

T.C.
İSTANBUL VALİLİĞİ
İSTANBUL PROJE KOORDİNASYON BİRİMİ
(İPKB)

Proje Müşaviri

OPTIMAL PROJE YÖNETİMİ



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İşin Adı

İSTANBUL ÜNİVERSİTESİ CERRAHPAŞA AVCILAR YERLEŞKESİ
YURT BİNALARI

	Adı Soyadı	Meslek	Oda Sicil No	İmza
Yapan	AHMET HABERDAR	İnşaat Mühendisi	79793	
Çizen	VILDAN BAKKAL	Teknik Ressam	---	
Kontrol Eden	ÖZGÜR ŞENTÜRK	İnşaat Mühendisi	71647	
Proje Müdürü	ALİ FUAT EYÜBOĞLU	İnşaat Mühendisi	78486	

Proje Adı	İSTANBUL ÜNİVERSİTESİ CERRAHPAŞA AVCILAR YERLEŞKESİ YURT BİNALARI	PARSEL	-
Aşama	YANGIN SU DEPOSU STATİK UYGULAMA PROJESİ		
Çizim no.			
Ölçek	1/50 - 1/25	Teslim Tarihi	09/2025

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DÖŞEME YÜK ANALİZİ

MARLEY KAPLAMA				
Kaplama (MARLEY)	0.050 t/m ³ ×	0.003 m	:	0.000
Kaplama harcı	2.200 t/m ³ ×	0.020 m	:	0.044
Tesviye betonu	2.000 t/m ³ ×	0.030 m	:	0.060
Sıva	2.200 t/m ³ ×	0.020 m	:	0.044
TOPLAM.....				0.148

FAYANS KAPLAMA				
Kaplama (FAYANS)	2.200 t/m ³ ×	0.010 m	:	0.022
Kaplama harcı	2.200 t/m ³ ×	0.020 m	:	0.044
Tesviye betonu	2.000 t/m ³ ×	0.030 m	:	0.060
Sıva	2.200 t/m ³ ×	0.020 m	:	0.044
TOPLAM.....				0.170

KARO KAPLAMA				
Kaplama (KARO MOZAİK)	2.200 t/m ³ ×	0.020 m	:	0.044
Kaplama harcı	2.200 t/m ³ ×	0.020 m	:	0.044
Tesviye betonu	2.000 t/m ³ ×	0.040 m	:	0.080
Sıva	2.200 t/m ³ ×	0.020 m	:	0.044
TOPLAM.....				0.212

DUSUK DOSEME				
Kaplama (FAYANS)	2.200 t/m ³ ×	0.010 m	:	0.022
Kaplama harcı	2.200 t/m ³ ×	0.030 m	:	0.066
Tesviye betonu	2.000 t/m ³ ×	0.050 m	:	0.100
Sıva	2.200 t/m ³ ×	0.020 m	:	0.044
Dolgu	1.500 t/m ³ ×	0.200 m	:	0.300
TOPLAM.....				0.532

CATI DOSEMESI				
Kaplama (IZOLASYON)	0.100 t/m ³ ×	0.050 m	:	0.005
Tesviye betonu	2.000 t/m ³ ×	0.050 m	:	0.100
Sıva	2.200 t/m ³ ×	0.020 m	:	0.044
TOPLAM.....				0.149

MERDIVEN				
Kaplama (MERMER)	2.200 t/m ³ ×	0.020 m	:	0.044
Kaplama harcı	2.200 t/m ³ ×	0.020 m	:	0.044
Sıva	2.200 t/m ³ ×	0.020 m	:	0.044
Dolgu	2.200 t/m ³ ×	0.100 m	:	0.220
TOPLAM.....				0.352

SAHANLIK				
Kaplama (MERMER)	2.200 t/m ³ ×	0.020 m	:	0.044
Kaplama harcı	2.200 t/m ³ ×	0.020 m	:	0.044
Tesviye betonu	2.000 t/m ³ ×	0.030 m	:	0.060
Sıva	2.200 t/m ³ ×	0.020 m	:	0.044
TOPLAM.....				0.192

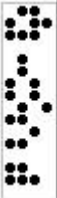
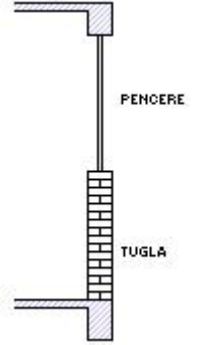
(Döşeme zatipleri, döşeme yük hesabında ilave edilecek)



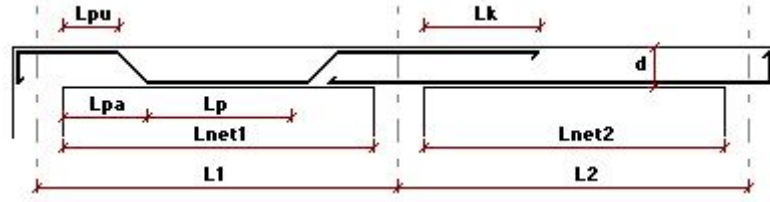
KIRIŞ YÜK ANALİZİ

19cm Tugla Duvar yükü (19 cm)	0.320 t/m ² × 2.500 m:	0.800
13cm Tugla Duvar yükü (13 cm)	0.250 t/m ² × 2.500 m:	0.625
9cm Tugla Duvar yükü (9 cm)	0.200 t/m ² × 2.500 m:	0.500
19cm Tug. pen Duvar yükü (19 cm)	0.320 t/m ² × 1.000 m:	0.320
Pencere	0.050 t/m ² × 1.500 m:	0.075
TOPLAM.....		0.395
13cm Tug. pen Duvar yükü (13 cm)	0.250 t/m ² × 1.000 m:	0.250
Pencere	0.050 t/m ² × 1.500 m:	0.075
TOPLAM.....		0.325
9cm Tug. pen. Duvar yükü (9 cm)	0.200 t/m ² × 1.000 m:	0.200
Pencere	0.050 t/m ² × 1.500 m:	0.075
TOPLAM.....		0.275
Cam Bolme Duvar yükü (2 cm)	0.050 t/m ² × 2.700 m:	0.135
25cm Tugla Duvar yükü (25 cm)	0.380 t/m ² × 2.500 m:	0.950
20cm GazBeton Duvar yükü (20 cm)	0.190 t/m ² × 2.500 m:	0.475
15cm GazBeton Duvar yükü (15 cm)	0.160 t/m ² × 2.500 m:	0.400
10cm GazBeton Duvar yükü (10 cm)	0.130 t/m ² × 2.500 m:	0.325
20cm GazB.pen. Duvar yükü (20 cm)	0.190 t/m ² × 1.000 m:	0.190
Pencere	0.050 t/m ² × 1.500 m:	0.075
TOPLAM.....		0.265
15cm GazB.pen. Duvar yükü (15 cm)	0.160 t/m ² × 1.000 m:	0.160
Pencere	0.050 t/m ² × 1.500 m:	0.075
TOPLAM.....		0.235
10cm GazB.pen. Duvar yükü (10 cm)	0.130 t/m ² × 1.000 m:	0.130
Pencere	0.050 t/m ² × 1.500 m:	0.075
TOPLAM.....		0.205
Panel duvar Duvar yükü (5 cm)	0.050 t/m ² × 2.700 m:	0.135
25cm GazBeton Duvar yükü (25 cm)	0.216 t/m ² × 2.500 m:	0.540
10cm FabrikPan. Duvar yükü (10 cm)	0.130 t/m ² × 2.500 m:	0.325
40cm Tas duvar Duvar yükü (40 cm)	1.098 t/m ² × 1.000 m:	1.098

(Kiriş zati, Kiriş yük hesabında ilave edilecek)



GENEL BETONARME CIZIM OPSİYONLARI

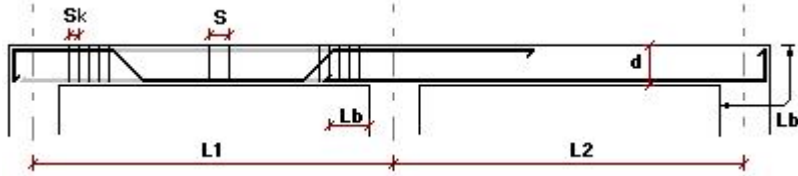


Maximum demir boyu.....cm.= 1200
 Minimum demir bindirme boyu oranı.....= $\emptyset \times 50$
 min. Lp.....= $L_{net1} / 2$
 Lpa.....= $L_{net1} / 5$
 min. Lpu.....cm.= 30
 min. Lpu= $d / 2$
 min. Lk= $L_{net2} / 4$
 Pilye kayma donatısı katılım oranı.....= 0
 Genel kanca boyu= $\emptyset \times 10$
 Kiriş donatısının, kolon içindeki aderans boyu.....= $\emptyset \times 50$
 Kirişlerde sık etriye opsiyonu.....= zorunlu
 Kirişlerde Pilye opsiyonu.....= pilyesiz
 Minimum pilye açıklık oranı.....= $L_{net} / 2$
 Tek donatılarda, pilye ve düz donatı tercihi.....= düz
 Kirişlerde minimum iki demir aralığı.....cm.= 2.5

DOSEME BETONARME OPSİYONLARI

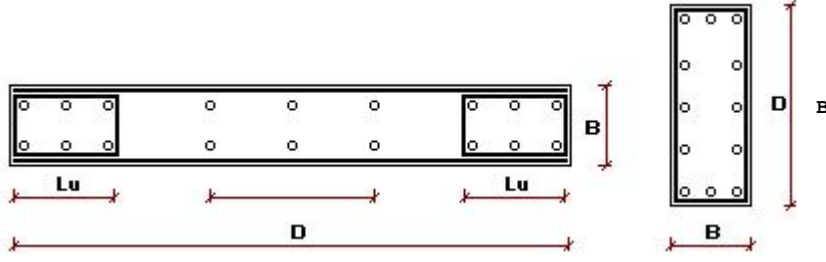
Plaklarda paspayı.....cm.= 3
 Maksimum demir aralığı.....cm.= 20, $d \times 1,5$
 İki yonlu plak-minimum çekme bölgesi pürsantajı = 0.002
 Tek yonlu plak-minimum çekme bölgesi pürsantajı = 0.003
 Nervur Max. Etriye aralığı.....cm.= 20, $d/2$
 Lk : üst donatı uzatma boyu.....cm.= $50\emptyset, L_n/4$

KIRIS BETONARME OPSİYONLARI



Etriye paspayı / Boyuna donatı paspayıcm.= 3,5 / 5
 Maksimum sehım sınırı (bölme duvarsız)= $L / 360$
 Maksimum sehım sınırı (bölme duvarlı)= $L / 240$
 Min. çekme bölgesi TS500-2000 'e göre= 0.003
 As min= $0.8 \times f_{ctd} / f_{yd}$ alınacaktır.
 Minimum düz ve pilye donatı çapı $\emptyset$. = 12
 Minimum montaj donatı çapı $\emptyset$. = 12
 Minimum gövde donatı çapı $\emptyset$. = 12
 Minimum etriye donatı çapı $\emptyset$. = 8
 Pilye açısı..... $^\circ$. = 45
 Minimum gövde demirsiz kiriş yüksekliği.....cm.= 59
 Minimum düz ve montaj demir aralığıcm.= 20
 Kayma donatısı beton katılım oranı.....= .8
 Süreklilik için max. kolon genişliği.....cm.= 200
 Minimum montaj donatı oranı(% maxAs). = .25
 Maksimum etriye aralığı..S.....cm.= 20
 Minimum etriye aralığı..S.....cm.= 10
 Maksimum etriye aralığı. Sk.(1).....cm.= 15
 Maksimum etriye aralığı. Sk.(2).....= $d/4$
 Maksimum etriye aralığı. Sk.(3).....= $\emptyset \times 8$
 Maksimum tek etriye genişliğicm.= 40
 min.(alt As/üst As)= .5
 min.üst As== $0,8 \times f_{ctd} / f_{yd}$
 min Lb =.....= $\emptyset \times 50$
 Alt ilaveye, düz donatıları L/4 uzatarak katılımı.....= Hayır
 Üst ilaveye, montaj donatı. L/4 uzatarak katılımı.....= Hayır

KOLON-PERDE BETONARME OPSİYONLARI



KOLON ve PERDELERİN betonarme opsiyonları :

Etriye paspayı / Boyuna donatı paspayıcm.= 3,5 / 5

Min.kolon çekme bölgesi.....= .002

Min.kolon toplam kesit= .01

Kolon eksenel yük eksantirisite etkisinin alınması..= evet

Minimum etriye aralığı.....cm.= 10

Maximum etriye aralığı.(1).....cm.= 20

Maximum etriye aralığı (2).....min.= $\emptyset \times 12$

Minimum çiroz aralığı.....min.= $\emptyset \times 25$

Minimum donatı çapı= 14

Minimum etriye çapı= 8

Perde/Kolon oranı (D/B).....= 6

Perde uzun etriyelerinde gönye.....= Gönyeli

Nervürlü etriye kanca açısı..... (90°,135°)= 135

min.Hcr yüksekliği< D x 2

max.Hcr yüksekliği>= D x 1

max.Hcr yüksekliği>= Hw/6

Min.başlık bölgesi.(Hcr).....= .002

Min.başlık bölgesi.....= .001

Min.gövde bölgesi.....= .0025

Min.başlık bölgesi.....Lu= 20 cm

Min.başlık bölgesi.(Hcr).....Lu=B x 2

Min.başlık bölgesi.(Hcr).....Lu=D x .2

Min.başlık bölgesi.....Lu=B x 1

Min.başlık bölgesi.....Lu=D x .1

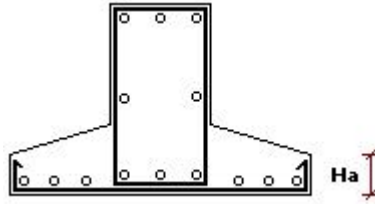
Başlık bölgesi min. donatı çapı $\emptyset$..= 14

Gövde bölgesi min. donatı çapı $\emptyset$..= 12

Perdelerde tasarım eğilme momenti.....= Evet

Kolonlarda minimum iki demir aralığı.....cm.= 4.0

TEMEL BETONARME OPSİYONLARI



Etriye paspayı / Boyuna donatı paspayıcm.= 5,5 / 7

Min. çekme bölgesi TS500-2000 (As min=0,8.fctd/fyd).= 0.003

Min. toplam kesit= .005

Minimum basınç bölgesi donatı oranı= .333

Pilye açısı.....= 60

Minimum etriye aralığı.....cm.= 10

Maximum etriye aralığı.....cm.= 20

Maximum etriye genişliği.....cm.= 60

Minimum düz ve montaj demir aralığıcm.= 20

Temelde, Kolon donatı filiz boyu.....cm.= 50

Müt. temel min. etriye çapı..... $\emptyset$..= 8

Müt. temel min. düz ve pilye çapı..... $\emptyset$..= 12

Müt. temel min. montaj çapı..... $\emptyset$..= 12

Müt. temel min. gövde çapı..... $\emptyset$..= 12

Temel min. ampatman çapı..... $\emptyset$..= 12

Ampatman kenar yüksekliği.(Ha).....cm.= 20

STA4-CAD PROGRAMI

ÇOK KATLI BETONARME YAPILARIN STATİK ve BETONARME ANALİZ PROGRAMI Ver.14.1 Rev.(5.6.2025)

PROJE İSMİ.....: CERRAHPAŞA YURT SU DEPOSU
 KAT ADEDİ.....: 1
 Bir kattaki KOLON SAYISI.....: 11
 X yönü aks sayısı.....: 9
 Y yönü aks sayısı.....: 5
 DEPREM YER HAREKETİ DÜZEYİ.....: DD2 50 yılda aşılma olasılığı %10
 ZEMİN SINIFI.....: ZD
 BİNA KOORDİNATI..... (ENLEM/BOYLAM) : 40.98416° / 28.72894°
 YEREL SPECTRAL İVME KATSAYISI..... S_s/S₁ : 1.250 / 0.338
 YAPI DAVRANIŞ KATSAYISI..... R : 8.00
 SİSTEM DAYANIM FAZLALIĞI KATSAYISI..... D ...: 3
 SPEKTRUM KAREKTERİSTİK PERYODU..... (T_a/T_b) : 0.107 / 0.533
 HAREKETLİ YÜK KATSAYISI.....(n)...: 0.8
 SIFIR RÖLATİF HAREKET YÜKSEKLİĞİ..... (m)...: 4.50
 HAREKETLİ YÜK AZALTMA KATSAYISI.....(C_z)...: 0.0
 ZEMİN TAŞIMA GÜCÜ TASARIM GERİLMESİ. (t/m²)...: 38.0
 ZEMİN YATAK KATSAYISI..... (t/m³)...: 2000.0
 BETON YOĞUNLUĞU.....(t/m³)...: 2.5
 GENLEŞME ISI FARKI.....(°C)...: 0.0
 STATİK ANALİZ YÖNTEMİ: FEA3D LINEER ANALİZ / Birim Mesh Genisliği 1m
 DEPREM STANDARDI: TBDY2018 CODE
 BETONARME HESAP YÖNTEMİ: TAŞIMA GÜCÜ YÖNTEMİ TS500-2000
 BETONARME KESİT DONATI HESAP YÖNTEMİ: BRÜT KESİTE GÖRE
 DEPREM HESABI YÖNTEMİ: MOD SÜPERPOZİSYONU İLE MODAL ANALİZ
 TEMEL ANALİZ OPSİYONU.....: TEMELLER DİKKATE ALINMADAN, YAPI ANALİZİ
 Zemin gerilmesi hareketli yük azaltma değeri..: 1.00
 Kolonun oturduğu kiriş tesir çarpanı.....: Düşey deprem analizi yapılmıştır.
 Kiriş & Kolon rijitlik bölgesi opsiyonu.....: Yarı Sonsuz Rijit davranış
 Kiriş uçlarında elastik ankastrelik opsiyonu : Elastik ankastre

STA4CAD CERTIFICATE

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ÇATLAMIS KESİT ETKİN KESİT RİJİTLİĞİ BİLGİLERİ

Elemanlar	Eğilme	Eksenel	Lokal X kesme	Lokal Y kesme
Perde	0.25	0.50	0.50	1.00
Bodrum perdesi	0.50	0.80	0.50	1.00
Döşeme	0.25	0.25	0.25	1.00
Çerçeve kirişi	0.35	1.00	1.00	1.00
Çerçeve kolonu	0.70	1.00	1.00	1.00
Bağ kirişi	0.15	1.00	1.00	1.00
Perde çubuk	0.50	1.00	0.50	0.50

BETON ve ÇELİK MALZEME BİLGİLERİ

(kg/cm²)

Yapı Elemanı	Malzeme	Elastisite Modülü E G		Beton dayanım gerilmesi	Çelik akma (Genel)	gerilmesi (Etriye)	Birim Ağırlık t/m³	
Plak/Nervür	E1	C35	332000	132800	350	4200	4200	2.50
HNP		C35	332000	132800	350	4200	4200	2.50
Temel	E1	C35	332000	132800	350	4200	4200	2.50
Kiriş\Kolon	E1	C35	332000	132800	350	4200	4200	2.50

HNP : Hazır Nervürlü Plak

TAŞIMA GÜCÜ MALZEME KATSAYILARI	BETON 1.50	ÇELİK 1.15
TAŞIMA GÜCÜ YÜK KATSAYILARI	SABİT YÜK 1.40	HAREKETLİ YÜK 1.60

BETONARME HESAP YÜK KOMBİNASYONU

Ölü yük Cg	Hareketli yük Cq	Zemin Cs	Deprem ± Ce	Rüzgar ± Cw	Isı Ct
1.40	1.60	0.00	0.00	0.00	0.00
1.40	1.60	1.60	0.00	0.00	0.00
1.00	1.20	0.00	0.00	0.00	1.20
1.00	1.00	0.00	1.00	0.00	0.00
1.00	1.00	1.00	1.00	0.00	0.00
0.90	0.00	0.00	1.00	0.00	0.00
1.00	1.30	0.00	0.00	1.30	0.00
1.00	1.30	1.00	0.00	1.30	0.00
0.90	0.00	0.00	0.00	1.30	0.00
0.90	0.00	0.90	0.00	1.30	0.00

TBDY2018 Düşey Deprem Kombinasyonu : G + Q + 0.2 S + Edh + 0.3 Edz, 0.9 G + H + Edh - 0.3 Edz
CODE:TS500T.COD

ZEMİN GERİLMESİ YÜK KOMBİNASYONU $q_0 < q_t$

ZEMİN GERİLMESİ OPSİYONU:ZEMİN TAŞIMA GÜCÜ TASARIM GERİLMESİ

Ölü yük Cg	Hareketli yük Cq	Zemin Cs	Deprem ± Ce	Rüzgar ± Cw	Isı Ct
1.40	1.60	0.00	0.00	0.00	0.00
1.40	1.60	1.60	0.00	0.00	0.00
1.00	1.20	0.00	0.00	0.00	1.20
1.00	1.00	0.00	1.00	0.00	0.00
1.00	1.00	1.00	1.00	0.00	0.00
0.90	0.00	0.00	1.00	0.00	0.00
1.00	1.30	0.00	0.00	1.30	0.00
1.00	1.30	1.00	0.00	1.30	0.00
0.90	0.00	0.00	0.00	1.30	0.00
0.90	0.00	0.90	0.00	1.30	0.00

RÜZGAR YÜKÜ VE KATSAYILARI

RÜZGAR YÜKÜ BASINÇ KATSAYISI : 0.8

RÜZGAR YÜKÜ EMME KATSAYISI : 0.4

Yükseklik bölgesi	H	Qw
1. bölge	8.00	0.05
2. bölge	20.00	0.08
3. bölge	100.00	0.11

YAPI AKS BİLGİLERİ

X yönü aks bilgileri

no	isim	Ax	Bx
1	1	0.00	-5.50
2		0.00	-13.90
3		0.00	-14.60
4		0.00	-5.00
5		0.00	-14.00
6		0.00	-8.80
7	3	0.00	-11.35
8	2	0.00	-16.50
9	4	0.00	-7.30

Y yönü aks bilgileri

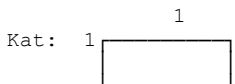
no	isim	Ay	By
1	C	0.00	7.60
2		0.00	15.70
3		0.00	9.40
4		0.00	7.10
5		0.00	15.70

1. KAT KOLONLARI AKS BİLGİLERİ

Kolon no	X aksı	Y aksı	dx	dy	alt yük.
101	2X	1Y	-0.1	-0.1	0.00
103	6X	1Y	0.1	-0.1	0.00
105	1X	1Y	0.1	-0.1	0.00
107	1X	3Y	0.1	-0.1	0.00
109	7X	2Y	0.0	0.1	0.00
111	1X	2Y	0.1	0.1	0.00

Kolon no	X aksı	Y aksı	dx	dy	alt yük.
102	7X	1Y	0.0	-0.1	0.00
104	9X	1Y	-30.0	-0.1	0.00
106	6X	3Y	0.1	-0.1	0.00
108	2X	2Y	-0.1	0.1	0.00
110	6X	2Y	0.1	0.1	0.00

KAT DİYAFRAMLARI



DEPREM RAPORU

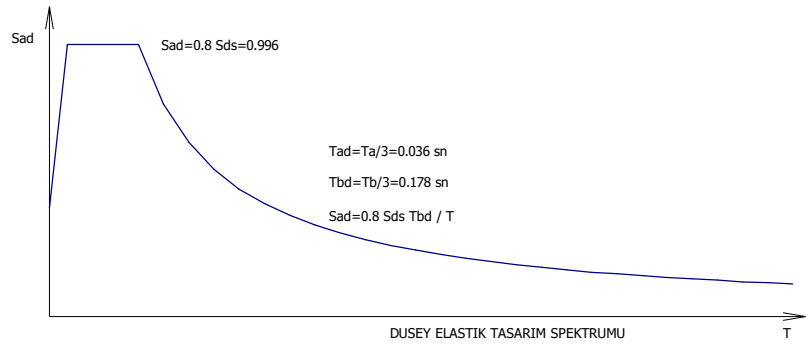
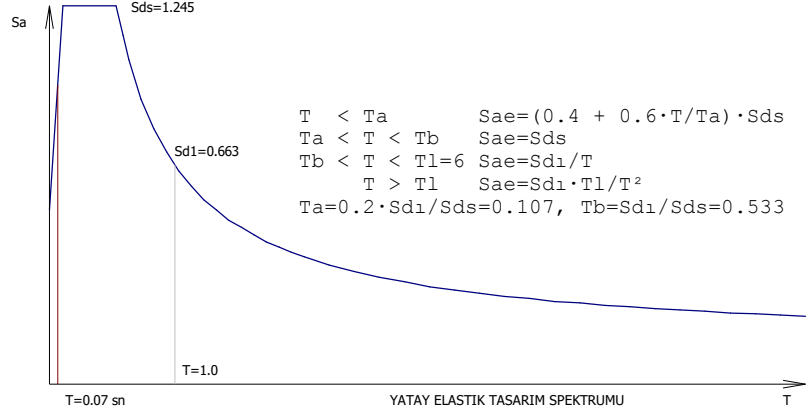
DEPREM STANDARDI : TBDY2018 CODE
 DEPREM ANALİZİ : MOD SÜPERPOZİSYONU İLE MODAL ANALİZ
 DEPREM YER HAREKETİ DÜZEYİ : DD2 50 yılda aşılma olasılığı %10
 ZEMİN SINIFI : ZD
 BİNA KOORDİNATI (ENLEM/BOYLAM) : 40.98416° / 28.72894°
 YEREL SPECTRAL İVME KATSAYISI S_s/S_1 : 1.250 / 0.338
 TASARIM SPECTRAL İVME KATSAYISI S_{ds}/S_{d1} : 1.245 / 0.663 DD2, 0.661 / 0.285 DD3
 YAPI DAVRANIŞ KATSAYISI R : 8.00 TÜMÜ YS. ÇERÇEVELİ YAPILAR - A11
 SİSTEM DAYANIM FAZLALIĞI KATSAYISI D : 3
 DEPREM TASARIM SINIFI DTS : 1a
 BİNA YÜKSEKLİK SINIFI BYS : 8 $H_n=0.1m$
 BİNA KULLANIM SINIFI BKS : 1 $I = 1.5$
 Modal Analiz min. deprem yükü oranı β : 0.9
 Deprem yükü eksantirisitesi : 0.050
 Deprem modal analiz CQC sönüm oranı : %5
 PERFORMANS HEDEFLERİ :
 DD2 } Normal Performans Hedefi : KH (Kontrollü Hasar)
 Değerlendirme/Tasarım : DGT (Dayanıma Göre Tasarım)

DİYAFRAM SAYISI : 1
 Diyafram tanımı : KAT(diyafram no)

DİNAMİK ANALİZ BİLGİLERİ

TASARIM SPECTURUM BİLGİSİ (TBDY 2018 SPEKTRUM)

T (s)	Sa
0.00	0.498
0.11	1.245
0.53	1.245
0.58	1.138
0.63	1.048
0.73	0.905
0.83	0.796
0.93	0.711
1.03	0.642
1.13	0.585
1.23	0.538
1.33	0.498
1.43	0.463
1.53	0.433
1.63	0.406
1.73	0.383
1.83	0.362
1.93	0.343
2.03	0.326
2.23	0.297
2.43	0.273
2.63	0.252
2.83	0.234
3.03	0.219
3.23	0.205
3.43	0.193
3.63	0.183
3.83	0.173
4.03	0.164
4.23	0.157
4.43	0.150
4.63	0.143
4.83	0.137
5.03	0.132
5.23	0.127
5.43	0.122
5.63	0.118
5.83	0.114
6.03	0.110

Düsey deprem etkisi hesabında tüm taşıyıcı sistemler için $R/I = 1$ ve $D = 1$ alınacaktır.

$$R_a(T)_x = 3.285 \quad R_a(T)_y = 3.196 \quad T < T_b \Rightarrow R_a(T) = D + (R / I - D) * T / T_b$$

MODAL ANALİZ - YAPI PERİYOD ve VEKTORLERİ

Fea Mod sayısı=3 Fea nokta sayısı=828

Mod	1.mod	2.mod	3.mod
ω	96.58	140.12	262.45
T	0.0651	0.0448	0.0239
Mxr%	95.884	0.065	1.250
Myr%	0.022	93.589	2.943

 $\Sigma = 97.20$
 $\Sigma = 96.55$

$M_r = \sum (m_i \cdot \Phi_{xir}^2 + m_i \cdot \Phi_{yir}^2 + m_{\theta i} \cdot \Phi_{\theta ir}^2)$
 $M_{xr} = \sum [(\sum m \cdot \Phi)^2 / M_r] = 97.20 > 95.00$ Dinamik kütle oranı yeterli.
 $M_{yr} = \sum [(\sum m \cdot \Phi)^2 / M_r] = 96.55 > 95.00$ Dinamik kütle oranı yeterli.

EŞDEĞER DEPREM HESABI 1. DOĞAL TİTREŞİM PERİYODUNUN KONTROLÜ

$H_n = 0.1m$ $C_{tx} = 0.1$ $C_{ty} = 0.1$

$T_{lx} = C_{tx} \cdot H_n^{3/4} = 0.018 \text{ s.}, T_x = 0.065 \text{ s.} > 1.4 \times 0.018 \text{ s.} \gg T_{x1} = 0.025 \text{ s.}$

$T_{ly} = C_{ty} \cdot H_n^{3/4} = 0.018 \text{ s.}, T_y = 0.045 \text{ s.} > 1.4 \times 0.018 \text{ s.} \gg T_{y1} = 0.025 \text{ s.}$

KAT KÜTLESİ ve RİJİTLİK MERKEZİ (t)

Kat (dyf)	H (m)	Wg	Wq	n	R Rx/Ry	D Dx/Dy	$\sum W_k$
1	4.60	267.74	32.40	0.80	3.11	1.5/1.8	293.662

$\sum W_t = 293.662$

EŞDEĞER DEPREM FORMÜLÜ $F_{di} = (V_t - F_t) \frac{W_i \cdot H_i}{\sum W_i \cdot H_i}$

DEPREM KUVVETİ (t)

Deprem tepe yükü $F_{tx} = 0.48$ $F_{ty} = 0.48$ (t)

X YÖNÜ				Y YÖNÜ				
Kat no	Modal Analiz	Eşdeğer dep.yön.	Deprem yükü	Kat tipi	Modal Analiz	Eşdeğer dep.yön.	Deprem yükü	Kat tipi
1	66.508	63.530	66.508	NORMAL	58.525	63.530	58.525	NORMAL
$\sum$	66.508	63.530	66.508	GENEL	58.525	63.530	58.525	GENEL

Fea3d analizde ek dışmerkezlilik etkisi; $\Delta m_i = m_i \cdot e^2$ kütle artımı ile düzenlenmiştir.

$V_{tx} = 63.53 > 0.04 \cdot I \cdot S_{ds} \cdot W = 21.94$ TBDY2018 4.7.1.1

$V_{ty} = 63.53 > 0.04 \cdot I \cdot S_{ds} \cdot W = 21.94$

X Deprem kontrol: $0.90 \times 63.530 = 57.177 < 66.508 \gg 66.508$

Y Deprem kontrol: $0.90 \times 63.530 = 57.177 < 58.525 \gg 58.525$

TBDY-2018 BODRURLU YAPI PERİYOD VE KÜTLE KATILIM KONTROLÜ

(Bodrum kütleleri hesaba katılmadan tüm yapının periyod ve kütle katılım kontrolü TBDY2018-3.3.1.1)

Mod	1.mod	2.mod	3.mod	4.mod	5.mod	6.mod
ω	96.59	140.07	160.37	229.50	283.17	417.07
T	0.0651	0.0449	0.0392	0.0274	0.0222	0.0151
Mxr%	95.892	0.064	0.088	1.116	0.371	0.002
Myr%	0.022	93.270	0.607	0.587	2.162	0.949

$T_x \text{ tum} = 0.065s < 1.1 \times T_x \text{ ust}(0.065s) = 0.072s \checkmark$

$T_y \text{ tum} = 0.045s < 1.1 \times T_y \text{ ust}(0.045s) = 0.049s \checkmark$

TBDY-2018 YAPI Ralt ve Dalt KATSAYILARININ BULUNMASI (TBDY 4.3.6.1)

Eşdeğer deprem:

$S_a(T_{x1}) = S_a(0.025) = 0.673, S_a(T_{y1}) = S_a(0.025) = 0.673$

$V_{tumX} = V_{ustX} + S_a(T_{x1}) \times W_b / 1.5 = 66.508 + \times 0.673 / 1.5 = 66.508$

$V_{tumY} = V_{ustY} + S_a(T_{y1}) \times W_b / 1.5 = 58.525 + \times 0.673 / 1.5 = 58.525$

X yönü $v_{ustx} = V_{ust} / V_{tum} = 63.530 / 63.530 = 1.000, Y \text{ yönü } v_{yust} = V_{ust} / V_{tum} = 63.530 / 63.530 = 1.000$

$v_{xalt} = (1 - v_{xust}) \times R_a / 1.5 = 0.000, v_{yalt} = (1 - v_{yust}) \times R_a / 1.5 = 0.000$

$v_x = v_{xust} + v_{xalt} = 1.000, v_y = v_{yust} + v_{yalt} = 1.000$

$D_{altX} = (0.6 \times v_{xust} \times D_{ust} + v_{xalt} \times 1.5) / v_x = 1.800$

$D_{altY} = (0.6 \times v_{yust} \times D_{ust} + v_{yalt} \times 1.5) / v_y = 1.800$

$R_{altX} = R_a / v_x = 8.000, R_{altY} = R_a / v_y = 8.000$

Modal analiz:

$v_{ustx} = 0, v_{usty} = 0$ alındı.

$D_{altX} = (0.6 \times v_{xust} \times D_{ust} + v_{xalt} \times 1.5) / v_x = 1.500$

$D_{altY} = (0.6 \times v_{yust} \times D_{ust} + v_{yalt} \times 1.5) / v_y = 1.500$

$R_{altX} = R_a / v_x = 1.500, R_{altY} = R_a / v_y = 1.500$

YAPI DEPREM YÜKLERİ (t)

Yapı periyodları $T_x = 0.065$ $T_y = 0.045$ $R = 8.0$

$T_x < T_b \gg R_{ax} = D + (R / I - D) T_x / T_b = 3.11$ $T_y < T_b \gg R_{ay} = D + (R / I - D) T_y / T_b = 3.11$

X yönü $W = 293.66$ $F_{deprem} = 63.53$ tepe yükü $F_d = 0.48$

Y yönü $W = 293.66$ $F_{deprem} = 63.53$ tepe yükü $F_d = 0.48$

Kat (Dyf)	F modal X	F eşdeğer X	F deprem X	F modal Y	F eşdeğer Y	F deprem Y
1(1)	66.51	63.53	66.51	58.52	63.53	58.52
$\sum$	66.51	63.53	66.51	58.52	63.53	58.52

X Deprem kontrol: $0.90 \times 63.530 = 57.177 < 66.508 \gg 66.508$

Y Deprem kontrol: $0.90 \times 63.530 = 57.177 < 58.525 \gg 58.525$

Rüzgar kuvvetleri (t)

Kat (dyf)	X-yönü F	X-yönü ey m	Y-yönü F	Y-yönü ex m
1	2.236	-9.700	2.318	11.650

Yapıda Deprem Perdesi bulunamadı.

Deprem perde taban devrilme oranı $M_{dev}/M_o = 0.00$

Bina Taşıyıcı Sistem seçimi : Süneklilik düzeyi Yüksek taşıyıcı sistem

$H_n = H - H_{bodrum} = 4.6 - 4.5 = 0.1m >> BYS=8$

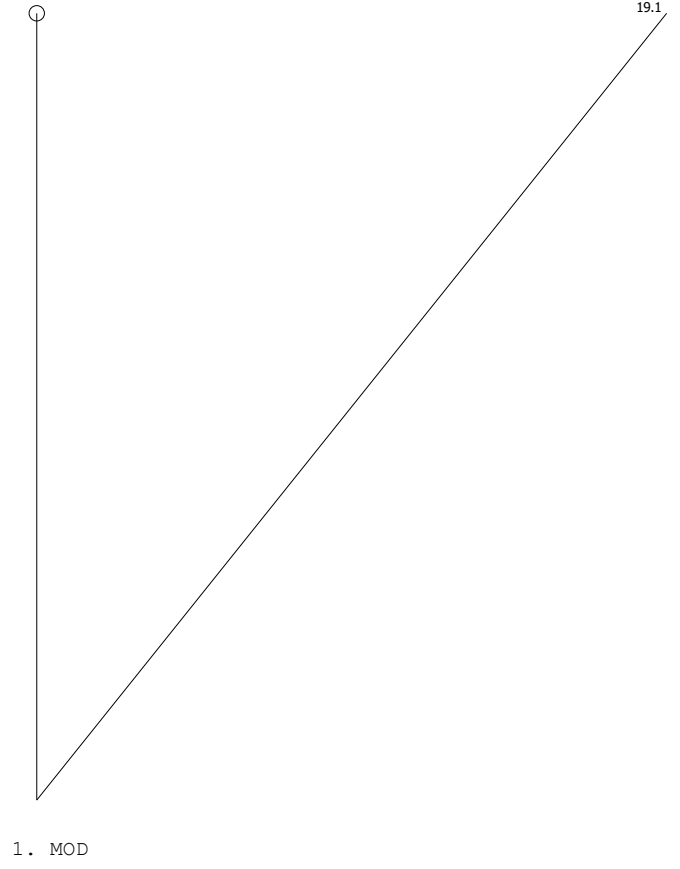
TBDY2018 4.3.4.3 koşulu sağlanmaktadır. $BYS=8 \geq 3$ ✓

Kenar aks perdesi bulunmamıştır.

