 0.034 | 0.034 | 0.046 | 0.046 | 0.043 | 0.000 | 0.069 | 0.074 | 0.078 | 0.066 | 0.004 | 0.005 | 0.011 | 0.009 |
| 169 | 1.004 | 0.078 | 0.032 | 0.032 | 0.044 | 0.042 | 0.041 | 0.000 | 0.018 | 0.021 | 0.086 | 0.079 | 0.001 | 0.001 | 0.012 | 0.011 |
| 170 | 1.423 | 0.113 | 0.045 | 0.043 | 0.059 | 0.061 | 0.056 | 0.000 | 0.153 | 0.165 | 0.108 | 0.080 | 0.010 | 0.010 | 0.015 | 0.011 |
| 171 | 1.212 | 0.089 | 0.036 | 0.035 | 0.051 | 0.046 | 0.045 | 0.000 | 0.117 | 0.123 | 0.077 | 0.062 | 0.007 | 0.008 | 0.011 | 0.008 |
| 172 | 0.951 | 0.065 | 0.027 | 0.027 | 0.040 | 0.033 | 0.034 | 0.000 | 0.052 | 0.055 | 0.053 | 0.047 | 0.003 | 0.003 | 0.007 | 0.006 |
| 173 | 1.364 | 0.100 | 0.042 | 0.038 | 0.061 | 0.049 | 0.051 | 0.000 | 0.184 | 0.190 | 0.088 | 0.073 | 0.012 | 0.012 | 0.012 | 0.010 |
| 174 | 1.039 | 0.067 | 0.029 | 0.027 | 0.046 | 0.032 | 0.035 | 0.000 | 0.108 | 0.111 | 0.049 | 0.042 | 0.007 | 0.007 | 0.006 | 0.006 |
| 175 | 1.194 | 0.077 | 0.035 | 0.030 | 0.056 | 0.034 | 0.041 | 0.000 | 0.179 | 0.182 | 0.059 | 0.052 | 0.011 | 0.011 | 0.008 | 0.007 |

RADYE TEMEL KOLON ZİMBALAMA HESABI

S101 KOLONU RADYE ZİMBALAMA SONUCLARI

$d = 33 \text{ cm}$ $A_c = 1.320 \text{ m}^2$
 $E_x = 0.00 \text{ cm}$ $E_y = 0.00 \text{ cm}$
 $I_x = 0.229553 \text{ m}^4$ $I_y = 0.272961 \text{ m}^4$
 $U_p = 400.00 \text{ cm}$
 $M_x = 0.26 \text{ (tm)}$ $M_y = 2.88 \text{ (tm)}$
 $X_t = 30 \text{ cm}$ $y = 1.0$ $Y_t = 70 \text{ cm}$ $y = 1.0$
 $V_d = 23.27 \text{ (t)}$ $V_{dq} = 3.1 \text{ (t)}$
 $V_{xd} = y \cdot V_d + (M_x \cdot X_t / I_x) \cdot U_p \cdot d - V_{dq}$

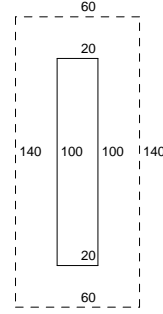
$V_{xd} = 20.61 \text{ (t)} < V_p = 136.90 \text{ (t)}$ ZİM. YETERLİ.
 $V_{yd} = 28.33 \text{ (t)} < V_p = 136.90 \text{ (t)}$ ZİM. YETERLİ.



S105 KOLONU RADYE ZİMBALAMA SONUCLARI

$d = 33 \text{ cm}$ $A_c = 1.320 \text{ m}^2$
 $E_x = 0.00 \text{ cm}$ $E_y = 0.00 \text{ cm}$
 $I_x = 0.229553 \text{ m}^4$ $I_y = 0.272961 \text{ m}^4$
 $U_p = 400.00 \text{ cm}$
 $M_x = 0.80 \text{ (tm)}$ $M_y = 0.00 \text{ (tm)}$
 $X_t = 30 \text{ cm}$ $y = 0.999$ $Y_t = 70 \text{ cm}$ $y = 1.0$
 $V_d = 40.56 \text{ (t)}$ $V_{dq} = 3.32 \text{ (t)}$
 $V_{xd} = y \cdot V_d + (M_x \cdot X_t / I_x) \cdot U_p \cdot d - V_{dq}$

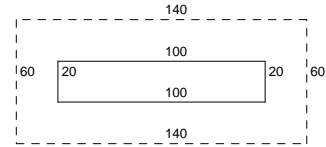
$V_{xd} = 38.58 \text{ (t)} < V_p = 136.90 \text{ (t)}$ ZİM. YETERLİ.
 $V_{yd} = 37.23 \text{ (t)} < V_p = 136.90 \text{ (t)}$ ZİM. YETERLİ.



