



İBE — 114 — 1976

İLLER BANKASI
TİP PROJELERİ

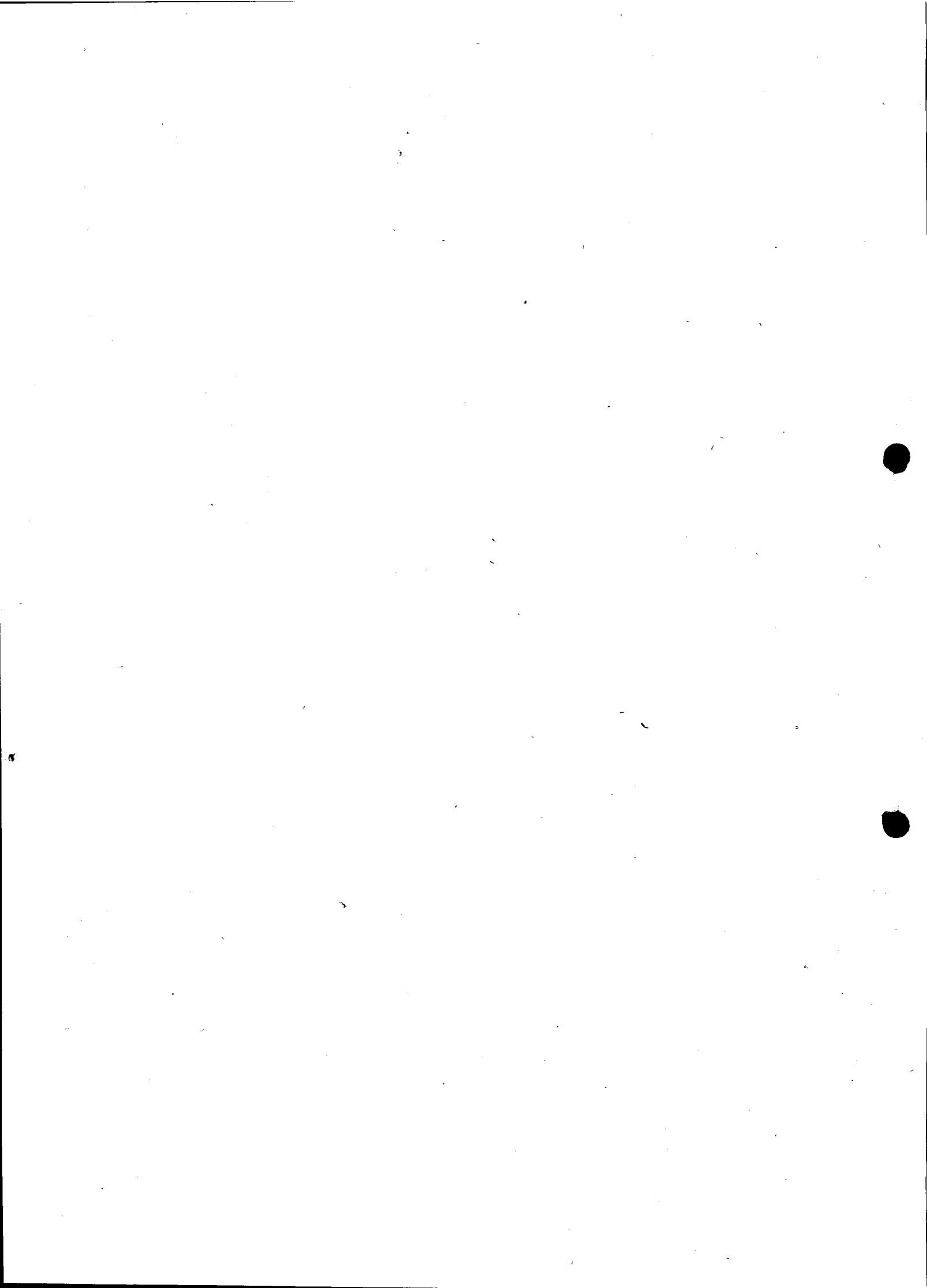
KULE ÇIKIŞLI 2 HÜCRELİ 6,3 - 15 - 30 KV. TRANSFORMATÖR BİNASI

(SATIS İÇİN BASTIRILMIŞTIR)