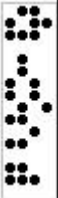
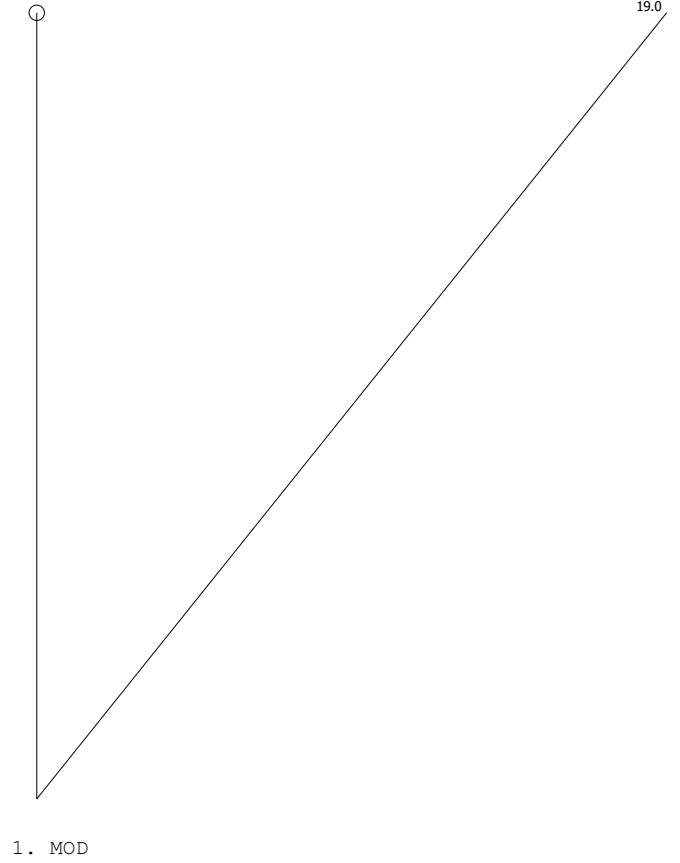


MODAL ANALİZ MOD GRAFİĞİ (1000 x Dep. vektörü)

X yönü



Y yönü



DEPREM YAPI DEVRİLME KONTROLU

Kat deprem momenti (tm)

Kat	H (m)	Fx	Fx . H	H (m)	Fy	Fy . H
1	4.60	66.51	305.94	4.60	58.52	269.21
		66.51	305.94		58.52	269.21

Kat düşey yük momenti (tm)

X=-13.9m

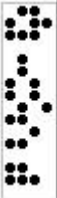
Y=15.7m

moment noktası

Kat	Wg+0.8.Wq	Xg-X	(Xg-X) . (Wg+0.8.Wq)	Yg-Y	(Yg-Y) . (Wg+0.8.Wq)
1	293.66 85.05	4.165 4.200	1223.10 357.21	4.015 4.050	1179.03 344.45
			1580.31		1523.49

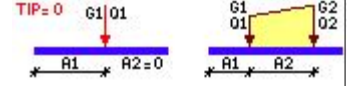
X yönü devrilme kontrolu=1580.305/305.939=5.165 > 1.5 ✓

Y yönü devrilme kontrolu=1523.486/269.214=5.659 > 1.5 ✓



KİRİŞ DÜŞEY YÜK BİLGİLERİ

Kiriş no	A1 m	A2 m	G1 t/m	G2 t/m	Q1 t/m	Q2 t/m	Yük elemanı no
K101	0.15	0.60	0.28	1.39	0.08	0.37	D103
K101	0.75	0.75	1.39	0.00	0.37	0.00	D103
K101	0.15	1.50	0.28	3.05	0.08	0.82	D104
K101	0.00	1.50	3.05	0.28	0.82	0.07	D104
K102	0.15	7.50	2.22	2.22	0.60	0.60	D101
K102	0.15	7.50	2.22	2.22	0.60	0.60	D102
K103	0.15	0.60	0.28	1.39	0.07	0.37	D103
K103	0.75	0.35	1.39	1.39	0.37	0.37	D103
K103	1.10	0.55	1.39	0.00	0.37	0.00	D103
P106	0.50	0.60	0.28	1.39	0.08	0.37	D103
P106	1.10	0.60	1.39	0.28	0.37	0.08	D103
P110	0.50	1.50	0.28	3.05	0.08	0.82	D104
P110	2.00	1.50	3.05	0.28	0.82	0.07	D104
P111	0.50	6.10	2.22	2.22	0.60	0.60	D101
P112	0.50	5.00	2.22	2.22	0.60	0.60	D102
P112	0.50	0.85	1.48	3.05	0.40	0.82	D104
P112	1.35	2.65	3.05	3.05	0.82	0.82	D104
P112	4.00	1.50	3.05	0.28	0.82	0.07	D104
P113	0.15	1.50	2.22	2.22	0.60	0.60	D102
P113	0.15	0.60	0.28	1.39	0.07	0.37	D103
P113	0.75	0.35	1.39	1.39	0.37	0.37	D103
P113	1.10	0.55	1.39	0.37	0.37	0.10	D103
P114	0.50	0.85	1.48	3.05	0.40	0.82	D104
P114	1.35	2.65	3.05	3.05	0.82	0.82	D104
P114	4.00	0.80	3.05	1.57	0.82	0.42	D104

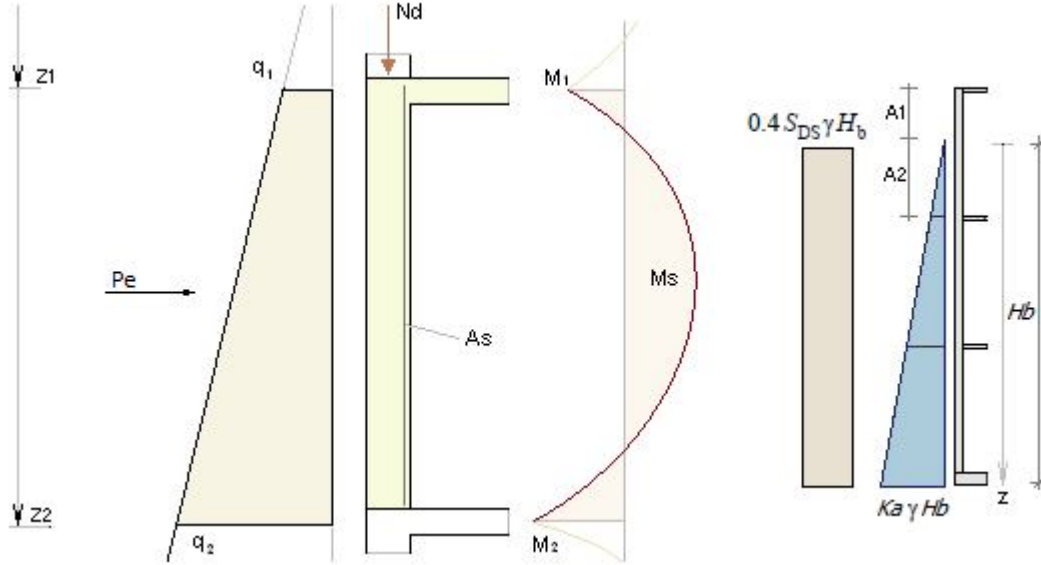


PANEL YATAY YÜK BİLGİLERİ

ZEMİN BİRİM HACİM AĞIRLIĞI=1.8 t/m³

ZEMİN İCSEL SURTUNME ACISI=30.0°

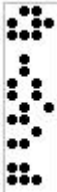
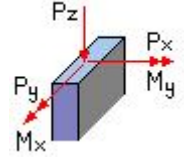
Kas=0.333 Qe = 0.4 × SDs × Y × Hb

Su deprem yuku : Qe=7/12 · (0.4 · SDs) · H², P(z)=7/8 · (0.4 · SDs) (z · H)^{1/2}

Panel no	A1 m	A2 m	Q1 t/m ²	Q2 t/m ²	Hb m	Qe t/m ²	Yük tipi
P104	0.00	4.60	3.150	3.150	4.60	4.123	Zemin yuku
P105	0.00	4.60	3.150	3.150	4.60	4.123	Zemin yuku
P106	0.00	4.60	3.150	3.150	4.60	4.123	Zemin yuku
P107	0.00	4.60	3.150	3.150	4.60	4.123	Zemin yuku
P111	0.00	4.60	3.150	3.150	4.60	4.123	Zemin yuku
P108	0.00	4.60	-3.150	-3.150	4.60	4.123	Zemin yuku
P109	0.00	4.60	-3.150	-3.150	4.60	4.123	Zemin yuku
P110	0.00	4.60	-3.150	-3.150	4.60	4.123	Zemin yuku
P114	0.00	4.60	-3.150	-3.150	4.60	4.123	Zemin yuku
P115	0.00	4.60	-3.150	-3.150	4.60	4.123	Zemin yuku
P112	1.20	3.40	3.000	3.000	4.60	4.123	Zemin yuku
P113	1.20	3.40	3.000	3.000	4.60	4.123	Zemin yuku

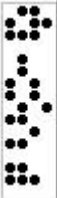
KOLON YÜK BİLGİLERİ

Kolon no	Kombinasyon	Px t	Py t	Pz t	Mx tm	My tm	Eleman no
S101	Olu yuk	0.00	0.00	1.88	0.28	0.14	D101
S101	Hareketli yuk	0.00	0.00	0.51	0.08	0.04	D101
S102	Olu yuk	0.00	0.00	0.33	0.00	0.02	D102
S102	Hareketli yuk	0.00	0.00	0.09	0.00	0.01	D102
S102	Olu yuk	0.00	0.00	0.33	0.00	0.02	D101
S102	Hareketli yuk	0.00	0.00	0.09	0.00	0.01	D101
S103	Olu yuk	0.00	0.00	0.02	-0.01	0.00	D103
S103	Olu yuk	0.00	0.00	0.02	-0.01	0.00	D103
S103	Olu yuk	0.00	0.00	0.33	-0.17	0.02	D102
S103	Hareketli yuk	0.00	0.00	0.09	-0.04	0.01	D102
S104	Olu yuk	0.00	0.00	0.02	0.00	0.00	D103
S104	Olu yuk	0.00	0.00	0.02	0.01	0.00	D103
S106	Olu yuk	0.00	0.00	0.02	0.00	0.01	D104
S106	Olu yuk	0.00	0.00	0.02	0.00	0.01	D103
S106	Olu yuk	0.00	0.00	0.04	-0.01	0.02	D103
S106	Hareketli yuk	0.00	0.00	0.01	0.00	0.01	D103
S106	Olu yuk	0.00	0.00	0.59	-0.09	0.06	D104
S106	Hareketli yuk	0.00	0.00	0.16	-0.02	0.02	D104
S106	Olu yuk	0.00	0.00	2.22	-0.33	0.33	D102
S106	Hareketli yuk	0.00	0.00	0.60	-0.09	0.09	D102
S107	Olu yuk	0.00	0.00	0.02	0.00	0.01	D104
S107	Olu yuk	0.00	0.00	0.59	-0.09	0.06	D104
S107	Hareketli yuk	0.00	0.00	0.16	-0.02	0.02	D104
S108	Olu yuk	0.00	0.00	1.88	0.28	0.43	D101
S108	Hareketli yuk	0.00	0.00	0.51	0.08	0.11	D101
S109	Olu yuk	0.00	0.00	0.33	0.00	0.07	D101
S109	Hareketli yuk	0.00	0.00	0.09	0.00	0.02	D101
S109	Olu yuk	0.00	0.00	0.33	0.00	0.07	D102
S109	Hareketli yuk	0.00	0.00	0.09	0.00	0.02	D102
S110	Olu yuk	0.00	0.00	0.02	-0.01	0.00	D104
S110	Olu yuk	0.00	0.00	0.02	-0.01	0.01	D104
S110	Olu yuk	0.00	0.00	0.33	-0.17	0.07	D102
S110	Hareketli yuk	0.00	0.00	0.09	-0.04	0.02	D102
S111	Olu yuk	0.00	0.00	0.02	0.00	-0.01	D104
S111	Olu yuk	0.00	0.00	0.67	-0.10	0.18	D104
S111	Hareketli yuk	0.00	0.00	0.18	-0.03	0.05	D104



DÖŞEME ŞERİT BİLGİLERİ

YÖN	DÖŞEME ŞERİTİ
X	-D101-D102-D104-
X	-D101-D102-D103-
Y	-D103-D104-



DÖŞEME BİLGİLERİ

Döşeme no	Sol Aks	Sag Aks	Üst Aks	Alt Aks	yön	d, dmin cm	bo cm	bt cm	g t/m ²	q t/m ²	gx t/m ²	gy t/m ²	qx t/m ²	qy t/m ²
D101	2X	7X	1Y	2Y	X-HURDI	20≥ 8			1.850	0.500	1.850	0.000	0.500	0.000
D102	7X	6X	1Y	2Y	X-HURDI	20≥ 8			1.850	0.500	1.850	0.000	0.500	0.000
D103	6X	9X	1Y	3Y	PLAK	20≥ 8			1.850	0.500	0.947	0.903	0.256	0.244
D104	6X	1X	3Y	2Y	PLAK	20≥ 10			1.850	0.500	1.720	0.130	0.465	0.035

Dmin: TS500 minimum yükseklik



DÖŞEME STATİK HESAP SONUÇLARI

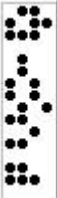
Zamana bağlı sehim : $\delta_t = \delta_i + \delta_{ig} \cdot \lambda$, $\lambda=2$ (5yıl üzeri)

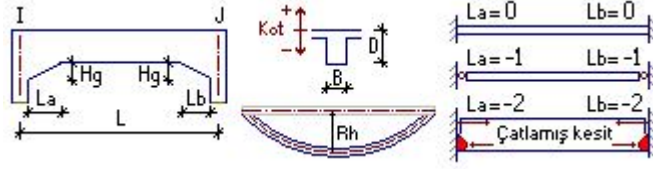
Döşeme no	yön	L m	sol gGg	mesnet qGq	(tm) gQg	açıklık	sağ gGg	mesnet qGq	(tm) gQg	sehim < fmax $\delta_t = \delta_i + \delta_{ig} \cdot \lambda$ mm	Wk mm
D101	X	2.55	3.43	2.65	3.43	1.93	0.91	0.76	0.91	0.54 < 6.67 ✓	0.26
E1	Y	8.10	1.07	0.82	1.07	0.95	-1.43	-1.10	-1.43	1.40	0.26
D102	X	2.55	-0.91	-0.76	-0.91	1.82	-3.90	-3.39	-3.52	0.54 < 6.67 ✓	0.26
E1	Y	8.10	0.32	0.23	0.32	0.91	-1.12	-0.85	-1.13	1.39	0.26
D103	X	1.50	1.01	0.79	1.00	0.56	0.00	0.00	0.00	0.04 < 5.14 ✓	0.26
E1	Y	1.80	0.25	0.18	0.26	0.37	-0.50	-0.47	-0.41	0.10	0.26
D104	X	3.30	3.90	3.39	3.52	1.84	-2.22	-2.26	-1.65	0.35 < 9.17 ✓	0.26
E1	Y	6.30	0.96	0.97	0.72	0.78	-1.31	-1.33	-0.97	0.91	0.26



DÖŞEME BETONARME HESAP SONUÇLARI

Döşeme no		Msol (tm)	As cm ²	Maç (tm)	As cm ²	Msağ (tm)	As cm ²	Donatı
D101	X	3.43	5.71	1.93	3.40	0.00	0.00	ø10/20 (düz)+ø10/20 (sol ila)+ø10/20 (Mon.)
d=20cm	Y	1.43	3.03	0.95	0.00	1.07	2.26	ø10/20 (düz)+ø10/20 (Mon.)
D102	X	0.00	0.00	1.82	3.40	3.90	6.51	ø10/20 (düz)+ø10/20 (Mon.)
d=20cm	Y	1.13	2.40	0.91	0.00	0.32	2.04	ø10/20 (düz)+ø10/20 (Mon.)
D103	X	1.01	2.14	0.56	3.40	0.00	0.00	ø10/20 (düz)+ø10/20 (Mon.)
d=20cm	Y	0.50	1.05	0.37	3.40	0.26	0.55	ø10/20 (düz)+ø10/20 (Mon.)
D104	X	3.90	6.51	1.84	3.40	2.26	4.82	ø10/20 (düz)+ø10/20 (sağ ila)+ø10/20 (Mon.)
d=20cm	Y	1.33	2.81	0.78	3.40	0.97	2.06	ø10/20 (düz)+ø10/20 (Mon.)





KİRİŞ VE PANEL BİLGİLERİ

Kiriş no	aks	sol aks	sağ aks	D cm	B cm	G (t/m)	I/J Nokta	L m	Rh m	Tabla b/d (cm)	sol Hg/Lg (cm)	sağ Hg/Lg (cm)	Mal zeme
K101	3Y	6X	9X	60	40	0.600	17-19	1.65	0.00	36/20	0/0	0/0	E1
K101	3Y	9X	1X	60	40	0.600	19-22	1.65	0.00	18/20	0/0	0/0	E1
K102	7X	1Y	2Y	60	60	0.900	4-6	7.80	0.00	90/20	0/0	0/0	E1
K103	9X	1Y	3Y	60	30	0.450	16-19	1.85	0.00	9/20	0/0	0/0	E1
P104	1Y	2X	7X	460	30	3.450	1-4	2.40	0.00	11/20	0/0	0/0	E1
P105	1Y	7X	6X	460	30	3.450	4-10	2.05	0.00	6/20	0/0	0/0	E1
P106	1Y	6X	9X	460	30	3.450	10-16	2.20	0.00	7/20	0/0	0/0	E1
P107	1Y	9X	1X	460	30	3.450	16-23	1.45	0.00	0/0	0/0	0/0	E1
P108	2Y	2X	7X	460	30	3.450	5-6	2.40	0.00	11/20	0/0	0/0	E1
P109	2Y	7X	6X	460	30	3.450	6-11	2.05	0.00	6/20	0/0	0/0	E1
P110	2Y	6X	1X	460	30	3.450	11-18	3.65	0.00	18/20	0/0	0/0	E1
P111	2X	1Y	2Y	460	30	3.450	1-5	7.10	0.00	37/20	0/0	0/0	E1
P112	6X	3Y	2Y	460	30	3.450	17-11	5.65	0.00	60/20	0/0	0/0	E1
P113	6X	1Y	3Y	460	30	3.450	10-17	2.15	0.00	18/20	0/0	0/0	E1
P114	1X	3Y	2Y	460	30	3.450	22-18	5.30	0.00	26/20	0/0	0/0	E1
P115	1X	1Y	3Y	460	30	3.450	23-22	1.80	0.00	0/0	0/0	0/0	E1

KİRİŞ STATİK HESAP SONUÇLARI

ANALİZLERDE, ÇATLAMIŞ KESİT ETKİN KESİT RİJİTLİK ÇARPANI DİKKATE ALINMIŞTIR TBDY2018 4.5.8

K101	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Maçıklık
SolM	2.58	0.62	0.11	0.51	0.22	0.41	0.62	0.02	0.98 (tm)
SagM	1.93	0.45	0.46	-0.01	0.43	0.02	0.45	-0.34	
SolV	4.10	0.97	0.50	0.47	0.56	0.41	0.97	-0.19	Xaç (m)
SagV	1.96	0.46	0.24	0.22	0.29	0.17	0.46	-0.23	1.57
Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y	Deprem Z			
SolM	-0.18	0.16	0.21	-0.20	-0.01	0.01	2.14		
SagM	-0.08	0.08	0.07	-0.06	0.00	0.00	1.60		
SolV	-0.18	0.16	0.20	-0.19	-0.01	0.01	3.40	Z1=	4.60m
SagV	-0.17	0.15	0.18	-0.17	-0.01	0.01	1.63	Z2=	4.60m
K101	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Maçıklık
SolM	-1.92	-0.44	-0.47	-0.03	-0.44	0.00	-0.44	0.32	2.24 (tm)
SagM	-0.16	0.00	-0.01	0.01	0.01	0.00	0.00	-0.91	
SolV	-0.61	-0.12	-0.14	0.02	-0.12	-0.01	-0.12	-0.39	Xaç (m)
SagV	-2.42	-0.51	-0.54	0.02	-0.51	0.00	-0.51	-0.43	0.00
Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y	Deprem Z			
SolM	0.07	-0.07	-0.07	0.06	0.00	0.00	-1.59		
SagM	-0.24	0.22	0.15	-0.13	-0.01	0.01	-0.13		
SolV	-0.11	0.10	0.05	-0.05	0.00	0.00	-0.51	Z1=	4.60m
SagV	-0.12	0.11	0.06	-0.05	0.00	0.00	-2.01	Z2=	4.60m
K102	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Maçıklık
SolM	11.03	2.64	-0.06	2.70	1.31	1.33	2.64	0.48	19.78 (tm)
SagM	-9.41	-2.25	0.06	-2.31	-1.11	-1.14	-2.25	-0.39	
SolV	12.61	3.01	-0.05	3.06	1.51	1.51	3.01	0.15	Xaç (m)
SagV	-11.49	-2.75	0.06	-2.81	-1.35	-1.39	-2.75	-0.10	3.90
Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y	Deprem Z			
SolM	-0.01	0.01	0.05	-0.07	0.00	0.00	9.16		
SagM	0.02	-0.02	0.08	-0.11	0.00	0.00	-7.81		
SolV	0.02	-0.01	0.02	-0.03	0.00	0.00	10.46	Z1=	4.60m
SagV	-0.01	0.01	0.04	-0.05	0.00	0.00	-9.54	Z2=	4.60m
K103	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Maçıklık
SolM	0.94	0.20	-0.24	-0.04	0.21	-0.01	0.20	-0.05	0.00 (tm)
SagM	-0.11	-0.06	-0.05	-0.02	-0.06	-0.01	-0.06	-0.15	
SolV	1.33	0.26	0.15	0.11	0.12	0.14	0.26	-0.14	Xaç (m)
SagV	0.07	-0.01	0.13	-0.14	0.10	-0.11	-0.01	-0.14	1.85
Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y	Deprem Z			
SolM	0.10	-0.10	-0.16	0.15	0.00	-0.01	0.78		
SagM	-0.01	0.01	-0.04	0.04	0.00	0.00	-0.09		
SolV	0.07	-0.07	-0.15	0.14	0.00	-0.01	1.10	Z1=	4.60m
SagV	0.06	-0.06	-0.13	0.12	0.00	0.00	0.05	Z2=	4.60m
P104	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Maçıklık
SolM	-374.41	-102.42	0.99	-103.41	-74.76	-27.65	-102.42	0.00	0.00 (tm)
SagM	-141.63	-33.04	2.04	-35.07	1.91	-34.95	-33.04	11.33	
SolV	-316.47	-97.69	0.09	-97.78	-85.79	-11.90	-97.69	9.16	Xaç (m)
SagV	-123.44	-23.14	1.90	-25.04	8.63	-31.77	-23.14	14.02	0.00
Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y	Deprem Z			
SolM	131.00	-173.76	-111.80	145.86	5.32	-4.61	-310.76		
SagM	193.98	-224.35	24.82	-20.18	7.23	1.00	-117.55		
SolV	86.84	-124.50	-101.67	130.79	4.72	-4.24	-262.67	Z1=	4.60m
SagV	106.87	-126.58	7.57	-3.98	4.54	0.35	-102.46	Z2=	4.60m
P105	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Maçıklık
SolM	259.22	62.49	-2.23	64.72	78.98	-16.49	62.49	0.00	0.00 (tm)
SagM	58.25	15.46	-3.96	19.42	6.74	8.72	15.46	11.33	
SolV	316.32	66.77	1.15	65.62	96.08	-29.31	66.77	9.16	Xaç (m)
SagV	34.01	11.18	-2.61	13.79	7.04	4.14	11.18	14.02	0.00
Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y	Deprem Z			
SolM	249.90	-293.63	-22.80	36.12	8.64	-0.93	215.15		
SagM	78.07	-91.45	1.10	1.35	2.74	-0.01	48.35		
SolV	267.98	-322.50	0.07	12.64	9.82	-0.23	262.55	Z1=	4.60m
SagV	51.72	-61.63	-8.80	10.93	2.36	-0.32	28.23	Z2=	4.60m
P106	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Maçıklık
SolM	-5.29	-9.55	-16.14	-6.59	-15.73	-6.18	-9.55	0.00	0.00 (tm)
SagM	27.13	17.50	12.02	5.48	13.55	3.95	17.50	11.33	
SolV	146.10	53.21	-27.56	80.77	-14.58	67.79	53.21	9.16	Xaç (m)
SagV	146.10	53.21	-27.56	80.77	-14.58	67.79	53.21	14.02	0.00
Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y	Deprem Z			
SolM	97.15	-118.11	90.57	-95.17	3.72	3.15	-4.39		
SagM	-103.02	120.49	-45.63	52.14	-3.80	-1.38	22.52		
SolV	-39.25	15.93	300.60	-287.79	-0.50	11.83	121.26	Z1=	4.60m
SagV	-39.25	15.93	300.60	-287.79	-0.50	11.83	121.26	Z2=	4.60m
P107	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Maçıklık
SolM	-9.48	1.20	0.89	0.31	-2.36	3.57	1.20	0.00	0.00 (tm)
SagM	16.75	0.26	0.49	-0.23	3.49	-3.23	0.26	44.42	
SolV	36.27	7.30	6.86	0.44	5.61	1.69	7.30	-21.02	Xaç (m)
SagV	36.27	7.30	6.86	0.44	5.61	1.69	7.30	44.20	0.00
Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y	Deprem Z			
SolM	230.91	-248.97	-188.39	166.03	8.56	-7.97	-7.87		
SagM	-185.26	196.51	185.69	-160.77	-6.73	7.86	13.90		
SolV	227.66	-261.66	-13.44	26.25	9.15	-0.53	30.10	Z1=	4.60m
SagV	227.66	-261.66	-13.44	26.25	9.15	-0.53	30.10	Z2=	4.60m

KİRİŞ STATİK HESAP SONUÇLARI

P108	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Maçıklık
SolM	-305.66	-86.09	0.87	-86.96	-68.39	-17.70	-86.09	0.00	0.00 (tm)
SagM	162.35	40.53	-0.57	41.10	27.68	12.85	40.53	11.33	
SolV	-336.33	-102.94	0.55	-103.49	-88.59	-14.35	-102.94	9.16	Xaç (m)
SagV	115.34	34.73	0.00	34.73	30.30	4.43	34.73	14.02	0.00
Deprem+X	168.80	-127.55	103.92	-135.71	4.38	4.52	-253.69		
SagM	264.57	-232.04	-26.73	21.41	8.25	-1.14	134.75		
SolV	110.09	-74.37	98.58	-126.09	3.72	4.24	-279.15	Z1=	4.60m
SagV	156.47	-134.62	-7.79	3.42	5.25	-0.35	95.73	Z2=	4.60m
P109	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Maçıklık
SolM	-288.32	-70.63	-2.04	-68.59	-15.01	-55.61	-70.63	0.00	0.00 (tm)
SagM	22.84	10.86	-20.52	31.38	-7.42	18.27	10.86	11.33	
SolV	-311.23	-86.58	12.51	-99.09	-0.75	-85.83	-86.58	9.16	Xaç (m)
SagV	-29.81	-2.66	-11.66	9.00	-9.74	7.08	-2.66	14.02	0.00
Deprem+X	368.75	-326.52	12.70	-26.63	11.23	0.62	-239.31		
SagM	68.47	-57.23	-33.60	30.43	1.71	-1.31	18.95		
SolV	436.38	-380.87	2.49	-16.01	14.42	0.31	-258.32	Z1=	4.60m
SagV	50.84	-42.92	-9.27	6.96	1.83	-0.35	-24.74	Z2=	4.60m
P110	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Maçıklık
SolM	-2.71	5.91	7.07	-1.17	7.24	-1.33	5.91	0.00	0.00 (tm)
SagM	93.38	34.57	35.57	-1.00	35.45	-0.88	34.57	11.33	
SolV	117.77	45.53	56.07	-10.55	52.11	-6.58	45.53	9.16	Xaç (m)
SagV	25.06	19.03	20.44	-1.41	19.73	-0.70	19.03	14.02	0.00
Deprem+X	139.10	1.53	35.59	-5.41	4.02	1.27	-2.25		
SagM	85.43	-64.92	-74.93	55.67	2.50	-2.90	77.51		
SolV	-506.81	492.87	57.90	-18.13	-12.72	2.75	97.75	Z1=	4.60m
SagV	17.20	2.89	-56.50	45.87	0.74	-2.07	20.80	Z2=	4.60m
P111	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Maçıklık
SolM	78.51	33.74	-0.08	-33.82	29.61	-4.13	33.74	0.00	0.00 (tm)
SagM	-78.51	-33.74	0.08	-33.82	-29.61	-4.13	-33.74	11.33	
SolV	318.22	119.36	-1.33	120.70	102.84	16.52	119.36	9.16	Xaç (m)
SagV	-339.46	-122.92	0.02	-122.95	-105.80	-17.13	-122.92	14.02	0.00
Deprem+X	-3.18	7.22	25.60	29.60	-0.07	0.31	65.17		
SagM	3.18	-7.22	-25.60	-29.60	0.07	-0.31	-65.17		
SolV	16.82	-82.91	-247.38	247.67	2.33	-7.82	264.12	Z1=	4.60m
SagV	-55.95	-9.92	-246.91	247.02	0.08	-7.67	-281.75	Z2=	4.60m
P112	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Maçıklık
SolM	103.89	22.80	-8.60	-31.39	-2.36	25.16	22.80	0.00	0.00 (tm)
SagM	-81.60	-32.04	-16.86	-15.17	-17.96	-14.08	-32.04	9.26	
SolV	142.68	33.00	-11.17	44.17	-2.78	35.78	33.00	4.10	Xaç (m)
SagV	-85.12	-41.83	-24.09	-17.74	-24.66	-17.17	-41.83	12.22	0.00
Deprem+X	-2.79	1.55	14.14	-12.77	-0.12	0.24	86.23		
SagM	0.30	-3.69	-21.50	-9.40	0.00	-1.04	-67.73		
SolV	10.15	-9.37	-32.24	37.41	0.15	-2.81	118.42	Z1=	4.60m
SagV	15.83	-12.49	-64.00	71.48	0.31	-4.26	-70.65	Z2=	4.60m
P113	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Maçıklık
SolM	-576.20	-144.47	12.77	-157.24	-33.80	-110.67	-144.47	0.00	0.00 (tm)
SagM	429.18	107.96	-19.02	126.98	19.81	88.15	107.96	9.26	
SolV	-986.72	-245.02	-41.92	-203.10	-93.87	-151.15	-245.02	4.10	Xaç (m)
SagV	-986.72	-245.02	-41.92	-203.10	-93.87	-151.15	-245.02	12.22	0.00
Deprem+X	87.70	-89.30	-142.26	142.45	2.73	-6.81	-478.24		
SagM	-84.65	83.47	217.74	-215.20	-2.54	10.00	356.22		
SolV	20.46	-39.11	506.58	-488.25	1.29	21.44	-818.97	Z1=	4.60m
SagV	20.46	-39.11	506.58	-488.25	1.29	21.44	-818.97	Z2=	4.60m
P114	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Maçıklık
SolM	74.86	11.35	11.48	-0.12	10.86	-0.49	11.35	0.00	0.00 (tm)
SagM	-42.22	-22.07	-22.82	0.75	-22.71	0.64	-22.07	11.33	
SolV	99.77	17.33	17.13	0.20	16.45	0.88	17.33	9.16	Xaç (m)
SagV	-166.70	-70.70	-73.77	3.07	-73.54	2.84	-70.70	14.02	0.00
Deprem+X	9.24	-7.87	-13.15	12.57	0.26	-0.67	62.13		
SagM	-7.82	6.74	-13.60	-8.51	-0.23	-0.19	-35.05		
SolV	30.82	-8.69	-71.75	72.63	0.31	-3.46	82.81	Z1=	4.60m
SagV	-3.01	50.87	-114.58	124.99	-1.20	-4.57	-138.36	Z2=	4.60m
P115	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Maçıklık
SolM	-11.06	-5.03	-4.70	-0.33	-4.18	-0.85	-5.03	0.00	0.00 (tm)
SagM	-24.53	-9.39	-11.35	-0.77	-11.14	-0.35	-9.39	44.42	
SolV	-8.25	-1.14	-0.93	-0.20	-0.94	-0.19	-1.14	-21.02	Xaç (m)
SagV	-1.58	-0.18	-0.09	-0.09	-0.04	-0.14	-0.18	44.20	0.00
Deprem+X	43.95	-41.59	-69.65	56.79	1.32	-3.09	-9.18		
SagM	-41.64	-1.83	-80.91	-82.14	-1.21	-4.70	-20.36		
SolV	-5.71	9.15	-20.16	16.02	-0.33	-0.61	-6.84	Z1=	4.60m
SagV	11.95	-18.80	50.69	-38.46	0.65	2.74	-1.31	Z2=	4.60m



KİRİŞ BETONARME HESAP SONUÇLARI

Kiriş	üstMsol	altMsol	Mac.	üstMsağ	altMsağ	DONATI
K101 Mduz. (tm)	0.00	0.00	(1.57m)	0.00	0.00	4ø16(mon.)+2ø12(göv.)
A4 ✓ max M (tm)	4.64	0.00	0.98	0.00	3.43	4ø16(düz)
D=60 fcd (kg/cm ²)	233.33	0.00	233.33	0.00	233.33	
B=40 As' (cm ²)	0.00	0.00	0.00	0.00	0.00	
As (cm ²)	6.65	3.32	6.65	0.00	1.71	ø10/10(etriye)
Asw (cm ²)	3.23			3.57		Wk=0.24<0,4 ✓
K101 Mduz. (tm)	0.00	0.00	(0.00m)	0.00	0.00	4ø16(mon.)+2ø12(göv.)
A4 ✓ max M (tm)	0.00	-3.43	2.24	-1.70	0.18	4ø16(düz)
D=60 fcd (kg/cm ²)	0.00	233.33	233.33	233.33	233.33	
B=40 As' (cm ²)	0.00	0.00	0.00	0.00	0.00	
As (cm ²)	0.00	1.72	6.65	6.65	3.32	ø10/10(etriye)
Asw (cm ²)	3.06			3.74		Wk=0.24<0,4 ✓
K102 Mduz. (tm)	0.00	0.00	(3.90m)	0.00	0.00	5ø16(mon.)+2ø16(göv.)
A4 ✓ max M (tm)	-17.49	0.00	19.78	20.53	0.00	5ø20(düz)
D=60 fcd (kg/cm ²)	233.33	0.00	233.33	233.33	0.00	2ø20(sol üst ila.)+2ø20(sağ üst ila.)
B=60 As' (cm ²)	0.00	0.00	0.00	0.00	0.00	
As (cm ²)	10.84	5.42	9.97	10.84	5.42	2xø10/20/10(etriye)
Asw (cm ²)	12.75			12.75		Wk=0.25<0,4 ✓
K103 Mduz. (tm)	0.00	0.00	(1.85m)	0.00	0.00	3ø16(mon.)+2ø12(göv.)
A4 ✓ max M (tm)	-0.50	0.00	0.00	1.70	0.00	3ø16(düz)
D=60 fcd (kg/cm ²)	233.33	0.00	0.00	233.33	0.00	
B=30 As' (cm ²)	0.00	0.00	0.00	0.00	0.00	
As (cm ²)	0.32	0.00	0.00	4.99	2.49	ø10/10/10(etriye)
Asw (cm ²)	0.00			2.55		Wk=0.24<0,4 ✓

Ck : Kiriş üstüne oturan kolonların Dinamik Etki çarpanı

A4 : (Ba=Bax+0.3*Bay,Ba=0.3*Bax+Bay)

KOLON STATİK HESAP SONUÇLARI

ANALİZLERDE, ÇATLAMIŞ KESİT ETKİN KESİT RİJİTLİK ÇARPANI DİKKATE ALINMIŞTIR TBDY2018 4.5.8

S101	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Material:E1
Üst Mx	-0.06	-0.02	0.00	-0.02	-0.02	-0.02	-0.02	0.12	
Alt Mx	-0.03	-0.01	0.00	-0.01	-0.01	0.00	-0.01	0.16	I = 1
Üst My	-1.23	-0.33	0.01	-0.34	-0.22	-0.11	-0.33	-0.34	J = 0
Alt My	-0.54	-0.14	0.00	-0.14	-0.09	-0.05	-0.14	0.27	
Tx	-0.02	-0.01	0.00	-0.01	-0.01	0.00	-0.01	0.06	Bx= 30 cm
Ty	-0.38	-0.10	0.00	-0.11	-0.07	-0.04	-0.10	-0.02	By= 100 cm
Nz	5.98	0.37	0.01	0.36	0.42	-0.05	0.37	-3.29	H = 4.60 m
Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y	Deprem Z			
Üst Mx	0.22	-0.26	-0.06	0.09	0.01	0.00	-0.05		
Alt Mx	0.26	-0.29	-0.03	0.05	0.01	0.00	-0.02		
Üst My	-1.00	1.20	0.62	-0.83	-0.04	0.03	-1.02		
Alt My	-0.30	0.44	0.87	-1.12	-0.01	0.04	-0.45		
Tx	0.10	-0.12	-0.02	0.03	0.00	0.00	-0.02		
Ty	-0.28	0.36	0.32	-0.42	-0.01	0.01	-0.32		
Nz	-3.60	3.81	-2.23	2.63	-0.12	-0.09	4.96		
S102	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Material:E1
Üst Mx	0.13	0.03	0.00	0.02	0.13	-0.10	0.03	1.55	
Alt Mx	0.07	0.02	0.00	0.02	0.06	-0.04	0.02	1.57	I = 4
Üst My	-3.81	-0.92	0.02	-0.93	-0.46	-0.46	-0.92	0.35	J = 0
Alt My	-1.94	-0.47	0.01	-0.48	-0.23	-0.23	-0.47	0.22	
Tx	0.04	0.01	0.00	0.01	0.04	-0.03	0.01	0.68	Bx= 100 cm
Ty	-1.25	-0.30	0.01	-0.31	-0.15	-0.15	-0.30	0.12	By= 30 cm
Nz	27.43	5.69	-0.11	5.80	2.86	2.83	5.69	-1.31	H = 4.60 m
Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y	Deprem Z			
Üst Mx	2.78	-3.20	0.08	0.03	0.10	0.00	0.11		
Alt Mx	2.76	-3.16	0.08	0.02	0.10	0.00	0.06		
Üst My	-0.02	0.02	0.17	-0.20	0.00	0.01	-3.16		
Alt My	-0.01	0.01	0.17	-0.19	0.00	0.01	-1.61		
Tx	1.20	-1.38	0.04	0.01	0.05	0.00	0.04		
Ty	-0.01	0.01	0.08	-0.08	0.00	0.00	-1.04		
Nz	-0.27	0.30	-0.28	0.31	-0.01	-0.01	22.77		
S103	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Material:E1
Üst Mx	0.00	0.00	-0.02	0.02	-0.02	0.02	0.00	1.51	
Alt Mx	0.02	0.01	-0.01	0.02	0.00	0.01	0.01	1.42	I = 10
Üst My	-0.18	-0.04	-0.01	-0.03	-0.02	-0.02	-0.04	0.11	J = 0
Alt My	-0.09	-0.02	0.00	-0.02	-0.01	-0.01	-0.02	0.09	
Tx	0.00	0.00	-0.01	0.01	-0.01	0.01	0.00	0.64	Bx= 100 cm
Ty	-0.06	-0.01	0.00	-0.01	-0.01	-0.01	-0.01	0.04	By= 30 cm
Nz	4.26	0.24	0.00	0.24	-0.15	0.39	0.24	0.70	H = 4.60 m
Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y	Deprem Z			
Üst Mx	2.80	-3.20	0.14	-0.03	0.11	0.00	0.00		
Alt Mx	2.77	-3.16	0.09	0.02	0.11	0.00	0.02		
Üst My	0.03	-0.03	0.15	-0.15	0.00	0.01	-0.15		
Alt My	0.02	-0.02	0.15	-0.15	0.00	0.01	-0.08		
Tx	1.21	-1.38	0.05	0.00	0.05	0.00	0.00		
Ty	0.01	-0.01	0.07	-0.07	0.00	0.00	-0.05		
Nz	1.20	-1.36	-0.83	0.84	0.04	-0.03	3.54		
S104	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Material:E1
Üst Mx	0.05	0.03	0.01	0.02	0.01	0.02	0.03	1.07	
Alt Mx	0.05	0.02	0.00	0.02	0.01	0.01	0.02	1.13	I = 16
Üst My	-0.27	-0.06	-0.04	-0.01	-0.04	-0.02	-0.06	0.28	J = 0
Alt My	-0.14	-0.03	-0.02	-0.01	-0.02	-0.01	-0.03	0.21	
Tx	0.02	0.01	0.00	0.01	0.01	0.01	0.01	0.48	Bx= 100 cm
Ty	-0.09	-0.02	-0.01	0.00	-0.01	0.00	-0.02	0.11	By= 30 cm
Nz	5.27	0.40	0.28	0.12	0.23	0.18	0.40	-0.67	H = 4.60 m
Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y	Deprem Z			
Üst Mx	2.48	-2.83	-0.04	0.15	0.10	0.00	0.04		
Alt Mx	2.58	-2.94	-0.01	0.11	0.10	0.00	0.04		
Üst My	0.02	-0.03	0.12	-0.11	0.00	0.01	-0.23		
Alt My	-0.01	0.00	0.14	-0.12	0.00	0.01	-0.11		
Tx	1.10	-1.25	-0.01	0.06	0.04	0.00	0.02		
Ty	0.00	-0.01	0.06	-0.05	0.00	0.00	-0.07		
Nz	0.97	-1.05	-0.79	0.75	0.04	-0.03	4.38		
S105	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Material:E1
Üst Mx	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.17	
Alt Mx	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.18	I = 23
Üst My	-0.23	-0.06	-0.05	-0.01	-0.04	-0.01	-0.06	0.92	J = 0
Alt My	-0.10	-0.02	-0.02	0.00	-0.01	-0.01	-0.02	0.94	
Tx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	Bx= 30 cm
Ty	-0.07	-0.02	-0.02	0.00	-0.01	0.00	-0.02	0.41	By= 100 cm
Nz	3.91	0.07	0.03	0.04	0.04	0.02	0.07	1.01	H = 4.60 m
Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y	Deprem Z			
Üst Mx	0.17	-0.21	0.07	-0.06	0.01	0.00	0.01		
Alt Mx	0.22	-0.25	0.05	-0.03	0.01	0.00	0.01		
Üst My	0.87	-1.01	0.28	-0.18	0.03	0.01	-0.19		
Alt My	0.25	-0.38	0.89	-0.68	0.01	0.04	-0.08		
Tx	0.08	-0.10	0.03	-0.02	0.00	0.00	0.00		
Ty	0.24	-0.30	0.25	-0.19	0.01	0.01	-0.06		
Nz	2.01	-2.30	0.09	-0.01	0.08	0.00	3.25		

KOLON STATİK HESAP SONUÇLARI

S106	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Material:El
Üst Mx	-0.19	-0.04	-0.16	0.13	-0.13	0.09	-0.04	0.31	
Alt Mx	-0.09	-0.02	-0.08	0.07	-0.06	0.04	-0.02	0.23	I = 17
Üst My	-0.04	-0.03	-0.10	0.07	-0.08	0.06	-0.03	0.17	J = 0
Alt My	-0.01	-0.01	-0.04	0.03	-0.04	0.03	-0.01	0.32	
Tx	-0.06	-0.01	-0.05	0.04	-0.04	0.03	-0.01	0.12	Bx= 30 cm
Ty	-0.01	-0.01	-0.03	0.02	-0.03	0.02	-0.01	0.11	By= 100 cm
Nz	11.16	1.79	-0.02	1.80	0.30	1.49	1.79	0.18	H = 4.60 m
Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y	Deprem Z			
Üst Mx	0.38	-0.41	0.02	-0.02	0.01	0.00	-0.16		
Alt Mx	0.38	-0.41	0.01	0.00	0.01	0.00	-0.08		
Üst My	-0.05	0.04	1.45	-1.39	0.00	0.05	-0.04		
Alt My	-0.05	0.04	1.47	-1.42	0.00	0.06	-0.01		
Tx	0.17	-0.18	0.01	0.00	0.01	0.00	-0.05		
Ty	-0.02	0.02	0.63	-0.61	0.00	0.02	-0.01		
Nz	0.05	-0.04	-1.78	1.71	0.00	-0.07	9.27		
S107	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Material:El
Üst Mx	0.69	0.17	-0.18	-0.01	0.17	-0.01	0.17	-0.35	
Alt Mx	0.35	0.09	0.09	-0.01	0.09	0.00	0.09	-0.18	I = 22
Üst My	-0.12	-0.06	-0.07	0.01	-0.07	0.01	-0.06	0.07	J = 0
Alt My	-0.03	-0.02	-0.02	0.00	-0.02	0.00	-0.02	0.10	
Tx	0.23	0.06	0.06	0.00	0.06	0.00	0.06	-0.12	Bx= 30 cm
Ty	-0.03	-0.02	-0.02	0.00	-0.02	0.00	-0.02	0.04	By= 100 cm
Nz	9.78	1.32	1.41	-0.09	1.35	-0.03	1.32	-1.41	H = 4.60 m
Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y	Deprem Z			
Üst Mx	0.32	-0.35	0.05	-0.03	0.01	0.00	0.57		
Alt Mx	0.36	-0.39	0.02	-0.01	0.01	0.00	0.29		
Üst My	0.13	-0.22	1.01	-0.78	0.01	0.04	-0.10		
Alt My	0.03	-0.13	1.14	-0.89	0.00	0.05	-0.02		
Tx	0.15	-0.16	0.02	-0.01	0.01	0.00	0.19		
Ty	0.03	-0.08	0.47	-0.36	0.00	0.02	-0.03		
Nz	-0.11	0.29	-1.91	1.51	-0.01	-0.08	8.12		
S108	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Material:El
Üst Mx	-0.06	-0.02	0.00	-0.02	-0.02	0.00	-0.02	0.12	
Alt Mx	-0.03	-0.01	0.00	-0.01	-0.01	0.00	-0.01	0.16	I = 5
Üst My	1.06	0.29	0.00	0.29	0.20	0.09	0.29	0.38	J = 0
Alt My	0.47	0.12	0.00	0.12	0.08	0.04	0.12	-0.24	
Tx	-0.02	-0.01	0.00	-0.01	-0.01	0.00	-0.01	0.06	Bx= 30 cm
Ty	0.33	0.09	0.00	0.09	0.06	0.03	0.09	0.03	By= 100 cm
Nz	6.13	0.40	0.01	0.39	0.44	-0.04	0.40	-3.31	H = 4.60 m
Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y	Deprem Z			
Üst Mx	0.24	-0.21	0.06	-0.08	0.01	0.00	-0.05		
Alt Mx	0.28	-0.25	0.02	-0.04	0.01	0.00	-0.03		
Üst My	1.14	-0.95	0.59	-0.79	0.03	0.03	0.88		
Alt My	0.39	-0.25	0.86	-1.09	0.01	0.04	0.39		
Tx	0.11	-0.10	0.02	-0.03	0.00	0.00	-0.02		
Ty	0.33	-0.26	0.31	-0.41	0.01	0.01	0.28		
Nz	-3.75	3.61	2.28	-2.71	-0.12	0.10	5.09		
S109	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Material:El
Üst Mx	0.19	0.05	0.02	0.03	0.26	-0.21	0.05	0.95	
Alt Mx	0.11	0.03	0.01	0.02	0.12	-0.09	0.03	1.26	I = 6
Üst My	4.21	1.01	-0.02	1.04	0.50	0.51	1.01	-0.31	J = 0
Alt My	2.15	0.52	-0.01	0.53	0.26	0.26	0.52	-0.20	
Tx	0.06	0.02	0.01	0.01	0.08	-0.06	0.02	0.48	Bx= 100 cm
Ty	1.38	0.33	-0.01	0.34	0.16	0.17	0.33	-0.11	By= 30 cm
Nz	26.59	5.47	-0.15	5.61	2.70	2.77	5.47	-1.06	H = 4.60 m
Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y	Deprem Z			
Üst Mx	2.20	-1.92	-0.07	0.00	0.06	0.00	0.16		
Alt Mx	2.65	-2.34	-0.09	0.01	0.08	0.00	0.09		
Üst My	0.02	-0.02	0.20	-0.22	0.00	0.01	3.49		
Alt My	0.01	0.00	0.18	-0.21	0.00	0.01	1.78		
Tx	1.06	-0.93	-0.03	0.00	0.03	0.00	0.05		
Ty	0.01	0.00	0.08	-0.09	0.00	0.00	1.15		
Nz	-0.24	0.22	0.19	-0.21	-0.01	0.01	22.07		
S110	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin	Material:El
Üst Mx	-0.33	-0.03	-0.15	0.12	-0.14	0.11	-0.03	1.44	
Alt Mx	-0.12	-0.01	-0.07	0.06	-0.06	0.05	-0.01	1.26	I = 11
Üst My	0.20	0.05	0.02	0.03	0.02	0.02	0.05	-0.09	J = 0
Alt My	0.10	0.02	0.01	0.02	0.01	0.01	0.02	-0.08	
Tx	-0.10	-0.01	-0.05	0.04	-0.04	0.03	-0.01	0.59	Bx= 100 cm
Ty	0.06	0.02	0.01	0.01	0.01	0.01	0.02	-0.04	By= 30 cm
Nz	5.88	0.47	0.17	0.30	0.08	0.39	0.47	0.02	H = 4.60 m
Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y	Deprem Z			
Üst Mx	2.96	-2.61	-0.43	0.33	0.09	-0.02	-0.27		
Alt Mx	2.96	-2.62	-0.20	0.10	0.09	-0.01	-0.10		
Üst My	-0.03	0.03	0.17	-0.17	0.00	0.01	0.16		
Alt My	-0.02	0.02	0.16	-0.16	0.00	0.01	0.08		
Tx	1.29	-1.14	-0.14	0.09	0.04	-0.01	-0.08		
Ty	-0.01	0.01	0.07	-0.07	0.00	0.00	0.05		
Nz	0.29	-0.26	1.64	-1.57	0.01	0.06	4.88		