S102 KOLONU RADYE ZİMBALAMA SONUCLARI

$d = 33 \text{ cm}$ $A_c = 1.320 \text{ m}^2$
 $E_x = 0.00 \text{ cm}$ $E_y = 0.00 \text{ cm}$
 $I_x = 0.329103 \text{ m}^4$ $I_y = 0.161211 \text{ m}^4$
 $U_p = 400.00 \text{ cm}$
 $M_x = 0.91 \text{ (tm)}$ $M_y = 0.69 \text{ (tm)}$
 $X_t = 70 \text{ cm}$ $y = 1.0$ $Y_t = 30 \text{ cm}$ $y = 0.999$
 $V_d = 55.76 \text{ (t)}$ $V_{dq} = 3.04 \text{ (t)}$
 $V_{xd} = y \cdot V_d + (M_x \cdot X_t / I_x) \cdot U_p \cdot d - V_{dq}$

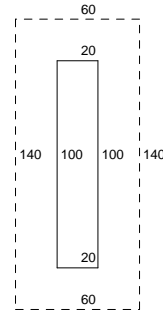
$V_{xd} = 55.26 \text{ (t)} < V_p = 136.90 \text{ (t)}$ ZİM. YETERLİ.
 $V_{yd} = 54.36 \text{ (t)} < V_p = 136.90 \text{ (t)}$ ZİM. YETERLİ.



S108 KOLONU RADYE ZİMBALAMA SONUCLARI

$d = 33 \text{ cm}$ $A_c = 1.320 \text{ m}^2$
 $E_x = 0.00 \text{ cm}$ $E_y = 0.00 \text{ cm}$
 $I_x = 0.229553 \text{ m}^4$ $I_y = 0.272961 \text{ m}^4$
 $U_p = 400.00 \text{ cm}$
 $M_x = 0.26 \text{ (tm)}$ $M_y = 2.89 \text{ (tm)}$
 $X_t = 30 \text{ cm}$ $y = 1.0$ $Y_t = 70 \text{ cm}$ $y = 1.0$
 $V_d = 23.28 \text{ (t)}$ $V_{dq} = 3.15 \text{ (t)}$
 $V_{xd} = y \cdot V_d + (M_x \cdot X_t / I_x) \cdot U_p \cdot d - V_{dq}$

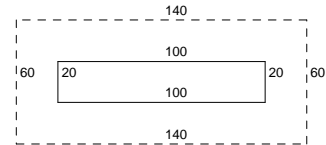
$V_{xd} = 20.57 \text{ (t)} < V_p = 136.90 \text{ (t)}$ ZİM. YETERLİ.
 $V_{yd} = 28.28 \text{ (t)} < V_p = 136.90 \text{ (t)}$ ZİM. YETERLİ.



S103 KOLONU RADYE ZİMBALAMA SONUCLARI

$d = 33 \text{ cm}$ $A_c = 1.320 \text{ m}^2$
 $E_x = 0.00 \text{ cm}$ $E_y = 0.00 \text{ cm}$
 $I_x = 0.329103 \text{ m}^4$ $I_y = 0.161211 \text{ m}^4$
 $U_p = 400.00 \text{ cm}$
 $M_x = 0.15 \text{ (tm)}$ $M_y = 0.03 \text{ (tm)}$
 $X_t = 70 \text{ cm}$ $y = 1.0$ $Y_t = 30 \text{ cm}$ $y = 1.0$
 $V_d = 24.38 \text{ (t)}$ $V_{dq} = 3.29 \text{ (t)}$
 $V_{xd} = y \cdot V_d + (M_x \cdot X_t / I_x) \cdot U_p \cdot d - V_{dq}$

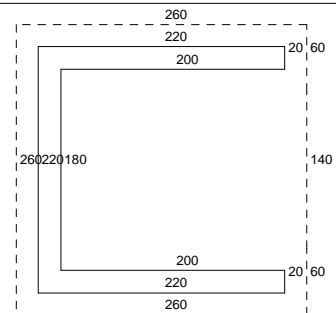
$V_{xd} = 21.49 \text{ (t)} < V_p = 136.90 \text{ (t)}$ ZİM. YETERLİ.
 $V_{yd} = 21.15 \text{ (t)} < V_p = 136.90 \text{ (t)}$ ZİM. YETERLİ.



S106 KOLONU RADYE ZİMBALAMA SONUCLARI

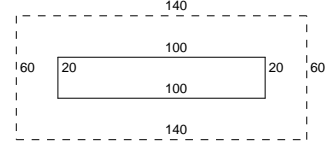
$d = 33 \text{ cm}$ $A_c = 3.432 \text{ m}^2$
 $E_x = 100.0 \text{ cm}$ $E_y = 100.0 \text{ cm}$
 $I_x = 4.182597 \text{ m}^4$ $I_y = 3.839454 \text{ m}^4$
 $U_p = 1040.00 \text{ cm}$
 $M_x = 34.45 \text{ (tm)}$ $M_y = 37.46 \text{ (tm)}$
 $X_t = 130 \text{ cm}$ $y = 1.0$ $Y_t = 130 \text{ cm}$ $y = 1.0$
 $V_d = 67.58 \text{ (t)}$ $V_{dq} = 16.91 \text{ (t)}$
 $V_{xd} = y \cdot V_d + (M_x \cdot X_t / I_x) \cdot U_p \cdot d - V_{dq}$

$V_{xd} = 87.41 \text{ (t)} < V_p = 355.93 \text{ (t)}$ ZİM. YETERLİ.
 $V_{yd} = 91.46 \text{ (t)} < V_p = 355.93 \text{ (t)}$ ZİM. YETERLİ.