İ Ç İ N D E K İ L E R

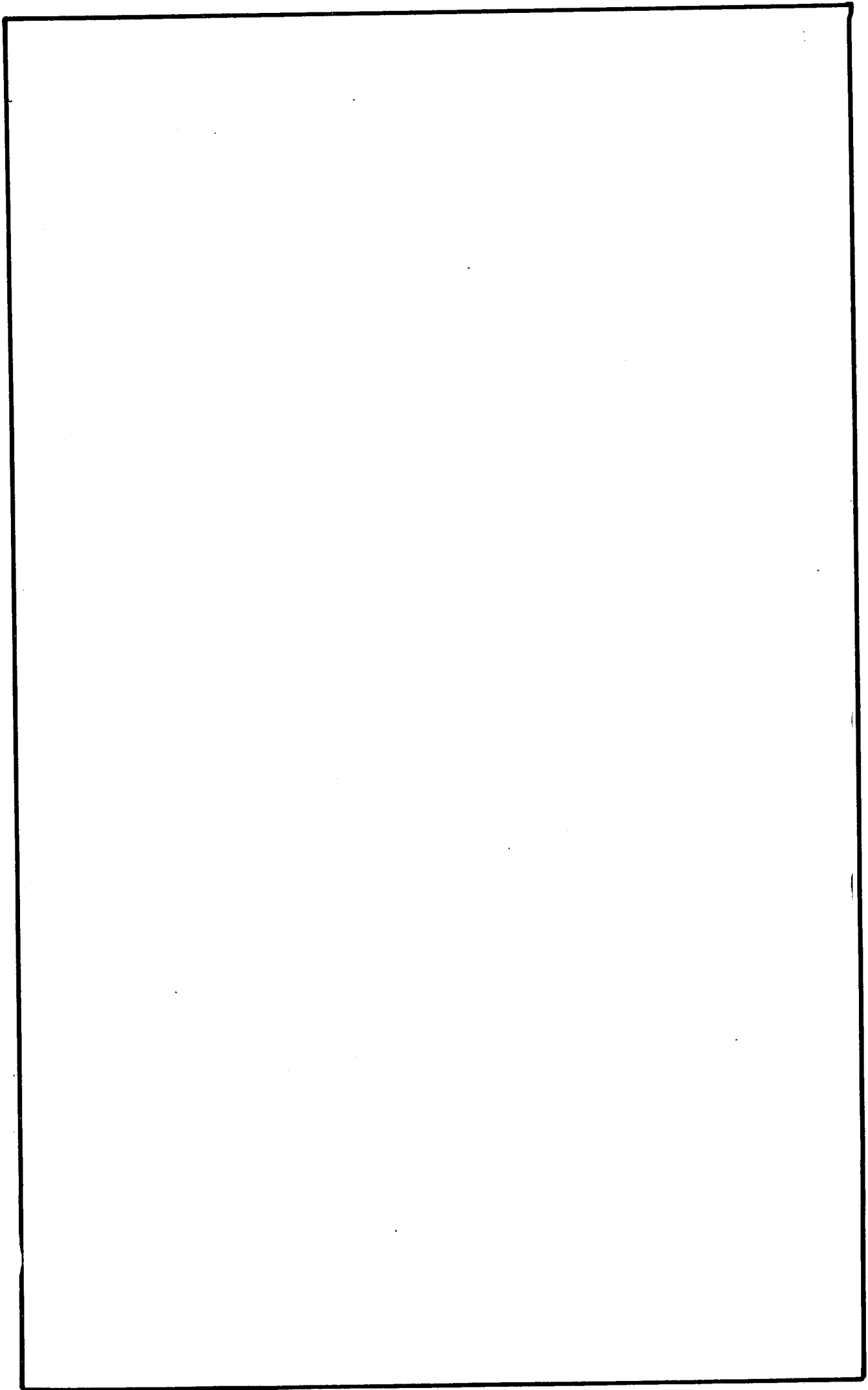
PLÂN NO:

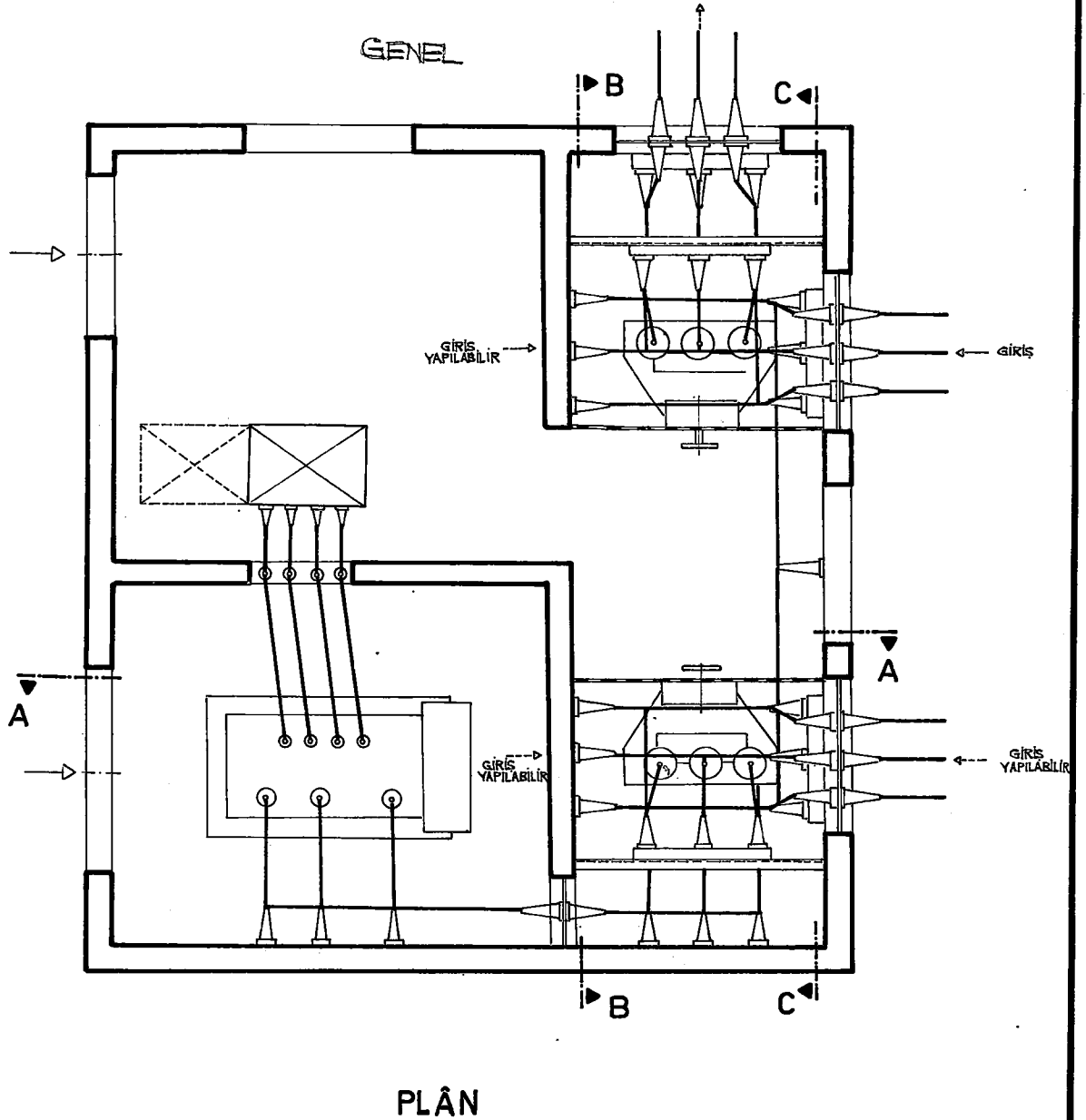
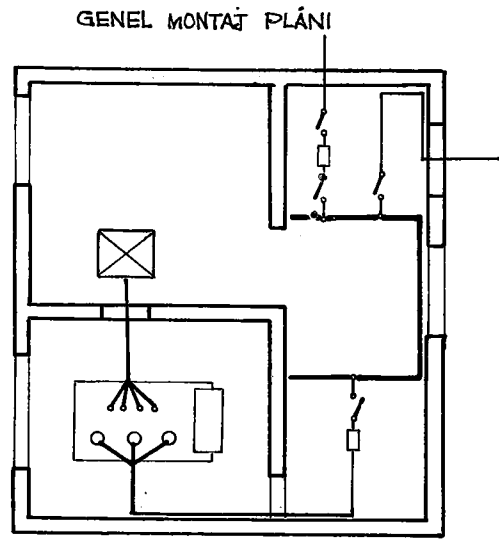
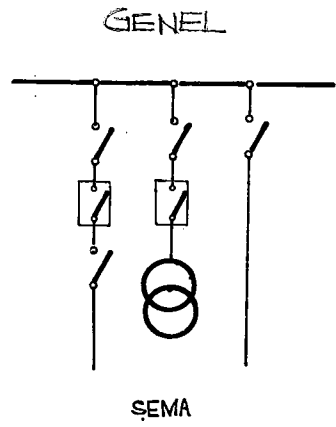
MONTAJ PLÂNI	1/35
MİMARİ PROJESİ	1/36
BETONARME RESİMLERİ	1/37
BETONARME HESAPLARI	1/38
KAPI VS. DETAY PLÂNLARI	1/60