KOLON STATİK HESAP SONUÇLARI

S111	GGGGG	QQQQQ	Q_Q_Q	_Q_Q_Q	QQ_QQ	_QQ_QQ	Q_QQ_Q	Zemin	Material:El
Üst Mx	0.09	0.03	0.03	0.00	0.03	0.00	0.03	0.05	
Alt Mx	0.05	0.01	0.01	0.00	0.01	0.00	0.01	0.04	I = 18
Üst My	0.45	0.16	0.16	-0.01	0.16	0.00	0.16	-0.54	J = 0
Alt My	0.20	0.07	0.07	0.00	0.07	0.00	0.07	-0.50	
Tx	0.03	0.01	0.01	0.00	0.01	0.00	0.01	0.02	Bx= 30 cm
Ty	0.14	0.05	0.05	0.00	0.05	0.00	0.05	-0.23	By= 100 cm
Nz	6.58	0.53	0.53	0.00	0.55	-0.02	0.53	-0.10	H = 4.60 m
Deprem+X	0.26	-0.22	-0.07	0.04	0.01	0.00	0.07		
Alt Mx	0.28	-0.25	-0.03	0.02	0.01	0.00	0.04		
Üst My	-1.18	0.99	0.75	-0.54	-0.03	0.03	0.37		
Alt My	-0.37	0.23	1.02	-0.78	-0.01	0.04	0.17		
Tx	0.12	-0.10	-0.02	0.01	0.00	0.00	0.02		
Ty	-0.34	0.26	0.38	-0.29	-0.01	0.02	0.12		
Nz	4.22	-4.05	2.51	-2.13	0.14	0.10	5.46		



KOLON BETONARME HESAP SONUÇLARI

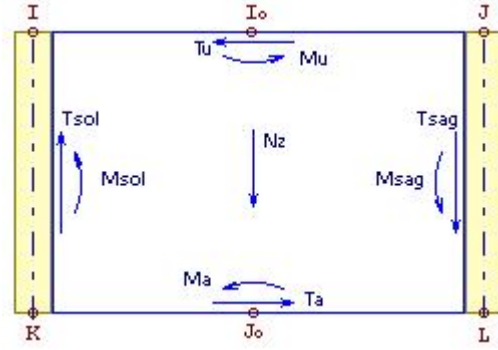
Kolon			N (t)	minor M	major M	fcd	ρ	As	Donatı
S101	Bx=30	X- (G+Q)	8.952	-0.48	-0.21	233.3	0.0020	6.00	2x5ø14+2x5ø14 (govde)
	By=100	X- (G+Q+E)	11.637	-0.84	0.44	233.3	0.0020	6.00	ø10/8 (ettriye)
I:1		Y- (G+Q)	8.952	0.00	-2.81	233.3	0.0020	6.00	Cx:1 Cy:1
J:0	Hk=4.6m	Y- (G+Q+E)	-1.171	-0.22	-2.89	233.3	0.0020	6.00	
	$\beta_x = 1.000$	X- (G-E)	0.083	0.40	0.24	233.3	0.0020	6.00	
A4 ✓	$\beta_y = 1.000$	Y- (G-E)	1.258	0.05	0.39	233.3	0.0020	6.00	$\Sigma As/Ac=0.0103$
S102	Bx=100	X- (G+Q)	47.509	-5.71	2.86	233.3	0.0020	6.00	2x5ø14+2x5ø14 (govde)
	By=30	X- (G+Q+E)	40.249	-4.88	5.06	233.3	0.0020	6.00	ø10/8 (ettriye)
I:4		Y- (G+Q)	47.509	0.22	-6.82	233.3	0.0020	6.00	Cx:1 Cy:1
J:0	Hk=4.6m	Y- (G+Q+E)	33.429	0.22	-4.94	233.3	0.0020	6.00	
	$\beta_x = 1.000$	X- (G-E)	17.565	-1.25	3.24	233.3	0.0020	6.00	
A4 ✓	$\beta_y = 1.000$	Y- (G-E)	17.554	0.07	-1.07	233.3	0.0020	6.00	$\Sigma As/Ac=0.0103$
S103	Bx=100	X- (G+Q)	7.466	-0.18	2.45	233.3	0.0020	6.00	2x5ø14+2x5ø14 (govde)
	By=30	X- (G+Q+E)	7.624	-0.11	4.77	233.3	0.0020	6.00	ø10/8 (ettriye)
I:10		Y- (G+Q)	7.466	-0.01	-0.32	233.3	0.0020	6.00	Cx:1 Cy:1
J:0	Hk=4.6m	Y- (G+Q+E)	6.030	-0.15	-0.38	233.3	0.0020	6.00	
	$\beta_x = 1.000$	X- (G-E)	1.414	-0.08	-3.12	233.3	0.0020	6.00	
A4 ✓	$\beta_y = 1.000$	Y- (G-E)	1.938	-0.03	0.04	233.3	0.0020	6.00	$\Sigma As/Ac=0.0103$
S104	Bx=100	X- (G+Q)	8.022	-0.03	1.92	233.3	0.0020	6.00	2x5ø14+2x5ø14 (govde)
	By=30	X- (G+Q+E)	8.035	0.01	4.20	233.3	0.0020	6.00	ø10/8 (ettriye)
I:16		Y- (G+Q)	8.022	0.12	-0.47	233.3	0.0020	6.00	Cx:1 Cy:1
J:0	Hk=4.6m	Y- (G+Q+E)	6.459	0.13	-0.46	233.3	0.0020	6.00	
	$\beta_x = 1.000$	X- (G-E)	2.382	-0.21	-2.75	233.3	0.0020	6.00	
A4 ✓	$\beta_y = 1.000$	Y- (G-E)	2.645	-0.01	-0.05	233.3	0.0020	6.00	$\Sigma As/Ac=0.0103$
S105	Bx=30	X- (G+Q)	7.204	0.78	0.30	233.3	0.0020	6.00	2x5ø14+2x5ø14 (govde)
	By=100	X- (G+Q+E)	8.269	1.18	0.46	233.3	0.0020	6.00	ø10/8 (ettriye)
I:23		Y- (G+Q)	7.204	0.19	1.38	233.3	0.0020	6.00	Cx:1 Cy:1
J:0	Hk=4.6m	Y- (G+Q+E)	8.269	0.40	1.84	233.3	0.0020	6.00	
	$\beta_x = 1.000$	X- (G-E)	0.241	-1.16	-0.18	233.3	0.0020	6.00	
A4 ✓	$\beta_y = 1.000$	Y- (G-E)	2.453	0.08	-0.12	233.3	0.0020	6.00	$\Sigma As/Ac=0.0103$
S106	Bx=30	X- (G+Q)	18.781	-0.22	-0.53	233.3	0.0020	6.00	2x5ø14+2x5ø14 (govde)
	By=100	X- (G+Q+E)	15.955	0.15	0.71	233.3	0.0020	6.00	ø10/8 (ettriye)
I:17		Y- (G+Q)	18.781	0.20	-0.85	233.3	0.0020	6.00	Cx:1 Cy:1
J:0	Hk=4.6m	Y- (G+Q+E)	17.697	0.18	1.83	233.3	0.0020	6.00	
	$\beta_x = 1.000$	X- (G-E)	7.226	0.03	-0.47	233.3	0.0020	6.00	
A4 ✓	$\beta_y = 1.000$	Y- (G-E)	5.483	-0.11	1.43	233.3	0.0020	6.00	$\Sigma As/Ac=0.0103$
S107	Bx=30	X- (G+Q)	15.806	-0.27	1.25	233.3	0.0020	6.00	2x5ø14+2x5ø14 (govde)
	By=100	X- (G+Q+E)	13.821	0.01	1.41	233.3	0.0020	6.00	ø10/8 (ettriye)
I:22		Y- (G+Q)	15.806	1.25	-0.71	233.3	0.0020	6.00	Cx:1 Cy:1
J:0	Hk=4.6m	Y- (G+Q+E)	15.443	0.46	1.13	233.3	0.0020	6.00	
	$\beta_x = 1.000$	X- (G-E)	6.081	-0.15	0.63	233.3	0.0020	6.00	
A4 ✓	$\beta_y = 1.000$	Y- (G-E)	4.459	0.50	1.00	233.3	0.0020	6.00	$\Sigma As/Ac=0.0103$
S108	Bx=30	X- (G+Q)	9.230	0.41	-0.22	233.3	0.0020	6.00	2x5ø14+2x5ø14 (govde)
	By=100	X- (G+Q+E)	11.815	0.73	0.43	233.3	0.0020	6.00	ø10/8 (ettriye)
I:5		Y- (G+Q)	9.230	0.00	2.56	233.3	0.0020	6.00	Cx:1 Cy:1
J:0	Hk=4.6m	Y- (G+Q+E)	11.815	0.26	3.37	233.3	0.0020	6.00	
	$\beta_x = 1.000$	X- (G-E)	0.242	1.83	0.23	233.3	0.0020	6.00	
A4 ✓	$\beta_y = 1.000$	Y- (G-E)	1.283	-0.12	0.24	233.3	0.0020	6.00	$\Sigma As/Ac=0.0103$
S109	Bx=100	X- (G+Q)	45.971	3.22	2.37	233.3	0.0020	6.00	2x5ø14+2x5ø14 (govde)
	By=30	X- (G+Q+E)	38.918	2.75	4.20	233.3	0.0020	6.00	ø10/8 (ettriye)
I:6		Y- (G+Q)	45.971	0.31	7.55	233.3	0.0020	6.00	Cx:1 Cy:1
J:0	Hk=4.6m	Y- (G+Q+E)	38.885	0.26	6.52	233.3	0.0020	6.00	
	$\beta_x = 1.000$	X- (G-E)	17.069	2.76	2.34	233.3	0.0020	6.00	
A4 ✓	$\beta_y = 1.000$	Y- (G-E)	17.123	-0.02	1.22	233.3	0.0020	6.00	$\Sigma As/Ac=0.0103$
S110	Bx=100	X- (G+Q)	9.009	0.24	2.03	233.3	0.0020	6.00	2x5ø14+2x5ø14 (govde)
	By=30	X- (G+Q+E)	8.122	0.16	4.40	233.3	0.0020	6.00	ø10/8 (ettriye)
I:11		Y- (G+Q)	9.009	-0.52	0.35	233.3	0.0020	6.00	Cx:1 Cy:1
J:0	Hk=4.6m	Y- (G+Q+E)	9.464	-0.88	0.48	233.3	0.0020	6.00	
	$\beta_x = 1.000$	X- (G-E)	3.532	0.04	-2.98	233.3	0.0020	6.00	
A4 ✓	$\beta_y = 1.000$	Y- (G-E)	2.189	-0.64	-0.04	233.3	0.0020	6.00	$\Sigma As/Ac=0.0103$
S111	Bx=30	X- (G+Q)	10.070	0.34	0.24	233.3	0.0020	6.00	2x5ø14+2x5ø14 (govde)
	By=100	X- (G+Q+E)	12.980	-1.01	0.46	233.3	0.0020	6.00	ø10/8 (ettriye)
I:18		Y- (G+Q)	10.070	0.16	0.89	233.3	0.0020	6.00	Cx:1 Cy:1
J:0	Hk=4.6m	Y- (G+Q+E)	12.980	-0.12	2.14	233.3	0.0020	6.00	
	$\beta_x = 1.000$	X- (G-E)	0.061	-0.89	-0.18	233.3	0.0020	6.00	
A4 ✓	$\beta_y = 1.000$	Y- (G-E)	1.774	-0.01	-0.10	233.3	0.0020	6.00	$\Sigma As/Ac=0.0103$

 β_x, β_y : Kolon Moment büyütme katsayısı

Cx, Cy : Güçlü kolon Moment büyütme katsayısı

Ck : Kiriş üstüne oturan kolonların Dinamik Etki çarpanı

A4 : (Ba=Bax+0.3*Bay, Ba=0.3*Bax+Bay)

**PANEL STATİK HESAP SONUÇLARI (tm)**

ANALİZLERDE, ÇATLAMIŞ KESİT ETKİN KESİT RİJİTLİK ÇARPANI DİKKATE ALINMIŞTIR TBDY2018 4.5.8

P104	I=1 Üst Mx	J=4 Alt Mx	Io=2 Üst My	Jo=0 Alt My	K=0 Tx	L=0 Ty	SolM	SagM	Material:E1		Nz
GGGGGG	0.83	-0.94	-2.01	-0.92	0.13	0.64	-374.41	-141.63	SolV	SagV	4.7
QQQQQQ	0.04	-0.13	-0.49	-0.22	-0.04	0.15	-102.42	-33.04	-3.65	4.51	-0.3
Q_Q_Q	-0.02	-0.01	0.01	0.00	-0.01	0.00	0.99	2.04	0.07	-0.09	0.0
_Q_Q_Q	0.06	-0.11	-0.50	-0.22	-0.03	0.15	-103.41	-35.07	-3.72	4.60	-0.3
QQ_QQ	-0.29	-0.18	-0.24	-0.11	-0.01	0.08	-74.76	1.91	-1.79	2.21	0.0
_QQ_QQ	0.33	0.05	-0.24	-0.11	-0.03	0.07	-27.65	-34.95	-1.86	2.30	-0.3
Q_QQ_Q	0.04	-0.13	-0.49	-0.22	-0.04	0.15	-102.42	-33.04	-3.65	4.51	-0.3
Zemin	-1.39	3.94	0.19	0.12	8.51	-0.04	0.00	11.33	2.89	-1.05	-6.3
Deprem+X	-2.56	5.06	-0.12	-0.02	15.08	0.03	131.00	193.98	0.74	-0.36	-10.7
Deprem-X	3.04	-5.50	0.14	0.03	-17.59	-0.05	-173.76	-224.35	-0.81	0.40	11.6
Deprem+Y	0.37	2.47	0.16	0.18	-1.28	-0.18	-111.80	24.82	0.21	-0.29	-4.7
Deprem-Y	-0.63	-2.88	-0.20	-0.22	2.42	0.23	145.86	-20.18	-0.23	0.36	5.3
Deprem Z	0.69	-0.78	-1.67	-0.77	0.11	0.53	-310.76	-117.55	0.00	0.00	3.9
Rüzgar X	-0.10	0.17	0.00	0.00	0.58	0.00	5.32	7.23	0.03	-0.01	-0.3
Rüzgar Y	0.02	0.10	0.01	0.01	-0.06	-0.01	-4.61	1.00	0.01	-0.01	-0.2
P105	I=4 Üst Mx	J=10 Alt Mx	Io=7 Üst My	Jo=0 Alt My	K=0 Tx	L=0 Ty	SolM	SagM	Material:E1		Nz
GGGGGG	0.73	1.42	-2.00	-0.98	-1.40	0.73	259.22	58.25	SolV	SagV	4.6
QQQQQQ	0.02	0.36	-0.48	-0.23	-0.33	0.17	62.49	15.46	4.95	-3.96	-0.0
Q_Q_Q	0.15	0.12	0.00	0.00	-0.16	0.01	-2.23	-3.96	-0.14	0.12	0.1
_Q_Q_Q	-0.13	0.24	-0.48	-0.23	-0.17	0.17	64.72	19.42	5.09	-4.08	-0.1
QQ_QQ	0.13	0.27	-0.24	-0.12	-0.19	0.09	78.98	6.74	2.48	-1.98	-0.3
_QQ_QQ	-0.11	0.09	-0.24	-0.12	-0.14	0.09	-16.49	8.72	2.47	-1.98	0.2
Q_QQ_Q	0.02	0.36	-0.48	-0.23	-0.33	0.17	62.49	15.46	4.95	-3.96	-0.0
Zemin	6.21	6.75	0.31	0.19	7.10	-0.17	0.00	11.33	0.57	1.50	-3.9
Deprem+X	13.72	15.00	0.05	0.00	11.37	0.00	249.90	78.07	0.55	-0.14	-5.6
Deprem-X	-15.62	-17.08	-0.05	0.00	-13.04	0.01	-293.63	-91.45	-0.55	0.15	6.5
Deprem+Y	-1.89	-1.95	0.22	0.22	1.81	-0.22	-22.80	1.10	-0.40	-0.01	-3.9
Deprem-Y	2.39	2.51	-0.22	-0.22	-1.29	0.22	36.12	1.35	0.50	0.00	3.5
Deprem Z	0.61	1.18	-1.66	-0.81	-1.16	0.61	215.15	48.35	0.00	0.00	3.8
Rüzgar X	0.51	0.56	0.00	0.00	0.43	0.00	8.64	2.74	0.02	0.00	-0.2
Rüzgar Y	-0.08	-0.08	0.01	0.01	0.07	-0.01	-0.93	-0.01	0.00	0.00	-0.1
P106	I=10 Üst Mx	J=16 Alt Mx	Io=12 Üst My	Jo=0 Alt My	K=0 Tx	L=0 Ty	SolM	SagM	Material:E1		Nz
GGGGGG	-0.63	-0.37	-0.19	-0.09	0.74	0.12	-5.29	27.13	SolV	SagV	3.7
QQQQQQ	-0.14	-0.07	-0.04	-0.02	0.21	0.02	-9.55	17.50	-0.52	0.52	0.2
Q_Q_Q	-0.03	-0.03	-0.02	-0.01	-0.01	0.01	-16.14	12.02	-0.97	0.97	0.0
_Q_Q_Q	-0.11	-0.04	-0.03	-0.01	0.22	0.01	6.59	5.48	0.46	-0.46	0.2
QQ_QQ	-0.08	-0.03	-0.02	-0.01	0.06	0.01	-15.73	13.55	-0.70	0.70	-0.0
_QQ_QQ	-0.07	-0.04	-0.02	-0.01	0.15	0.01	6.18	3.95	0.18	-0.18	0.2
Q_QQ_Q	-0.14	-0.07	-0.04	-0.02	0.21	0.02	-9.55	17.50	-0.52	0.52	0.2
Zemin	1.84	1.65	0.08	0.11	3.76	-0.11	0.00	11.33	3.09	-3.09	-3.0
Deprem+X	2.52	2.70	-0.03	-0.01	8.79	0.00	97.15	-103.02	1.01	-1.01	-3.7
Deprem-X	-2.91	-3.10	0.02	0.00	-10.03	0.00	-118.11	120.49	-1.00	1.00	4.4
Deprem+Y	0.75	0.61	0.11	0.13	-0.92	-0.16	90.57	-45.63	-0.85	0.85	-3.3
Deprem-Y	-0.61	-0.48	-0.11	-0.12	1.31	0.15	-95.17	52.14	0.75	-0.75	2.9
Deprem Z	-0.52	-0.31	-0.16	-0.07	0.61	0.10	-4.39	22.52	0.00	0.00	3.0
Rüzgar X	0.10	0.10	0.00	0.00	0.34	0.00	3.72	-3.80	0.03	-0.03	-0.1
Rüzgar Y	0.03	0.02	0.00	0.01	-0.03	-0.01	3.15	-1.38	-0.02	0.02	-0.1
P107	I=16 Üst Mx	J=23 Alt Mx	Io=20 Üst My	Jo=0 Alt My	K=0 Tx	L=0 Ty	SolM	SagM	Material:E1		Nz
GGGGGG	0.20	0.19	-0.12	-0.05	0.62	0.04	-9.48	16.75	SolV	SagV	2.5
QQQQQQ	0.09	0.05	-0.03	-0.01	0.18	0.01	1.20	0.26	1.03	-1.03	-0.1
Q_Q_Q	0.04	0.00	-0.02	-0.01	0.15	0.01	0.89	0.49	0.76	-0.76	-0.2
_Q_Q_Q	0.05	0.05	-0.01	0.00	0.03	0.00	0.31	-0.23	0.26	-0.26	0.0
QQ_QQ	0.04	0.03	-0.02	-0.01	0.17	0.00	-2.36	3.49	0.75	-0.75	-0.2
_QQ_QQ	0.05	0.02	-0.01	0.00	0.01	0.00	3.57	-3.23	0.28	-0.28	0.0
Q_QQ_Q	0.09	0.05	-0.03	-0.01	0.18	0.01	1.20	0.26	1.03	-1.03	-0.1
Zemin	3.08	2.94	0.34	0.13	2.28	-0.09	0.00	44.42	-2.96	2.96	-0.9
Deprem+X	5.99	6.39	0.05	0.00	5.68	-0.02	230.91	-185.26	1.05	-1.05	-1.5
Deprem-X	-6.82	-7.25	-0.06	-0.02	-6.62	0.04	-248.97	196.51	-1.09	1.09	2.1
Deprem+Y	-0.32	-0.45	0.07	0.11	1.25	-0.12	-188.39	185.69	-1.46	1.46	-3.2
Deprem-Y	0.57	0.63	-0.05	-0.09	-0.73	0.09	166.03	-160.77	1.13	-1.13	2.4
Deprem Z	0.17	0.16	-0.10	-0.04	0.51	0.04	-7.87	13.90	0.00	0.00	2.1
Rüzgar X	0.23	0.25	0.00	0.00	0.23	0.00	8.56	-6.73	0.04	-0.04	-0.0
Rüzgar Y	-0.01	-0.02	0.00	0.01	0.05	-0.01	-7.97	7.86	-0.07	0.07	-0.1

PANEL STATİK HESAP SONUÇLARI (tm)

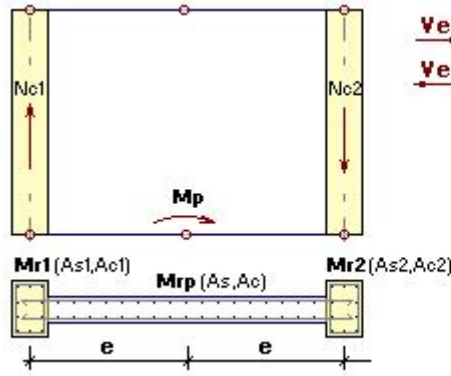
P108	I=5 Üst Mx	J=6 Alt Mx	Io=8 Üst My	Jo=0 Alt My	K=0 Tx	L=0 Ty	SolM	SagM	Material:E1		Nz
GGGGGG	3.01	-0.24	1.71	0.81	0.41	-0.56	-305.66	162.35	11.79	-13.47	5.3
QQQQQQ	0.56	0.02	0.42	0.19	0.04	-0.13	-86.09	40.53	2.83	-3.25	-0.2
Q_Q_Q	-0.05	0.00	-0.01	0.00	-0.02	0.00	0.87	-0.57	-0.06	0.07	0.0
_Q_Q_Q	0.61	0.02	0.43	0.20	0.07	-0.13	-86.96	41.10	2.90	-3.32	-0.2
QQ_QQ	-0.02	-0.09	0.23	0.10	0.01	-0.07	-68.39	27.68	1.47	-1.71	0.1
_QQ_QQ	0.58	0.12	0.19	0.09	0.04	-0.06	-17.70	12.85	1.37	-1.53	-0.3
Q_QQ_Q	0.56	0.02	0.42	0.19	0.04	-0.13	-86.09	40.53	2.83	-3.25	-0.2
Zemin	-1.83	4.63	-0.18	-0.12	8.43	0.04	0.00	11.33	-2.94	1.21	-5.1
Deprem+X	-3.40	5.35	0.15	0.03	16.91	-0.04	168.80	264.57	-0.72	0.24	-11.3
Deprem-X	2.96	-4.98	-0.13	-0.01	-14.65	0.02	-127.55	-232.04	0.66	-0.21	10.6
Deprem+Y	-0.21	-2.63	0.15	0.18	1.07	-0.18	103.92	-26.73	0.22	-0.23	4.7
Deprem-Y	0.45	3.10	-0.19	-0.22	-2.09	0.23	-135.71	21.41	-0.25	0.31	-5.3
Deprem Z	2.50	-0.20	1.42	0.67	0.34	-0.46	-253.69	134.75	0.00	0.00	4.4
Rüzgar X	-0.11	0.17	0.00	0.00	0.50	0.00	4.38	8.25	-0.02	0.01	-0.3
Rüzgar Y	-0.01	-0.11	0.01	0.01	0.05	-0.01	4.52	-1.14	0.01	-0.01	0.2
P109	I=6 Üst Mx	J=11 Alt Mx	Io=9 Üst My	Jo=0 Alt My	K=0 Tx	L=0 Ty	SolM	SagM	Material:E1		Nz
GGGGGG	-1.59	1.57	1.70	0.89	-2.49	-0.68	-288.32	22.84	-13.69	12.06	6.5
QQQQQQ	-0.33	0.38	0.42	0.21	-0.51	-0.16	-70.63	10.86	-3.31	2.91	0.2
Q_Q_Q	0.22	0.23	0.01	0.00	-0.40	-0.01	-2.04	-20.52	0.13	-0.14	0.4
_Q_Q_Q	-0.56	0.15	0.41	0.21	-0.11	-0.15	-68.59	31.38	-3.44	3.05	-0.2
QQ_QQ	-0.09	0.30	0.20	0.10	-0.48	-0.08	-15.01	-7.42	-1.48	1.32	0.0
_QQ_QQ	-0.25	0.08	0.22	0.11	-0.04	-0.08	-55.61	18.27	-1.83	1.59	0.1
Q_QQ_Q	-0.33	0.38	0.42	0.21	-0.51	-0.16	-70.63	10.86	-3.31	2.91	0.2
Zemin	6.02	6.40	-0.38	-0.16	5.88	0.10	0.00	11.33	0.50	-1.75	-2.5
Deprem+X	15.68	16.23	-0.05	-0.02	12.48	0.02	368.75	68.47	-0.12	0.11	-7.4
Deprem-X	-13.91	-14.44	0.05	0.02	-10.98	-0.02	-326.52	-57.23	0.11	-0.10	6.5
Deprem+Y	2.22	2.92	0.27	0.24	-2.52	-0.27	12.70	-33.60	-0.16	-0.09	5.4
Deprem-Y	-2.61	-3.35	-0.27	-0.25	2.02	0.27	-26.63	30.43	0.20	0.07	-4.9
Deprem Z	-1.32	1.30	1.41	0.73	-2.07	-0.56	-239.31	18.95	0.00	0.00	5.4
Rüzgar X	0.47	0.49	0.00	0.00	0.37	0.00	11.23	1.71	0.00	0.00	-0.2
Rüzgar Y	0.09	0.11	0.01	0.01	-0.09	-0.01	0.62	-1.31	0.00	0.00	0.2
P110	I=11 Üst Mx	J=18 Alt Mx	Io=14 Üst My	Jo=0 Alt My	K=0 Tx	L=0 Ty	SolM	SagM	Material:E1		Nz
GGGGGG	-3.11	-2.09	0.56	0.24	1.95	-0.30	-2.71	93.38	2.61	2.98	14.4
QQQQQQ	-0.72	-0.52	0.16	0.06	0.52	-0.06	5.91	34.57	0.72	0.79	1.4
Q_Q_Q	0.00	-0.12	0.13	0.05	0.14	-0.05	7.07	35.57	0.80	0.80	1.1
_Q_Q_Q	-0.71	-0.40	0.02	0.01	0.39	-0.02	-1.17	-1.00	-0.08	0.00	0.3
QQ_QQ	-0.23	-0.11	0.14	0.05	0.25	-0.05	7.24	35.45	0.78	0.80	1.1
_QQ_QQ	-0.48	-0.41	0.02	0.01	0.28	-0.01	-1.33	-0.88	-0.06	0.00	0.3
Q_QQ_Q	-0.72	-0.52	0.16	0.06	0.52	-0.06	5.91	34.57	0.72	0.79	1.4
Zemin	5.00	3.82	-0.57	-0.19	4.34	0.12	0.00	11.33	-0.12	-1.94	0.6
Deprem+X	5.35	18.88	-0.16	-0.04	17.49	0.05	139.10	85.43	-0.17	0.39	3.7
Deprem-X	-4.82	-17.21	0.13	0.02	-15.19	-0.02	1.53	-64.92	0.16	-0.36	-4.0
Deprem+Y	-2.92	-0.47	0.32	0.31	0.13	-0.42	35.59	-74.93	0.13	0.30	10.5
Deprem-Y	2.89	0.57	-0.27	-0.27	-1.15	0.37	-5.41	55.67	-0.10	-0.24	-9.3
Deprem Z	-2.58	-1.73	0.46	0.20	1.62	-0.25	-2.25	77.51	0.00	0.00	11.9
Rüzgar X	0.16	0.59	0.00	0.00	0.53	0.00	4.02	2.50	0.00	0.01	0.1
Rüzgar Y	-0.11	-0.01	0.01	0.01	0.00	-0.02	1.27	-2.90	0.00	0.01	0.4
P111	I=1 Üst Mx	J=5 Alt Mx	Io=3 Üst My	Jo=0 Alt My	K=0 Tx	L=0 Ty	SolM	SagM	Material:E1		Nz
GGGGGG	-5.98	-2.98	0.00	-0.62	-1.95	0.13	78.51	-78.51	4.02	8.86	38.7
QQQQQQ	-1.52	-0.75	0.03	-0.08	-0.49	0.01	33.74	-33.74	1.01	2.23	4.5
Q_Q_Q	0.01	0.01	-0.03	-0.06	0.00	0.02	-0.08	0.08	-0.01	-0.02	-0.0
_Q_Q_Q	-1.53	-0.76	0.07	-0.01	-0.50	-0.01	33.82	-33.82	1.02	2.25	4.5
QQ_QQ	-1.15	-0.57	0.01	-0.09	-0.38	0.02	29.61	-29.61	0.75	1.72	4.1
_QQ_QQ	-0.36	-0.18	0.03	0.02	-0.12	-0.01	4.13	-4.13	0.26	0.52	0.4
Q_QQ_Q	-1.52	-0.75	0.03	-0.08	-0.49	0.01	33.74	-33.74	1.01	2.23	4.5
Zemin	2.34	1.61	-0.84	-0.51	0.86	0.29	0.00	11.33	-0.97	-2.53	1.7
Deprem+X	0.94	1.01	-1.86	-1.26	0.42	0.68	-3.18	3.18	-0.32	-0.05	-3.9
Deprem-X	-0.95	-1.02	-3.66	-3.58	-0.43	1.57	7.22	-7.22	0.35	0.01	3.9
Deprem+Y	-0.01	-0.01	-23.47	-55.99	0.00	17.27	25.60	-25.60	0.05	0.16	0.0
Deprem-Y	0.01	0.01	30.71	69.55	0.01	-21.80	29.60	-29.60	-0.05	-0.20	-0.1
Deprem Z	-4.97	-2.48	0.00	-0.51	-1.62	0.11	65.17	-65.17	0.00	0.00	32.1
Rüzgar X	0.03	0.03	0.09	0.10	0.01	-0.04	-0.07	0.07	-0.01	0.00	-0.1
Rüzgar Y	0.00	0.00	-1.02	-2.34	0.00	0.73	0.31	-0.31	0.00	0.01	0.0
P112	I=17 Üst Mx	J=11 Alt Mx	Io=15 Üst My	Jo=0 Alt My	K=0 Tx	L=0 Ty	SolM	SagM	Material:E1		Nz
GGGGGG	0.66	0.35	-8.58	-5.91	0.24	0.85	103.89	-81.60	-0.75	-1.71	44.9
QQQQQQ	0.15	0.08	-2.17	-1.03	0.05	0.15	22.80	-32.04	-0.18	-0.33	7.5
Q_Q_Q	-0.72	-0.33	-2.04	-0.56	-0.22	0.03	-8.60	-16.86	0.21	1.44	3.8
_Q_Q_Q	0.86	0.41	-0.13	-0.47	0.27	0.12	31.39	-15.17	-0.39	-1.77	3.7
QQ_QQ	-0.49	-0.22	-1.89	-0.77	-0.15	0.04	-2.36	-17.96	0.08	1.03	4.2
_QQ_QQ	0.64	0.30	-0.28	-0.26	0.20	0.11	25.16	-14.08	-0.26	-1.36	3.3
Q_QQ_Q	0.15	0.08	-2.17	-1.03	0.05	0.15	22.80	-32.04	-0.18	-0.33	7.5
Zemin	0.97	0.65	6.35	8.03	0.35	0.44	0.00	9.26	0.25	-1.02	4.2
Deprem+X	1.07	0.97	0.12	1.59	0.44	-1.09	-2.79	0.30	0.01	-0.19	-0.7
Deprem-X	-1.03	-0.95	-0.03	-1.13	-0.43	0.68	1.55	-3.69	0.03	0.13	0.5
Deprem+Y	-0.03	-0.02	-8.97	-32.16	-0.01	21.69	14.14	-21.50	-0.03	-0.12	9.1
Deprem-Y	0.03	0.01	8.63	30.91	0.01	-20.88	-12.77	-9.40	0.03	0.11	-8.8
Deprem Z	0.55	0.29	-7.12	-4.91	0.20	0.70	86.23	-67.73	0.00	0.00	37.2
Rüzgar X	0.03	0.03	-0.01	0.03	0.01	-0.02	-0.12	0.00	0.00	0.00	-0.0
Rüzgar Y	0.00	0.00	-0.34	-1.17	0.00	0.82	0.24	-1.04	0.00	0.00	0.3

PANEL STATİK HESAP SONUÇLARI (tm)

P113	I=10 Üst Mx	J=17 Alt Mx	Io=13 Üst My	Jo=0 Alt My	K=0 Tx	L=0 Ty	SolM	SagM	Material:E1		Nz
GGGGGG	-0.04	-0.02	4.34	1.41	-0.01	-1.35	-576.20	429.18	1.74	-1.74	8.6
QQQQQQ	-0.01	0.00	0.93	0.31	0.00	-0.29	-144.47	107.96	0.34	-0.34	1.2
Q_Q_Q	-0.03	-0.02	0.39	0.13	-0.01	-0.12	12.77	-19.02	1.49	-1.49	0.3
_Q_Q_Q	0.02	0.01	0.54	0.19	0.01	-0.17	-157.24	126.98	-1.15	1.15	0.8
QQ_QQ	-0.02	-0.01	0.53	0.18	-0.01	-0.17	-33.80	19.81	1.13	-1.13	0.4
_QQ_QQ	0.02	0.01	0.40	0.13	0.01	-0.12	-110.67	88.15	-0.79	0.79	0.8
Q_QQ_Q	-0.01	0.00	0.93	0.31	0.00	-0.29	-144.47	107.96	0.34	-0.34	1.2
Zemin	0.14	0.12	-3.36	-2.62	0.06	1.45	0.00	9.26	-2.16	2.16	-0.3
Deprem+X	0.21	0.22	-0.01	0.27	0.09	-0.07	87.70	-84.65	0.31	-0.31	0.3
Deprem-X	-0.24	-0.24	0.20	-0.13	-0.11	-0.01	-89.30	83.47	-0.30	0.30	-0.3
Deprem+Y	0.01	0.01	-6.24	-5.38	0.00	2.86	-142.26	217.74	-0.04	0.04	-0.9
Deprem-Y	-0.01	0.00	6.01	5.20	0.00	-2.75	142.45	-215.20	0.04	-0.04	0.9
Deprem Z	-0.03	-0.02	3.60	1.17	-0.01	-1.12	-478.24	356.22	0.00	0.00	7.1
Rüzgar X	0.01	0.01	-0.01	0.00	0.00	0.00	2.73	-2.54	0.01	-0.01	0.0
Rüzgar Y	0.00	0.00	-0.25	-0.21	0.00	0.11	-6.81	10.00	0.00	0.00	-0.0
P114	I=22 Üst Mx	J=18 Alt Mx	Io=21 Üst My	Jo=0 Alt My	K=0 Tx	L=0 Ty	SolM	SagM	Material:E1		Nz
GGGGGG	2.93	1.36	-0.35	-3.77	0.90	0.11	74.86	-42.22	-2.77	-5.87	24.3
QQQQQQ	0.78	0.36	-0.08	-0.70	0.24	-0.02	11.35	-22.07	-0.74	-1.58	2.3
Q_Q_Q	0.84	0.39	-0.07	-0.69	0.26	-0.03	11.48	-22.82	-0.81	-1.69	2.4
_Q_Q_Q	-0.06	-0.03	-0.01	0.00	-0.02	0.01	-0.12	0.75	0.07	0.11	-0.0
QQ_QQ	0.82	0.38	-0.09	-0.73	0.25	-0.01	10.86	-22.71	-0.79	-1.66	2.4
_QQ_QQ	-0.04	-0.02	0.02	0.04	-0.01	-0.01	0.49	0.64	0.05	0.08	-0.0
Q_QQ_Q	0.78	0.36	-0.08	-0.70	0.24	-0.02	11.35	-22.07	-0.74	-1.58	2.3
Zemin	-1.31	-0.68	2.91	10.54	-0.46	-0.54	0.00	11.33	0.98	3.06	5.5
Deprem+X	0.85	0.84	7.54	-5.16	0.36	0.50	9.24	-7.82	-0.33	0.04	3.1
Deprem-X	-0.83	-0.82	-6.05	7.14	-0.35	-2.38	-7.87	6.74	0.33	-0.07	-3.6
Deprem+Y	-0.02	-0.01	-5.39	-27.15	-0.01	17.04	-13.15	-13.60	-0.06	-0.19	7.2
Deprem-Y	0.01	0.01	3.82	21.62	0.01	-13.23	12.57	-8.51	0.05	0.15	-5.7
Deprem Z	2.43	1.13	-0.29	-3.13	0.75	0.09	62.13	-35.05	0.00	0.00	20.2
Rüzgar X	0.03	0.03	0.23	-0.20	0.01	0.06	0.26	-0.23	-0.01	0.00	0.1
Rüzgar Y	0.00	0.00	-0.19	-1.01	0.00	0.67	-0.67	-0.19	0.00	-0.01	0.3
P115	I=23 Üst Mx	J=22 Alt Mx	Io=24 Üst My	Jo=0 Alt My	K=0 Tx	L=0 Ty	SolM	SagM	Material:E1		Nz
GGGGGG	0.18	0.10	0.50	-0.12	0.06	-0.08	-11.06	-24.53	1.36	2.80	3.0
QQQQQQ	0.04	0.02	0.01	-0.02	0.01	0.00	-5.03	-9.39	0.33	0.68	-0.0
Q_Q_Q	0.05	0.02	0.00	-0.02	0.02	0.01	-4.70	-11.35	0.36	0.74	-0.0
_Q_Q_Q	0.00	0.00	0.01	0.00	0.00	0.00	-0.33	-0.77	-0.03	-0.06	0.0
QQ_QQ	0.04	0.02	-0.01	-0.03	0.02	0.01	-4.18	-11.14	0.34	0.70	-0.0
_QQ_QQ	0.00	0.00	0.02	0.01	0.00	0.00	-0.85	-0.35	-0.01	-0.02	0.0
Q_QQ_Q	0.04	0.02	0.01	-0.02	0.01	0.00	-5.03	-9.39	0.33	0.68	-0.0
Zemin	-0.13	-0.06	-1.29	-1.48	-0.04	0.56	0.00	44.42	-1.09	-0.60	1.8
Deprem+X	0.13	0.16	-1.36	-0.42	0.06	0.35	43.95	-41.64	-0.04	0.84	1.7
Deprem-X	-0.15	-0.18	1.95	0.85	-0.07	-0.55	-41.59	-1.83	-0.04	-0.94	-1.7
Deprem+Y	0.03	0.02	-3.62	-3.58	0.01	1.46	-69.65	-80.91	0.12	0.10	-1.4
Deprem-Y	-0.02	-0.01	2.76	2.75	-0.01	-1.12	56.79	-82.14	-0.10	-0.04	1.1
Deprem Z	0.15	0.08	0.41	-0.10	0.05	-0.06	-9.18	-20.36	0.00	0.00	2.5
Rüzgar X	0.01	0.01	-0.07	-0.03	0.00	0.02	1.32	-1.21	0.01	0.02	0.0
Rüzgar Y	0.00	0.00	-0.15	-0.15	0.00	0.06	-3.09	-4.70	0.01	0.00	-0.0