S109 KOLONU RADYE ZİMBALAMA SONUCLARI

d= 33 cm Ac =1.320m²
 Ex = 0.00 cm Ey = 0.00 cm
 Ix = 0.329103 m⁴ Iy = 0.161211 m⁴
 Up = 400.00 cm
 Mx = 0.91 (tm) My = 0.69 (tm)
 Xt= 70 cm y=1.0 Yt= 30 cm y=0.999
 Vd = 55.74 (t) Vdq= 2.85 (t)
 Vxd = y . Vd + (Mx . Xt / Ix) . Up . d - Vdq

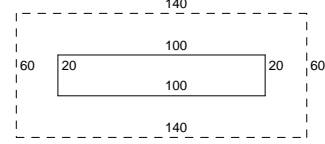


Vxd= 55.44 (t) < Vp= 136.90 (t) ZİM. YETERLİ.

Vyd= 54.54 (t) < Vp= 136.90 (t) ZİM. YETERLİ.

S110 KOLONU RADYE ZİMBALAMA SONUCLARI

d= 33 cm Ac =1.320m²
 Ex = 0.00 cm Ey = 0.00 cm
 Ix = 0.329103 m⁴ Iy = 0.161211 m⁴
 Up = 400.00 cm
 Mx = 0.15 (tm) My = 0.03 (tm)
 Xt= 70 cm y=1.0 Yt= 30 cm y=1.0
 Vd = 24.38 (t) Vdq= 3.26 (t)
 Vxd = y . Vd + (Mx . Xt / Ix) . Up . d - Vdq

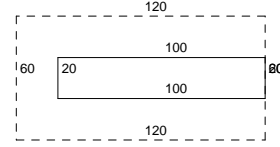


Vxd= 21.52 (t) < Vp= 136.90 (t) ZİM. YETERLİ.

Vyd= 21.18 (t) < Vp= 136.90 (t) ZİM. YETERLİ.

S104 KOLONU RADYE ZİMBALAMA SONUCLARI

d= 33 cm Ac =0.990m²
 Ex =-22.0 cm Ey = 0.00 cm
 Ix = 0.126786 m⁴ Iy = 0.152215 m⁴
 Up = 300.00 cm
 Mx = 0.16 (tm) My = 0.01 (tm)
 Xt= 48 cm y=0.995 Yt= 30 cm y=1.0
 Vd = 17.42 (t) Vdq= 2.38 (t)
 Vxd = y . Vd + (Mx . Xt / Ix) . Up . d - Vdq

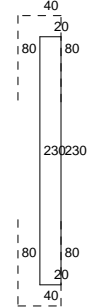


Vxd= 15.54 (t) < Vp= 102.67 (t) ZİM. YETERLİ.

Vyd= 15.03 (t) < Vp= 102.67 (t) ZİM. YETERLİ.

S107 KOLONU RADYE ZİMBALAMA SONUCLARI

d= 33 cm Ac =0.792m²
 Ex =-23.3 cm Ey = 0.00 cm
 Ix = 0.043852 m⁴ Iy = 0.969209 m⁴
 Up = 240.00 cm
 Mx = 0.06 (tm) My = 0.00 (tm)
 Xt= 6.66 cm y=1.0 Yt= 135 cm y=1.0
 Vd = 34.72 (t) Vdq= 4.42 (t)
 Vxd = y . Vd + (Mx . Xt / Ix) . Up . d - Vdq

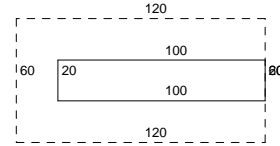


Vxd= 30.36 (t) < Vp= 82.14 (t) ZİM. YETERLİ.

Vyd= 30.30 (t) < Vp= 82.14 (t) ZİM. YETERLİ.

S111 KOLONU RADYE ZİMBALAMA SONUCLARI

d= 33 cm Ac =0.990m²
 Ex =-22.0 cm Ey = 0.00 cm
 Ix = 0.126786 m⁴ Iy = 0.152215 m⁴
 Up = 300.00 cm
 Mx = 0.16 (tm) My = 0.01 (tm)
 Xt= 48 cm y=0.995 Yt= 30 cm y=1.0
 Vd = 17.41 (t) Vdq= 2.54 (t)
 Vxd = y . Vd + (Mx . Xt / Ix) . Up . d - Vdq



Vxd= 15.38 (t) < Vp= 102.67 (t) ZİM. YETERLİ.

Vyd= 14.87 (t) < Vp= 102.67 (t) ZİM. YETERLİ.