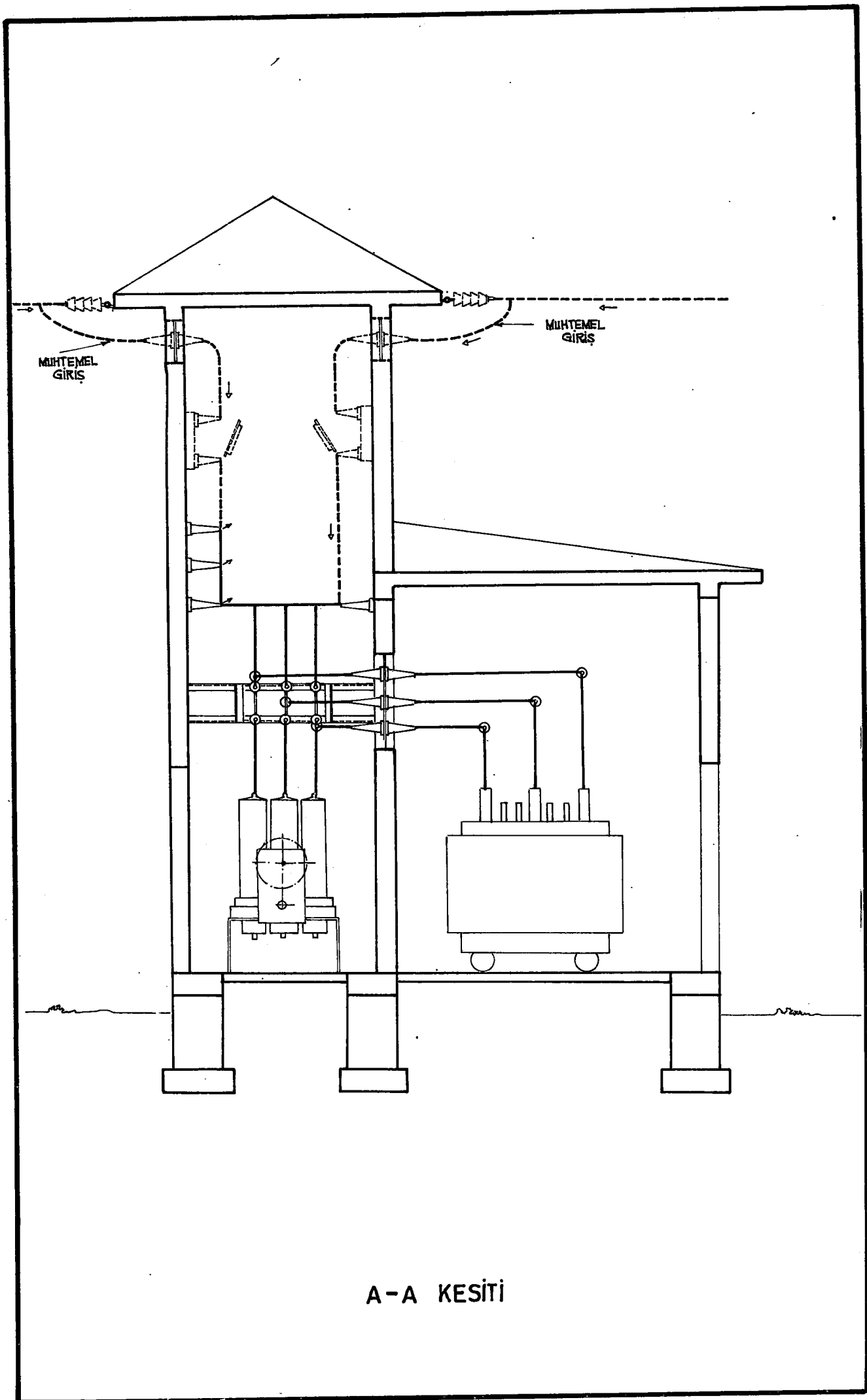


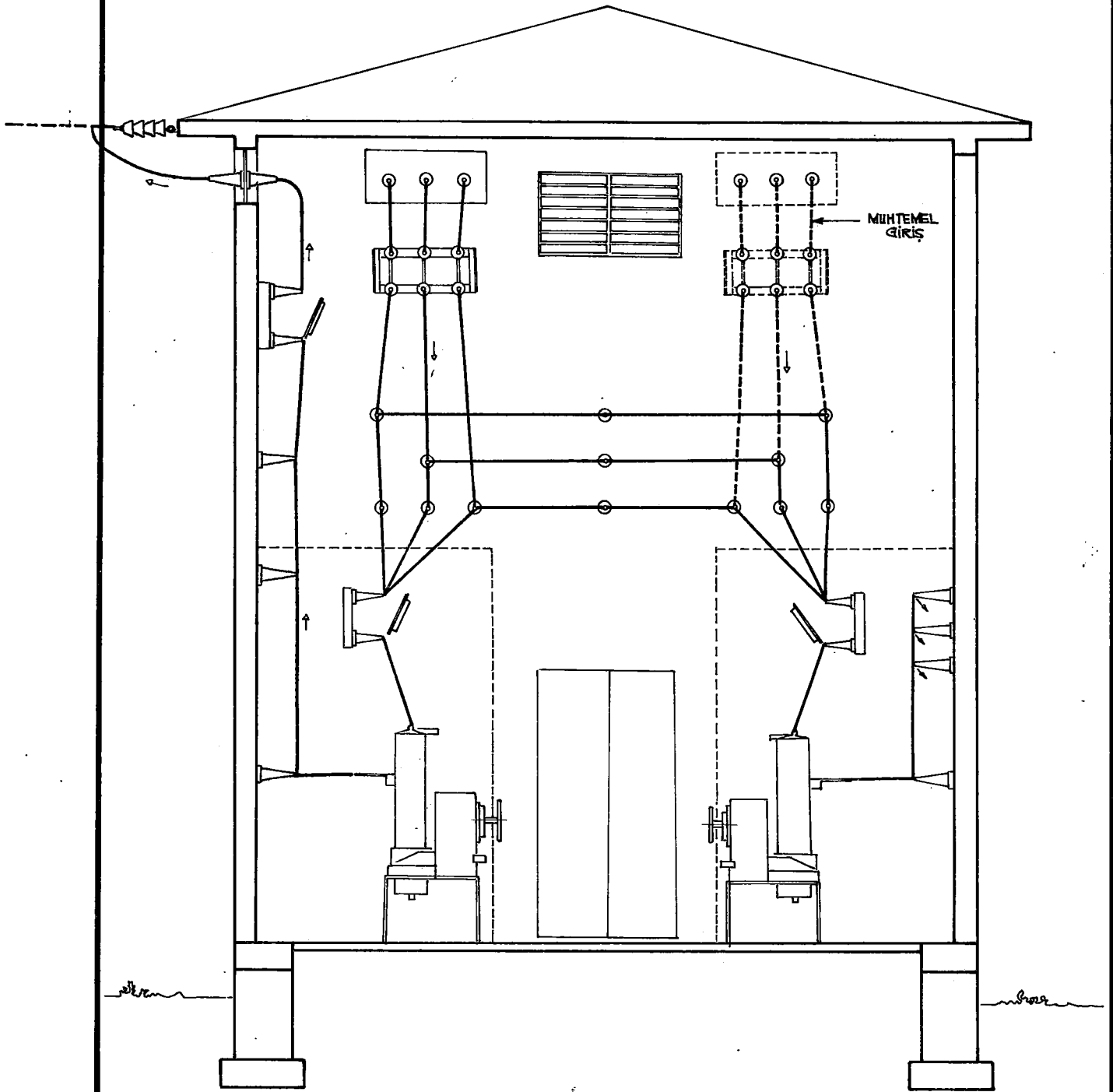
İLLER BANKASI

DEĞİŞİKLİK			TARİH	İMZA
a)				
b)				
6.3-15-30kV 2 HÜCRELİ KULE ÇIKIŞLI TİP TRANSFORMATÖR BİNASI MONTAJ PLÂNI			ÖLÇEK : 1/50	
			NO. LU PLÂN İPTÂL EDİLDİ	
			NO. LU PLÂN İPTÂL EDİLDİ	
Projeyi Yapanın Dip. No. Ünvanı Adı Soyadı	İMZA	İMZA TARİHİ	İLLER BANKASI ENERJİ DAİRESİ REİSLİĞİ	
ELK.Y. MÜH. HÜSEYİN BODUR ODA NO: 343				
ÇİZEN : S. ÖZDEMİR			PLÂN NO. : 114 1/35	ARŞİV KAYIT NO. :