PANEL BETONARME HESAP SONUÇLARI

Panel			N (t)	maxM	fcd	ρ	As	Donatı
P104	Bx=175 By=30 I/J :2/0 Hk = 4.600 m Asw= 7.50 cm ² /m	X-(G+Q) X-(G+Q+E) Y-(G+Q) Y-(G+Q+E) Y-(Zemin)	6.609 17.552 6.609 10.103 6.609	5.07 8.78 -3.61 -2.71 0.00	233.3 233.3 233.3 233.3 233.3	0.0010 0.0010 0.0045 0.0013 0.0045	5.25 5.25 23.43 6.57 13.38	2×10ø18 (düşey) ø10/20 (yatay)
P105	Bx=105 By=30 I/J :7/0 Hk = 4.600 m Asw= 7.50 cm ² /m	X-(G+Q) X-(G+Q+E) Y-(G+Q) Y-(G+Q+E) Y-(Zemin)	6.714 12.522 6.714 8.361 6.714	13.37 25.97 -3.57 -2.70 0.00	233.3 233.3 233.3 233.3 233.3	0.0012 0.0012 0.0038 0.0013 0.0038	3.88 3.88 11.86 3.94 11.29	2×6ø16 (düşey) ø10/20 (yatay)
P106	Bx=120 By=30 I/J :12/0 Hk = 4.600 m Asw= 7.50 cm ² /m	X-(G+Q) X-(G+Q+E) Y-(G+Q) Y-(G+Q+E) Y-(Zemin)	5.587 9.325 5.587 7.307 5.587	2.12 4.47 -0.34 -0.35 0.00	233.3 233.3 233.3 233.3 233.3	0.0010 0.0010 0.0039 0.0013 0.0039	3.60 3.60 13.87 4.50 11.57	2×6ø18 (düşey) ø10/20 (yatay)
P107	Bx=80 By=30 I/J :20/0 Hk = 4.600 m Asw= 7.50 cm ² /m	X-(G+Q) X-(G+Q+E) Y-(G+Q) Y-(G+Q+E) Y-(Zemin)	3.622 5.342 3.622 6.432 3.622	5.36 10.49 0.37 0.31 0.00	233.3 233.3 233.3 233.3 233.3	0.0014 0.0014 0.0159 0.0013 0.0159	3.48 3.48 38.17 3.00 47.65	2×8ø26 (düşey) ø10/20 (yatay)
P108	Bx=175 By=30 I/J :8/0 Hk = 4.600 m Asw= 7.50 cm ² /m	X-(G+Q) X-(G+Q+E) Y-(G+Q) Y-(G+Q+E) Y-(Zemin)	7.589 18.104 7.589 12.142 7.589	7.26 9.92 3.07 2.75 0.00	233.3 233.3 233.3 233.3 233.3	0.0010 0.0010 0.0044 0.0013 0.0044	5.25 5.25 23.27 6.57 13.29	2×10ø18 (düşey) ø10/20 (yatay)
P109	Bx=105 By=30 I/J :9/0 Hk = 4.600 m Asw= 7.50 cm ² /m	X-(G+Q) X-(G+Q+E) Y-(G+Q) Y-(G+Q+E) Y-(Zemin)	9.430 15.754 9.430 13.302 9.430	13.03 24.97 3.05 2.81 0.00	233.3 233.3 233.3 233.3 233.3	0.0011 0.0011 0.0036 0.0013 0.0036	3.43 3.43 11.42 3.94 10.87	2×6ø16 (düşey) ø10/20 (yatay)
P110	Bx=300 By=30 I/J :14/0 Hk = 4.600 m Asw= 7.50 cm ² /m	X-(G+Q) X-(G+Q+E) Y-(G+Q) Y-(G+Q+E) Y-(Zemin)	23.592 23.884 23.592 30.681 23.592	-5.51 21.14 1.03 1.17 0.00	233.3 233.3 233.3 233.3 233.3	0.0010 0.0010 0.0042 0.0013 0.0042	9.00 9.00 38.05 11.25 12.68	2×19ø16 (düşey) ø10/20 (yatay)
P111	Bx=30 By=610 I/J :3/0 Hk = 4.600 m Asw= 7.50 cm ² /m	X-(G+Q) X-(G+Q+E) Y-(G+Q) Y-(G+Q+E) X-(Zemin)	64.305 49.022 64.305 54.804 64.305	-10.82 -8.46 12.74 69.11 0.00	233.3 233.3 233.3 233.3 233.3	0.0041 0.0013 0.0010 0.0010 0.0041	74.61 22.88 18.31 18.31 12.23	2×38ø16 (düşey) ø10/20 (yatay)
P112	Bx=30 By=500 I/J :15/0 Hk = 4.600 m Asw= 7.50 cm ² /m	X-(G+Q) X-(G+Q+E) Y-(G+Q) Y-(G+Q+E) X-(Zemin)	81.847 68.656 81.847 77.138 81.847	3.85 3.72 -15.48 35.75 0.00	233.3 233.3 233.3 233.3 233.3	0.0029 0.0013 0.0010 0.0010 0.0029	43.24 18.76 15.01 15.01 8.64	2×29ø14 (düşey) ø10/20 (yatay)
P113	Bx=30 By=150 I/J :13/0 Hk = 4.600 m Asw= 7.50 cm ² /m	X-(G+Q) X-(G+Q+E) Y-(G+Q) Y-(G+Q+E) X-(Zemin)	14.043 12.372 14.043 12.982 14.043	-0.34 0.37 7.56 12.59 0.00	233.3 233.3 233.3 233.3 233.3	0.0029 0.0013 0.0010 0.0010 0.0029	12.84 5.62 4.50 4.50 8.56	2×7ø16 (düşey) ø10/20 (yatay)
P114	Bx=30 By=430 I/J :21/0 Hk = 4.600 m Asw= 7.50 cm ² /m	X-(G+Q) X-(G+Q+E) Y-(G+Q) Y-(G+Q+E) X-(Zemin)	46.719 41.444 46.719 45.557 46.719	5.45 5.35 11.64 34.89 0.00	233.3 233.3 233.3 233.3 233.3	0.0041 0.0013 0.0010 0.0010 0.0041	52.37 16.13 12.91 12.91 12.17	2×27ø16 (düşey) ø10/20 (yatay)
P115	Bx=30 By=80 I/J :24/0 Hk = 4.600 m Asw= 7.50 cm ² /m	X-(G+Q) X-(G+Q+E) Y-(G+Q) Y-(G+Q+E) X-(Zemin)	7.204 7.417 7.204 6.280 7.204	0.32 0.42 -2.57 -5.20 0.00	233.3 233.3 233.3 233.3 233.3	0.0156 0.0013 0.0010 0.0010 0.0156	37.54 3.00 2.40 2.40 46.92	2×8ø26 (düşey) ø10/20 (yatay)



$$\overrightarrow{V_e} \quad Mr1=As1 f_{yd} e, \quad Mr2=0.85 A_{c2} f_{cd} + As2 f_{yd} e$$

$$\overleftarrow{V_e} \quad Mr1=0.85 A_{c1} f_{cd} + As1 f_{yd} e, \quad Mr2=As2 f_{yd} e$$

$$M_d = (M_{c1} + N_{c1} \times e) + (M_{c2} + N_{c2} \times e) + M_p$$

$$M_r = M_{rp} + M_{r1} + M_{r2} > M_d$$

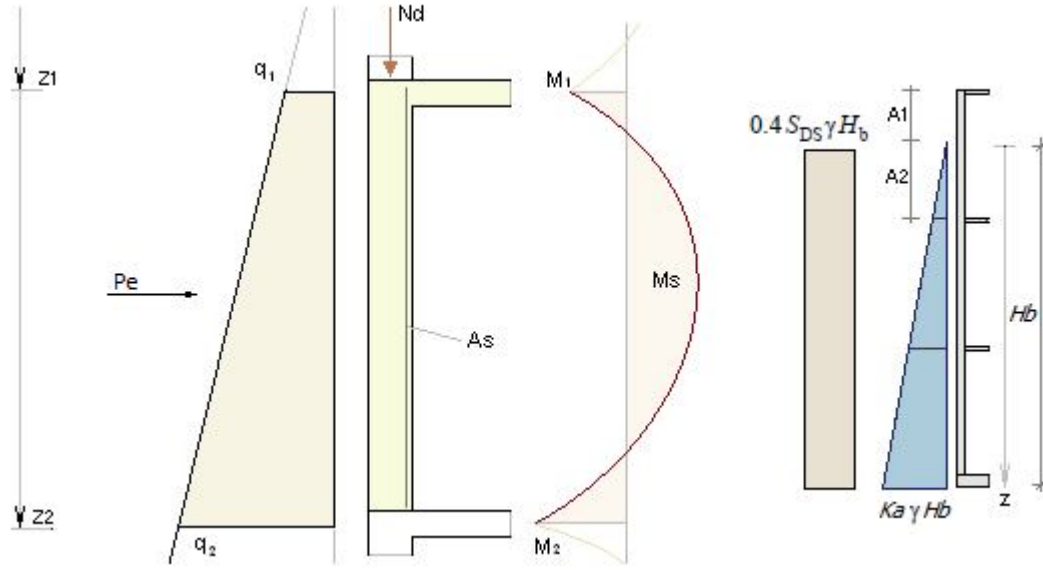
$$g_{sh} = \frac{2 \cdot A_{s_{sw}}}{A_{ch}} \frac{L_w}{s} \quad V_r = 0.22 A_{ch} f_{cd} > V_d$$

$$V_r = 0.65 f_{ctd} A_c + g_{sh} A_{ch} f_{yd} > V_d$$

PANEL MOMENT ve KESME KAPASİTE KONTROLÜ (tm)

Panel	Kom.	Mp	Mc1	Mc2	Mrp	Mr1	Mr2	ΣMd	ΣMr	Vd	Vr	✓, ✗
P104	9	-6.13	-3.69	0.36	280.88	724.72	154.59	9.46	1160.18	26.19	169.51	✓
P105	10	18.86	0.30	1.40	127.20	725.42	115.14	20.56	967.76	18.41	169.51	✓
P106	10	-3.68	1.50	-1.15	184.13	123.68	777.77	3.33	1085.57	14.74	177.79	✓
P107	10	-7.01	0.95	-1.27	280.46	101.20	388.71	7.33	770.37	9.70	116.72	✓
P108	10	4.76	3.69	-0.30	255.02	724.72	154.59	8.16	1134.33	25.82	169.51	✓
P109	9	18.18	0.25	0.30	128.92	115.25	724.72	18.73	968.89	-15.49	169.51	✓
P110	10	-19.81	0.52	-6.68	568.13	224.88	1166.48	25.97	1959.49	24.31	238.94	✓
P111	12	-70.25	9.34	9.62	2186.33	2511.22	398.97	51.28	5096.51	22.24	450.16	✓
P112	11	-39.10	5.35	4.33	1114.03	337.15	1874.57	29.42	3325.75	23.13	350.13	✓
P113	11	11.51	-0.75	2.23	151.61	635.94	140.59	13.00	928.15	-4.50	155.59	✓
P114	11	-31.61	5.05	6.66	1228.17	297.82	1874.57	19.90	3400.56	-17.50	350.13	✓
P115	11	4.12	0.08	1.72	387.05	635.94	101.26	5.92	1124.24	1.95	155.59	✓

PANELLER ZEMİN YÜKÜ ANALİZİ



ZEMİN YUKU = $Ka \cdot (\gamma \cdot Hb + q)$
 ZEMİN BİRİM HACİM AĞIRLIĞI = 1.8
 ZEMİN İÇSEL SURTUNME ACISI = 30.0
 Kas=0.333 Birimler: (t,m)

Panel	KOMBİN	Z1/Z2	q1	q2	V1	V2	M1	M2	Ms	maxM/As	Donatı
P104 Hb=4.6	1.6 S S + E	0.00 4.60	3.15 4.12	3.15 4.12	9.16 6.82	14.02 11.62	0.00 0.00	11.33 10.90	8.79 5.99	11.33 13.38	ø18/18 (As=14.53 cm ² /m) Zemin yuku
P105 Hb=4.6	1.6 S S + E	0.00 4.60	3.15 4.12	3.15 4.12	9.16 6.82	14.02 11.62	0.00 0.00	11.33 10.90	8.79 5.99	11.33 11.29	ø16/18 (As=11.47 cm ² /m) Zemin yuku
P106 Hb=4.6	1.6 S S + E	0.00 4.60	3.15 4.12	3.15 4.12	9.16 6.82	14.02 11.62	0.00 0.00	11.33 10.90	8.79 5.99	11.33 11.57	ø18/20 (As=12.73 cm ² /m) Zemin yuku
P107 Hb=4.6	1.6 S S + E	0.00 4.60	3.15 4.12	3.15 4.12	-21.02 -20.65	44.20 37.56	0.00 0.00	44.42 42.75	0.00 0.00	44.42 47.65	ø26/10 (As=53.0 cm ² /m) Zemin yuku
P108 Hb=4.6	1.6 S S + E	0.00 4.60	3.15 4.12	3.15 4.12	9.16 6.82	14.02 11.62	0.00 0.00	11.33 10.90	8.79 5.99	11.33 13.29	ø18/18 (As=14.53 cm ² /m) Zemin yuku
P109 Hb=4.6	1.6 S S + E	0.00 4.60	3.15 4.12	3.15 4.12	9.16 6.82	14.02 11.62	0.00 0.00	11.33 10.90	8.79 5.99	11.33 10.87	ø16/18 (As=11.47 cm ² /m) Zemin yuku
P110 Hb=4.6	1.6 S S + E	0.00 4.60	3.15 4.12	3.15 4.12	9.16 6.82	14.02 11.62	0.00 0.00	11.33 10.90	8.79 5.99	11.33 12.68	ø16/16 (As=12.73 cm ² /m) Zemin yuku
P111 Hb=4.6	1.6 S S + E	0.00 4.60	3.15 4.12	3.15 4.12	9.16 6.82	14.02 11.62	0.00 0.00	11.33 10.90	8.79 5.99	11.33 12.23	ø16/16 (As=12.51 cm ² /m) Zemin yuku
P112 Hb=3.4	1.6 S S + E	0.00 3.40	3.00 3.05	3.00 3.05	4.10 2.79	12.22 10.49	0.00 0.00	9.26 9.15	6.86 4.67	9.26 8.64	ø14/17 (As=8.92 cm ² /m) Zemin yuku
P113 Hb=3.4	1.6 S S + E	0.00 3.40	3.00 3.05	3.00 3.05	4.10 2.79	12.22 10.49	0.00 0.00	9.26 9.15	6.86 4.67	9.26 8.56	ø16/21 (As=9.38 cm ² /m) Zemin yuku
P114 Hb=3.4	1.6 S S + E	0.00 4.60	3.15 4.12	3.15 4.12	9.16 6.82	14.02 11.62	0.00 0.00	11.33 10.90	8.79 5.99	11.33 12.17	ø16/16 (As=12.61 cm ² /m) Zemin yuku
P115 Hb=3.4	1.6 S S + E	0.00 4.60	3.15 4.12	3.15 4.12	-21.02 -20.65	44.20 37.56	0.00 0.00	44.42 42.75	0.00 0.00	44.42 46.92	ø26/10 (As=53.07 cm ² /m) Zemin yuku

KAT BURKULMA HESABI (t) (TS500-7.6)

$\theta = 1.5 \sum (\Delta_i N_{di}/L) / V_{fi}$ $\theta \leq 0.05$ Kat yanal deplasmanı önlenmiş, $\theta > 0.05$ Kat yanal deplasmanı önlenmemiş
 $\beta_s = 1 / (1 - 1.3 \cdot \sum N_g / \sum N_d) \geq 1$ Kat burkulması
 $\sum N_d \leq 0.45 \sum N_{kr}$ ✓ , $\sum N_d > 0.45 \sum N_{kr}$ ✗ (Kat kolonları büyütülecektir.)

Kat	$\sum (\Delta_i N_{di}/L)$	V_{fi}	θ	$\sum N_g$	$\sum N_{kr}$	β_s	$\sum N_d \leq 0.45 \sum N_{kr}$
1 X	0.037916	98.275	0.000579	438.2	5558714.0	1.0000	✓
1 Y	0.009670	69.177	0.000210	438.2	22169400.0	1.0000	✓

KOLON BURKULMA HESAP SONUÇLARI

X Yönü				Y Yönü			
Kat :1 $\alpha_u = 0.001$ S101 $\alpha_a = 0$ Kat :	(I/L)b=0.5064394 (I/L)c=0.00048913 (I/L)b=0	Hk= 4.600 Ix=0.00225 Ac=0.3 k(α_u, α_a)=0.049 Lkr=0.216 Cmx=0.413 Rm=Ng/Nd=0.934		Kat :1 $\alpha_u = 0.024$ S101 $\alpha_a = 0$ Kat :	(I/L)b=0.1588933 (I/L)c=0.00543478 (I/L)b=0	Hk= 4.600 Iy=0.025 Ac=0.3 k(α_u, α_a)=0.062 Lkr=0.272 Cmy=0.448 Rm=Ng/Nd=0.934	
yanal deplasman onlenmiş EI=0.4 EcIc / (1 + Rm)=1544.608 Nd=8.952 Nkr= π^2 EI/Lkr ² =3149.674 $\beta_x = C_m / (1 - 1.3 N_d / N_{kr}) = 0.414$ $\lambda_x = L_{kr} / i_x = 2.5 < 100$ ✓ (Lk/i) < 35 / $\sqrt{(N_d / f_{ck} A_c)} >> \beta = \beta_x$				yanal deplasman onlenmiş EI=0.4 EcIc / (1 + Rm)=17162.313 Nd=8.952 Nkr= π^2 EI/Lkr ² =34167.78 $\beta_y = C_m / (1 - 1.3 N_d / N_{kr}) = 0.448$ $\lambda_y = L_{kr} / i_y = 0.9 < 100$ ✓ (Lk/i) < 35 / $\sqrt{(N_d / f_{ck} A_c)} >> \beta = \beta_y$			
Kat :1 $\alpha_u = 0.003$ S102 $\alpha_a = 0$ Kat :	(I/L)b=1.336959 (I/L)c=0.00543478 (I/L)b=0	Hk= 4.600 Ix=0.025 Ac=0.3 k(α_u, α_a)=0.164 Lkr=0.721 Cmx=0.4 Rm=Ng/Nd=0.808		Kat :1 $\alpha_u = 0.453$ S102 $\alpha_a = 0$ Kat :	(I/L)b=0.00075585 (I/L)c=0.00048913 (I/L)b=0	Hk= 4.600 Iy=0.00225 Ac=0.3 k(α_u, α_a)=0.5 Lkr=2 Cmy=0.4 Rm=Ng/Nd=0.808	
yanal deplasman onlenmiş EI=0.4 EcIc / (1 + Rm)=18358.365 Nd=47.509 Nkr= π^2 EI/Lkr ² =37428.53 $\beta_x = C_m / (1 - 1.3 N_d / N_{kr}) = 0.401$ $\lambda_x = L_{kr} / i_x = 2.5 < 100$ ✓ (Lk/i) < 35 / $\sqrt{(N_d / f_{ck} A_c)} >> \beta = \beta_x$				yanal deplasman onlenmiş EI=0.4 EcIc / (1 + Rm)=1652.253 Nd=47.509 Nkr= π^2 EI/Lkr ² =2993.415 $\beta_y = C_m / (1 - 1.3 N_d / N_{kr}) = 0.408$ $\lambda_y = L_{kr} / i_y = 23.1 < 100$ ✓ (Lk/i) < 35 / $\sqrt{(N_d / f_{ck} A_c)} >> \beta = \beta_y$			
Kat :1 $\alpha_u = 0.002$ S103 $\alpha_a = 0$ Kat :	(I/L)b=1.560985 (I/L)c=0.00543478 (I/L)b=0	Hk= 4.600 Ix=0.025 Ac=0.3 k(α_u, α_a)=0.156 Lkr=0.688 Cmx=0.999 Rm=Ng/Nd=0.94		Kat :1 $\alpha_u = 0.001$ S103 $\alpha_a = 0$ Kat :	(I/L)b=0.6074438 (I/L)c=0.00048913 (I/L)b=0	Hk= 4.600 Iy=0.00225 Ac=0.3 k(α_u, α_a)=0.054 Lkr=0.236 Cmy=0.4 Rm=Ng/Nd=0.94	
yanal deplasman onlenmiş EI=0.4 EcIc / (1 + Rm)=17109.303 Nd=6.348 Nkr= π^2 EI/Lkr ² =34883.17 $\beta_x = C_m / (1 - 1.3 N_d / N_{kr}) = 0.999$ $\lambda_x = L_{kr} / i_x = 2.4 < 100$ ✓ (Lk/i) < 35 / $\sqrt{(N_d / f_{ck} A_c)} >> \beta = \beta_x$				yanal deplasman onlenmiş EI=0.4 EcIc / (1 + Rm)=1539.837 Nd=6.348 Nkr= π^2 EI/Lkr ² =3139.975 $\beta_y = C_m / (1 - 1.3 N_d / N_{kr}) = 0.401$ $\lambda_y = L_{kr} / i_y = 2.7 < 100$ ✓ (Lk/i) < 35 / $\sqrt{(N_d / f_{ck} A_c)} >> \beta = \beta_y$			
Kat :1 $\alpha_u = 0.002$ S104 $\alpha_a = 0$ Kat :	(I/L)b=1.793749 (I/L)c=0.00543478 (I/L)b=0	Hk= 4.600 Ix=0.025 Ac=0.3 k(α_u, α_a)=0.238 Lkr=1.047 Cmx=0.4 Rm=Ng/Nd=0.92		Kat :1 $\alpha_u = 0.24$ S104 $\alpha_a = 0$ Kat :	(I/L)b=0.00142588 (I/L)c=0.00048913 (I/L)b=0	Hk= 4.600 Iy=0.00225 Ac=0.3 k(α_u, α_a)=0.5 Lkr=2 Cmy=0.417 Rm=Ng/Nd=0.92	
yanal deplasman onlenmiş EI=0.4 EcIc / (1 + Rm)=17291.472 Nd=8.022 Nkr= π^2 EI/Lkr ² =35255.51 $\beta_x = C_m / (1 - 1.3 N_d / N_{kr}) = 0.4$ $\lambda_x = L_{kr} / i_x = 3.6 < 100$ ✓ (Lk/i) < 35 / $\sqrt{(N_d / f_{ck} A_c)} >> \beta = \beta_x$				yanal deplasman onlenmiş EI=0.4 EcIc / (1 + Rm)=1556.232 Nd=8.022 Nkr= π^2 EI/Lkr ² =3141.943 $\beta_y = C_m / (1 - 1.3 N_d / N_{kr}) = 0.418$ $\lambda_y = L_{kr} / i_y = 23.1 < 100$ ✓ (Lk/i) < 35 / $\sqrt{(N_d / f_{ck} A_c)} >> \beta = \beta_y$			
Kat :1 $\alpha_u = 0$ S105 $\alpha_a = 0$ Kat :	(I/L)b=1.063283 (I/L)c=0.00048913 (I/L)b=0	Hk= 4.600 Ix=0.00225 Ac=0.3 k(α_u, α_a)=0.5 Lkr=2.3 Cmx=0.4 Rm=Ng/Nd=0.981		Kat :1 $\alpha_u = 0.004$ S105 $\alpha_a = 0$ Kat :	(I/L)b=1.064613 (I/L)c=0.00543478 (I/L)b=0	Hk= 4.600 Iy=0.025 Ac=0.3 k(α_u, α_a)=0.179 Lkr=0.821 Cmy=0.473 Rm=Ng/Nd=0.981	
yanal deplasman onlenmiş EI=0.4 EcIc / (1 + Rm)=1508.548 Nd=5.582 Nkr= π^2 EI/Lkr ² =2814.55 $\beta_x = C_m / (1 - 1.3 N_d / N_{kr}) = 0.401$ $\lambda_x = L_{kr} / i_x = 26.6 < 100$ ✓ (Lk/i) < 35 / $\sqrt{(N_d / f_{ck} A_c)} >> \beta = \beta_x$				yanal deplasman onlenmiş EI=0.4 EcIc / (1 + Rm)=16761.645 Nd=5.582 Nkr= π^2 EI/Lkr ² =31264.31 $\beta_y = C_m / (1 - 1.3 N_d / N_{kr}) = 0.473$ $\lambda_y = L_{kr} / i_y = 2.8 < 100$ ✓ (Lk/i) < 35 / $\sqrt{(N_d / f_{ck} A_c)} >> \beta = \beta_y$			
Kat :1 $\alpha_u = 0.304$ S106 $\alpha_a = 0$ Kat :	(I/L)b=0.00112646 (I/L)c=0.00048913 (I/L)b=0	Hk= 4.600 Ix=0.00225 Ac=0.3 k(α_u, α_a)=0.5 Lkr=2 Cmx=0.409 Rm=Ng/Nd=0.845		Kat :1 $\alpha_u = 0.005$ S106 $\alpha_a = 0$ Kat :	(I/L)b=0.815144 (I/L)c=0.00543478 (I/L)b=0	Hk= 4.600 Iy=0.025 Ac=0.3 k(α_u, α_a)=0.079 Lkr=0.349 Cmy=0.477 Rm=Ng/Nd=0.845	
yanal deplasman onlenmiş EI=0.4 EcIc / (1 + Rm)=1619.278 Nd=18.49 Nkr= π^2 EI/Lkr ² =3147.254 $\beta_x = C_m / (1 - 1.3 N_d / N_{kr}) = 0.412$ $\lambda_x = L_{kr} / i_x = 23.1 < 100$ ✓ (Lk/i) < 35 / $\sqrt{(N_d / f_{ck} A_c)} >> \beta = \beta_x$				yanal deplasman onlenmiş EI=0.4 EcIc / (1 + Rm)=17991.981 Nd=18.49 Nkr= π^2 EI/Lkr ² =36519.27 $\beta_y = C_m / (1 - 1.3 N_d / N_{kr}) = 0.477$ $\lambda_y = L_{kr} / i_y = 1.2 < 100$ ✓ (Lk/i) < 35 / $\sqrt{(N_d / f_{ck} A_c)} >> \beta = \beta_y$			

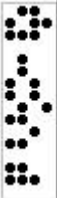
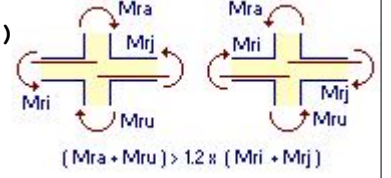
X Yönü			Y Yönü		
Kat :1 $\alpha u=0.342$ s_{107} $\alpha a=0$ Kat :	(I/L)b=0.00100009 (I/L)c=0.00048913 (I/L)b=0	Hk= 4.600 Ix=0.00225 Ac=0.3 k($\alpha u, \alpha a$)=0.5 Lkr=2 Cmx=0.4 Rm=Ng/Nd=0.866	Kat :1 $\alpha u=0.003$ s_{107} $\alpha a=0$ Kat :	(I/L)b=1.282197 (I/L)c=0.00543478 (I/L)b=0	Hk= 4.600 Iy=0.025 Ac=0.3 k($\alpha u, \alpha a$)=0.079 Lkr=0.349 Cmy=0.499 Rm=Ng/Nd=0.866
yanal deplasman onlenmis EI=0.4 EcIc / (1 + Rm)=1601.188 Nd=15.806 Nkr= π^2 EI/Lkr ² =3049.397 βx =Cm/ (1-1.3 Nd/Nkr)=0.403 λx =Lkr/ix=23.1<100 ✓ (Lk/i)<35/√(Nd/fck Ac)>> β = βx			yanal deplasman onlenmis EI=0.4 EcIc / (1 + Rm)=17790.975 Nd=15.806 Nkr= π^2 EI/Lkr ² =36271.39 βy =Cm/ (1-1.3 Nd/Nkr)=0.5 λy =Lkr/iy=1.2<100 ✓ (Lk/i)<35/√(Nd/fck Ac)>> β = βy		
Kat :1 $\alpha u=0.001$ s_{108} $\alpha a=0$ Kat :	(I/L)b=0.5064394 (I/L)c=0.00048913 (I/L)b=0	Hk= 4.600 Ix=0.00225 Ac=0.3 k($\alpha u, \alpha a$)=0.049 Lkr=0.216 Cmx=0.423 Rm=Ng/Nd=0.931	Kat :1 $\alpha u=0.024$ s_{108} $\alpha a=0$ Kat :	(I/L)b=0.1588933 (I/L)c=0.00543478 (I/L)b=0	Hk= 4.600 Iy=0.025 Ac=0.3 k($\alpha u, \alpha a$)=0.506 Lkr=2.227 Cmy=0.454 Rm=Ng/Nd=0.931
yanal deplasman onlenmis EI=0.4 EcIc / (1 + Rm)=1547.783 Nd=9.23 Nkr= π^2 EI/Lkr ² =3156.149 βx =Cm/ (1-1.3 Nd/Nkr)=0.424 λx =Lkr/ix=2.5<100 ✓ (Lk/i)<35/√(Nd/fck Ac)>> β = βx			yanal deplasman onlenmis EI=0.4 EcIc / (1 + Rm)=17197.591 Nd=9.23 Nkr= π^2 EI/Lkr ² =34238.01 βy =Cm/ (1-1.3 Nd/Nkr)=0.454 λy =Lkr/iy=7.7<100 ✓ (Lk/i)<35/√(Nd/fck Ac)>> β = βy		
Kat :1 $\alpha u=0.003$ s_{109} $\alpha a=0$ Kat :	(I/L)b=1.336959 (I/L)c=0.00543478 (I/L)b=0	Hk= 4.600 Ix=0.025 Ac=0.3 k($\alpha u, \alpha a$)=0.164 Lkr=0.721 Cmx=0.4 Rm=Ng/Nd=0.81	Kat :1 $\alpha u=0.453$ s_{109} $\alpha a=0$ Kat :	(I/L)b=0.00075585 (I/L)c=0.00048913 (I/L)b=0	Hk= 4.600 Iy=0.00225 Ac=0.3 k($\alpha u, \alpha a$)=0.5 Lkr=2 Cmy=0.4 Rm=Ng/Nd=0.81
yanal deplasman onlenmis EI=0.4 EcIc / (1 + Rm)=18344.682 Nd=45.971 Nkr= π^2 EI/Lkr ² =37400.64 βx =Cm/ (1-1.3 Nd/Nkr)=0.401 λx =Lkr/ix=2.5<100 ✓ (Lk/i)<35/√(Nd/fck Ac)>> β = βx			yanal deplasman onlenmis EI=0.4 EcIc / (1 + Rm)=1651.021 Nd=45.971 Nkr= π^2 EI/Lkr ² =2991.183 βy =Cm/ (1-1.3 Nd/Nkr)=0.408 λy =Lkr/iy=23.1<100 ✓ (Lk/i)<35/√(Nd/fck Ac)>> β = βy		
Kat :1 $\alpha u=0.003$ s_{110} $\alpha a=0$ Kat :	(I/L)b=1.134241 (I/L)c=0.00543478 (I/L)b=0	Hk= 4.600 Ix=0.025 Ac=0.3 k($\alpha u, \alpha a$)=0.116 Lkr=0.512 Cmx=0.464 Rm=Ng/Nd=0.917	Kat :1 $\alpha u=0.002$ s_{110} $\alpha a=0$ Kat :	(I/L)b=0.2077002 (I/L)c=0.00048913 (I/L)b=0	Hk= 4.600 Iy=0.00225 Ac=0.3 k($\alpha u, \alpha a$)=0.5 Lkr=2.2 Cmy=0.4 Rm=Ng/Nd=0.917
yanal deplasman onlenmis EI=0.4 EcIc / (1 + Rm)=17320.741 Nd=8.972 Nkr= π^2 EI/Lkr ² =35311.56 βx =Cm/ (1-1.3 Nd/Nkr)=0.465 λx =Lkr/ix=1.8<100 ✓ (Lk/i)<35/√(Nd/fck Ac)>> β = βx			yanal deplasman onlenmis EI=0.4 EcIc / (1 + Rm)=1558.867 Nd=8.972 Nkr= π^2 EI/Lkr ² =3178.492 βy =Cm/ (1-1.3 Nd/Nkr)=0.401 λy =Lkr/iy=25.4<100 ✓ (Lk/i)<35/√(Nd/fck Ac)>> β = βy		
Kat :1 $\alpha u=0.001$ s_{111} $\alpha a=0$ Kat :	(I/L)b=0.3037218 (I/L)c=0.00048913 (I/L)b=0	Hk= 4.600 Ix=0.00225 Ac=0.3 k($\alpha u, \alpha a$)=0.5 Lkr=2.2 Cmx=0.403 Rm=Ng/Nd=0.915	Kat :1 $\alpha u=0.017$ s_{111} $\alpha a=0$ Kat :	(I/L)b=0.2175843 (I/L)c=0.00543478 (I/L)b=0	Hk= 4.600 Iy=0.025 Ac=0.3 k($\alpha u, \alpha a$)=0.504 Lkr=2.219 Cmy=0.475 Rm=Ng/Nd=0.915
yanal deplasman onlenmis EI=0.4 EcIc / (1 + Rm)=1560.063 Nd=10.07 Nkr= π^2 EI/Lkr ² =3181.07 βx =Cm/ (1-1.3 Nd/Nkr)=0.405 λx =Lkr/ix=25.4<100 ✓ (Lk/i)<35/√(Nd/fck Ac)>> β = βx			yanal deplasman onlenmis EI=0.4 EcIc / (1 + Rm)=17334.039 Nd=10.07 Nkr= π^2 EI/Lkr ² =34734.25 βy =Cm/ (1-1.3 Nd/Nkr)=0.475 λy =Lkr/iy=7.7<100 ✓ (Lk/i)<35/√(Nd/fck Ac)>> β = βy		

GÜÇLÜ KOLONLARIN, KAT KESME GÜVENLİĞİ (t)

(TBDY2018-7.3.5)

Kat	Dyf	Vsx	Vkx	α_x	Vsy	Vky	α_y
1	1	95.78	95.78	1.00	61.51	61.51	1.00

$V_s/V_k > .70$ KOŞULU SAĞLANMAKTADIR. GÜÇLÜ KOLONLAR, $(1/\alpha)$ ile ÇARPILMIŞTIR.
Tek katlı binalarda ve çok katlı binaların en üst katında bu kontrol yapılmaz

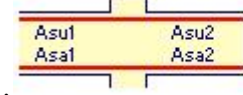


KOLON-KİRİŞ BİRLEŞİM KESME GÜVENLİK KONTROLU

TBDY 2018-7.5'e göre yapılmıştır.

 $V_e = 1.25 f_{yk} (A_{s1} + A_{s2}) - V_{kol} < V_{max} = (1.7 \div 1.0) b_j h_c \sqrt{f_{ck}}$

Konsol kirişler, Kolon-kiriş birleşim kontrolunda dikkate alınmamıştır.

 $B_j \text{ genişlik opsiyonu : } b_j = \min(B_{w1}, B_{w2}, B_c, (B_{w1} + 2.X_1), (B_{w2} + 2.X_2))$ 

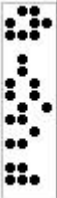
$$A_{st} > \begin{matrix} A_{s1} + A_{s2} \\ A_{s1} + A_{s2} \end{matrix}$$

Bodrum katlar; sınırlı sünek kat olup, kolon-kiriş birleşim kesme kontrolu yeterliliği aranmaz.

Perdelerde kolon-kiriş birleşim kontrolu yapılmaz. Sadece kolonlarda yapılır.

Kolon-kiriş birleşim kesme kontrolu yapılacak kolon bulunmamıştır.

Kolon	Bx/By	bw1	bw2	b _j	Asu1	Asa1	Asu2	Asa2	A _{st}	V _{kol}	V _e	V _{max}	AÇIKLAMA



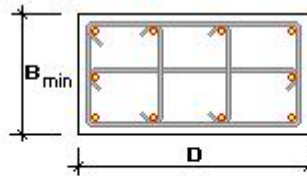
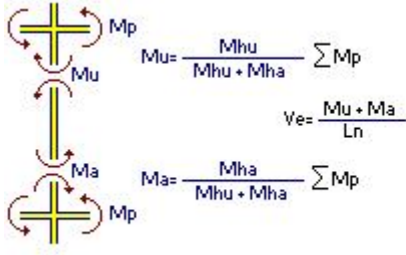
KOLONLARIN KESME DAYANIM KONTROLU

$$V_w = (A_{sw}/s) \cdot f_{ywd} \cdot d, \quad V_{cr} = 0.65 \cdot f_{ctd} \cdot A_c, \quad V_r = 0.8 \cdot V_{cr} + V_w, \quad 0.85 \cdot A_c \cdot v_{fck} \geq V_d \quad (t, cm^2) \quad TBDY2018-7.3.7$$

$$V_{fr} = (f_{ctd} \cdot A_c + \mu \cdot A_s \cdot f_{yd}) = \quad \text{İş Derzi Sürtünme Kesme Dayanımı} \quad TBDY2018-7.6.7.1$$

$$\mu = 1 \quad (\text{pürüzlendirilmiş yüzey} \geq 5mm) \quad f_{ctd} = 13.79 (kg/cm^2)$$

Kolon		Ac	As	A _{sw} /s	V _w	V _{cr}	V _d	V _r =0.8 V _{cr} + V _w	V _{fr}
S101	x	3000	15.40	0.4906	53.755	26.899	0.206	80.654 ✓	56.231 ✓
S101	y	3000	15.40	0.1963	71.674	26.899	0.910	98.573 ✓	56.231 ✓
S102	x	3000	15.40	0.1963	71.674	26.899	2.144	98.573 ✓	56.231 ✓
S102	y	3000	15.40	0.4906	53.755	26.899	2.796	80.654 ✓	56.231 ✓
S103	x	3000	15.40	0.1963	71.674	26.899	2.033	98.573 ✓	56.231 ✓
S103	y	3000	15.40	0.4906	53.755	26.899	1.495	80.654 ✓	56.231 ✓
S104	x	3000	15.40	0.1963	71.674	26.899	1.767	98.573 ✓	56.231 ✓
S104	y	3000	15.40	0.4906	53.755	26.899	1.463	80.654 ✓	56.231 ✓
S105	x	3000	15.40	0.4906	53.755	26.899	0.182	80.654 ✓	56.231 ✓
S105	y	3000	15.40	0.1963	71.674	26.899	0.750	98.573 ✓	56.231 ✓
S106	x	3000	15.40	0.4906	53.755	26.899	0.410	80.654 ✓	56.231 ✓
S106	y	3000	15.40	0.1963	71.674	26.899	0.655	98.573 ✓	56.231 ✓
S107	x	3000	15.40	0.4906	53.755	26.899	0.597	80.654 ✓	56.231 ✓
S107	y	3000	15.40	0.1963	71.674	26.899	0.517	98.573 ✓	56.231 ✓
S108	x	3000	15.40	0.4906	53.755	26.899	0.203	80.654 ✓	56.231 ✓
S108	y	3000	15.40	0.1963	71.674	26.899	0.832	98.573 ✓	56.231 ✓
S109	x	3000	15.40	0.1963	71.674	26.899	1.682	98.573 ✓	56.231 ✓
S109	y	3000	15.40	0.4906	53.755	26.899	2.630	80.654 ✓	56.231 ✓
S110	x	3000	15.40	0.1963	71.674	26.899	2.021	98.573 ✓	56.231 ✓
S110	y	3000	15.40	0.4906	53.755	26.899	1.438	80.654 ✓	56.231 ✓
S111	x	3000	15.40	0.4906	53.755	26.899	0.176	80.654 ✓	56.231 ✓
S111	y	3000	15.40	0.1963	71.674	26.899	0.577	98.573 ✓	56.231 ✓



L_n : Kolon kirişler arası serbest yüksekliği
 H_k : Kolon kat yüksekliği
 F_k : Kolon boyunca etriye alan toplamı
 L_{etr} : hesap doğrultusundaki etriye boylarının toplamı

$$\rho = \frac{F_k \cdot L_{etr}}{A_c \cdot H_k} \geq 0,0025$$

$$V_r = 0,65 \cdot A_c \cdot f_{ctd} + \rho \cdot A_c \cdot f_{yd} > V_e$$

$$\text{Dikdörtgen kolonlarda } L_{etr} \cong D \quad A_c = B \cdot D$$

$$\rho = \frac{F_k \cdot D}{B \cdot D \cdot H_k} = \frac{F_k}{B \cdot H_k}$$

$$V_r = 0,65 \cdot B \cdot D \cdot f_{ctd} + F_k \cdot D \cdot f_{yd} / H_k > V_e$$

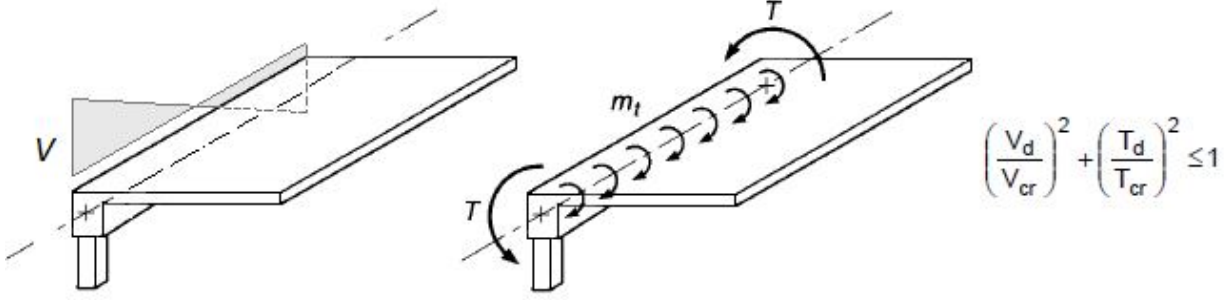
$V_e > V_d(G+Q+D.E, B_{ax}+0.3 \times B_{ay}) \Rightarrow V_e = V_d(G+Q+D.E, B_{ax}+0.3 \times B_{ay})$
 Bodrum katlar; sınırlı sünek kat olup, kesme güvenlik yeterliliği aranmaz.
 10cm'den geniş tuğla duvarlar, kesme güvenliğinde dikkate alınmıştır.
 TBDY2018-7.3.7

KOLONLARIN KESME GÜVENLİK KONTROLÜ

Kolon	+X			-X			+Y			-Y		
	M_p	M_c	M_r	M_p	M_c	M_r	M_p	M_c	M_r	M_p	M_c	M_r

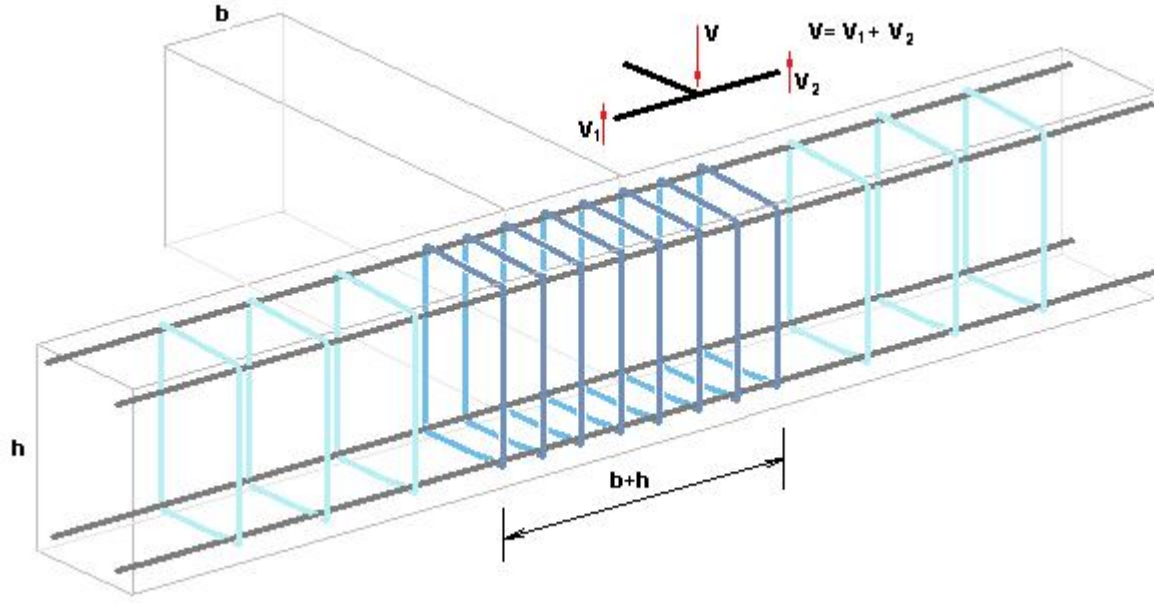
Kısa kolon bulunmamıştır.
 Kısa kolonlar; kolon kenarındaki dolgu duvarlarında pencere boşluğu nedeni ile oluşabilirler.
 Kısa kolon olması durumunda, kesme güvenlik hesabı kısa kolon yüksekliğine göre yapılmaktadır.

$V_{cr}=0.65 \cdot f_{ctd} \cdot b_w \cdot d$, $V_c=0.80 \cdot V_{cr}$, $V_w=A_{sw}/s \cdot f_{ywd} \cdot d$, $V_r=V_c+V_w > V_d$, $f_{ctd}=13.79 \text{ (kg/cm}^2\text{)}$
 $T_{cr} = 1.35 \cdot f_{ctd} \cdot S_x$, $T_r=(V_d/V_{cr})^2 + (T_d/T_{cr})^2 \leq 1$ (Eğik çatlama sınırı), $n \cdot A_{sw}/s \geq 0.3 \cdot f_{ctd}/f_{ywd} \cdot b_w$
 $A_{ov}/s = (V_d - V_c)/(2 \cdot d \cdot f_{ywd})$, $A_{ot}/s = T_d/(2 \cdot A_e \cdot f_{ywd})$, $A_o/s = A_{ov}/s + A_{ot}/s \leq A_{sw}/s$, $A_{sl}=A_{ot}/s$ Ue f_{ywd}/f_{yd}
 $V_d: V(\min\{a+D, a+L_n/3\})$

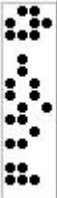


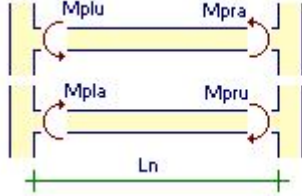
KİRİŞLERİN KESME ve BURULMA KONTROLÜ (tm) (TS500-8.2)

Kiriş	V _{cr}	V _w	V _r	V _d	T _d	T _{cr}	T _r	A _{ov} /s + A _{ot} /s = A _o /s			A _{sw} /s	✓, ✗
K101	19.73	31.56	47.34	4.60	0.8625	6.7636	0.0707	0.0000	0.0104	0.0104	0.1571	✓
K102	29.59	63.12	86.79	18.52	0.5183	15.6433	0.3931	0.0000	0.0028	0.0028	0.3142	✓
K103	14.79	31.56	43.39	1.33	0.0127	3.9110	0.0081	0.0000	0.0020	0.0020	0.1571	✓


KİRİŞ ASKI DONATISI KESME KONTROLÜ (tm) (TS500-8.1.2)

Kiriş	Tali Kiriş	Askı Donatısı	Asw	Bw/H	Vc	Vw	Vr	Vd	✓, ✗
K101	K103	Ø10/9	1.57	40/60	15.78	35.06	50.85	0.03	✓





$$V_e = \frac{M_{plu} + M_{pra}}{L_n}$$

$$V_e = \frac{M_{pla} + M_{pru}}{L_n}$$

$$V_e > V_d(G+Q+D.E, Bax+0.3 \times Bay) \Rightarrow V_e = V_d(G+Q+D.E, Bax+0.3 \times Bay) *$$

$$V_w = (A_{sw}/s) \cdot f_{ywd} \cdot d, \quad V_{cr} = 0.65 \cdot f_{ctd} \cdot A_c, \quad V_r = 0.8 \cdot V_{cr} + V_w, \quad 0.85 \cdot A_c \cdot \sqrt{f_{ck}} \geq V_d \quad \text{TBDY2018-7.4.5.2}$$

KİRİŞLERİN KESME GÜVENLİK KONTROLU (tm) TBDY2018-7.4.5

Kiriş	L_n	M_{plu}	M_{pla}	M_{pru}	M_{pra}	$V_{dl} + V_{pl} = V_{el} < V_{rl}$	$V_{dr} + V_{pr} = V_{er} < V_{rr}$	✓, ✗



TEMELLERE GELEN KOLON YÜKLERİ

S101	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	5.98	0.37	(azaltma)	Nq=	0.37×1.000	=	0.37)	-3.29
Alt Mx	-0.03	-0.01	0.00	-0.01	0.00	0.00	-0.01	0.16
Alt My	-0.54	-0.14	0.00	-0.14	-0.09	-0.05	-0.14	0.27
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	-3.60	3.81	-2.23	2.63	-0.12	-0.09	-0.09	
Alt Mx	0.26	-0.29	-0.03	0.05	0.01	0.00	0.00	
Alt My	-0.30	0.44	0.87	-1.12	-0.01	0.04	0.04	
S102	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	27.43	5.69	(azaltma)	Nq=	5.69×1.000	=	5.69)	-1.31
Alt Mx	0.07	0.02	0.00	0.02	0.06	-0.04	0.02	1.57
Alt My	-1.94	-0.47	0.01	-0.48	-0.23	-0.23	-0.47	0.22
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	-0.27	0.30	-0.28	0.31	-0.01	-0.01	-0.01	
Alt Mx	2.76	-3.16	0.08	0.02	0.10	0.00	0.00	
Alt My	-0.01	0.01	0.17	-0.19	0.00	0.01	0.01	
S103	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	4.26	0.24	(azaltma)	Nq=	0.24×1.000	=	0.24)	0.70
Alt Mx	0.02	0.01	-0.01	0.02	0.00	0.01	0.01	1.42
Alt My	-0.09	-0.02	0.00	-0.02	-0.01	-0.01	-0.02	0.09
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	1.20	-1.36	-0.83	0.84	0.04	-0.03	-0.03	
Alt Mx	2.77	-3.16	0.09	0.02	0.11	0.00	0.00	
Alt My	0.02	-0.02	0.15	-0.15	0.00	0.01	0.01	
S104	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	5.27	0.40	(azaltma)	Nq=	0.40×1.000	=	0.40)	-0.67
Alt Mx	0.05	0.02	0.00	0.02	0.01	0.01	0.02	1.13
Alt My	-0.14	-0.03	-0.02	-0.01	-0.02	-0.01	-0.03	0.21
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	0.97	-1.05	-0.79	0.75	0.04	-0.03	-0.03	
Alt Mx	2.58	-2.94	-0.01	0.11	0.10	0.00	0.00	
Alt My	-0.01	0.00	0.14	-0.12	0.00	0.01	0.01	
S105	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	3.91	0.07	(azaltma)	Nq=	0.07×1.000	=	0.07)	1.01
Alt Mx	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.18
Alt My	-0.10	-0.02	-0.02	0.00	-0.01	-0.01	-0.02	0.94
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	2.01	-2.30	0.09	-0.01	0.08	0.00	0.00	
Alt Mx	0.22	-0.25	0.05	-0.03	0.01	0.00	0.00	
Alt My	0.25	-0.38	0.89	-0.68	0.01	0.04	0.04	
S106	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	11.16	1.79	(azaltma)	Nq=	1.79×1.000	=	1.79)	0.18
Alt Mx	-0.09	-0.02	-0.08	0.07	-0.06	0.04	-0.02	0.23
Alt My	-0.01	-0.01	-0.04	0.03	-0.04	0.03	-0.01	0.32
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	0.05	-0.04	-1.78	1.71	0.00	-0.07	-0.07	
Alt Mx	0.38	-0.41	0.01	0.00	0.01	0.00	0.00	
Alt My	-0.05	0.04	1.47	-1.42	0.00	0.06	0.06	
S107	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	9.78	1.32	(azaltma)	Nq=	1.32×1.000	=	1.32)	-1.41
Alt Mx	0.35	0.09	0.09	-0.01	0.09	0.00	0.09	-0.18
Alt My	-0.03	-0.02	-0.02	0.00	-0.02	0.00	-0.02	0.10
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	-0.11	0.29	-1.91	1.51	-0.01	-0.08	-0.08	
Alt Mx	0.36	-0.39	0.02	-0.01	0.01	0.00	0.00	
Alt My	0.03	-0.13	1.14	-0.89	0.00	0.05	0.05	
S108	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	6.13	0.40	(azaltma)	Nq=	0.40×1.000	=	0.40)	-3.31
Alt Mx	-0.03	-0.01	0.00	-0.01	-0.01	0.00	-0.01	0.16
Alt My	0.47	0.12	0.00	0.12	0.08	0.04	0.12	-0.24
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	-3.75	3.61	2.28	-2.71	-0.12	0.10	0.10	
Alt Mx	0.28	-0.25	0.02	-0.04	0.01	0.00	0.00	
Alt My	0.39	-0.25	0.86	-1.09	0.01	0.04	0.04	
S109	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	26.59	5.47	(azaltma)	Nq=	5.47×1.000	=	5.47)	-1.06
Alt Mx	0.11	0.03	0.01	0.02	0.12	-0.09	0.03	1.26
Alt My	2.15	0.52	-0.01	0.53	0.26	0.26	0.52	-0.20
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	-0.24	0.22	0.19	-0.21	-0.01	0.01	0.01	
Alt Mx	2.65	-2.34	-0.09	0.01	0.08	0.00	0.00	
Alt My	0.01	0.00	0.18	-0.21	0.00	0.01	0.01	

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S110	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	5.88	0.47	(azaltma)	Nq=	0.47×1.000	=	0.47)	0.02
Alt Mx	-0.12	-0.01	-0.07	0.06	-0.06	0.05	-0.01	1.26
Alt My	0.10	0.02	0.01	0.02	0.01	0.01	0.02	-0.08
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	0.29	-0.26	1.64	-1.57	0.01	0.06	0.06	
Alt Mx	2.96	-2.62	-0.20	0.10	0.09	-0.01	-0.01	
Alt My	-0.02	0.02	0.16	-0.16	0.00	0.01	0.01	
S111	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	6.58	0.53	(azaltma)	Nq=	0.53×1.000	=	0.53)	-0.10
Alt Mx	0.05	0.01	0.01	0.00	0.01	0.00	0.01	0.04
Alt My	0.20	0.07	0.07	0.00	0.07	0.00	0.07	-0.50
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	4.22	-4.05	2.51	-2.13	0.14	0.10	0.10	
Alt Mx	0.28	-0.25	-0.03	0.02	0.01	0.00	0.00	
Alt My	-0.37	0.23	1.02	-0.78	-0.01	0.04	0.04	
P104-Sol	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	2.35	-0.17	(azaltma)	Nq=	-0.17×1.000	=	-0.17)	-3.17
Alt Mx	-0.47	-0.06	-0.01	-0.06	-0.09	0.03	-0.06	1.97
Alt My	-0.46	-0.11	0.00	-0.11	-0.06	-0.05	-0.11	0.06
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	-5.38	5.83	-2.37	2.69	-0.19	-0.10	-0.10	
Alt Mx	2.53	-2.75	1.24	-1.44	0.09	0.05	0.05	
Alt My	-0.01	0.02	0.09	-0.11	0.00	0.00	0.00	
P104-Sag	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	2.35	-0.17	(azaltma)	Nq=	-0.17×1.000	=	-0.17)	-3.17
Alt Mx	-0.47	-0.06	-0.01	-0.06	-0.09	0.03	-0.06	1.97
Alt My	-0.46	-0.11	0.00	-0.11	-0.06	-0.05	-0.11	0.06
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	-5.38	5.83	-2.37	2.69	-0.19	-0.10	-0.10	
Alt Mx	2.53	-2.75	1.24	-1.44	0.09	0.05	0.05	
Alt My	-0.01	0.02	0.09	-0.11	0.00	0.00	0.00	
P105-Sol	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	2.33	-0.01	(azaltma)	Nq=	-0.01×1.000	=	-0.01)	-1.98
Alt Mx	0.71	0.18	0.06	0.12	0.14	0.04	0.18	3.38
Alt My	-0.49	-0.12	0.00	-0.12	-0.06	-0.06	-0.12	0.09
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	-2.83	3.29	-1.99	1.79	-0.11	-0.08	-0.08	
Alt Mx	7.50	-8.54	-0.97	1.25	0.28	-0.04	-0.04	
Alt My	0.00	0.00	0.11	-0.11	0.00	0.00	0.00	
P105-Sag	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	2.33	-0.01	(azaltma)	Nq=	-0.01×1.000	=	-0.01)	-1.98
Alt Mx	0.71	0.18	0.06	0.12	0.14	0.04	0.18	3.38
Alt My	-0.49	-0.12	0.00	-0.12	-0.06	-0.06	-0.12	0.09
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	-2.83	3.29	-1.99	1.79	-0.11	-0.08	-0.08	
Alt Mx	7.50	-8.54	-0.97	1.25	0.28	-0.04	-0.04	
Alt My	0.00	0.00	0.11	-0.11	0.00	0.00	0.00	
P106-Sol	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	1.86	0.11	(azaltma)	Nq=	0.11×1.000	=	0.11)	-1.54
Alt Mx	-0.19	-0.03	-0.02	-0.02	-0.02	-0.02	-0.03	0.82
Alt My	-0.04	-0.01	0.00	0.00	-0.01	0.00	-0.01	0.05
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	-1.86	2.22	-1.67	1.48	-0.08	-0.07	-0.07	
Alt Mx	1.35	-1.55	0.30	-0.24	0.05	0.01	0.01	
Alt My	0.00	0.00	0.06	-0.06	0.00	0.00	0.00	
P106-Sag	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	1.86	0.11	(azaltma)	Nq=	0.11×1.000	=	0.11)	-1.54
Alt Mx	-0.19	-0.03	-0.02	-0.02	-0.02	-0.02	-0.03	0.82
Alt My	-0.04	-0.01	0.00	0.00	-0.01	0.00	-0.01	0.05
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	-1.86	2.22	-1.67	1.48	-0.08	-0.07	-0.07	
Alt Mx	1.35	-1.55	0.30	-0.24	0.05	0.01	0.01	
Alt My	0.00	0.00	0.06	-0.06	0.00	0.00	0.00	
P107-Sol	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	1.29	-0.10	(azaltma)	Nq=	-0.10×1.000	=	-0.10)	-0.48
Alt Mx	0.10	0.03	0.00	0.03	0.02	0.01	0.03	1.47
Alt My	-0.03	-0.01	0.00	0.00	0.00	0.00	-0.01	0.07
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	-0.77	1.06	-1.60	1.23	-0.04	-0.07	-0.07	
Alt Mx	3.19	-3.62	-0.22	0.31	0.12	-0.01	-0.01	
Alt My	0.00	-0.01	0.06	-0.05	0.00	0.00	0.00	

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P107-Sag	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	1.29	-0.10	(azaltma)	Nq=	-0.10×1.000	=	-0.10)	-0.48
Alt Mx	0.10	0.03	0.00	0.03	0.02	0.01	0.03	1.47
Alt My	-0.03	-0.01	0.00	0.00	0.00	0.00	-0.01	0.07
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	-0.77	1.06	-1.60	1.23	-0.04	-0.07	-0.07	
Alt Mx	3.19	-3.62	-0.22	0.31	0.12	-0.01	-0.01	
Alt My	0.00	-0.01	0.06	-0.05	0.00	0.00	0.00	
P108-Sol	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	2.68	-0.11	(azaltma)	Nq=	-0.11×1.000	=	-0.11)	-2.60
Alt Mx	-0.12	0.01	0.00	0.01	-0.05	0.06	0.01	2.32
Alt My	0.40	0.10	0.00	0.10	0.05	0.05	0.10	-0.06
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	-5.68	5.32	2.35	-2.70	-0.18	0.10	0.10	
Alt Mx	2.67	-2.49	-1.31	1.55	0.08	-0.05	-0.05	
Alt My	0.01	-0.01	0.09	-0.11	0.00	0.00	0.00	
P108-Sag	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	2.68	-0.11	(azaltma)	Nq=	-0.11×1.000	=	-0.11)	-2.60
Alt Mx	-0.12	0.01	0.00	0.01	-0.05	0.06	0.01	2.32
Alt My	0.40	0.10	0.00	0.10	0.05	0.05	0.10	-0.06
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	-5.68	5.32	2.35	-2.70	-0.18	0.10	0.10	
Alt Mx	2.67	-2.49	-1.31	1.55	0.08	-0.05	-0.05	
Alt My	0.01	-0.01	0.09	-0.11	0.00	0.00	0.00	
P109-Sol	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	3.25	0.10	(azaltma)	Nq=	0.10×1.000	=	0.10)	-1.28
Alt Mx	0.78	0.19	0.12	0.07	0.15	0.04	0.19	3.20
Alt My	0.44	0.11	0.00	0.10	0.05	0.06	0.11	-0.08
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	-3.71	3.26	2.73	-2.49	-0.11	0.10	0.10	
Alt Mx	8.12	-7.22	1.46	-1.68	0.25	0.05	0.05	
Alt My	-0.01	0.01	0.12	-0.12	0.00	0.00	0.00	
P109-Sag	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	3.25	0.10	(azaltma)	Nq=	0.10×1.000	=	0.10)	-1.28
Alt Mx	0.78	0.19	0.12	0.07	0.15	0.04	0.19	3.20
Alt My	0.44	0.11	0.00	0.10	0.05	0.06	0.11	-0.08
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	-3.71	3.26	2.73	-2.49	-0.11	0.10	0.10	
Alt Mx	8.12	-7.22	1.46	-1.68	0.25	0.05	0.05	
Alt My	-0.01	0.01	0.12	-0.12	0.00	0.00	0.00	
P110-Sol	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	7.22	0.74	(azaltma)	Nq=	0.74×1.000	=	0.74)	0.32
Alt Mx	-1.04	-0.26	-0.06	-0.20	-0.05	-0.20	-0.26	1.91
Alt My	0.12	0.03	0.03	0.00	0.03	0.00	0.03	-0.09
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	1.87	-2.01	5.27	-4.68	0.06	0.20	0.20	
Alt Mx	9.44	-8.61	-0.24	0.29	0.29	-0.01	-0.01	
Alt My	-0.02	0.01	0.15	-0.13	0.00	0.01	0.01	
P110-Sag	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	7.22	0.74	(azaltma)	Nq=	0.74×1.000	=	0.74)	0.32
Alt Mx	-1.04	-0.26	-0.06	-0.20	-0.05	-0.20	-0.26	1.91
Alt My	0.12	0.03	0.03	0.00	0.03	0.00	0.03	-0.09
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	1.87	-2.01	5.27	-4.68	0.06	0.20	0.20	
Alt Mx	9.44	-8.61	-0.24	0.29	0.29	-0.01	-0.01	
Alt My	-0.02	0.01	0.15	-0.13	0.00	0.01	0.01	
P111-Sol	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	19.37	2.27	(azaltma)	Nq=	2.27×1.000	=	2.27)	0.87
Alt Mx	-1.49	-0.38	0.00	-0.38	-0.29	-0.09	-0.38	0.80
Alt My	-0.31	-0.04	-0.03	-0.01	-0.05	0.01	-0.04	-0.25
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	-1.98	1.99	0.05	-0.06	-0.07	0.00	0.00	
Alt Mx	0.51	-0.51	0.00	0.01	0.02	0.00	0.00	
Alt My	-0.63	-1.79	-27.99	34.78	0.05	-1.17	-1.17	
P111-Sag	GGGGGG	QQQQQQ	Q_Q_Q	Q_Q_Q	QQ_QQ	QQ_QQ	Q_QQ_Q	Zemin
N	19.37	2.27	(azaltma)	Nq=	2.27×1.000	=	2.27)	0.87
Alt Mx	-1.49	-0.38	0.00	-0.38	-0.29	-0.09	-0.38	0.80
Alt My	-0.31	-0.04	-0.03	-0.01	-0.05	0.01	-0.04	-0.25
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	-1.98	1.99	0.05	-0.06	-0.07	0.00	0.00	
Alt Mx	0.51	-0.51	0.00	0.01	0.02	0.00	0.00	
Alt My	-0.63	-1.79	-27.99	34.78	0.05	-1.17	-1.17	

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P112-Sol	GGGGGG	QQQQQQ	Q_Q_Q	_Q_Q_Q	QQ_QQ	_QQ_QQ	Q_QQ_Q	Zemin
N	22.46	3.79	(azaltma	Nq=	3.79×1.000	=	3.79)	2.14
Alt Mx	0.18	0.04	-0.17	0.20	-0.11	0.15	0.04	0.32
Alt My	-2.96	-0.51	-0.28	-0.24	-0.38	-0.13	-0.51	4.01
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	-0.35	0.25	4.59	-4.42	-0.01	0.18	0.18	
Alt Mx	0.49	-0.47	-0.01	0.01	0.01	0.00	0.00	
Alt My	0.80	-0.57	-16.08	15.46	0.02	-0.58	-0.58	
P112-Sag	GGGGGG	QQQQQQ	Q_Q_Q	_Q_Q_Q	QQ_QQ	_QQ_QQ	Q_QQ_Q	Zemin
N	22.46	3.79	(azaltma	Nq=	3.79×1.000	=	3.79)	2.14
Alt Mx	0.18	0.04	-0.17	0.20	-0.11	0.15	0.04	0.32
Alt My	-2.96	-0.51	-0.28	-0.24	-0.38	-0.13	-0.51	4.01
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	-0.35	0.25	4.59	-4.42	-0.01	0.18	0.18	
Alt Mx	0.49	-0.47	-0.01	0.01	0.01	0.00	0.00	
Alt My	0.80	-0.57	-16.08	15.46	0.02	-0.58	-0.58	
P113-Sol	GGGGGG	QQQQQQ	Q_Q_Q	_Q_Q_Q	QQ_QQ	_QQ_QQ	Q_QQ_Q	Zemin
N	4.30	0.62	(azaltma	Nq=	0.62×1.000	=	0.62)	-0.18
Alt Mx	-0.01	0.00	-0.01	0.01	-0.01	0.00	0.00	0.06
Alt My	0.70	0.16	0.06	0.09	0.09	0.06	0.16	-1.31
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	0.17	-0.19	-0.49	0.48	0.01	-0.02	-0.02	
Alt Mx	0.11	-0.12	0.00	0.00	0.00	0.00	0.00	
Alt My	0.13	-0.07	-2.69	2.60	0.00	-0.11	-0.11	
P113-Sag	GGGGGG	QQQQQQ	Q_Q_Q	_Q_Q_Q	QQ_QQ	_QQ_QQ	Q_QQ_Q	Zemin
N	4.30	0.62	(azaltma	Nq=	0.62×1.000	=	0.62)	-0.18
Alt Mx	-0.01	0.00	-0.01	0.01	-0.01	0.00	0.00	0.06
Alt My	0.70	0.16	0.06	0.09	0.09	0.06	0.16	-1.31
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	0.17	-0.19	-0.49	0.48	0.01	-0.02	-0.02	
Alt Mx	0.11	-0.12	0.00	0.00	0.00	0.00	0.00	
Alt My	0.13	-0.07	-2.69	2.60	0.00	-0.11	-0.11	
P114-Sol	GGGGGG	QQQQQQ	Q_Q_Q	_Q_Q_Q	QQ_QQ	_QQ_QQ	Q_QQ_Q	Zemin
N	12.17	1.20	(azaltma	Nq=	1.20×1.000	=	1.20)	2.76
Alt Mx	0.68	0.18	0.19	-0.01	0.19	-0.01	0.18	-0.34
Alt My	-1.89	-0.35	-0.35	0.00	-0.37	0.02	-0.35	5.27
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	1.57	-1.84	3.63	-2.86	0.07	0.15	0.15	
Alt Mx	0.42	-0.41	-0.01	0.00	0.01	0.00	0.00	
Alt My	-2.58	3.57	-13.57	10.81	-0.10	-0.50	-0.50	
P114-Sag	GGGGGG	QQQQQQ	Q_Q_Q	_Q_Q_Q	QQ_QQ	_QQ_QQ	Q_QQ_Q	Zemin
N	12.17	1.20	(azaltma	Nq=	1.20×1.000	=	1.20)	2.76
Alt Mx	0.68	0.18	0.19	-0.01	0.19	-0.01	0.18	-0.34
Alt My	-1.89	-0.35	-0.35	0.00	-0.37	0.02	-0.35	5.27
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	1.57	-1.84	3.63	-2.86	0.07	0.15	0.15	
Alt Mx	0.42	-0.41	-0.01	0.00	0.01	0.00	0.00	
Alt My	-2.58	3.57	-13.57	10.81	-0.10	-0.50	-0.50	
P115-Sol	GGGGGG	QQQQQQ	Q_Q_Q	_Q_Q_Q	QQ_QQ	_QQ_QQ	Q_QQ_Q	Zemin
N	1.51	-0.02	(azaltma	Nq=	-0.02×1.000	=	-0.02)	0.92
Alt Mx	0.05	0.01	0.01	0.00	0.01	0.00	0.01	-0.03
Alt My	-0.06	-0.01	-0.01	0.00	-0.01	0.00	-0.01	-0.74
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	0.86	-0.89	-0.70	0.59	0.03	-0.03	-0.03	
Alt Mx	0.08	-0.09	0.01	0.00	0.00	0.00	0.00	
Alt My	-0.21	0.43	-1.79	1.37	-0.01	-0.08	-0.08	
P115-Sag	GGGGGG	QQQQQQ	Q_Q_Q	_Q_Q_Q	QQ_QQ	_QQ_QQ	Q_QQ_Q	Zemin
N	1.51	-0.02	(azaltma	Nq=	-0.02×1.000	=	-0.02)	0.92
Alt Mx	0.05	0.01	0.01	0.00	0.01	0.00	0.01	-0.03
Alt My	-0.06	-0.01	-0.01	0.00	-0.01	0.00	-0.01	-0.74
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar X	Rüzgar Y		
N	0.86	-0.89	-0.70	0.59	0.03	-0.03	-0.03	
Alt Mx	0.08	-0.09	0.01	0.00	0.00	0.00	0.00	
Alt My	-0.21	0.43	-1.79	1.37	-0.01	-0.08	-0.08	

TOPLAM ΣNg= 274.59 ΣNq= 33.59 ΣNqf= 33.59



Temellerin kayma kontrolu **TBDY2018-16.8.4 (t,m)**

$$\Phi=30.0^\circ \quad \theta=0, \beta=0, \varphi=90^\circ \quad K_p = \frac{\sin^2(90+\Phi)}{(1-\sin\Phi)^2} = 3.0$$

Kat	Hi	Lx	Ly	RpkX = Hi·Kpd·Ly	RpkY = Hi·Kpd·Lx
TEMEL 1	0.50 4.60	8.40 8.40	8.10 8.10	12.15 111.78	12.60 115.92

$$\begin{aligned} R_{pX} &= 123.93/1.4 = 88.52, & R_{pY} &= 128.52/1.4 = 91.80 \\ W_g &= 274.59(\text{Yapi}) + 119.07(\text{Temel}) = 393.66 \\ W_q &= 393.66, & W_q &= 33.59 \\ W_{qq} &= W_g + C_q \cdot W_q = 427.25 \end{aligned}$$

$$V_{beX}=66.51, \quad V_{beY}=58.52 \text{ deprem}, \quad V_{bsX}=44.14, \quad V_{bsY}=2.52 \text{ zemin}$$

$$V_{eX}=66.51 + 44.14 = 110.64 < W_{ge} \cdot \tan\delta + 0.3 \cdot R_{pX} = 427.25 \cdot 0.5 + 0.3 \cdot 88.52 = 240.18 \quad \checkmark$$

$$V_{eY}=58.52 + 2.52 = 61.04 < W_{ge} \cdot \tan\delta + 0.3 \cdot R_{pY} = 427.25 \cdot 0.5 + 0.3 \cdot 91.8 = 241.16 \quad \checkmark$$

Temellerin kayma kontrolu yeterlidir

TEMELLERE KOLONLARDAN GELEN SÜNEK TASARIM DEPREM MOMENTLERİ (tm)Kolon ve Perdelerde $Nez = Dalt \times Ne$, ($Dalt=1.5$) TBDY2018-4.10.3.2 Bodrumlu yapı

KOLON	Kolon/Perde koşulu	Mex1 (9)	Mex2 (10)	Mpx	Mey1 (11)	Mey2 (12)	Mpy
S101	Kolon Me=Dalt×Me	0.38	-0.44		1.31	-1.67	
S102	Kolon Me=Dalt×Me	4.14	-4.74		0.26	-0.29	
S103	Kolon Me=Dalt×Me	4.16	-4.74		0.23	-0.23	
S104	Kolon Me=Dalt×Me	3.87	-4.42		0.21	-0.19	
S105	Kolon Me=Dalt×Me	0.32	-0.38		1.34	-1.03	
S106	Kolon Me=Dalt×Me	0.57	-0.61		2.21	-2.13	
S107	Kolon Me=Dalt×Me	0.54	-0.58		1.71	-1.34	
S108	Kolon Me=Dalt×Me	0.42	-0.37		1.29	-1.64	
S109	Kolon Me=Dalt×Me	3.98	-3.51		0.28	-0.31	
S110	Kolon Me=Dalt×Me	4.44	-3.94		0.24	-0.24	
S111	Kolon Me=Dalt×Me	0.43	-0.38		1.53	-1.17	
P104	Perde Me=Dalt×Me ≤ Mp	7.60	-8.25	1160.18	0.27	-0.33	0.00
P105	Perde Me=Dalt×Me ≤ Mp	22.50	-25.62	967.76	0.32	-0.33	0.00
P106	Perde Me=Dalt×Me ≤ Mp	4.05	-4.65	1085.57	0.19	-0.18	0.00
P107	Perde Me=Dalt×Me ≤ Mp	9.58	-10.87	770.37	0.17	-0.14	0.00
P108	Perde Me=Dalt×Me ≤ Mp	8.02	-7.47	1134.33	0.27	-0.33	0.00
P109	Perde Me=Dalt×Me ≤ Mp	24.35	-21.65	968.89	0.36	-0.37	0.00
P110	Perde Me=Dalt×Me ≤ Mp	28.33	-25.82	1959.49	0.46	-0.40	0.00
P111	Perde Me=Dalt×Me ≤ Mp	1.52	-1.53	0.00	-83.98	104.33	5096.51
P112	Perde Me=Dalt×Me ≤ Mp	1.46	-1.42	0.00	-48.24	46.37	3325.75
P113	Perde Me=Dalt×Me ≤ Mp	0.33	-0.37	0.00	-8.07	7.80	928.15
P114	Perde Me=Dalt×Me ≤ Mp	1.27	-1.23	0.00	-40.72	32.43	3400.56
P115	Perde Me=Dalt×Me ≤ Mp	0.24	-0.27	0.00	-5.36	4.12	1124.24

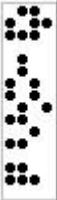
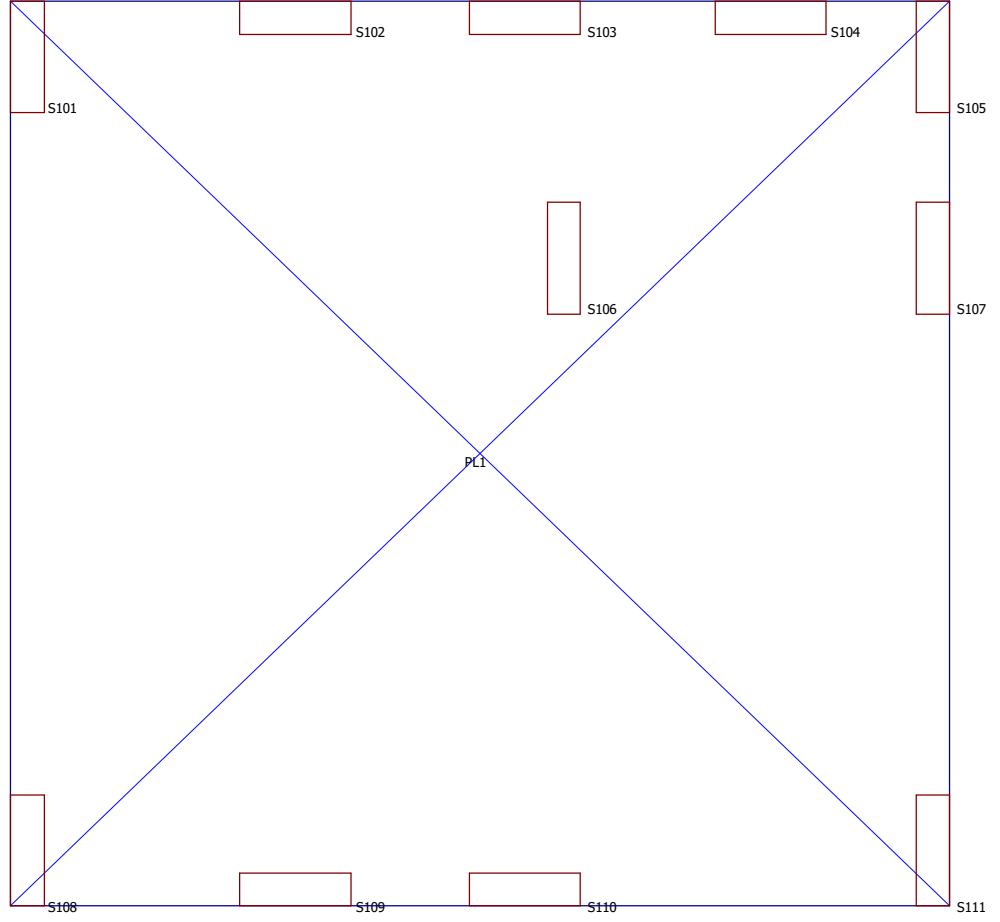
PANEL+BAŞLIK TOPLAM REAKSIYONLARI

P104	GGGGGG	QQQQQQ	Q_Q_Q	_Q_Q_Q	QQ_QQ	=_QQ_QQ	Q_QQ_Q	Zemin
N	21.40	2.69	(azaltma	Nq=	2.69×1.000	=	2.69)	-8.65
Alt Mx	14.89	3.60	-0.09	3.70	1.60	2.00	3.60	5.59
Alt My	1.39	-0.01	0.00	-0.01	0.05	-0.05	-0.01	-0.56
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar+X	Rüzgar-X	Rüzgar+Y	Rüzgar-Y
N	-12.70	13.72	-6.00	6.85	-0.45	-0.25	0.00	0.00
Alt Mx	8.24	-8.97	3.45	-3.98	0.29	0.14	0.00	0.00
Alt My	-1.09	1.23	0.13	-0.19	-0.04	0.01	0.00	0.00
P105	GGGGGG	QQQQQQ	Q_Q_Q	_Q_Q_Q	QQ_QQ	=_QQ_QQ	Q_QQ_Q	Zemin
N	19.81	2.90	(azaltma	Nq=	2.90×1.000	=	2.90)	-4.39
Alt Mx	-11.15	-2.47	0.17	-2.64	-1.22	-1.25	-2.47	8.92
Alt My	0.29	-0.04	-0.01	-0.03	-0.03	-0.01	-0.04	0.27
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar+X	Rüzgar-X	Rüzgar+Y	Rüzgar-Y
N	-5.39	6.27	-4.39	4.01	-0.22	-0.17	0.00	0.00
Alt Mx	17.85	-20.33	-2.02	2.65	0.67	-0.08	0.00	0.00
Alt My	0.05	-0.05	0.29	-0.30	0.00	0.01	0.00	0.00
P106	GGGGGG	QQQQQQ	Q_Q_Q	_Q_Q_Q	QQ_QQ	=_QQ_QQ	Q_QQ_Q	Zemin
N	7.79	0.51	(azaltma	Nq=	0.51×1.000	=	0.51)	-3.19
Alt Mx	0.99	0.08	0.12	-0.04	0.16	-0.08	0.08	2.06
Alt My	0.42	0.00	0.00	0.00	-0.02	0.02	0.00	0.23
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar+X	Rüzgar-X	Rüzgar+Y	Rüzgar-Y
N	-2.84	3.46	-4.02	3.61	-0.12	-0.16	0.00	0.00
Alt Mx	5.00	-5.70	0.50	-0.31	0.19	0.02	0.00	0.00
Alt My	0.13	-0.15	0.15	-0.13	0.01	0.01	0.00	0.00
P107	GGGGGG	QQQQQQ	Q_Q_Q	_Q_Q_Q	QQ_QQ	=_QQ_QQ	Q_QQ_Q	Zemin
N	7.17	0.04	(azaltma	Nq=	0.04×1.000	=	0.04)	-0.79
Alt Mx	-1.08	-0.10	-0.12	0.02	-0.05	-0.05	-0.10	4.18
Alt My	1.20	0.01	0.00	0.01	0.00	0.01	0.01	0.91
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar+X	Rüzgar-X	Rüzgar+Y	Rüzgar-Y
N	-0.05	0.44	-3.55	2.82	-0.02	-0.15	0.00	0.00
Alt Mx	7.90	-9.01	-0.05	0.33	0.31	0.00	0.00	0.00
Alt My	0.70	-0.86	0.59	-0.44	0.03	0.03	0.00	0.00
P108	GGGGGG	QQQQQQ	Q_Q_Q	_Q_Q_Q	QQ_QQ	=_QQ_QQ	Q_QQ_Q	Zemin
N	21.73	2.70	(azaltma	Nq=	2.70×1.000	=	2.70)	-7.38
Alt Mx	14.95	3.58	-0.10	3.69	1.59	1.99	3.58	6.31
Alt My	-1.41	0.00	0.00	0.00	-0.04	0.04	0.00	0.56
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar+X	Rüzgar-X	Rüzgar+Y	Rüzgar-Y
N	-13.35	12.56	5.94	-6.85	-0.42	0.25	0.00	0.00
Alt Mx	8.57	-7.97	-3.70	4.34	0.26	-0.15	0.00	0.00
Alt My	1.18	-1.06	0.12	-0.18	0.04	0.00	0.00	0.00
P109	GGGGGG	QQQQQQ	Q_Q_Q	_Q_Q_Q	QQ_QQ	=_QQ_QQ	Q_QQ_Q	Zemin
N	21.76	3.09	(azaltma	Nq=	3.09×1.000	=	3.09)	-3.08
Alt Mx	-10.05	-2.25	0.35	-2.60	-1.02	-1.24	-2.25	7.99
Alt My	-0.30	0.04	0.00	0.04	0.03	0.02	0.04	-0.21
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar+X	Rüzgar-X	Rüzgar+Y	Rüzgar-Y
N	-7.45	6.54	6.11	-5.60	-0.23	0.23	0.00	0.00
Alt Mx	18.77	-16.68	3.27	-3.74	0.57	0.12	0.00	0.00
Alt My	-0.02	0.02	0.29	-0.31	0.00	0.01	0.00	0.00
P110	GGGGGG	QQQQQQ	Q_Q_Q	_Q_Q_Q	QQ_QQ	=_QQ_QQ	Q_QQ_Q	Zemin
N	19.68	1.89	(azaltma	Nq=	1.89×1.000	=	1.89)	0.60
Alt Mx	-0.59	-0.38	0.19	-0.57	0.28	-0.67	-0.38	4.16
Alt My	-1.56	-0.06	-0.05	0.00	-0.05	-0.01	-0.06	-0.44
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar+X	Rüzgar-X	Rüzgar+Y	Rüzgar-Y
N	5.95	-6.13	12.34	-10.95	0.20	0.47	0.00	0.00
Alt Mx	23.30	-21.38	0.43	-0.09	0.73	0.02	0.00	0.00
Alt My	-1.31	1.17	0.16	-0.10	-0.04	0.01	0.00	0.00
P111	GGGGGG	QQQQQQ	Q_Q_Q	_Q_Q_Q	QQ_QQ	=_QQ_QQ	Q_QQ_Q	Zemin
N	44.80	4.93	(azaltma	Nq=	4.93×1.000	=	4.93)	-1.56
Alt Mx	-2.11	-0.71	0.01	-0.71	-0.52	-0.19	-0.71	1.27
Alt My	-0.37	-0.02	-0.06	0.03	-0.06	0.04	-0.02	-0.54
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar+X	Rüzgar-X	Rüzgar+Y	Rüzgar-Y
N	-7.63	7.69	0.12	-0.16	-0.26	0.00	0.00	0.00
Alt Mx	0.73	-0.73	-0.01	0.01	0.02	0.00	0.00	0.00
Alt My	-1.47	-3.84	-47.10	58.97	0.10	-1.97	0.00	0.00
P112	GGGGGG	QQQQQQ	Q_Q_Q	_Q_Q_Q	QQ_QQ	=_QQ_QQ	Q_QQ_Q	Zemin
N	52.45	8.63	(azaltma	Nq=	8.63×1.000	=	8.63)	4.37
Alt Mx	-1.55	-0.15	-0.42	0.28	-0.31	0.16	-0.15	1.16
Alt My	-17.44	-3.30	-0.41	-2.89	-1.17	-2.13	-3.30	7.91
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar+X	Rüzgar-X	Rüzgar+Y	Rüzgar-Y
N	-0.58	0.39	8.84	-8.51	-0.01	0.34	0.00	0.00
Alt Mx	2.10	-1.98	-0.22	0.18	0.06	-0.01	0.00	0.00
Alt My	1.74	-1.27	-27.25	26.20	0.05	-0.98	0.00	0.00

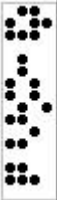
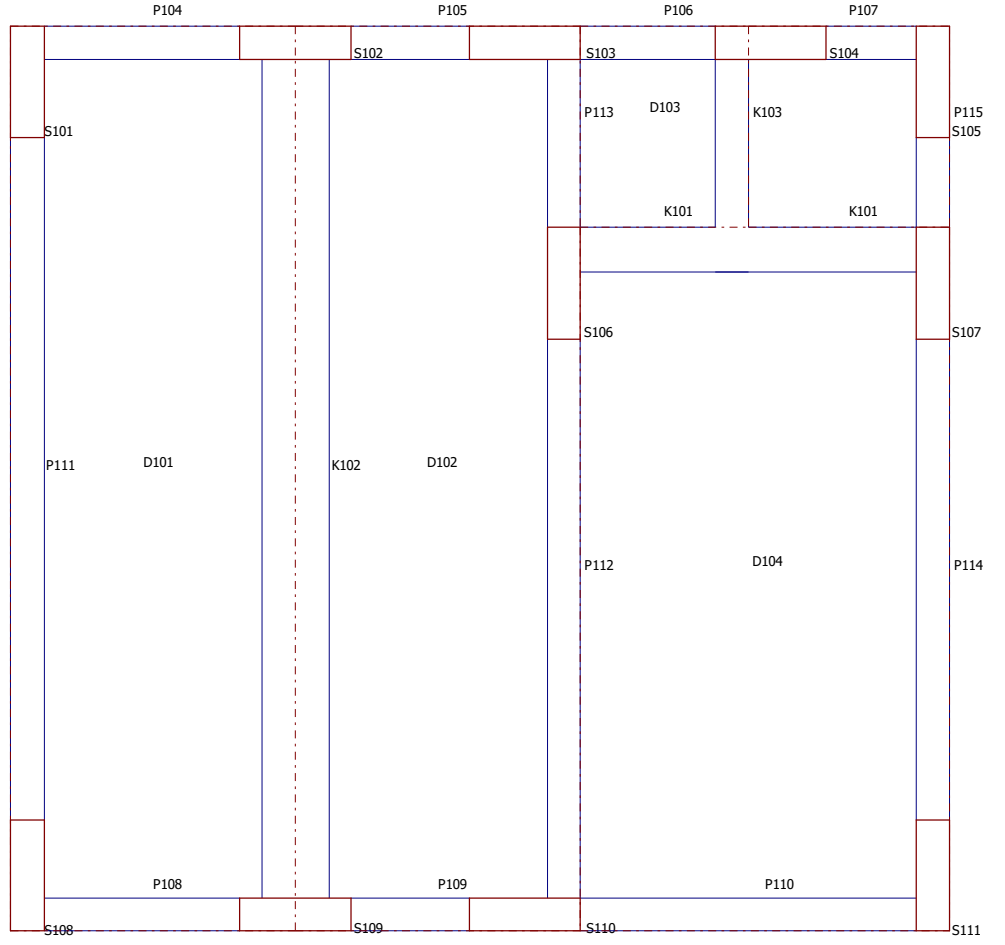
PANEL+BAŞLIK TOPLAM REAKSİYONLARI

P113	GGGGGG	QQQQQQ	Q_Q_Q_	_Q_Q_Q	QQ_QQ_	_QQ_QQ	Q_QQ_Q	Zemin
N	15.61	2.22	(azaltma	Nq=	2.22×1.000	=	2.22)	-0.04
Alt Mx	-1.61	-0.18	-0.06	-0.12	-0.04	-0.14	-0.18	0.57
Alt My	7.08	1.35	0.09	1.26	0.40	0.95	1.35	-2.52
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar+X	Rüzgar-X	Rüzgar+Y	Rüzgar-Y
N	0.77	-0.85	-2.15	2.10	0.03	-0.08	0.00	0.00
Alt Mx	1.13	-1.27	0.31	-0.26	0.04	0.01	0.00	0.00
Alt My	-0.08	0.26	-5.46	5.26	-0.01	-0.21	0.00	0.00
P114	GGGGGG	QQQQQQ	Q_Q_Q_	_Q_Q_Q	QQ_QQ_	_QQ_QQ	Q_QQ_Q	Zemin
N	32.52	3.32	(azaltma	Nq=	3.32×1.000	=	3.32)	4.76
Alt Mx	0.33	0.27	0.30	-0.02	0.29	-0.02	0.27	-0.64
Alt My	-7.92	-1.72	-1.83	0.11	-1.77	0.05	-1.72	12.07
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar+X	Rüzgar-X	Rüzgar+Y	Rüzgar-Y
N	5.20	-5.56	7.56	-6.03	0.20	0.32	0.00	0.00
Alt Mx	0.86	-0.86	-0.06	0.06	0.03	0.00	0.00	0.00
Alt My	0.41	1.44	-20.21	15.97	-0.02	-0.74	0.00	0.00
P115	GGGGGG	QQQQQQ	Q_Q_Q_	_Q_Q_Q	QQ_QQ_	_QQ_QQ	Q_QQ_Q	Zemin
N	9.87	0.66	(azaltma	Nq=	0.66×1.000	=	0.66)	1.65
Alt Mx	-0.75	-0.04	-0.04	0.00	-0.03	0.00	-0.04	-0.04
Alt My	2.46	0.53	0.58	-0.05	0.55	-0.02	0.53	-2.04
	Deprem+X	Deprem-X	Deprem+Y	Deprem-Y	Rüzgar+X	Rüzgar-X	Rüzgar+Y	Rüzgar-Y
N	2.68	-2.79	-2.31	1.93	0.10	-0.09	0.00	0.00
Alt Mx	0.31	-0.35	0.19	-0.14	0.01	0.01	0.00	0.00
Alt My	-1.23	1.76	-3.46	2.64	-0.06	-0.15	0.00	0.00

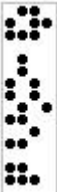
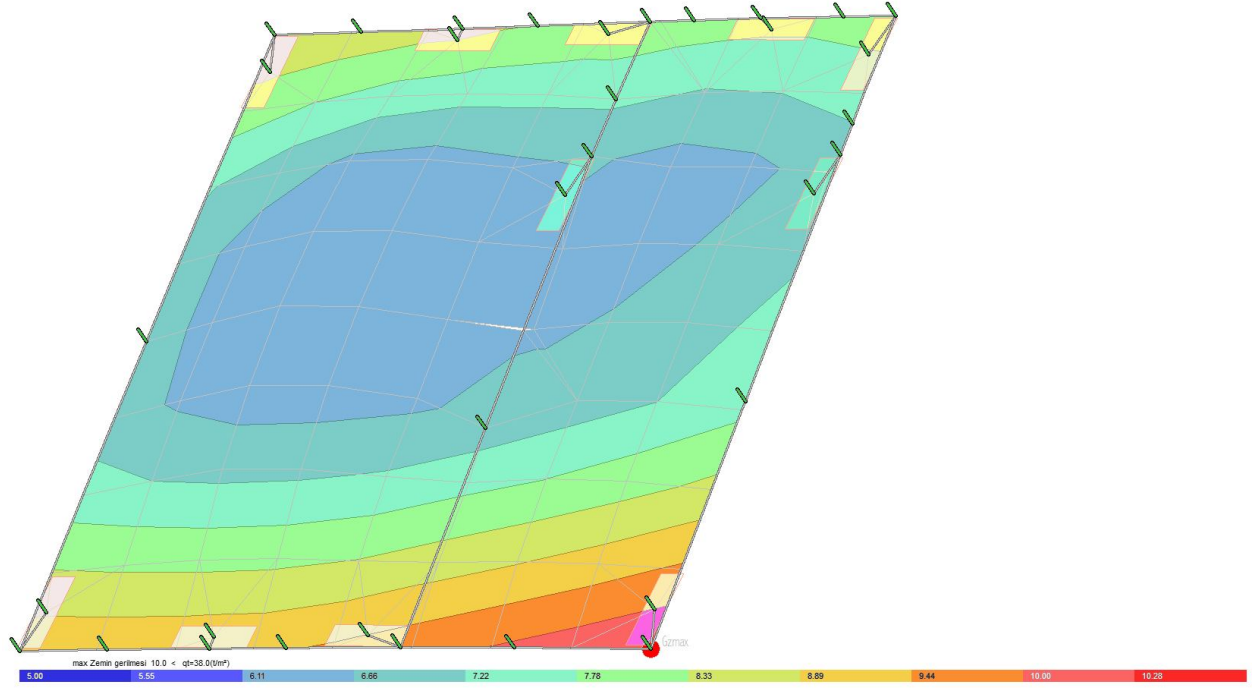
TEMEL APLİKASYON PLANI



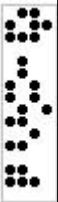
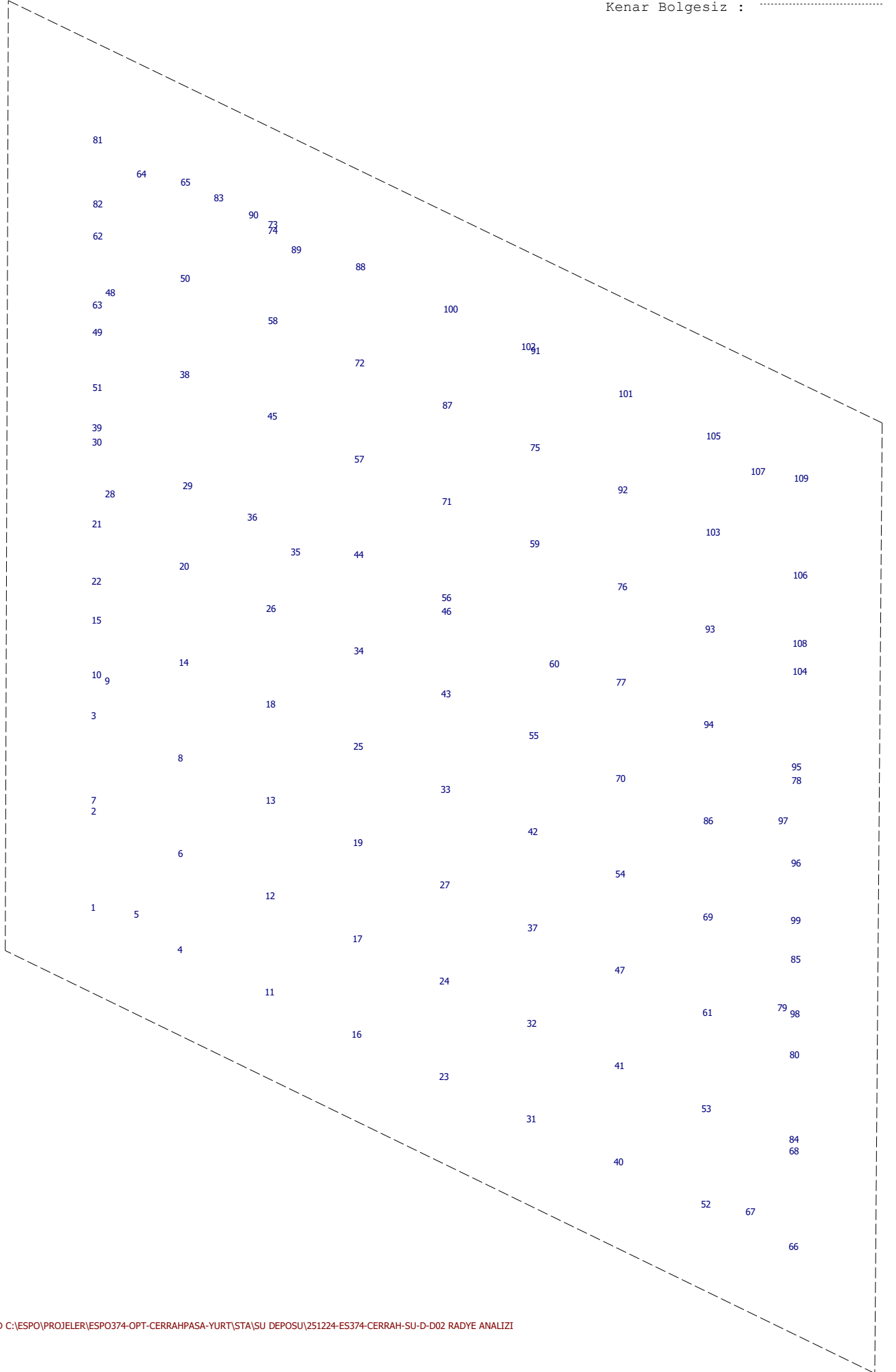
1. NORMAL KAT KALIP APLIKASYON PLANI



TEMEL 3D GÖRÜNÜŞÜ



Kenar Bolge : -----
Kenar Bolgesiz :



STA4-CAD Ver.14.1 RADYE PROGRAMI**RADYE MAT TEMELLERİN SONLU ELEMANLARLA ANALİZİ**ZEMİN YATAK KATSAYISI (t/m³) : 2000.0ZEMİN TAŞIMA GÜCÜ TAS. GER. (t/m²): 38.0

BETONARME HESAP YÖNTEMİ:TAŞIMA GÜCÜ YÖNTEMİ TS500-2000

BETON ve ÇELİK MALZEME BİLGİLERİ

Beton dayanım gerilmesi (kg/cm²):350Çelik akma gerilmesi (kg/cm²):4200

Minimum çekme bölgesi pirsantajı :0.001

Minimum toplam kesit pirsantajı :0.004

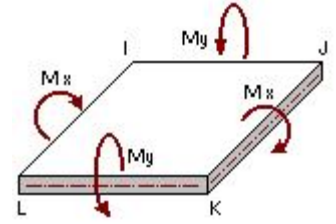
Winkler Yayları Opsiyonu:Ks=1,5 Ko (İki bolgeli zemin)

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	Isı Ct
1.40	1.60	0.00	0.00	0.00	0.00
1.40	1.60	1.60	0.00	0.00	0.00
1.00	1.20	0.00	0.00	0.00	1.20
1.00	1.00	0.00	1.00	0.00	0.00
1.00	1.00	1.00	1.00	0.00	0.00
0.90	0.00	0.00	1.00	0.00	0.00
1.00	1.30	0.00	0.00	1.30	0.00
1.00	1.30	1.00	0.00	1.30	0.00
0.90	0.00	0.00	0.00	1.30	0.00
0.90	0.00	0.90	0.00	1.30	0.00

CODE:TS500T.COD

**ZEMİN GERİLMESİ YÜK KOMBİNASYONU $q_o < q_t$**

Ölü yük Cg	Hareketli yük Cq	Zemin Cs	Deprem ± Ce	Rüzgar ± Cw	Isı Ct
1.40	1.60	0.00	0.00	0.00	0.00
1.40	1.60	1.60	0.00	0.00	0.00
1.00	1.20	0.00	0.00	0.00	1.20
1.00	1.00	0.00	1.00	0.00	0.00
1.00	1.00	1.00	1.00	0.00	0.00
0.90	0.00	0.00	1.00	0.00	0.00
1.00	1.30	0.00	0.00	1.30	0.00
1.00	1.30	1.00	0.00	1.30	0.00
0.90	0.00	0.00	0.00	1.30	0.00
0.90	0.00	0.90	0.00	1.30	0.00

STATİK ANALİZ YÜK KOMBİNASYON NOTASYONLARI:

1. G+G+G+G+G	GENEL ÖLÜ YÜK
2. Q+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 ey	X yönü deprem + %5 eksantrisine
10. Ex - %5 x ey	X yönü deprem - %5 eksantrisine
11. Ey + %5 x ex	Y yönü deprem + %5 eksantrisine
12. Ey - %5 x ex	Y yönü deprem - %5 eksantrisine
13. Wx	X yönü rüzgar
14. Wy	Y yönü rüzgar
15. T	Isı etkisi
17. Ez	Z deprem

Ed(H) = Edx ± 0.3 × Edy, Ed(H) = Edy ± 0.3 × Edx

Ed = Ed(H) ± 0.3 × Edz

FİRMA : ESPO MUH. DAN. INS. LTD. STI.

24-12-2025

SAYFA: 54

PROJE : CERRAHPAŞA YURT SU DEPOSU

(251224-ES374-CERRAH-SU-D-D02.ST4)

PLAK BİLGİLERİ

Plak no	D cm	mesh x y	Ko t/m ³	g t/m ²	p t/m ²	X1	Y1	Z1	X2	Y2	Z2	X3	Y3	Z3	X4	Y4	Z4
PL1	50	8 8	2000	1.250	0.500	-13.9	7.60	0.00	-5.50	7.60	0.00	-5.50	15.70	0.00	-13.9	15.70	0.00

MESH BİLGİLERİ

Mesh no	d cm	I	J	K	L	Mesh no	d cm	I	J	K	L	Mesh no	d cm	I	J	K	L
1	50	2	3	8	6	2	50	10	9	3		3	50	15	21	20	14
4	50	28	21	30		5	50	30	39	38		6	50	49	63	48	38
7	50	62	81	64	50	8	50	4	6	12	11	9	50	6	8	13	12
10	50	8	14	18	13	11	50	14	20	26	18	12	50	20	29	36	26
13	50	29	38	45	36	14	50	38	50	58	45	15	50	50	65	73	58
16	50	11	12	17	16	17	50	12	13	19	17	18	50	13	18	25	19
19	50	18	26	34	25	20	50	36	35	26		21	50	36	45	57	44
22	50	45	58	72	57	23	50	58	74	89	72	24	50	16	17	24	23
25	50	17	19	27	24	26	50	19	25	33	27	27	50	25	34	43	33
28	50	34	44	56	43	29	50	44	57	71	56	30	50	57	72	87	71
31	50	72	88	100	87	32	50	23	24	32	31	33	50	24	27	37	32
34	50	27	33	42	37	35	50	33	43	55	42	36	50	43	46	60	55
37	50	46	56	59		38	50	71	87	75	59	39	50	87	100	91	75
40	50	31	32	41	40	41	50	32	37	47	41	42	50	37	42	54	47
43	50	42	55	70	54	44	50	55	60	77	70	45	50	60	59	76	77
46	50	59	75	92	76	47	50	75	91	101	92	48	50	40	41	53	52
49	50	41	47	61	53	50	50	47	54	69	61	51	50	54	70	86	69
52	50	70	77	94	86	53	50	77	76	93	94	54	50	76	92	103	93
55	50	92	101	105	103	56	50	67	66	52		57	50	53	61	80	68
58	50	61	79	80		59	50	69	86	96	85	60	50	97	96	86	
61	50	94	93	104	95	62	50	93	103	106	104	63	50	107	105	109	
64	50	1	2	6	5	65	50	5	6	4		66	50	1	5	4	
67	50	10	15	14	9	68	50	9	14	8		69	50	9	8	3	
70	50	28	30	29		71	50	28	29	20		72	50	30	38	29	
73	50	50	48	62		74	50	48	50	38		75	50	48	63	62	
76	50	64	65	50		77	50	81	65	64		78	50	35	44	34	
79	50	35	34	26		80	50	36	44	35		81	50	88	74	73	
82	50	89	88	72		83	50	89	74	88		84	50	46	59	60	
85	50	67	53	68	66	86	50	52	53	67		87	50	79	69	85	98
88	50	61	69	79		89	50	79	98	80		90	50	95	78	94	
91	50	86	94	97		92	50	78	97	94		93	50	107	109	106	
94	50	103	107	106		95	50	39	49	38		96	50	56	71	59	
97	50	28	20	21		98	50	97	78	96		99	50	107	103	105	

RADYE NOKTA YÜKLERİ (t) - (m)

Nokta no	1 g	2 q	3 q	4 q	5 q	6 q	7 q	8 s	9 e	10 e	11 e	12 e	13 w	14 w	17 Ez
5 Pz	5.98	0.37	0.01	0.36	0.37	-0.05	0.37	-3.29	-5.41	5.71	-3.35	3.95	-0.12	-0.09	4.96
5 Mx	0.03	0.01	0.00	0.01	0.01	0.00	0.01	0.16	-0.38	0.44	0.05	-0.07	-0.01	0.00	0.02
5 My	0.54	0.14	0.00	0.14	0.09	0.05	0.14	0.27	0.44	-0.66	-1.31	1.67	0.01	-0.04	0.45
7 Pz	4.70	-0.34	0.01	-0.36	0.02	-0.39	-0.34	-6.35	-16.15	17.50	-7.12	8.08	-0.38	-0.20	3.90
7 Mx	0.94	0.13	0.01	0.11	0.18	-0.05	0.13	3.94	-7.60	8.25	-3.71	4.32	-0.17	-0.10	0.78
7 My	0.92	0.22	0.00	0.22	0.11	0.11	0.22	0.12	0.00	0.00	0.00	0.00	0.00	-0.01	0.77
9 Pz	27.43	5.69	-0.11	5.69	2.86	2.83	5.69	-1.31	-0.40	0.44	-0.41	0.46	-0.01	-0.01	22.77
9 Mx	-0.07	-0.02	0.00	-0.02	-0.06	0.04	-0.02	1.57	-4.14	4.74	-0.13	-0.03	-0.10	0.00	-0.06
9 My	1.94	0.47	-0.01	0.48	0.23	0.23	0.47	0.22	0.01	-0.01	-0.26	0.29	0.00	-0.01	1.61
22 Pz	4.67	-0.02	0.07	-0.19	-0.30	0.11	-0.02	-3.97	-8.49	9.87	-5.96	5.37	-0.23	-0.16	3.88
22 Mx	-1.42	-0.36	-0.12	-0.24	-0.27	-0.09	-0.36	6.75	-22.50	25.62	2.92	-3.76	-0.56	0.08	-1.18
22 My	0.98	0.23	0.00	0.23	0.12	0.12	0.23	0.19	0.00	0.00	0.00	0.00	0.00	-0.01	0.81
23 Pz	38.74	4.55	-0.01	4.55	4.12	0.43	4.55	1.74	-5.93	5.98	0.14	-0.19	-0.14	0.00	32.16
23 Mx	2.98	0.75	-0.01	0.76	0.57	0.18	0.75	1.61	0.00	0.00	0.00	0.00	-0.03	0.00	2.48
23 My	0.62	0.08	0.06	0.01	0.09	-0.02	0.08	-0.51	1.89	5.37	83.98	-104.3	-0.10	2.34	0.51
28 Pz	4.26	0.24	0.00	0.24	-0.15	0.24	0.24	0.70	1.81	-2.04	-1.25	1.26	0.04	-0.03	3.54
28 Mx	-0.02	-0.01	0.01	-0.02	0.00	-0.01	-0.01	1.42	-4.16	4.74	-0.13	-0.03	-0.11	0.00	-0.02
28 My	0.09	0.02	0.00	0.02	0.01	0.01	0.02	0.09	-0.03	0.03	-0.23	0.23	0.00	-0.01	0.08
29 Pz	8.61	1.25	0.37	0.87	0.43	0.81	1.25	-0.37	0.51	-0.56	-1.48	1.45	0.01	-0.04	7.14
29 Mx	0.02	0.00	0.02	-0.01	0.01	-0.01	0.00	0.12	0.00	0.00	0.00	0.00	-0.01	0.00	0.02
29 My	-1.41	-0.31	-0.13	-0.19	-0.18	-0.13	-0.31	-2.62	-0.40	0.20	8.07	-7.80	0.00	0.21	-1.17
35 Pz	11.16	1.79	-0.02	1.79	0.30	1.49	1.79	0.18	0.07	-0.06	-2.68	2.57	0.00	-0.07	9.27
35 Mx	0.09	0.02	0.08	-0.07	0.06	-0.04	0.02	0.23	-0.57	0.61	-0.01	0.01	-0.01	0.00	0.08
35 My	0.01	0.01	0.04	-0.03	0.04	-0.03	0.01	0.32	0.08	-0.06	-2.21	2.13	0.00	-0.06	0.01

FİRMA : ESPO MUH. DAN. INS. LTD. STI.

24-12-2025

SAYFA: 55

PROJE : CERRAHPAŞA YURT SU DEPOSU

(251224-ES374-CERRAH-SU-D-D02.ST4)

RADYE NOKTA YÜKLERİ (t) - (m)

Nokta no	1 g	2 q	3 q	4 q	5 q	6 q	7 q	8 s	9 e	10 e	11 e	12 e	13 w	14 w	17 Ez
48 Pz	5.27	0.40	0.28	0.12	0.23	0.18	0.40	-0.67	1.46	-1.57	-1.18	1.12	0.04	-0.03	4.38
48 Mx	-0.05	-0.02	0.00	-0.02	-0.01	-0.01	-0.02	1.13	-3.87	4.42	0.01	-0.17	-0.10	0.00	-0.04
48 My	0.14	0.03	0.02	0.01	0.02	0.01	0.03	0.21	0.02	0.00	-0.21	0.19	0.00	-0.01	0.11
51 Pz	3.73	0.23	0.01	0.22	-0.03	0.23	0.23	-3.09	-5.59	6.66	-5.02	4.44	-0.15	-0.13	3.09
51 Mx	0.37	0.07	0.03	0.04	0.03	0.04	0.07	1.65	-4.05	4.65	-0.91	0.72	-0.10	-0.02	0.31
51 My	0.09	0.02	0.01	0.01	0.01	0.01	0.02	0.11	0.00	0.00	0.00	0.00	0.00	-0.01	0.07
60 Pz	44.91	7.58	3.85	3.73	4.21	3.38	7.58	4.27	-1.06	0.74	13.78	-13.27	-0.01	0.36	37.28
60 Mx	-0.35	-0.08	0.33	-0.41	0.22	-0.30	-0.08	0.65	0.00	0.00	0.00	0.00	-0.03	0.00	-0.29
60 My	5.91	1.03	0.56	0.47	0.77	0.26	1.03	8.03	-2.39	1.70	48.24	-46.37	-0.03	1.17	4.91
64 Pz	3.91	0.07	0.03	0.04	0.04	0.02	0.07	1.01	3.01	-3.46	0.14	-0.02	0.08	0.00	3.25
64 Mx	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.18	-0.32	0.38	-0.07	0.05	-0.01	0.00	-0.01
64 My	0.10	0.02	0.02	0.00	0.01	0.01	0.02	0.94	-0.38	0.56	-1.34	1.03	-0.01	-0.04	0.08
67 Pz	6.13	0.40	0.01	0.39	0.40	-0.04	0.40	-3.31	-5.63	5.41	3.43	-4.07	-0.12	0.10	5.09
67 Mx	0.03	0.01	0.00	0.01	0.01	0.00	0.01	0.16	-0.42	0.37	-0.04	0.06	-0.01	0.00	0.03
67 My	-0.47	-0.12	0.00	-0.12	-0.08	-0.04	-0.12	-0.24	-0.59	0.37	-1.29	1.64	-0.01	-0.04	-0.39
79 Pz	26.59	5.47	-0.15	5.47	2.70	2.77	5.47	-1.06	-0.36	0.32	0.28	-0.31	-0.01	0.01	22.07
79 Mx	-0.11	-0.03	-0.01	-0.02	-0.12	0.09	-0.03	1.26	-3.98	3.51	0.13	-0.02	-0.08	0.00	-0.09
79 My	-2.15	-0.52	0.01	-0.53	-0.26	-0.26	-0.52	-0.20	-0.01	0.00	-0.28	0.31	0.00	-0.01	-1.78
82 Pz	2.58	-0.19	-0.20	0.00	-0.21	0.01	-0.19	-0.96	-2.31	3.17	-4.81	3.68	-0.08	-0.14	2.14
82 Mx	-0.19	-0.05	0.00	-0.05	-0.03	-0.02	-0.05	2.94	-9.58	10.87	0.67	-0.94	-0.25	0.02	-0.16
82 My	0.05	0.01	0.01	0.00	0.01	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.00	-0.01	0.04
83 Pz	3.03	-0.03	-0.06	0.01	-0.04	0.00	-0.03	1.84	2.59	-2.67	-2.10	1.77	0.06	-0.05	2.51
83 Mx	-0.10	-0.02	-0.02	0.00	-0.02	0.00	-0.02	-0.06	0.00	0.00	0.00	0.00	-0.01	0.00	-0.08
83 My	0.12	0.02	0.02	0.00	0.03	-0.01	0.02	-1.48	0.63	-1.28	5.36	-4.12	0.03	0.15	0.10
84 Pz	5.37	-0.23	0.02	-0.28	0.05	-0.35	-0.23	-5.19	-17.03	15.97	7.06	-8.09	-0.35	0.20	4.45
84 Mx	0.24	-0.02	0.00	-0.02	0.09	-0.12	-0.02	4.63	-8.02	7.47	3.94	-4.65	-0.17	0.11	0.20
84 My	-0.81	-0.19	0.00	-0.20	-0.10	-0.09	-0.19	-0.12	0.00	0.00	0.00	0.00	0.00	-0.01	-0.67
89 Pz	9.78	1.32	1.32	-0.09	1.32	-0.03	1.32	-1.41	-0.16	0.43	-2.86	2.26	-0.01	-0.08	8.12
89 Mx	-0.35	-0.09	-0.09	0.01	-0.09	0.00	-0.09	-0.18	-0.54	0.58	-0.04	0.02	-0.01	0.00	-0.29
89 My	0.03	0.02	0.02	0.00	0.02	0.00	0.02	0.10	-0.04	0.19	-1.71	1.34	0.00	-0.05	0.02
97 Pz	5.88	0.47	0.17	0.30	0.08	0.39	0.47	0.02	0.44	-0.39	2.45	-2.35	0.01	0.06	4.88
97 Mx	0.12	0.01	0.07	-0.06	0.06	-0.05	0.01	1.26	-4.44	3.94	0.30	-0.16	-0.09	0.01	0.10
97 My	-0.10	-0.02	-0.01	-0.02	-0.01	-0.01	-0.02	-0.08	0.04	-0.03	-0.24	0.24	0.00	-0.01	-0.08
99 Pz	6.50	0.20	0.20	-0.27	0.03	0.17	0.20	-2.56	-11.14	9.78	8.20	-7.46	-0.22	0.21	5.40
99 Mx	-1.57	-0.38	-0.23	-0.15	-0.30	-0.08	-0.38	6.40	-24.35	21.65	-4.38	5.03	-0.49	-0.11	-1.30
99 My	-0.89	-0.21	0.00	-0.21	-0.10	-0.11	-0.21	-0.16	0.00	0.00	0.00	0.00	0.00	-0.01	-0.73
102 Pz	24.33	2.39	2.39	-0.04	2.39	-0.05	2.39	5.51	4.71	-5.52	10.89	-8.58	0.13	0.31	20.20
102 Mx	-1.36	-0.36	-0.39	0.03	-0.38	0.02	-0.36	-0.68	0.00	0.00	0.00	0.00	-0.03	0.00	-1.13
102 My	3.77	0.70	0.69	0.00	0.73	-0.04	0.70	10.54	7.74	-10.70	40.72	-32.43	0.20	1.01	3.13
107 Pz	6.58	0.53	0.53	0.00	0.53	-0.02	0.53	-0.10	6.34	-6.07	3.77	-3.19	0.14	0.10	5.46
107 Mx	-0.05	-0.01	-0.01	0.00	-0.01	0.00	-0.01	0.04	-0.43	0.38	0.05	-0.03	-0.01	0.00	-0.04
107 My	-0.20	-0.07	-0.07	0.00	-0.07	0.00	-0.07	-0.50	0.56	-0.34	-1.53	1.17	0.01	-0.04	-0.17
108 Pz	14.43	1.47	1.10	0.37	1.13	0.34	1.47	0.64	5.61	-6.02	15.81	-14.04	0.13	0.40	11.98
108 Mx	2.09	0.52	0.12	0.40	0.11	0.41	0.52	3.82	-28.33	25.82	0.71	-0.86	-0.59	0.01	1.73
108 My	-0.24	-0.06	-0.05	-0.01	-0.05	-0.01	-0.06	-0.19	0.00	0.00	0.00	0.00	0.00	-0.01	-0.20

Tg= 274.59 (t) Tq= 33.59 (t)
Tg= 274.59 (t) Tq= 33.59 (t)

Radye temele etkiyen yükler
Tüm yapının temel yükü

NOKTALARIN X YÖNÜ STATİK SONUÇLARI Mx (tm)

Nokta no	1 Mg	2 Mq	3 Mq	4 Mq	5 Mq	6 Mq	7 Mq	8 Ms	9 Me	10 Me	11 Me	12 Me	13 Mw	14 Mw	17 Mez
1	-0.20	-0.02	0.01	-0.03	0.00	-0.02	-0.02	0.11	0.15	-0.20	-0.04	0.18	0.00	0.00	-0.16
2	0.54	0.09	0.00	0.08	0.05	0.04	0.09	-0.15	-0.19	0.18	-0.35	0.46	0.00	-0.01	0.45
3	0.35	0.05	0.00	0.05	0.03	0.02	0.05	-0.08	-0.10	0.10	-0.16	0.19	0.00	0.00	0.59
4	1.63	0.19	-0.01	0.19	0.11	0.06	0.19	-0.48	-0.72	0.76	-1.24	1.33	-0.02	-0.03	1.29
5	1.24	0.14	-0.01	0.15	0.09	0.05	0.14	-0.38	-0.56	0.58	-1.10	1.22	-0.01	-0.03	1.03
6	-0.70	-0.09	0.00	-0.12	-0.06	-0.05	-0.09	0.32	0.40	-0.47	0.74	-0.66	0.01	0.02	-0.52
7	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
8	-1.26	-0.11	0.02	-0.12	-0.07	-0.03	-0.11	0.40	0.61	-0.68	1.01	-0.96	0.02	0.03	-1.07
9	1.84	0.27	0.00	0.26	0.14	0.12	0.27	-0.37	-0.47	0.50	-0.93	1.01	-0.01	-0.03	1.54
10	0.10	0.05	0.01	0.05	0.02	0.04	0.05	0.00	0.08	-0.10	0.09	-0.05	0.00	0.00	0.07
11	5.05	0.59	-0.05	0.58	0.34	0.18	0.59	-1.33	-2.02	2.13	-2.48	2.64	-0.05	-0.07	4.27
12	-1.11	-0.16	0.00	-0.19	-0.10	-0.09	-0.16	0.45	0.56	-0.62	0.76	-0.69	0.01	0.02	-0.84
13	-2.36	-0.24	0.04	-0.24	-0.13	-0.06	-0.24	0.66	0.98	-1.06	1.11	-1.08	0.02	0.03	-2.03
14	-0.53	-0.02	0.00	-0.01	-0.02	0.02	-0.02	0.13	0.24	-0.27	0.53	-0.53	0.01	0.01	-0.96
15	1.00	0.16	0.00	0.15	0.07	0.08	0.16	-0.20	-0.19	0.20	-0.39	0.44	0.00	-0.01	0.84
16	6.38	0.74	-0.06	0.70	0.44	0.21	0.74	-1.48	-2.36	2.43	-1.53	1.67	-0.05	-0.04	5.46
17	-1.15	-0.17	-0.02	-0.19	-0.12	-0.09	-0.17	0.43	0.53	-0.57	0.42	-0.36	0.01	0.01	-0.86
18	-1.98	-0.15	0.04	-0.12	-0.08	0.01	-0.15	0.42	0.71	-0.76	0.95	-0.99	0.02	0.03	-1.79
19	-3.06	-0.32	0.05	-0.29	-0.18	-0.07	-0.32	0.75	1.14	-1.19	0.67	-0.67	0.03	0.02	-2.67
20	-0.37	0.01	-0.02	0.04	-0.03	0.06	0.01	-0.01	0.00	0.02	0.48	-0.62	0.00	0.01	-0.34
21	0.13	0.03	0.00	0.03	0.01	0.03	0.03	0.01	-0.10	0.12	-0.01	-0.02	0.00	0.00	0.31
22	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
23	6.83	0.81	-0.05	0.73	0.48	0.21	0.81	-1.39	-2.34	2.34	0.23	-0.15	-0.05	0.00	5.88
24	-1.16	-0.17	-0.03	-0.19	-0.13	-0.09	-0.17	0.38	0.48	-0.49	0.01	0.02	0.01	0.00	-0.87
25	-2.37	-0.18	0.07	-0.12	-0.09	0.04	-0.18	0.46	0.78	-0.81	0.50	-0.58	0.02	0.01	-2.21
26	0.05	0.05	-0.01	0.08	0.00	0.08	0.05	-0.11	-0.13	0.18	0.03	-0.20	0.00	0.00	-0.25
27	-3.30	-0.35	0.04	-0.30	-0.20	-0.06	-0.35	0.71	1.13	-1.14	-0.13	0.12	0.02	0.00	-2.89
28	0.47	0.11	0.02	0.11	0.02	0.10	0.11	-0.07	-0.14	0.17	-0.23	0.20	0.00	-0.01	0.35
29	1.01	0.22	0.06	0.20	0.05	0.21	0.22	-0.12	-0.22	0.31	-0.78	0.64	-0.01	-0.02	0.74
30	0.02	0.07	0.03	0.08	0.00	0.10	0.07	0.03	-0.02	0.04	0.01	-0.04	0.00	0.00	-0.07
31	6.53	0.79	-0.01	0.69	0.49	0.20	0.79	-1.19	-2.10	2.04	1.95	-1.95	-0.05	0.05	5.59
32	-1.21	-0.18	-0.03	-0.18	-0.14	-0.08	-0.18	0.34	0.45	-0.43	-0.38	0.40	0.01	-0.01	-0.92
33	-2.60	-0.20	0.07	-0.13	-0.11	0.05	-0.20	0.43	0.79	-0.78	-0.17	0.10	0.02	0.00	-2.45
34	0.13	0.09	0.03	0.11	0.02	0.12	0.09	-0.09	-0.11	0.15	0.02	-0.17	0.00	0.00	0.04
35	3.92	0.49	-0.03	0.46	0.15	0.27	0.49	-0.86	-1.45	1.68	-1.53	1.13	-0.04	-0.04	3.70
36	2.50	0.38	0.11	0.28	0.14	0.24	0.38	-0.14	-0.39	0.46	-0.96	1.04	-0.01	-0.03	2.04
37	-3.16	-0.34	0.02	-0.28	-0.21	-0.05	-0.34	0.60	1.00	-0.96	-0.89	0.86	0.02	-0.02	-2.77
38	-0.72	-0.01	0.00	0.03	-0.02	0.05	-0.01	-0.02	0.14	-0.19	0.66	-0.63	0.00	0.02	-0.65
39	-0.07	0.14	0.05	0.14	-0.01	0.20	0.14	0.04	-0.01	0.04	0.12	-0.18	0.00	0.00	-0.17
40	5.23	0.65	0.03	0.56	0.42	0.18	0.65	-0.88	-1.62	1.53	2.77	-2.82	-0.03	0.07	4.44
41	-1.22	-0.18	-0.04	-0.17	-0.14	-0.07	-0.18	0.29	0.40	-0.36	-0.72	0.70	0.01	-0.02	-0.95
42	-2.59	-0.21	0.05	-0.13	-0.12	0.04	-0.21	0.35	0.70	-0.66	-0.87	0.80	0.01	-0.02	-2.42
43	0.02	0.10	0.04	0.13	0.04	0.14	0.10	-0.10	-0.10	0.13	0.02	-0.15	0.00	0.00	-0.14
44	1.36	0.24	0.08	0.18	0.10	0.16	0.24	-0.06	-0.18	0.17	0.00	0.13	0.00	0.00	1.09
45	-1.50	-0.09	-0.05	0.00	-0.06	0.01	-0.09	-0.08	0.18	-0.25	0.81	-0.79	0.01	0.02	-1.32
46	4.16	0.56	0.19	0.32	0.26	0.25	0.56	0.08	-0.41	0.36	0.77	-0.53	-0.01	0.02	3.53
47	-2.44	-0.26	0.00	-0.21	-0.18	-0.03	-0.26	0.42	0.73	-0.67	-1.20	1.17	0.01	-0.03	-2.13
48	0.33	0.06	0.03	0.06	0.01	0.08	0.06	-0.05	0.02	0.02	-0.25	0.16	0.00	-0.01	0.23
49	0.16	0.09	0.03	0.10	0.00	0.13	0.09	-0.08	0.01	0.03	-0.11	0.00	0.00	0.00	0.05
50	-0.96	-0.10	-0.06	-0.03	-0.06	-0.03	-0.10	-0.12	0.05	-0.06	0.55	-0.69	0.00	0.01	-0.80
51	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
52	1.67	0.21	0.02	0.18	0.15	0.06	0.21	-0.28	-0.53	0.49	1.30	-1.35	-0.01	0.03	1.29
53	-0.81	-0.11	-0.03	-0.10	-0.10	-0.03	-0.11	0.15	0.21	-0.15	-0.71	0.65	0.00	-0.02	-0.65
54	-1.94	-0.16	0.01	-0.09	-0.11	0.04	-0.16	0.22	0.47	-0.42	-1.07	1.02	0.01	-0.03	-1.78
55	-0.08	0.08	0.02	0.12	0.02	0.12	0.08	-0.14	-0.13	0.17	-0.30	0.19	0.00	-0.01	-0.20
56	3.09	0.46	0.21	0.24	0.22	0.23	0.46	0.25	-0.06	-0.01	0.64	-0.32	0.00	0.02	2.56
57	-1.34	-0.09	-0.07	0.01	-0.06	0.00	-0.09	-0.15	0.08	-0.13	0.34	-0.30	0.00	0.01	-1.16
58	-1.48	-0.18	-0.12	-0.08	-0.10	-0.09	-0.18	-0.20	-0.03	0.03	0.42	-0.63	0.00	0.01	-1.20
59	-1.60	-0.15	-0.10	-0.03	-0.11	-0.02	-0.15	-0.22	0.01	0.01	-0.74	0.72	0.00	-0.02	-1.51
60	5.43	0.70	0.18	0.42	0.35	0.26	0.70	-0.09	-0.81	0.71	2.59	-2.50	-0.02	0.07	4.67
61	-1.33	-0.13	-0.01	-0.08	-0.11	0.01	-0.13	0.17	0.35	-0.28	-1.03	0.97	0.01	-0.03	-1.17
62	0.07	0.01	0.00	0.01	0.00	0.01	0.01	-0.01	0.02	-0.01	-0.07	0.04	0.00	0.00	0.07
63	-0.03	0.04	0.01	0.05	-0.01	0.06	0.04	-0.10	0.06	-0.06	0.05	-0.09	0.00	0.00	-0.07
64	0.74	0.05	0.03	0.01	0.03	0.01	0.05	0.01	-0.03	0.07	-0.63	0.60	0.00	-0.02	0.37
65	0.29	-0.07	-0.03	-0.07	-0.01	-0.08	-0.07	-0.10	-0.36	0.56	-1.17	0.66	-0.		

NOKTALARIN X YÖNÜ STATİK SONUÇLARI Mx (tm)

Nokta no	1 Mg	2 Mq	3 Mq	4 Mq	5 Mq	6 Mq	7 Mq	8 Ms	9 Me	10 Me	11 Me	12 Me	13 Mw	14 Mw	17 Mez
84	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
85	0.54	0.09	0.01	0.08	0.04	0.05	0.09	-0.06	-0.11	0.10	0.30	-0.30	0.00	0.01	0.91
86	-0.07	0.03	0.01	0.04	-0.01	0.06	0.03	0.01	-0.02	0.03	-0.19	0.18	0.00	-0.01	-0.50
87	-1.96	-0.25	-0.18	-0.10	-0.16	-0.12	-0.25	-0.32	-0.10	0.14	-0.42	0.25	0.00	-0.01	-1.57
88	1.32	0.10	0.07	0.02	0.07	0.02	0.10	0.08	-0.21	0.31	-0.47	0.27	-0.01	-0.01	1.10
89	0.69	0.04	0.03	0.00	0.03	0.00	0.04	0.01	-0.14	0.21	-0.41	0.26	0.00	-0.01	1.43
90	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
91	3.52	0.38	0.28	0.10	0.28	0.11	0.38	0.48	-0.04	0.03	1.56	-1.64	0.00	0.04	2.90
92	-1.76	-0.23	-0.17	-0.07	-0.16	-0.09	-0.23	-0.35	-0.14	0.21	-1.20	1.09	0.00	-0.03	-1.40
93	-0.94	-0.10	-0.08	-0.02	-0.09	-0.02	-0.10	-0.18	-0.04	0.08	-0.84	0.82	0.00	-0.02	-0.76
94	0.12	0.04	0.01	0.04	0.01	0.04	0.04	-0.04	-0.05	0.05	-0.02	0.02	0.00	0.00	-0.60
95	0.68	0.11	0.05	0.06	0.06	0.05	0.11	0.07	-0.02	-0.01	0.61	-0.60	0.00	0.02	0.55
96	0.53	0.11	0.02	0.08	0.04	0.07	0.11	0.04	-0.17	0.12	0.29	-0.22	0.00	0.01	0.43
97	1.35	0.25	0.10	0.17	0.11	0.16	0.25	0.10	-0.11	0.04	1.13	-1.06	0.00	0.03	1.07
98	0.02	0.05	0.00	0.06	0.00	0.06	0.05	-0.02	0.02	0.00	-0.10	0.05	0.00	0.00	-0.01
99	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
100	3.18	0.30	0.22	0.07	0.22	0.08	0.30	0.31	-0.20	0.29	0.23	-0.44	-0.01	0.01	2.63
101	3.37	0.39	0.29	0.11	0.29	0.12	0.39	0.55	0.09	-0.17	2.43	-2.41	0.00	0.06	2.76
102	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
103	-1.00	-0.13	-0.11	-0.03	-0.10	-0.05	-0.13	-0.23	-0.12	0.16	-0.90	0.85	0.00	-0.02	-0.80
104	0.78	0.11	0.07	0.05	0.07	0.05	0.11	0.13	0.09	-0.12	0.71	-0.68	0.00	0.02	0.62
105	0.59	0.08	0.06	0.02	0.06	0.03	0.08	0.12	0.05	-0.09	0.62	-0.57	0.00	0.02	1.04
106	0.47	0.07	0.05	0.03	0.05	0.03	0.07	0.10	0.01	-0.04	0.44	-0.40	0.00	0.01	0.36
107	0.63	0.08	0.06	0.02	0.06	0.03	0.08	0.12	0.04	-0.07	0.64	-0.61	0.00	0.02	0.51
108	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
109	-0.14	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.04	-0.06	0.01	0.05	0.00	0.00	-0.12

NOKTALARIN Y YÖNÜ STATİK SONUÇLARI My (tm)

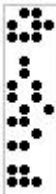
Nokta no	1 Mg	2 Mq	3 Mq	4 Mq	5 Mq	6 Mq	7 Mq	8 Ms	9 Me	10 Me	11 Me	12 Me	13 Mw	14 Mw	17 Mez
1	-0.08	0.00	0.00	-0.01	0.00	0.00	0.00	0.04	0.07	-0.09	0.02	0.03	0.00	0.00	-0.06
2	2.41	0.33	-0.01	0.35	0.19	0.14	0.33	-0.68	-0.89	0.95	-1.46	1.54	-0.02	-0.04	1.98
3	2.73	0.36	-0.02	0.35	0.19	0.14	0.36	-0.66	-0.91	0.97	-1.42	1.50	-0.02	-0.04	2.30
4	0.46	0.05	0.00	0.05	0.03	0.02	0.05	-0.11	-0.18	0.19	-0.37	0.42	0.00	-0.01	0.39
5	0.26	0.03	0.00	0.03	0.02	0.01	0.03	-0.08	-0.12	0.12	-0.23	0.24	0.00	-0.01	0.19
6	-0.47	-0.06	0.00	-0.08	-0.04	-0.04	-0.06	0.27	0.33	-0.39	0.84	-0.82	0.01	0.02	-0.34
7	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
8	-0.30	-0.02	0.00	-0.04	-0.02	-0.02	-0.02	0.19	0.26	-0.31	0.85	-0.83	0.01	0.02	-0.37
9	2.70	0.35	-0.02	0.34	0.19	0.13	0.35	-0.58	-0.81	0.86	-1.29	1.36	-0.02	-0.03	2.30
10	0.03	0.01	0.00	0.01	0.00	0.01	0.01	0.00	0.02	-0.03	0.02	-0.01	0.00	0.00	0.02
11	1.22	0.14	-0.01	0.14	0.09	0.04	0.14	-0.29	-0.47	0.49	-0.64	0.70	-0.01	-0.02	1.03
12	-0.85	-0.11	0.01	-0.12	-0.06	-0.05	-0.11	0.33	0.42	-0.47	0.77	-0.75	0.01	0.02	-0.68
13	-1.68	-0.18	0.02	-0.19	-0.10	-0.06	-0.18	0.51	0.73	-0.80	1.40	-1.43	0.02	0.04	-1.42
14	-0.50	-0.04	-0.02	-0.04	-0.03	-0.03	-0.04	0.18	0.30	-0.36	1.09	-1.10	0.01	0.03	-0.36
15	1.87	0.23	-0.01	0.21	0.12	0.08	0.23	-0.37	-0.53	0.56	-0.94	1.01	-0.01	-0.03	3.20
16	1.56	0.18	-0.01	0.17	0.11	0.05	0.18	-0.32	-0.55	0.56	-0.44	0.49	-0.01	-0.01	1.34
17	-0.69	-0.08	0.01	-0.09	-0.05	-0.04	-0.08	0.25	0.32	-0.35	0.34	-0.32	0.01	0.01	-0.57
18	-1.51	-0.14	0.02	-0.13	-0.08	-0.03	-0.14	0.38	0.59	-0.64	1.24	-1.34	0.01	0.03	-1.31
19	-1.57	-0.16	0.04	-0.15	-0.08	-0.03	-0.16	0.43	0.63	-0.67	0.71	-0.74	0.01	0.02	-1.39
20	-0.46	-0.03	-0.02	-0.01	-0.03	0.00	-0.03	0.08	0.21	-0.23	0.58	-0.65	0.01	0.02	-0.47
21	1.22	0.14	0.01	0.12	0.09	0.03	0.14	-0.14	-0.31	0.33	-0.61	0.72	-0.01	-0.02	1.05
22	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
23	1.69	0.20	-0.01	0.18	0.12	0.05	0.20	-0.30	-0.54	0.54	0.06	-0.04	-0.01	0.00	1.46
24	-0.60	-0.08	0.00	-0.07	-0.04	-0.03	-0.08	0.20	0.25	-0.26	-0.01	0.01	0.01	0.00	-0.50
25	-1.36	-0.11	0.06	-0.09	-0.04	0.02	-0.11	0.34	0.54	-0.56	0.63	-0.69	0.01	0.02	-1.27
26	-0.70	-0.04	0.00	-0.02	-0.04	0.02	-0.04	0.09	0.21	-0.21	0.52	-0.67	0.01	0.01	-0.62
27	-1.50	-0.15	0.04	-0.13	-0.08	-0.02	-0.15	0.35	0.54	-0.54	-0.05	0.03	0.01	0.00	-1.36
28	0.60	0.10	0.01	0.08	0.05	0.04	0.10	-0.01	-0.07	0.07	-0.20	0.27	0.00	-0.01	0.51
29	-0.02	0.06	0.02	0.07	0.00	0.09	0.06	0.03	0.14	-0.12	-0.09	-0.04	0.00	0.00	-0.08
30	0.01	0.03	0.00	0.04	-0.01	0.05	0.03	0.07	-0.01	0.05	0.04	-0.17	0.00	0.00	-0.02
31	1.60	0.19	0.00	0.17	0.12	0.05	0.19	-0.26	-0.48	0.48	0.54	-0.56	-0.01	0.01	1.37
32	-0.74	-0.10	-0.01	-0.09	-0.06	-0.03	-0.10	0.18	0.26	-0.23	-0.37	0.36	0.00	-0.01	-0.62
33	-1.26	-0.10	0.06	-0.07	-0.04	0.02	-0.10	0.26	0.44	-0.44	-0.03	-0.01	0.01	0.00	-1.21
34	-0.86	-0.06	0.03	-0.04	-0.02	0.01	-0.06	0.18	0.33	-0.36	0.41	-0.41	0.01	0.01	-0.93
35	2.26	0.26	0.00	0.20	0.09	0.11	0.26	-0.32	-0.62	0.71	-0.64	0.54	-0.02	-0.02	2.20
36	0.72	0.13	0.04	0.09	0.04	0.09	0.13	0.01	0.01	0.00	-0.21	0.22	0.00	-0.01	0.58
37	-1.66	-0.18	0.01	-0.14	-0.11	-0.03	-0.18	0.28	0.50	-0.46	-0.86	0.84	0.01	-0.02	-1.48
38	-0.54	-0.01	0.01	0.00	0.00	0.01	-0.01	0.10	0.30	-0.37	0.70	-0.66	0.01	0.02	-0.49
39	0.19	0.05	0.02	0.04	0.00	0.06	0.05	0.02	0.00	0.04	-0.16	0.09	0.00	0.00	0.25
40	1.26	0.16	0.01	0.13	0.10	0.04	0.16	-0.19	-0.37	0.35	0.71	-0.74	-0.01	0.02	1.07
41	-0.94	-0.13	-0.02	-0.11	-0.09	-0.04	-0.13	0.17	0.28	-0.23	-0.80	0.78	0.00	-0.02	-0.77
42	-1.32	-0.12	0.03	-0.08	-0.06	0.01	-0.12	0.19	0.38	-0.34	-0.75	0.72	0.01	-0.02	-1.24
43	-0.20	0.02	0.04	0.03	0.01	0.05	0.02	0.05	0.09	-0.08	0.01	-0.05	0.00	0.00	-0.25
44	-0.59	-0.04	-0.01	-0.01	-0.02	0.00	-0.04	0.00	0.09	-0.11	0.13	-0.16	0.00	0.00	-0.89
45	-0.72	-0.05	-0.02	-0.02	-0.02	-0.02	-0.05	0.02	0.21	-0.27	0.56	-0.52	0.01	0.01	-0.61
46	2.06	0.26	0.06	0.16	0.11	0.11	0.26	-0.06	-0.30	0.31	0.09	-0.04	-0.01	0.00	1.78
47	-1.85	-0.23	-0.03	-0.17	-0.15	-0.05	-0.23	0.23	0.47	-0.39	-1.55	1.54	0.01	-0.04	-1.58
48	0.72	0.08	0.04	0.04	0.03	0.04	0.08	0.02	0.04	-0.01	-0.43	0.42	0.00	-0.01	0.84

NOKTALARIN Y YÖNÜ STATİK SONUÇLARI My (tm)

Nokta no	1 Mg	2 Mq	3 Mq	4 Mq	5 Mq	6 Mq	7 Mq	8 Ms	9 Me	10 Me	11 Me	12 Me	13 Mw	14 Mw	17 Mez
49	1.03	0.13	0.06	0.08	0.04	0.10	0.13	0.01	-0.01	0.09	-0.75	0.63	0.00	-0.02	0.84
50	-0.73	-0.07	-0.03	-0.03	-0.02	-0.03	-0.07	0.00	0.21	-0.26	0.60	-0.65	0.01	0.02	-0.62
51	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
52	0.47	0.06	0.00	0.05	0.04	0.02	0.06	-0.07	-0.14	0.14	0.39	-0.43	0.00	0.01	0.39
53	-0.52	-0.08	-0.03	-0.06	-0.07	-0.02	-0.08	0.09	0.15	-0.10	-0.79	0.78	0.00	-0.02	-0.40
54	-1.78	-0.21	-0.03	-0.13	-0.14	-0.03	-0.21	0.15	0.38	-0.31	-1.56	1.54	0.01	-0.04	-1.55
55	0.39	0.08	0.04	0.07	0.04	0.06	0.08	-0.01	-0.06	0.06	0.12	-0.16	0.00	0.00	0.27
56	1.60	0.21	0.09	0.10	0.10	0.09	0.21	0.09	-0.09	0.07	0.16	-0.05	0.00	0.00	2.06
57	-0.70	-0.06	-0.03	-0.01	-0.03	-0.01	-0.06	-0.07	0.05	-0.06	0.22	-0.25	0.00	0.01	-0.61
58	-0.76	-0.09	-0.05	-0.05	-0.04	-0.06	-0.09	-0.06	0.09	-0.10	0.35	-0.45	0.00	0.01	-0.61
59	-0.63	-0.05	-0.01	-0.03	-0.03	-0.01	-0.05	0.03	0.14	-0.15	-0.20	0.24	0.00	-0.01	-0.55
60	3.41	0.44	0.17	0.23	0.25	0.15	0.44	0.15	-0.29	0.19	2.28	-2.19	0.00	0.06	2.90
61	-0.50	-0.06	-0.04	-0.03	-0.06	-0.01	-0.06	0.02	0.09	-0.03	-1.07	1.05	0.00	-0.03	-0.39
62	0.81	0.09	0.05	0.04	0.04	0.04	0.09	0.05	0.09	-0.08	-0.48	0.53	0.00	-0.01	0.67
63	0.10	0.01	0.00	0.00	0.01	-0.01	0.01	-0.04	0.03	-0.06	0.01	0.07	0.00	0.00	0.18
64	-0.02	-0.02	0.00	-0.01	0.00	-0.01	-0.02	0.06	0.10	-0.09	-0.17	0.07	0.00	0.00	-0.01
65	0.08	-0.01	0.00	-0.02	0.01	-0.03	-0.01	-0.02	0.05	-0.03	-0.31	0.22	0.00	-0.01	-0.02
66	-0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	-0.02	-0.01	0.00	0.00	-0.09
67	0.24	0.03	0.00	0.03	0.02	0.01	0.03	-0.04	-0.08	0.08	0.23	-0.26	0.00	0.01	0.19
68	2.55	0.37	0.03	0.33	0.23	0.14	0.37	-0.45	-0.80	0.75	1.58	-1.69	-0.02	0.04	2.11
69	-0.32	-0.04	-0.04	-0.01	-0.05	-0.01	-0.04	-0.04	-0.01	0.05	-0.82	0.80	0.00	-0.02	-0.40
70	-1.20	-0.13	-0.02	-0.07	-0.08	-0.01	-0.13	0.04	0.21	-0.15	-1.10	1.07	0.00	-0.03	-1.06
71	-0.28	-0.02	-0.02	0.00	-0.01	0.00	-0.02	-0.05	0.01	-0.02	-0.01	0.02	0.00	0.00	-0.23
72	-0.81	-0.09	-0.06	-0.03	-0.05	-0.04	-0.09	-0.10	0.03	-0.05	0.22	-0.26	0.00	0.01	-0.66
73	0.19	0.00	0.01	-0.01	0.01	-0.02	0.00	-0.03	0.01	0.01	-0.23	0.16	0.00	-0.01	0.17
74	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.01	0.00	0.00	0.11
75	-0.65	-0.08	-0.06	-0.03	-0.05	-0.04	-0.08	-0.11	-0.01	0.03	-0.36	0.33	0.00	-0.01	-0.53
76	-1.12	-0.13	-0.09	-0.03	-0.09	-0.03	-0.13	-0.19	-0.04	0.09	-1.06	1.01	0.00	-0.03	-0.95
77	-1.44	-0.15	-0.07	-0.06	-0.10	-0.03	-0.15	-0.11	0.09	-0.04	-1.10	1.06	0.00	-0.03	-1.25
78	0.83	0.11	0.06	0.05	0.08	0.03	0.11	0.17	0.09	-0.15	0.66	-0.52	0.00	0.02	1.50
79	1.72	0.24	0.02	0.19	0.14	0.08	0.24	-0.19	-0.39	0.35	0.95	-0.95	-0.01	0.02	2.52
80	2.90	0.39	0.02	0.33	0.23	0.13	0.39	-0.40	-0.77	0.71	1.66	-1.69	-0.02	0.04	2.47
81	-0.20	-0.04	-0.02	-0.02	-0.02	-0.02	-0.04	0.02	-0.04	0.07	-0.07	-0.07	0.00	0.00	-0.17
82	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
83	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
84	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
85	4.39	0.57	0.06	0.43	0.34	0.17	0.57	-0.40	-0.94	0.82	2.65	-2.62	-0.02	0.07	3.77
86	-0.95	-0.12	-0.07	-0.05	-0.10	-0.03	-0.12	-0.08	0.05	0.01	-1.21	1.18	0.00	-0.03	-0.76
87	-0.54	-0.07	-0.05	-0.03	-0.04	-0.04	-0.07	-0.08	0.00	0.01	-0.05	0.02	0.00	0.00	-0.42
88	0.15	0.01	0.01	0.00	0.01	0.00	0.01	0.00	-0.02	0.03	-0.08	0.05	0.00	0.00	0.27
89	0.29	0.01	0.01	-0.01	0.02	-0.01	0.01	-0.02	-0.05	0.09	-0.23	0.15	0.00	-0.01	0.25
90	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
91	0.88	0.09	0.07	0.02	0.07	0.02	0.09	0.12	0.02	-0.02	0.40	-0.41	0.00	0.01	0.72
92	-0.91	-0.12	-0.09	-0.04	-0.08	-0.04	-0.12	-0.18	-0.05	0.09	-0.81	0.78	0.00	-0.02	-0.73
93	-1.37	-0.18	-0.12	-0.07	-0.13	-0.06	-0.18	-0.21	-0.05	0.12	-1.44	1.39	0.00	-0.04	-1.10
94	-1.42	-0.17	-0.10	-0.07	-0.13	-0.05	-0.17	-0.16	0.02	0.05	-1.44	1.39	0.00	-0.04	-1.18
95	2.89	0.37	0.19	0.16	0.25	0.12	0.37	0.28	-0.09	-0.03	2.58	-2.49	0.00	0.07	2.41
96	1.04	0.12	0.02	0.07	0.09	0.00	0.12	0.05	-0.12	0.05	0.64	-0.51	0.00	0.02	1.88
97	1.76	0.26	0.09	0.16	0.15	0.11	0.26	0.08	-0.17	0.08	1.37	-1.27	0.00	0.04	2.02
98	0.00	0.01	0.00	0.01	0.00	0.01	0.01	0.00	0.00	0.00	-0.01	0.01	0.00	0.00	0.00
99	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
100	0.78	0.07	0.06	0.01	0.06	0.02	0.07	0.07	-0.03	0.05	0.03	-0.08	0.00	0.00	0.64
101	0.83	0.10	0.07	0.02	0.07	0.03	0.10	0.14	0.05	-0.07	0.63	-0.61	0.00	0.02	0.68
102	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
103	-0.68	-0.09	-0.07	-0.03	-0.07	-0.03	-0.09	-0.14	-0.05	0.09	-0.78	0.75	0.00	-0.02	-0.71
104	3.28	0.42	0.28	0.15	0.30	0.15	0.42	0.54	0.17	-0.31	2.92	-2.78	0.01	0.08	2.68
105	0.37	0.05	0.04	0.01	0.04	0.01	0.05	0.07	0.04	-0.06	0.37	-0.34	0.00	0.01	0.30
106	1.52	0.21	0.15	0.07	0.15	0.09	0.21	0.32	0.12	-0.20	1.38	-1.25	0.00	0.04	1.23
107	0.55	0.07	0.05	0.02	0.05	0.02	0.07	0.11	0.05	-0.08	0.49	-0.46	0.00	0.01	0.45
108	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
109	-0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	-0.02	0.00	0.01	0.00	0.00	-0.03

ANALİZ SONUÇLARI

Nokta no	dx cm	dy cm	X m	Y m	Z m	Mxalt (tm)	Mxust (tm)	Myalt (tm)	Myust (tm)	Asax cm ²	Asux cm ²	Asay cm ²	Asuy cm ²
1	50	50	-13.900	7.600	0.000	1.36	-0.39	0.29	-0.12	4.30	4.30	4.30	4.30
2	50	50	-12.850	7.600	0.000	0.54	-0.51	2.39	-0.39	4.30	4.30	4.30	4.30
3	50	50	-11.800	7.600	0.000	0.62	-0.82	3.21	-0.40	4.30	4.30	4.30	4.30
4	50	50	-13.900	8.613	0.000	4.68	-0.19	1.18	-0.05	4.30	4.30	4.30	4.30
5	50	50	-13.750	8.100	0.000	1.96	-0.33	0.51	-0.10	4.30	4.30	4.30	4.30
6	50	50	-12.850	8.613	0.000	0.98	-1.25	1.37	-0.88	4.30	4.30	4.30	4.30
7	500	500	-12.726	7.600	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	50	50	-11.800	8.613	0.000	0.29	-1.91	1.56	-1.47	4.30	4.30	4.30	4.30
9	50	50	-11.350	7.750	0.000	1.04	-0.60	2.45	-0.30	4.30	4.30	4.30	4.30
10	50	50	-11.350	7.600	0.000	1.68	0.00	2.53	0.00	4.30	4.30	4.30	4.30
11	50	50	-13.900	9.625	0.000	5.41	-0.56	1.43	-0.45	4.51	4.30	4.30	4.30
12	50	50	-12.850	9.625	0.000	1.75	-1.85	0.64	-1.51	4.30	4.30	4.30	4.30
13	50	50	-11.800	9.625	0.000	0.05	-3.22	0.29	-2.33	4.30	4.30	4.30	4.30
14	50	50	-10.750	8.613	0.000	0.75	-1.53	1.28	-1.39	4.30	4.30	4.30	4.30
15	50	50	-10.750	7.600	0.000	0.59	-0.28	1.51	-0.41	4.30	4.30	4.30	4.30
16	50	50	-13.900	10.638	0.000	7.31	-0.48	1.81	-0.28	6.12	4.30	4.30	4.30
17	50	50	-12.850	10.638	0.000	2.04	-2.14	0.54	-1.26	4.30	4.30	4.30	4.30
18	50	50	-10.750	9.625	0.000	0.09	-2.36	0.27	-2.30	4.30	4.30	4.30	4.30
19	50	50	-11.800	10.638	0.000	0.00	-3.84	0.05	-2.27	4.30	4.30	4.30	4.30
20	50	50	-9.700	8.613	0.000	0.27	-0.60	0.80	-1.05	4.30	4.30	4.30	4.30
21	50	50	-9.700	7.600	0.000	0.76	-0.35	1.83	-0.38	4.30	4.30	4.30	4.30
22	500	500	-10.325	7.600	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	50	50	-13.900	11.650	0.000	7.85	-0.48	1.93	-0.24	6.57	4.30	4.30	4.30
24	50	50	-12.850	11.650	0.000	2.17	-2.20	0.54	-1.13	4.30	4.30	4.30	4.30
25	50	50	-10.750	10.638	0.000	0.08	-3.12	0.04	-2.17	4.30	4.30	4.30	4.30
26	50	50	-9.700	9.625	0.000	0.27	-1.13	0.15	-1.72	4.30	4.30	4.30	4.30
27	50	50	-11.800	11.650	0.000	0.00	-4.16	0.00	-2.08	4.30	4.30	4.30	4.30
28	50	50	-9.300	7.750	0.000	0.49	-0.35	1.12	-0.38	4.30	4.30	4.30	4.30
29	50	50	-8.800	8.649	0.000	1.82	-0.26	0.68	-0.33	4.30	4.30	4.30	4.30
30	50	50	-8.800	7.600	0.000	0.84	-0.01	0.51	-0.11	4.30	4.30	4.30	4.30
31	50	50	-13.900	12.663	0.000	7.49	-0.50	1.85	-0.30	6.26	4.30	4.30	4.30
32	50	50	-12.850	12.663	0.000	2.08	-2.20	0.51	-1.35	4.30	4.30	4.30	4.30
33	50	50	-10.750	11.650	0.000	0.06	-3.38	0.00	-1.77	4.30	4.30	4.30	4.30
34	50	50	-9.700	10.638	0.000	1.46	-0.84	0.73	-1.03	4.30	4.30	4.30	4.30
35	50	50	-8.950	9.900	0.000	2.99	-0.04	1.19	-0.74	4.30	4.30	4.30	4.30
36	50	50	-8.800	9.400	0.000	1.68	-0.69	0.33	-0.91	4.30	4.30	4.30	4.30
37	50	50	-11.800	12.663	0.000	0.00	-4.00	0.00	-2.41	4.30	4.30	4.30	4.30
38	50	50	-7.600	8.613	0.000	0.50	-1.45	0.13	-1.05	4.30	4.30	4.30	4.30
39	50	50	-8.650	7.600	0.000	0.47	-0.09	0.36	-0.08	4.30	4.30	4.30	4.30
40	50	50	-13.900	13.675	0.000	5.59	-0.53	1.42	-0.47	4.66	4.30	4.30	4.30
41	50	50	-12.850	13.675	0.000	1.74	-1.93	0.50	-1.62	4.30	4.30	4.30	4.30
42	50	50	-10.750	12.663	0.000	0.07	-3.31	0.13	-2.07	4.30	4.30	4.30	4.30
43	50	50	-9.700	11.650	0.000	1.58	-0.96	0.79	-0.71	4.30	4.30	4.30	4.30
44	50	50	-8.650	10.638	0.000	2.89	-0.47	1.26	-0.68	4.30	4.30	4.30	4.30
45	50	50	-7.600	9.625	0.000	0.82	-1.77	0.30	-1.03	4.30	4.30	4.30	4.30
46	50	50	-8.800	11.650	0.000	3.97	-0.76	2.39	-0.31	4.30	4.30	4.30	4.30
47	50	50	-11.800	13.675	0.000	0.00	-3.33	0.12	-2.68	4.30	4.30	4.30	4.30
48	50	50	-7.100	7.750	0.000	0.27	-0.43	0.73	-0.37	4.30	4.30	4.30	4.30
49	50	50	-7.600	7.600	0.000	0.23	-0.48	0.71	-0.32	4.30	4.30	4.30	4.30
50	50	50	-6.550	8.613	0.000	0.36	-1.75	0.17	-1.09	4.30	4.30	4.30	4.30
51	500	500	-8.200	7.600	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52	50	50	-13.900	14.688	0.000	1.08	-0.71	0.43	-0.50	4.30	4.30	4.30	4.30
53	50	50	-12.850	14.688	0.000	0.75	-1.31	1.22	-0.99	4.30	4.30	4.30	4.30
54	50	50	-10.750	13.675	0.000	0.07	-2.70	0.11	-2.60	4.30	4.30	4.30	4.30
55	50	50	-9.700	12.663	0.000	1.95	-1.00	1.39	-0.98	4.30	4.30	4.30	4.30
56	50	50	-8.650	11.650	0.000	4.10	-0.96	2.00	-0.17	4.30	4.30	4.30	4.30
57	50	50	-7.600	10.638	0.000	0.46	-2.00	0.00	-1.07	4.30	4.30	4.30	4.30
58	50	50	-6.550	9.625	0.000	0.29	-1.89	0.00	-1.12	4.30	4.30	4.30	4.30
59	50	50	-7.600	12.663	0.000	2.18	-2.41	1.58	-1.17	4.30	4.30	4.30	4.30
60	50	50	-8.800	12.900	0.000	2.99	-0.83	1.74	-0.94	4.30	4.30	4.30	4.30
61	50	50	-11.800	14.688	0.000	0.90	-1.55	1.10	-1.06	4.30	4.30	4.30	4.30
62	50	50	-6.550	7.600	0.000	0.07	-0.79	0.42	-0.45	4.30	4.30	4.30	4.30
63	50	50	-7.300	7.600	0.000	0.24	-0.09	1.20	-0.01	4.30	4.30	4.30	4.30
64	50	50	-5.650	8.100	0.000	0.96	-0.97	0.20	-0.65	4.30	4.30	4.30	4.30
65	50	50	-5.500	8.613	0.000	1.20	-0.73	0.26	-0.51	4.30	4.30	4.30	4.30
66	50	50	-13.900	15.700	0.000	1.24	-0.26	1.71	-0.05	4.30	4.30	4.30	4.30
67	50	50	-13.750	15.200	0.000	0.88	-0.76	0.29	-0.51	4.30	4.30	4.30	4.30
68	50	50	-12.850	15.700	0.000	0.43	-0.56	2.48	-0.37	4.30	4.30	4.30	4.30
69	50	50	-10.750	14.688	0.000	0.75	-1.61	0.88	-1.75	4.30	4.30	4.30	4.30
70	50	50	-9.700	13.675	0.000	0.76	-0.86	0.21	-2.23	4.30	4.30	4.30	4.30
71	50	50	-7.600	11.650	0.000	1.09	-2.33	0.54	-0.73	4.30	4.30	4.30	4.30
72	50	50	-6.550	10.638	0.000	0.53	-2.06	0.06	-0.90	4.30	4.30	4.30	4.30
73	50	50	-5.500	9.625	0.000	1.68	-0.04	0.22	-0.06	4.30	4.30	4.30	4.30
74	50	50	-5.568	9.625	0.000	1.37	-0.69	0.17	-0.37	4.30	4.30	4.30	4.30
75	50	50	-6.550	12.663	0.000	1.26	-2.76	0.32	-1.04	4.30	4.30	4.30	4.30
76	50	50	-7.600	13.675	0.000	0.58	-2.29	0.05	-2.30	4.30	4.30	4.30	4.30
77	50	50	-8.650	13.675	0.000	2.44	-0.68	1.30	-2.18	4.30	4.30	4.30	4.30
78	50	50	-8.800	15.700	0.000	1.15	0.00	3.25	0.00	4.30	4.30	4.30	4.30
79	50	50	-11.350	15.550	0.000	1.46	-0.03	2.64	0.00	4.30	4.30	4.30	4.30
80	50	50	-11.800	15.700	0.000	0.63	-0.07	3.21	0.00	4.30	4.30	4.30	4.30
81	50	50	-5.500	7.600	0.000	0.53	-0.71	0.62	-0.21	4.30	4.30	4.30	4.30
82	500	500	-6.200	7.600	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
83	500	500	-5.500	8.999	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



ANALİZ SONUÇLARI

Nokta no	dx cm	dy cm	X m	Y m	Z m	Mxalt (tm)	Mxust (tm)	Myalt (tm)	Myust (tm)	Asax cm ²	Asux cm ²	Asay cm ²	Asuy cm ²
84	500	500	-12.726	15.700	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85	50	50	-10.750	15.700	0.000	0.52	-0.55	2.50	-0.31	4.30	4.30	4.30	4.30
86	50	50	-9.700	14.688	0.000	0.35	-0.59	0.73	-1.69	4.30	4.30	4.30	4.30
87	50	50	-6.550	11.650	0.000	1.09	-2.53	0.26	-0.83	4.30	4.30	4.30	4.30
88	50	50	-5.500	10.638	0.000	2.52	-0.78	0.52	-0.47	4.30	4.30	4.30	4.30
89	50	50	-5.650	9.900	0.000	1.10	-0.78	0.26	-0.47	4.30	4.30	4.30	4.30
90	500	500	-5.500	9.400	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
91	50	50	-5.500	12.663	0.000	4.62	-0.94	1.15	-0.30	4.30	4.30	4.30	4.30
92	50	50	-6.550	13.675	0.000	1.35	-2.52	0.38	-1.49	4.30	4.30	4.30	4.30
93	50	50	-7.600	14.688	0.000	0.39	-1.47	1.55	-2.12	4.30	4.30	4.30	4.30
94	50	50	-8.650	14.688	0.000	0.81	-0.58	1.05	-2.19	4.30	4.30	4.30	4.30
95	50	50	-8.650	15.700	0.000	1.40	0.00	5.02	0.00	4.30	4.30	4.30	4.30
96	50	50	-9.700	15.700	0.000	0.97	0.00	3.75	0.00	4.30	4.30	4.30	4.30
97	50	50	-9.300	15.550	0.000	1.57	0.00	2.37	0.00	4.30	4.30	4.30	4.30
98	50	50	-11.350	15.700	0.000	1.33	-0.02	3.88	0.00	4.30	4.30	4.30	4.30
99	500	500	-10.325	15.700	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	50	50	-5.500	11.650	0.000	3.47	-0.91	0.78	-0.25	4.30	4.30	4.30	4.30
101	50	50	-5.500	13.675	0.000	3.61	-0.90	1.03	-0.51	4.30	4.30	4.30	4.30
102	500	500	-5.500	12.550	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
103	50	50	-6.550	14.688	0.000	0.62	-1.10	1.17	-1.23	4.30	4.30	4.30	4.30
104	50	50	-7.600	15.700	0.000	1.07	-0.52	4.23	-0.80	4.30	4.30	4.30	4.30
105	50	50	-5.500	14.688	0.000	0.47	-0.85	0.34	-0.59	4.30	4.30	4.30	4.30
106	50	50	-6.550	15.700	0.000	1.43	-0.03	3.94	0.00	4.30	4.30	4.30	4.30
107	50	50	-5.650	15.200	0.000	0.49	-0.85	0.46	-0.58	4.30	4.30	4.30	4.30
108	500	500	-7.299	15.700	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
109	50	50	-5.500	15.700	0.000	0.85	-0.10	1.55	-0.02	4.30	4.30	4.30	4.30

Noktaların tasarım momentleri, bağlı düğüm noktalarının tasarım momentlerinin ortalaması alınmıştır.

TEMEL DONATI SONUÇLARI

Genel donatılar:

H cm	X üst	X alt	Y üst	Y alt
50	ø16 / 20	ø16 / 20	ø16 / 20	ø16 / 20

Donatı Asal açısı=0°

İLAVE DONATILAR

İLAVE DONATI	As (cm ² /m)	donati koordinati	Adet	Boy (m)

Ek donatılar, gerekli donati alanı kenarından 50 Ø uzatılmaktadır

WINKLER YAY YÜKLERİ (t)

Nokta no	1 g	2 q	3 q	4 q	5 q	6 q	7 q	8 s	9 e	10 e	11 e	12 e	13 w	14 w	17 Ez
1	1.35	0.25	0.08	0.29	0.19	0.18	0.25	-0.48	-0.60	0.66	-1.30	1.31	-0.01	-0.03	0.86
2	3.08	0.57	0.23	0.63	0.44	0.41	0.57	-0.95	-1.21	1.36	-2.92	2.95	-0.03	-0.08	1.95
3	2.16	0.40	0.19	0.42	0.30	0.30	0.40	-0.55	-0.75	0.85	-2.01	2.03	-0.02	-0.05	1.35
4	2.33	0.43	0.15	0.49	0.34	0.30	0.43	-0.77	-0.98	1.06	-1.67	1.68	-0.02	-0.04	1.49
5	1.71	0.32	0.11	0.36	0.25	0.22	0.32	-0.58	-0.73	0.79	-1.43	1.45	-0.02	-0.04	1.09
6	6.61	1.24	0.52	1.34	0.97	0.88	1.24	-1.85	-2.43	2.67	-4.63	4.68	-0.06	-0.12	4.17
7	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
8	5.34	1.01	0.49	1.04	0.78	0.74	1.01	-1.21	-1.69	1.89	-3.67	3.69	-0.04	-0.10	3.33
9	1.51	0.28	0.14	0.29	0.21	0.21	0.28	-0.35	-0.48	0.56	-1.35	1.35	-0.01	-0.04	0.95
10	0.64	0.12	0.06	0.12	0.09	0.09	0.12	-0.15	-0.21	0.24	-0.59	0.60	-0.01	-0.02	0.40
11	3.80	0.71	0.26	0.78	0.56	0.48	0.71	-1.15	-1.50	1.59	-1.80	1.81	-0.03	-0.05	2.44
12	6.36	1.21	0.53	1.28	0.96	0.84	1.21	-1.61	-2.19	2.34	-2.92	2.94	-0.05	-0.08	4.01
13	4.81	0.93	0.48	0.94	0.73	0.67	0.93	-0.96	-1.40	1.52	-2.14	2.15	-0.03	-0.06	2.98
14	5.59	1.06	0.58	1.04	0.81	0.80	1.06	-0.98	-1.49	1.72	-3.76	3.77	-0.04	-0.10	3.46
15	2.40	0.45	0.24	0.45	0.34	0.34	0.45	-0.49	-0.71	0.84	-2.21	2.22	-0.02	-0.06	1.49
16	3.85	0.72	0.28	0.78	0.58	0.47	0.72	-1.07	-1.43	1.48	-0.92	0.92	-0.03	-0.02	2.49
17	6.38	1.23	0.56	1.26	0.98	0.84	1.23	-1.45	-2.05	2.13	-1.42	1.42	-0.05	-0.04	4.04
18	4.36	0.84	0.49	0.80	0.66	0.62	0.84	-0.64	-1.04	1.16	-1.86	1.86	-0.03	-0.05	2.67
19	4.35	0.85	0.45	0.84	0.68	0.61	0.85	-0.75	-1.15	1.22	-0.89	0.89	-0.03	-0.02	2.68
20	5.07	0.95	0.58	0.88	0.72	0.73	0.95	-0.62	-1.11	1.32	-3.34	3.33	-0.03	-0.09	3.13
21	2.24	0.41	0.25	0.40	0.31	0.32	0.41	-0.34	-0.56	0.68	-2.04	2.04	-0.02	-0.05	1.39
22	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
23	3.90	0.74	0.29	0.77	0.60	0.47	0.74	-0.99	-1.36	1.37	-0.03	0.01	-0.03	0.00	2.53
24	6.45	1.25	0.58	1.25	1.01	0.83	1.25	-1.31	-1.93	1.94	0.06	-0.07	-0.04	0.00	4.10
25	3.47	0.68	0.41	0.63	0.54	0.50	0.68	-0.41	-0.74	0.79	-0.65	0.65	-0.02	-0.02	2.13
26	4.21	0.80	0.51	0.72	0.62	0.60	0.80	-0.40	-0.80	0.93	-1.73	1.72	-0.02	-0.05	2.60
27	4.38	0.87	0.47	0.83	0.70	0.60	0.87	-0.65	-1.07	1.08	0.12	-0.12	-0.02	0.00	2.72

FİRMA : ESPO MUH. DAN. INS. LTD. STI.

24-12-2025

SAYFA: 61

PROJE : CERRAHPAŞA YURT SU DEPOSU

(251224-ES374-CERRAH-SU-D-D02.ST4)

WINKLER YAY YÜKLERİ (t)

Nokta no	1 g	2 q	3 q	4 q	5 q	6 q	7 q	8 s	9 e	10 e	11 e	12 e	13 w	14 w	17 Ez
28	1.28	0.24	0.15	0.22	0.18	0.19	0.24	-0.16	-0.29	0.36	-1.11	1.11	-0.01	-0.03	0.79
29	3.96	0.74	0.49	0.65	0.56	0.57	0.74	-0.30	-0.69	0.86	-2.53	2.52	-0.02	-0.07	2.44
30	1.66	0.30	0.20	0.28	0.23	0.24	0.30	-0.17	-0.34	0.44	-1.50	1.49	-0.01	-0.04	1.02
31	3.95	0.75	0.30	0.77	0.61	0.47	0.75	-0.91	-1.30	1.27	0.85	-0.89	-0.03	0.02	2.58
32	6.56	1.27	0.61	1.24	1.04	0.82	1.27	-1.19	-1.82	1.77	1.53	-1.57	-0.04	0.04	4.20
33	3.50	0.69	0.42	0.63	0.56	0.49	0.69	-0.33	-0.66	0.67	0.17	-0.16	-0.02	0.00	2.16
34	3.98	0.77	0.49	0.67	0.60	0.56	0.77	-0.28	-0.66	0.72	-0.67	0.67	-0.02	-0.02	2.47
35	1.90	0.36	0.24	0.30	0.28	0.26	0.36	-0.10	-0.28	0.33	-0.63	0.63	-0.01	-0.02	1.18
36	4.01	0.75	0.51	0.64	0.58	0.57	0.75	-0.23	-0.62	0.75	-1.81	1.81	-0.02	-0.05	2.48
37	4.47	0.88	0.49	0.82	0.72	0.60	0.88	-0.57	-1.00	0.96	1.13	-1.14	-0.02	0.03	2.80
38	5.01	0.91	0.69	0.74	0.70	0.72	0.91	-0.08	-0.58	0.81	-3.17	3.15	-0.02	-0.08	3.07
39	0.76	0.14	0.09	0.13	0.10	0.11	0.14	-0.07	-0.15	0.19	-0.69	0.68	0.00	-0.02	0.47
40	4.00	0.76	0.32	0.76	0.63	0.47	0.76	-0.84	-1.24	1.17	1.74	-1.79	-0.03	0.05	2.63
41	6.71	1.30	0.63	1.24	1.07	0.82	1.30	-1.07	-1.74	1.61	3.04	-3.09	-0.04	0.08	4.34
42	3.58	0.71	0.43	0.62	0.58	0.49	0.71	-0.26	-0.61	0.57	0.98	-0.97	-0.01	0.03	2.23
43	3.60	0.70	0.46	0.59	0.56	0.49	0.70	-0.16	-0.51	0.52	0.24	-0.23	-0.01	0.01	2.25
44	3.80	0.72	0.50	0.58	0.56	0.52	0.72	-0.08	-0.45	0.51	-0.57	0.59	-0.01	-0.01	2.37
45	5.04	0.93	0.71	0.73	0.73	0.70	0.93	0.04	-0.45	0.61	-1.91	1.92	-0.01	-0.05	3.11
46	2.36	0.44	0.31	0.35	0.35	0.31	0.44	-0.01	-0.24	0.25	0.20	-0.18	-0.01	0.01	1.49
47	5.09	1.00	0.56	0.91	0.82	0.65	1.00	-0.54	-1.04	0.94	2.41	-2.43	-0.02	0.06	3.24
48	1.11	0.20	0.15	0.16	0.15	0.16	0.20	-0.01	-0.13	0.19	-0.94	0.93	0.00	-0.02	0.67
49	1.12	0.20	0.15	0.17	0.15	0.16	0.20	-0.05	-0.16	0.23	-1.00	0.99	-0.01	-0.03	0.68
50	5.09	0.90	0.75	0.67	0.71	0.71	0.90	0.21	-0.32	0.56	-3.17	3.14	-0.01	-0.08	3.12
51	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
52	2.36	0.45	0.19	0.44	0.37	0.27	0.45	-0.45	-0.69	0.62	1.52	-1.56	-0.01	0.04	1.56
53	7.03	1.36	0.67	1.27	1.12	0.83	1.36	-0.98	-1.69	1.49	4.68	-4.75	-0.03	0.12	4.60
54	4.62	0.91	0.56	0.77	0.74	0.60	0.91	-0.24	-0.70	0.61	2.28	-2.26	-0.01	0.06	2.92
55	3.50	0.68	0.45	0.56	0.55	0.46	0.68	-0.08	-0.43	0.39	1.03	-1.00	-0.01	0.03	2.21
56	2.94	0.55	0.39	0.44	0.44	0.39	0.55	0.01	-0.28	0.29	0.25	-0.23	-0.01	0.01	1.86
57	4.66	0.86	0.67	0.66	0.69	0.63	0.86	0.15	-0.31	0.38	-0.62	0.65	-0.01	-0.02	2.90
58	5.42	0.97	0.82	0.70	0.77	0.74	0.97	0.35	-0.20	0.38	-1.98	1.99	-0.01	-0.05	3.34
59	6.07	1.13	0.89	0.80	0.92	0.77	1.13	0.46	-0.14	0.07	2.00	-1.89	0.00	0.05	3.84
60	3.97	0.75	0.53	0.57	0.61	0.51	0.75	0.09	-0.31	0.25	1.45	-1.40	-0.01	0.04	2.54
61	5.49	1.07	0.59	0.94	0.88	0.67	1.07	-0.48	-1.04	0.87	3.77	-3.79	-0.02	0.10	3.56
62	1.46	0.25	0.21	0.20	0.20	0.21	0.25	0.02	-0.14	0.23	-1.29	1.27	-0.01	-0.03	0.89
63	0.50	0.09	0.07	0.07	0.07	0.07	0.09	-0.01	-0.07	0.10	-0.45	0.44	0.00	-0.01	0.31
64	1.47	0.25	0.23	0.18	0.20	0.20	0.25	0.11	-0.05	0.13	-1.09	1.08	0.00	-0.03	0.90
65	2.05	0.35	0.33	0.24	0.28	0.28	0.35	0.20	-0.02	0.12	-1.25	1.24	0.00	-0.03	1.26
66	1.46	0.28	0.12	0.27	0.23	0.16	0.28	-0.25	-0.40	0.34	1.24	-1.27	-0.01	0.03	0.97
67	1.71	0.33	0.15	0.32	0.27	0.19	0.33	-0.29	-0.47	0.41	1.29	-1.31	-0.01	0.03	1.13
68	3.42	0.66	0.33	0.60	0.55	0.39	0.66	-0.41	-0.77	0.63	2.98	-3.02	-0.01	0.08	2.26
69	5.90	1.15	0.70	0.95	0.94	0.73	1.15	-0.20	-0.81	0.62	4.17	-4.14	-0.01	0.11	3.81
70	4.54	0.88	0.59	0.70	0.72	0.58	0.88	-0.01	-0.47	0.37	2.32	-2.28	-0.01	0.06	2.89
71	4.58	0.85	0.66	0.62	0.69	0.60	0.85	0.25	-0.20	0.21	0.47	-0.41	-0.01	0.01	2.88
72	5.99	1.08	0.92	0.75	0.87	0.79	1.08	0.52	-0.08	0.18	-0.71	0.76	-0.01	-0.02	3.73
73	1.83	0.32	0.29	0.20	0.26	0.24	0.32	0.22	0.03	0.03	-0.64	0.65	0.00	-0.02	1.14
74	1.09	0.19	0.17	0.12	0.15	0.14	0.19	0.13	0.01	0.02	-0.39	0.39	0.00	-0.01	0.68
75	6.52	1.19	1.02	0.76	0.98	0.81	1.19	0.85	0.20	-0.28	2.29	-2.13	0.00	0.06	4.14
76	5.17	0.97	0.77	0.66	0.80	0.64	0.97	0.50	-0.01	-0.11	2.84	-2.72	0.00	0.07	3.30
77	4.57	0.87	0.63	0.64	0.71	0.57	0.87	0.21	-0.25	0.14	2.43	-2.35	0.00	0.06	2.93
78	1.00	0.19	0.14	0.13	0.16	0.12	0.19	0.08	-0.02	-0.02	0.95	-0.93	0.00	0.02	0.65
79	1.35	0.26	0.15	0.22	0.21	0.16	0.26	-0.07	-0.21	0.15	1.17	-1.17	0.00	0.03	0.88
80	2.29	0.44	0.24	0.38	0.37	0.27	0.44	-0.16	-0.40	0.30	2.04	-2.04	-0.01	0.05	1.51
81	1.24	0.21	0.19	0.15	0.16	0.17	0.21	0.09	-0.05	0.13	-1.08	1.07	0.00	-0.03	0.75
82	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
83	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
84	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
85	2.70	0.52	0.32	0.42	0.43	0.32	0.52	-0.05	-0.33	0.21	2.45	-2.44	0.00	0.06	1.77
86	5.99	1.15	0.77	0.89	0.95	0.74	1.15	0.10	-0.51	0.31	4.35	-4.27	-0.01	0.11	3.87
87	6.41	1.16	0.99	0.77	0.95	0.82	1.16	0.70	0.05	-0.04	0.77	-0.67	0.00	0.02	4.03
88	2.43	0.42	0.39	0.26	0.35	0.31	0.42	0.35	0.10	-0.06	-0.24	0.28	0.00	-0.01	1.53
89	1.56	0.27	0.25	0.18	0.22	0.20	0.27	0.19	0.02	0.02	-0.45	0.46	0.00	-0.01	0.97
90	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
91	3.82	0.67	0.63	0.38	0.56	0.46	0.67	0.70	0.32	-0.37	1.42	-1.31	0.01	0.04	2.44
92	6.66	1.22	1.05	0.75	1.02	0.80	1.22	1.01	0.34	-0.51	3.81	-3.61	0.01	0.10	

LOADS CHECK

DEAD LOADS CHECK

Wg=274.59 (t) (G JOINT LOADS) +85.05 (DEAD LOAD) =359.64 (t) (G WINKLER SPRING REACTION)

LIVE LOADS CHECK

Wq=33.59 (t) (Q JOINT LOADS) +34.02 (LIVE LOAD) =67.61 (t) (Q WINKLER SPRING REACTION)

ZEMİN GERİLMESİNİN, ZEMİN TAŞIMA GÜCÜ TASARIM GERİLMESİNE GÖRE KONTROLU t/m²

Nokta	G	Q	E	W	1.4 G + 1.6 Q	G + Q + E	G + Q + W
1	3.490	0.748	4.056	0.089	6.082 < 38.000 ✓	8.294 < 38.000 ✓	4.326 < 38.000 ✓
2	3.459	0.711	3.965	0.087	5.980 < 38.000 ✓	8.135 < 38.000 ✓	4.256 < 38.000 ✓
3	3.432	0.674	3.871	0.085	5.883 < 38.000 ✓	7.977 < 38.000 ✓	4.191 < 38.000 ✓
4	3.531	0.742	3.226	0.067	6.130 < 38.000 ✓	7.499 < 38.000 ✓	4.340 < 38.000 ✓
5	3.505	0.740	3.634	0.078	6.090 < 38.000 ✓	7.878 < 38.000 ✓	4.322 < 38.000 ✓
6	3.438	0.698	3.085	0.064	5.930 < 38.000 ✓	7.221 < 38.000 ✓	4.200 < 38.000 ✓
8	3.369	0.657	2.962	0.061	5.768 < 38.000 ✓	6.988 < 38.000 ✓	4.087 < 38.000 ✓
9	3.424	0.657	3.706	0.080	5.844 < 38.000 ✓	7.786 < 38.000 ✓	4.161 < 38.000 ✓
10	3.420	0.657	3.831	0.084	5.840 < 38.000 ✓	7.908 < 38.000 ✓	4.161 < 38.000 ✓
11	3.573	0.737	2.396	0.045	6.181 < 38.000 ✓	6.706 < 38.000 ✓	4.355 < 38.000 ✓
12	3.419	0.686	2.230	0.042	5.884 < 38.000 ✓	6.334 < 38.000 ✓	4.146 < 38.000 ✓
13	3.292	0.640	2.082	0.039	5.633 < 38.000 ✓	6.015 < 38.000 ✓	3.971 < 38.000 ✓
14	3.344	0.634	2.876	0.059	5.696 < 38.000 ✓	6.854 < 38.000 ✓	4.037 < 38.000 ✓
15	3.402	0.635	3.777	0.083	5.778 < 38.000 ✓	7.814 < 38.000 ✓	4.119 < 38.000 ✓
16	3.617	0.732	2.092	0.030	6.236 < 38.000 ✓	6.441 < 38.000 ✓	4.380 < 38.000 ✓
17	3.431	0.678	1.795	0.025	5.888 < 38.000 ✓	5.904 < 38.000 ✓	4.134 < 38.000 ✓
18	3.277	0.635	2.006	0.037	5.605 < 38.000 ✓	5.919 < 38.000 ✓	3.950 < 38.000 ✓
19	3.272	0.643	1.520	0.020	5.609 < 38.000 ✓	5.434 < 38.000 ✓	3.935 < 38.000 ✓
20	3.354	0.631	2.829	0.058	5.704 < 38.000 ✓	6.813 < 38.000 ✓	4.042 < 38.000 ✓
21	3.368	0.622	3.691	0.081	5.710 < 38.000 ✓	7.681 < 38.000 ✓	4.071 < 38.000 ✓
23	3.664	0.728	2.005	0.028	6.294 < 38.000 ✓	6.396 < 38.000 ✓	4.420 < 38.000 ✓
24	3.467	0.672	1.705	0.023	5.930 < 38.000 ✓	5.844 < 38.000 ✓	4.163 < 38.000 ✓
25	3.264	0.642	1.342	0.017	5.597 < 38.000 ✓	5.248 < 38.000 ✓	3.923 < 38.000 ✓
26	3.355	0.640	1.997	0.036	5.721 < 38.000 ✓	5.992 < 38.000 ✓	4.031 < 38.000 ✓
27	3.298	0.652	1.423	0.018	5.661 < 38.000 ✓	5.374 < 38.000 ✓	3.968 < 38.000 ✓
28	3.358	0.620	3.540	0.077	5.694 < 38.000 ✓	7.518 < 38.000 ✓	4.055 < 38.000 ✓
29	3.369	0.626	2.772	0.056	5.718 < 38.000 ✓	6.767 < 38.000 ✓	4.051 < 38.000 ✓
30	3.339	0.613	3.631	0.079	5.655 < 38.000 ✓	7.583 < 38.000 ✓	4.031 < 38.000 ✓
31	3.712	0.723	1.950	0.026	6.354 < 38.000 ✓	6.385 < 38.000 ✓	4.461 < 38.000 ✓
32	3.524	0.683	1.657	0.021	6.027 < 38.000 ✓	5.864 < 38.000 ✓	4.229 < 38.000 ✓
33	3.296	0.652	1.242	0.014	5.658 < 38.000 ✓	5.190 < 38.000 ✓	3.962 < 38.000 ✓
34	3.373	0.650	1.236	0.015	5.761 < 38.000 ✓	5.258 < 38.000 ✓	4.037 < 38.000 ✓
35	3.431	0.644	1.782	0.030	5.834 < 38.000 ✓	5.857 < 38.000 ✓	4.105 < 38.000 ✓
36	3.402	0.636	2.167	0.040	5.780 < 38.000 ✓	6.205 < 38.000 ✓	4.078 < 38.000 ✓
37	3.365	0.666	1.491	0.022	5.777 < 38.000 ✓	5.522 < 38.000 ✓	4.054 < 38.000 ✓
38	3.318	0.605	2.710	0.055	5.613 < 38.000 ✓	6.633 < 38.000 ✓	3.978 < 38.000 ✓
39	3.335	0.611	3.621	0.079	5.646 < 38.000 ✓	7.567 < 38.000 ✓	4.025 < 38.000 ✓
40	3.761	0.719	2.421	0.043	6.417 < 38.000 ✓	6.901 < 38.000 ✓	4.523 < 38.000 ✓
41	3.607	0.699	2.363	0.043	6.169 < 38.000 ✓	6.670 < 38.000 ✓	4.350 < 38.000 ✓
42	3.364	0.665	1.548	0.024	5.774 < 38.000 ✓	5.577 < 38.000 ✓	4.054 < 38.000 ✓
43	3.426	0.662	1.137	0.011	5.855 < 38.000 ✓	5.225 < 38.000 ✓	4.099 < 38.000 ✓
44	3.440	0.648	1.175	0.014	5.853 < 38.000 ✓	5.262 < 38.000 ✓	4.101 < 38.000 ✓
45	3.371	0.615	1.890	0.033	5.703 < 38.000 ✓	5.876 < 38.000 ✓	4.019 < 38.000 ✓
46	3.536	0.666	1.042	0.009	6.017 < 38.000 ✓	5.245 < 38.000 ✓	4.211 < 38.000 ✓
47	3.484	0.685	2.325	0.043	5.973 < 38.000 ✓	6.494 < 38.000 ✓	4.212 < 38.000 ✓
48	3.303	0.588	3.415	0.074	5.565 < 38.000 ✓	7.306 < 38.000 ✓	3.964 < 38.000 ✓
49	3.309	0.595	3.563	0.077	5.584 < 38.000 ✓	7.467 < 38.000 ✓	3.981 < 38.000 ✓
50	3.439	0.585	2.665	0.054	5.751 < 38.000 ✓	6.689 < 38.000 ✓	4.078 < 38.000 ✓
52	3.813	0.731	3.277	0.065	6.509 < 38.000 ✓	7.822 < 38.000 ✓	4.609 < 38.000 ✓
53	3.725	0.720	3.249	0.065	6.368 < 38.000 ✓	7.695 < 38.000 ✓	4.511 < 38.000 ✓
54	3.474	0.683	2.374	0.045	5.956 < 38.000 ✓	6.531 < 38.000 ✓	4.202 < 38.000 ✓
55	3.493	0.675	1.686	0.027	5.971 < 38.000 ✓	5.855 < 38.000 ✓	4.195 < 38.000 ✓
56	3.535	0.664	1.011	0.008	6.011 < 38.000 ✓	5.210 < 38.000 ✓	4.207 < 38.000 ✓
57	3.493	0.627	1.106	0.012	5.894 < 38.000 ✓	5.227 < 38.000 ✓	4.133 < 38.000 ✓
58	3.550	0.596	1.845	0.032	5.924 < 38.000 ✓	5.991 < 38.000 ✓	4.178 < 38.000 ✓
59	3.775	0.654	1.825	0.030	6.332 < 38.000 ✓	6.254 < 38.000 ✓	4.460 < 38.000 ✓
60	3.701	0.683	2.011	0.034	6.274 < 38.000 ✓	6.395 < 38.000 ✓	4.418 < 38.000 ✓
61	3.665	0.713	3.242	0.066	6.272 < 38.000 ✓	7.620 < 38.000 ✓	4.444 < 38.000 ✓
62	3.339	0.575	3.513	0.076	5.595 < 38.000 ✓	7.427 < 38.000 ✓	3.991 < 38.000 ✓
63	3.302	0.589	3.548	0.077	5.566 < 38.000 ✓	7.440 < 38.000 ✓	3.969 < 38.000 ✓
64	3.557	0.565	3.064	0.064	5.884 < 38.000 ✓	7.186 < 38.000 ✓	4.186 < 38.000 ✓
65	3.652	0.570	2.641	0.053	6.025 < 38.000 ✓	6.863 < 38.000 ✓	4.275 < 38.000 ✓
66	3.867	0.745	4.133	0.087	6.606 < 38.000 ✓	8.744 < 38.000 ✓	4.699 < 38.000 ✓
67	3.837	0.737	3.714	0.076	6.551 < 38.000 ✓	8.288 < 38.000 ✓	4.650 < 38.000 ✓
68	3.846	0.742	4.158	0.088	6.571 < 38.000 ✓	8.745 < 38.000 ✓	4.675 < 38.000 ✓
69	3.650	0.709	3.286	0.068	6.244 < 38.000 ✓	7.644 < 38.000 ✓	4.426 < 38.000 ✓
70	3.550	0.687	2.494	0.047	6.069 < 38.000 ✓	6.731 < 38.000 ✓	4.284 < 38.000 ✓
71	3.636	0.641	1.005	0.009	6.117 < 38.000 ✓	5.282 < 38.000 ✓	4.287 < 38.000 ✓
72	3.681	0.610	1.064	0.010	6.129 < 38.000 ✓	5.355 < 38.000 ✓	4.301 < 38.000 ✓
73	3.797	0.585	1.836	0.031	6.252 < 38.000 ✓	6.218 < 38.000 ✓	4.413 < 38.000 ✓
74	3.783	0.586	1.839	0.031	6.234 < 38.000 ✓	6.208 < 38.000 ✓	4.400 < 38.000 ✓
75	3.965	0.639	1.896	0.032	6.572 < 38.000 ✓	6.499 < 38.000 ✓	4.635 < 38.000 ✓
76	3.911	0.666	2.645	0.051	6.542 < 38.000 ✓	7.223 < 38.000 ✓	4.629 < 38.000 ✓
77	3.774	0.684	2.608	0.050	6.378 < 38.000 ✓	7.066 < 38.000 ✓	4.508 < 38.000 ✓
78	4.103	0.719	4.358	0.094	6.894 < 38.000 ✓	9.180 < 38.000 ✓	4.916 < 38.000 ✓
79	3.816	0.735	4.065	0.087	6.519 < 38.000 ✓	8.617 < 38.000 ✓	4.638 < 38.000 ✓

ZEMİN GERİLMESİNİN, ZEMİN TAŞIMA GÜCÜ TASARIM GERİLMESİNE GÖRE KONTROLU t/m²

Nokta	G	Q	E	W	1.4 G + 1.6 Q		G + Q + E		G + Q + W	
80	3.832	0.739	4.182	0.089	6.547	< 38.000 ✓	8.753	< 38.000 ✓	4.660	< 38.000 ✓
81	3.516	0.556	3.462	0.075	5.811	< 38.000 ✓	7.534	< 38.000 ✓	4.146	< 38.000 ✓
85	3.819	0.734	4.229	0.091	6.522	< 38.000 ✓	8.783	< 38.000 ✓	4.645	< 38.000 ✓
86	3.726	0.705	3.371	0.070	6.344	< 38.000 ✓	7.802	< 38.000 ✓	4.500	< 38.000 ✓
87	3.820	0.624	1.064	0.011	6.347	< 38.000 ✓	5.509	< 38.000 ✓	4.455	< 38.000 ✓
88	3.947	0.601	1.045	0.009	6.488	< 38.000 ✓	5.593	< 38.000 ✓	4.557	< 38.000 ✓
89	3.807	0.591	1.627	0.025	6.276	< 38.000 ✓	6.026	< 38.000 ✓	4.424	< 38.000 ✓
91	4.252	0.634	2.025	0.035	6.967	< 38.000 ✓	6.911	< 38.000 ✓	4.921	< 38.000 ✓
92	4.120	0.654	2.738	0.054	6.815	< 38.000 ✓	7.513	< 38.000 ✓	4.828	< 38.000 ✓
93	4.093	0.684	3.517	0.073	6.825	< 38.000 ✓	8.295	< 38.000 ✓	4.850	< 38.000 ✓
94	3.921	0.697	3.454	0.072	6.604	< 38.000 ✓	8.071	< 38.000 ✓	4.689	< 38.000 ✓
95	4.130	0.717	4.369	0.095	6.930	< 38.000 ✓	9.216	< 38.000 ✓	4.942	< 38.000 ✓
96	3.942	0.727	4.295	0.093	6.681	< 38.000 ✓	8.964	< 38.000 ✓	4.761	< 38.000 ✓
97	3.991	0.722	4.196	0.090	6.742	< 38.000 ✓	8.909	< 38.000 ✓	4.803	< 38.000 ✓
98	3.827	0.737	4.193	0.090	6.537	< 38.000 ✓	8.757	< 38.000 ✓	4.654	< 38.000 ✓
100	4.099	0.618	1.163	0.013	6.726	< 38.000 ✓	5.879	< 38.000 ✓	4.729	< 38.000 ✓
101	4.406	0.650	2.887	0.057	7.208	< 38.000 ✓	7.942	< 38.000 ✓	5.113	< 38.000 ✓
103	4.307	0.673	3.616	0.076	7.106	< 38.000 ✓	8.596	< 38.000 ✓	5.056	< 38.000 ✓
104	4.321	0.706	4.446	0.097	7.180	< 38.000 ✓	9.474	< 38.000 ✓	5.125	< 38.000 ✓
105	4.559	0.667	3.747	0.079	7.450	< 38.000 ✓	8.973	< 38.000 ✓	5.305	< 38.000 ✓
106	4.516	0.695	4.526	0.099	7.434	< 38.000 ✓	9.737	< 38.000 ✓	5.309	< 38.000 ✓
107	4.609	0.677	4.170	0.090	7.535	< 38.000 ✓	9.456	< 38.000 ✓	5.375	< 38.000 ✓
109	4.714	0.683	4.607	0.101	7.692	< 38.000 ✓	10.003	< 38.000 ✓	5.497	< 38.000 ✓
Gz min	3.264	0.556	1.005	0.008	5.565		5.190		3.923	
Gz max	4.714	0.748	4.607	0.101	7.692		10.003		5.497	
Gz ort	3.655	0.664	2.726	0.053	6.181		7.046		4.373	99 adet

NOKTA DEPLASMANLARI mm

Nokta no	1 g	2 q	3 q	4 q	5 q	6 q	7 q	8 s	9 e	10 e	11 e	12 e	13 w	14 w	17 Ez
1	1.745	0.323	0.109	0.374	0.249	0.228	0.323	-0.624	-0.773	0.853	-1.674	1.695	-0.019	-0.044	1.111
2	1.730	0.321	0.129	0.355	0.246	0.233	0.321	-0.531	-0.682	0.764	-1.637	1.655	-0.017	-0.043	1.092
3	1.716	0.319	0.148	0.337	0.242	0.237	0.319	-0.438	-0.592	0.678	-1.600	1.613	-0.015	-0.042	1.076
4	1.765	0.329	0.116	0.371	0.257	0.226	0.329	-0.583	-0.738	0.799	-1.260	1.274	-0.018	-0.033	1.129
5	1.752	0.325	0.115	0.370	0.253	0.228	0.325	-0.590	-0.742	0.813	-1.464	1.482	-0.018	-0.039	1.117
6	1.719	0.323	0.136	0.349	0.251	0.230	0.323	-0.480	-0.633	0.694	-1.204	1.217	-0.015	-0.032	1.086
8	1.684	0.319	0.155	0.329	0.247	0.234	0.319	-0.382	-0.534	0.597	-1.157	1.166	-0.013	-0.031	1.051
9	1.712	0.319	0.157	0.328	0.241	0.239	0.319	-0.392	-0.547	0.631	-1.522	1.532	-0.014	-0.040	1.070
10	1.710	0.318	0.156	0.329	0.240	0.239	0.318	-0.398	-0.554	0.641	-1.585	1.595	-0.014	-0.042	1.069
11	1.786	0.334	0.123	0.369	0.265	0.225	0.334	-0.543	-0.705	0.746	-0.846	0.853	-0.016	-0.022	1.149
12	1.710	0.326	0.143	0.343	0.257	0.227	0.326	-0.432	-0.587	0.629	-0.784	0.791	-0.014	-0.021	1.079
13	1.646	0.319	0.163	0.320	0.251	0.230	0.319	-0.328	-0.478	0.520	-0.731	0.736	-0.012	-0.019	1.018
14	1.672	0.317	0.174	0.310	0.243	0.238	0.317	-0.292	-0.446	0.513	-1.124	1.128	-0.011	-0.030	1.034
15	1.701	0.316	0.166	0.317	0.237	0.241	0.316	-0.346	-0.504	0.594	-1.566	1.571	-0.013	-0.041	1.058
16	1.809	0.340	0.130	0.366	0.272	0.223	0.340	-0.504	-0.672	0.695	-0.431	0.431	-0.015	-0.012	1.170
17	1.715	0.330	0.150	0.339	0.264	0.225	0.330	-0.390	-0.550	0.572	-0.380	0.382	-0.013	-0.010	1.085
18	1.639	0.318	0.183	0.303	0.248	0.235	0.318	-0.240	-0.391	0.436	-0.701	0.701	-0.010	-0.018	1.006
19	1.636	0.321	0.171	0.315	0.257	0.228	0.321	-0.283	-0.434	0.457	-0.335	0.336	-0.010	-0.009	1.009
20	1.677	0.315	0.193	0.292	0.240	0.241	0.315	-0.206	-0.366	0.437	-1.104	1.101	-0.010	-0.029	1.034
21	1.684	0.311	0.185	0.296	0.233	0.243	0.311	-0.253	-0.417	0.512	-1.534	1.531	-0.012	-0.040	1.039
23	1.832	0.346	0.137	0.364	0.280	0.221	0.346	-0.466	-0.641	0.645	-0.015	0.007	-0.014	-0.001	1.191
24	1.734	0.335	0.157	0.336	0.271	0.223	0.335	-0.353	-0.518	0.522	0.016	-0.020	-0.011	0.000	1.102
25	1.632	0.321	0.191	0.298	0.255	0.233	0.321	-0.195	-0.347	0.371	-0.304	0.305	-0.008	-0.008	0.999
26	1.677	0.320	0.201	0.288	0.247	0.239	0.320	-0.161	-0.320	0.369	-0.688	0.686	-0.008	-0.018	1.036
27	1.649	0.326	0.178	0.311	0.264	0.226	0.326	-0.246	-0.401	0.405	0.045	-0.047	-0.009	0.001	1.022
28	1.679	0.310	0.193	0.288	0.232	0.243	0.310	-0.211	-0.377	0.469	-1.460	1.455	-0.011	-0.038	1.034
29	1.684	0.313	0.209	0.275	0.238	0.242	0.313	-0.129	-0.293	0.366	-1.075	1.070	-0.008	-0.028	1.038
30	1.670	0.306	0.201	0.278	0.229	0.244	0.306	-0.174	-0.342	0.439	-1.508	1.500	-0.010	-0.040	1.024
31	1.856	0.353	0.143	0.362	0.288	0.220	0.353	-0.430	-0.611	0.596	0.402	-0.417	-0.013	0.010	1.213
32	1.762	0.342	0.163	0.334	0.279	0.222	0.342	-0.319	-0.490	0.476	0.412	-0.422	-0.010	0.011	1.128
33	1.648	0.326	0.198	0.294	0.263	0.231	0.326	-0.156	-0.312	0.317	0.078	-0.076	-0.007	0.002	1.014
34	1.686	0.325	0.209	0.283	0.255	0.237	0.325	-0.117	-0.278	0.305	-0.282	0.285	-0.007	-0.007	1.044
35	1.715	0.322	0.216	0.274	0.249	0.239	0.322	-0.091	-0.257	0.302	-0.569	0.571	-0.007	-0.015	1.068
36	1.701	0.318	0.215	0.273	0.244	0.240	0.318	-0.098	-0.263	0.318	-0.767	0.767	-0.007	-0.020	1.054
37	1.683	0.333	0.184	0.310	0.272	0.224	0.333	-0.213	-0.375	0.361	0.427	-0.430	-0.008	0.011	1.053
38	1.659	0.302	0.228	0.246	0.233	0.237	0.302	-0.026	-0.192	0.268	-1.050	1.044	-0.006	-0.028	1.016
39	1.667	0.305	0.203	0.274	0.228	0.244	0.305	-0.161	-0.329	0.427	-1.504	1.495	-0.010	-0.039	1.022
40	1.881	0.359	0.150	0.360	0.295	0.219	0.359	-0.395	-0.583	0.549	0.817	-0.840	-0.012	0.021	1.236
41	1.804	0.350	0.170	0.334	0.287	0.221	0.350	-0.287	-0.467	0.433	0.818	-0.832	-0.009	0.021	1.166
42	1.682	0.333	0.205	0.292	0.271	0.228	0.333	-0.122	-0.285	0.270	0.460	-0.456	-0.006	0.012	1.047
43	1.713	0.331	0.217	0.280	0.264	0.234	0.331	-0.077	-0.243	0.248	0.116	-0.109	-0.006	0.003	1.068
44	1.720	0.324	0.227	0.264	0.254	0.236	0.324	-0.034	-0.202	0.229	-0.257	0.265	-0.005	-0.007	1.073
45	1.670	0.308	0.235	0.242	0.241	0.233	0.308	0.015	-0.150	0.201	-0.633	0.636	-0.005	-0.017	1.030
46	1.768	0.333	0.232	0.265	0.264	0.234	0.333	-0.007	-0.182	0.186	0.148	-0.133	-0.004	0.004	1.118
47	1.742	0.343	0.190	0.310	0.281	0.223	0.343	-0.184	-0.357	0.323	0.828	-0.831	-0.007	0.022	1.107
48	1.652	0.294	0.230	0.237	0.224	0.238	0.294	-0.018	-0.191	0.291	-1.405	1.389	-0.007	-0.037	1.008
49	1.654	0.297	0.221	0.250	0.224	0.241	0.297	-0.069	-0.241	0.342	-1.479	1.463	-0.008	-0.039	1.009
50	1.652	0.293	0.245	0.218	0.229	0.230	0.293	0.067	-0.105	0.183	-1.029	1.020	-0.004	-0.027	1.012

FİRMA : ESPO MUH. DAN. INS. LTD. STI.

24-12-2025

SAYFA: 64

PROJE : CERRAHPAŞA YURT SU DEPOSU

(251224-ES374-CERRAH-SU-D-D02.ST4)

NOKTA DEPLASMANLARI mm

Nokta no	1 g	2 q	3 q	4 q	5 q	6 q	7 q	8 s	9 e	10 e	11 e	12 e	13 w	14 w	17 Ez
52	1.907	0.366	0.157	0.358	0.303	0.218	0.366	-0.361	-0.555	0.502	1.231	-1.261	-0.011	0.032	1.259
53	1.863	0.360	0.177	0.335	0.298	0.220	0.360	-0.259	-0.449	0.395	1.240	-1.259	-0.009	0.033	1.218
54	1.737	0.341	0.210	0.291	0.280	0.226	0.341	-0.092	-0.264	0.228	0.857	-0.852	-0.005	0.022	1.098
55	1.747	0.338	0.224	0.277	0.272	0.231	0.338	-0.040	-0.213	0.196	0.513	-0.501	-0.004	0.013	1.101
56	1.762	0.332	0.235	0.262	0.264	0.233	0.332	0.006	-0.168	0.172	0.152	-0.136	-0.004	0.004	1.113
57	1.692	0.314	0.242	0.238	0.250	0.230	0.314	0.054	-0.113	0.139	-0.225	0.238	-0.003	-0.006	1.052
58	1.668	0.298	0.252	0.214	0.238	0.226	0.298	0.107	-0.063	0.115	-0.611	0.614	-0.003	-0.016	1.029
59	1.753	0.327	0.257	0.232	0.267	0.224	0.327	0.134	-0.040	0.020	0.579	-0.547	-0.001	0.015	1.111
60	1.808	0.342	0.242	0.261	0.275	0.230	0.342	0.042	-0.139	0.114	0.659	-0.635	-0.003	0.017	1.156
61	1.833	0.356	0.197	0.314	0.294	0.223	0.356	-0.159	-0.346	0.290	1.258	-1.264	-0.006	0.033	1.188
62	1.644	0.288	0.238	0.223	0.221	0.235	0.288	0.026	-0.153	0.257	-1.456	1.436	-0.006	-0.038	1.001
63	1.651	0.295	0.226	0.242	0.223	0.239	0.295	-0.042	-0.216	0.318	-1.472	1.455	-0.007	-0.039	1.007
64	1.650	0.283	0.257	0.197	0.222	0.227	0.283	0.129	-0.053	0.147	-1.229	1.215	-0.004	-0.032	1.009
65	1.663	0.285	0.263	0.192	0.227	0.224	0.285	0.163	-0.017	0.097	-1.014	1.007	-0.003	-0.026	1.023
66	1.934	0.372	0.164	0.356	0.311	0.217	0.372	-0.327	-0.527	0.455	1.645	-1.681	-0.010	0.043	1.284
67	1.918	0.369	0.163	0.354	0.307	0.218	0.369	-0.330	-0.527	0.464	1.445	-1.476	-0.010	0.038	1.269
68	1.923	0.371	0.184	0.336	0.308	0.220	0.371	-0.230	-0.430	0.356	1.675	-1.698	-0.008	0.044	1.271
69	1.825	0.354	0.217	0.294	0.291	0.225	0.354	-0.063	-0.250	0.191	1.289	-1.281	-0.004	0.034	1.178
70	1.775	0.343	0.230	0.274	0.280	0.228	0.343	-0.005	-0.182	0.144	0.908	-0.891	-0.003	0.024	1.130
71	1.724	0.321	0.250	0.235	0.259	0.227	0.321	0.094	-0.076	0.080	0.178	-0.155	-0.002	0.005	1.082
72	1.693	0.305	0.260	0.211	0.247	0.223	0.305	0.147	-0.024	0.051	-0.201	0.216	-0.001	-0.005	1.055
73	1.694	0.293	0.272	0.189	0.237	0.221	0.293	0.204	0.027	0.027	-0.594	0.602	-0.001	-0.015	1.053
74	1.693	0.293	0.271	0.190	0.237	0.222	0.293	0.198	0.021	0.033	-0.596	0.604	-0.001	-0.016	1.052
75	1.753	0.319	0.275	0.205	0.265	0.218	0.319	0.229	0.053	-0.074	0.614	-0.573	0.001	0.016	1.113
76	1.782	0.333	0.264	0.228	0.276	0.221	0.333	0.174	-0.005	-0.039	0.981	-0.939	0.001	0.026	1.138
77	1.803	0.342	0.248	0.254	0.280	0.226	0.342	0.084	-0.098	0.056	0.958	-0.927	-0.001	0.025	1.155
78	1.900	0.359	0.261	0.252	0.300	0.221	0.359	0.151	-0.046	-0.043	1.806	-1.762	0.001	0.047	1.245
79	1.908	0.368	0.212	0.308	0.304	0.224	0.368	-0.094	-0.293	0.217	1.657	-1.656	-0.005	0.043	1.254
80	1.916	0.369	0.204	0.316	0.306	0.223	0.369	-0.131	-0.332	0.254	1.705	-1.713	-0.005	0.045	1.262
81	1.636	0.278	0.255	0.195	0.217	0.228	0.278	0.122	-0.065	0.172	-1.432	1.411	-0.004	-0.037	0.996
85	1.910	0.367	0.225	0.295	0.304	0.224	0.367	-0.032	-0.232	0.150	1.738	-1.728	-0.003	0.046	1.254
86	1.833	0.352	0.236	0.273	0.290	0.225	0.352	0.030	-0.157	0.095	1.330	-1.308	-0.002	0.035	1.184
87	1.722	0.312	0.267	0.208	0.256	0.221	0.312	0.188	-0.015	-0.012	0.207	-0.179	0.000	0.005	1.083
88	1.727	0.301	0.280	0.186	0.246	0.219	0.301	0.247	0.068	-0.040	-0.174	0.197	0.000	-0.005	1.084
89	1.702	0.296	0.271	0.192	0.240	0.221	0.296	0.202	0.024	0.022	-0.485	0.496	-0.001	-0.013	1.060
91	1.795	0.317	0.297	0.181	0.265	0.214	0.317	0.332	0.149	-0.173	0.668	-0.614	0.003	0.017	1.148
92	1.789	0.327	0.283	0.203	0.274	0.216	0.327	0.271	0.090	-0.136	1.025	-0.971	0.003	0.027	1.147
93	1.830	0.342	0.273	0.225	0.286	0.218	0.342	0.217	0.031	-0.099	1.404	-1.352	0.002	0.037	1.183
94	1.837	0.348	0.255	0.250	0.288	0.223	0.348	0.123	-0.064	-0.001	1.371	-1.333	0.000	0.036	1.188
95	1.900	0.359	0.264	0.249	0.300	0.221	0.359	0.165	-0.032	-0.058	1.811	-1.765	0.001	0.047	1.244
96	1.904	0.363	0.245	0.273	0.302	0.223	0.363	0.067	-0.132	0.047	1.773	-1.745	-0.001	0.046	1.248
97	1.896	0.361	0.251	0.264	0.299	0.223	0.361	0.099	-0.099	0.015	1.726	-1.691	0.000	0.045	1.241
98	1.913	0.369	0.213	0.308	0.305	0.223	0.369	-0.089	-0.289	0.209	1.719	-1.719	-0.005	0.045	1.258
100	1.760	0.309	0.289	0.183	0.256	0.217	0.309	0.289	0.109	-0.107	0.247	-0.208	0.002	0.006	1.116
101	1.829	0.325	0.305	0.178	0.275	0.212	0.325	0.374	0.188	-0.238	1.089	-1.021	0.005	0.028	1.180
103	1.839	0.337	0.292	0.201	0.284	0.214	0.337	0.315	0.128	-0.199	1.451	-1.384	0.004	0.038	1.191
104	1.898	0.353	0.283	0.224	0.298	0.217	0.353	0.263	0.068	-0.161	1.850	-1.787	0.003	0.048	1.243
105	1.863	0.333	0.314	0.176	0.284	0.210	0.333	0.416	0.227	-0.302	1.510	-1.427	0.006	0.039	1.212
106	1.897	0.347	0.303	0.199	0.296	0.213	0.347	0.361	0.166	-0.263	1.890	-1.810	0.005	0.049	1.243
107	1.881	0.338	0.315	0.179	0.289	0.210	0.338	0.424	0.232	-0.320	1.717	-1.629	0.007	0.045	1.229
109	1.898	0.342	0.322	0.174	0.294	0.208	0.342	0.459	0.265	-0.366	1.930	-1.833	0.008	0.050	1.245

FİRMA : ESPO MUH. DAN. INS. LTD. STI.

24-12-2025

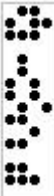
SAYFA: 65

PROJE : CERRAHPAŞA YURT SU DEPOSU

(251224-ES374-CERRAH-SU-D-D02.ST4)

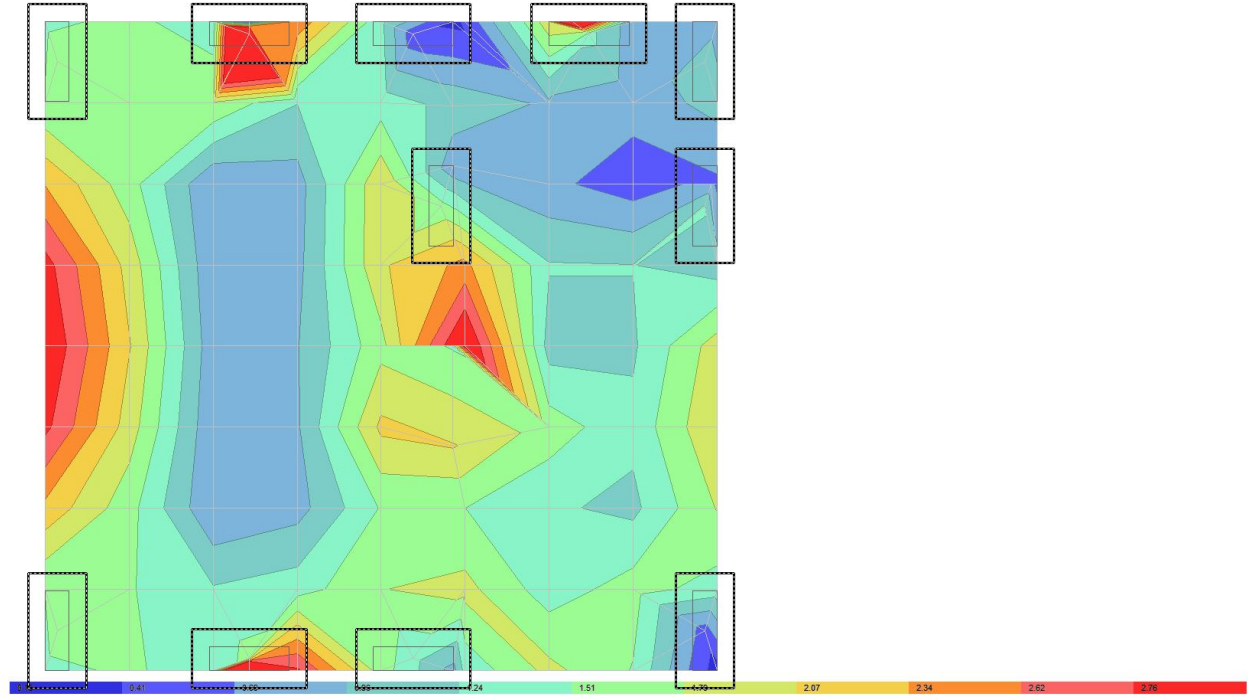
TEMEL KİRİŞ STATİK SONUÇLARI

Temel Nokta no	1 g	2 q	3 q	4 q	5 q	6 q	7 q	8 s	9 e	10 e	11 e	12 e	13 w	14 w	17 Ez



RADYE TEMEL KOLON ZİMBALAMA HESABI

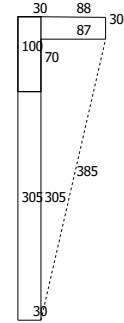
Deprem tesirleri, D=3 ile çarpılmaktadır.



SmaxV gerilmesi : $6.39 \text{ (kg/cm}^2\text{)} < fctd=13.79 \text{ (kg/cm}^2\text{)}$
 Maksimum zımbalama gerilmesi, fctd kesme dayanımından küçüktür.

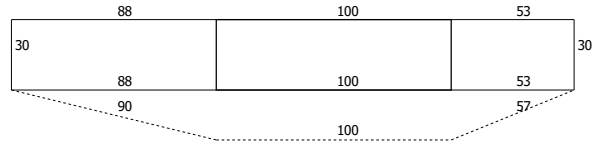
S101

d= 43 cm $A_c = 1.655 \text{ m}^2$ $\Phi_x=0, \Phi_y=0$
 $E_x = 73.70 \text{ cm}$ $E_y = 217.5 \text{ cm}$
 $I_x = 0.470721 \text{ m}^4$ $I_y = 2.017375 \text{ m}^4$
 $U_p = 385.07 \text{ cm}$ $fctd=137.94 \text{ t/m}^2$
 $M_x = 0.13 \text{ (tm)}$ $M_y = 0.09 \text{ (tm)}$
 $X_t = 43.74 \text{ cm}$ $Y_x=0.982$ $Y_t = 187.49 \text{ cm}$ $Y_y=0.995$
 $V_d = 8.76 / 8.76 \text{ (t)}$ $V_{dq} = 4.1 \text{ (t)}$ $V_{dc} = 4.1 \text{ (t)}$
 $V_p = Y \cdot fctd \cdot U_p \cdot d > V_d$ $V_d = V_{dc} - V_{dq}$
 Panel ara başlıklarında zımbalama kontrolü yapılmayabilir.



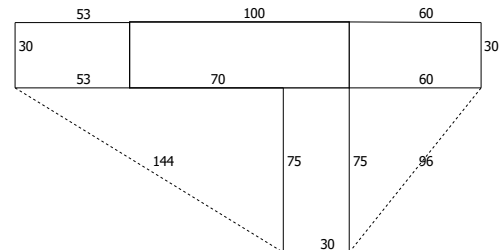
S102

d= 43 cm $A_c = 1.061 \text{ m}^2$ $\Phi_x=0, \Phi_y=0$
 $E_x = -16.7 \text{ cm}$ $E_y = 45.02 \text{ cm}$
 $I_x = 0.536518 \text{ m}^4$ $I_y = 0.014508 \text{ m}^4$
 $U_p = 246.90 \text{ cm}$ $fctd=137.94 \text{ t/m}^2$
 $M_x = 0.05 \text{ (tm)}$ $M_y = 1.39 \text{ (tm)}$
 $X_t = 120.84 \text{ cm}$ $Y_x=1.0$ $Y_t = 6.38 \text{ cm}$ $Y_y=0.956$
 $V_d = 40.49 / 40.49 \text{ (t)}$ $V_{dq} = 4.3 \text{ (t)}$ $V_{dc} = 4.3 \text{ (t)}$
 $V_p = Y \cdot fctd \cdot U_p \cdot d > V_d$ $V_d = V_{dc} - V_{dq}$
 Panel ara başlıklarında zımbalama kontrolü yapılmayabilir.



S103

d= 43 cm $A_c = 1.030 \text{ m}^2$ $\Phi_x=0, \Phi_y=0$
 $E_x = -42.6 \text{ cm}$ $E_y = 67.43 \text{ cm}$
 $I_x = 0.486317 \text{ m}^4$ $I_y = 0.090106 \text{ m}^4$
 $U_p = 239.66 \text{ cm}$ $fctd=137.94 \text{ t/m}^2$
 $M_x = 1.28 \text{ (tm)}$ $M_y = 0.04 \text{ (tm)}$
 $X_t = 109.85 \text{ cm}$ $Y_x=0.93$ $Y_t = 37.54 \text{ cm}$ $Y_y=0.79$
 $V_d = 2.76 / 2.76 \text{ (t)}$ $V_{dq} = 3.8 \text{ (t)}$ $V_{dc} = 3.8 \text{ (t)}$
 $V_p = Y \cdot fctd \cdot U_p \cdot d > V_d$ $V_d = V_{dc} - V_{dq}$
 Panel ara başlıklarında zımbalama kontrolü yapılmayabilir.



FİRMA : ESPO MUH. DAN. INS. LTD. STI.

24-12-2025

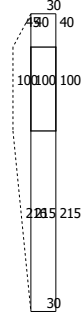
SAYFA: 68

PROJE : CERRAHPAŞA YURT SU DEPOSU

(251224-ES374-CERRAH-SU-D-D02.ST4)

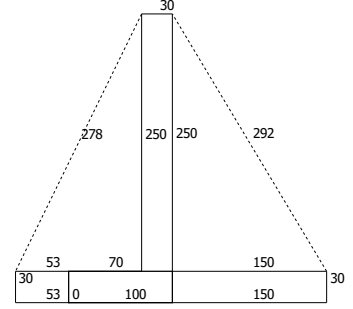
S107

d= 43 cm Ac =1.554m² $\Phi x=0, \Phi y=0$
Ex =-43.6 cm Ey =135.3 cm
Ix = 0.044035 m⁴ Iy = 1.691555 m⁴
Up = 361.58 cm fctd=137.94 t/m²
Mx = 0.17 (tm) My = 0.48 (tm)
Xt= 7.77 cm Yx=0.95 Yt= 35.39 cm Yy=0.988
Vd = 10.19/ 10.19 (t) Vdq =4.7 (t) zemin
Vp = Y · fctd · Up · d > Vd, Vd = Vdc - Vdq
Panel ara başlıklarında zımbalama kontrolü yapılmayabilir.



S110

d= 43 cm Ac =2.451m² $\Phi x=0, \Phi y=0$
Ex =-6.14 cm Ey =-155. cm
Ix = 2.508553 m⁴ Iy = 1.489569 m⁴
Up = 570.04 cm fctd=137.94 t/m²
Mx = 0.13 (tm) My = 0.11 (tm)
Xt= 156.23 cm Yx=0.966 Yt= 124.96 cm Yy=0.966
Vd = -1.32/ -1.32 (t) Vdq =8.5 (t) zemin
Vp = Y · fctd · Up · d > Vd, Vd = Vdc - Vdq
Panel ara başlıklarında zımbalama kontrolü yapılmayabilir.



S111

d= 43 cm Ac =1.384m² $\Phi x=0, \Phi y=0$
Ex =-104. cm Ey =-172. cm
Ix = 0.567460 m⁴ Iy = 1.078174 m⁴
Up = 322.06 cm fctd=137.94 t/m²
Mx = 0.14 (tm) My = 0.04 (tm)
Xt= 75 cm Yx=0.988 Yt= 142.49 cm Yy=0.997
Vd = 10.13/ 10.13 (t) Vdq =5.7 (t) zemin
Vp = Y · fctd · Up · d > Vd, Vd = Vdc - Vdq
Panel ara başlıklarında zımbalama kontrolü yapılmayabilir.