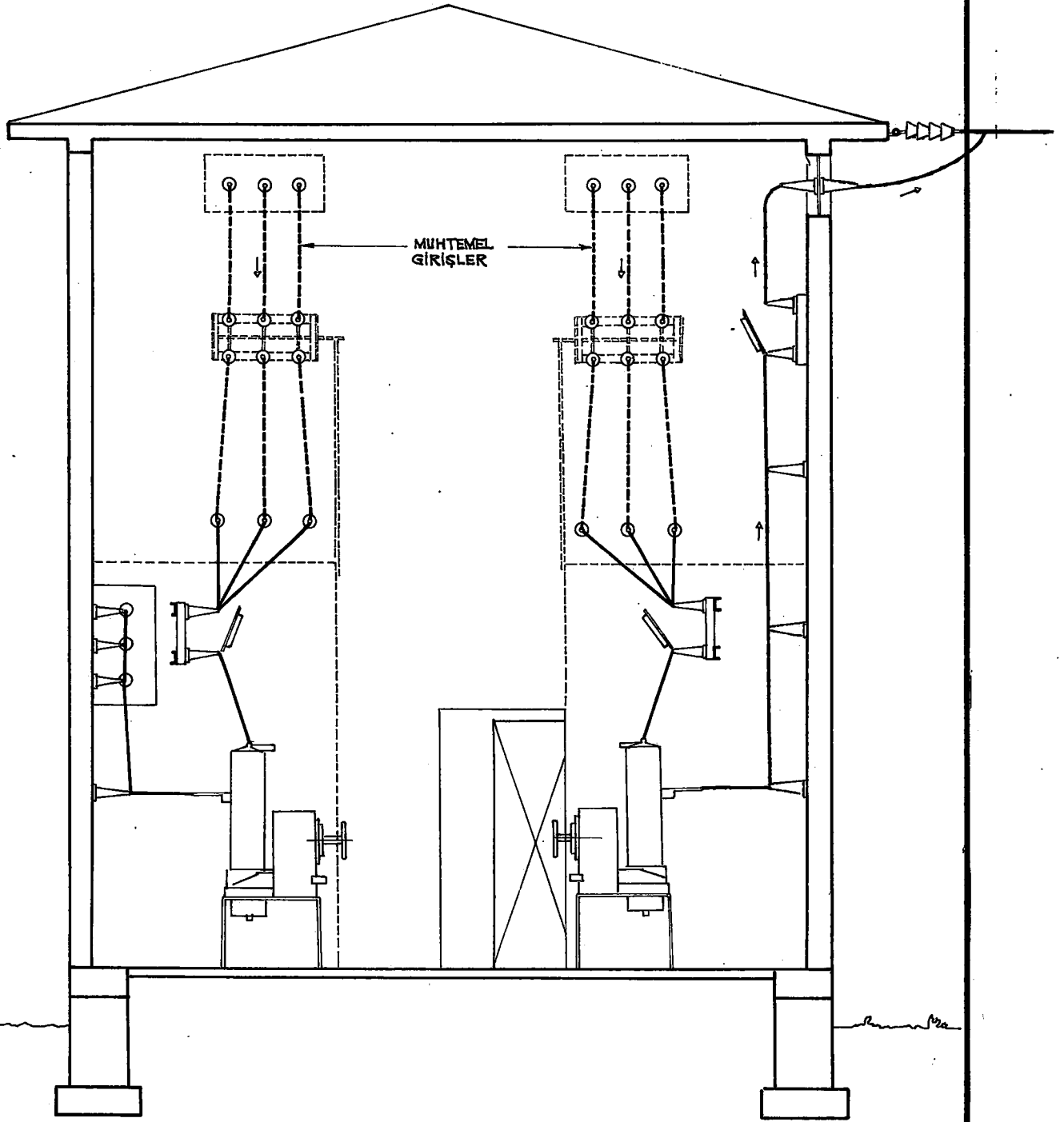










B - B KESİTİ



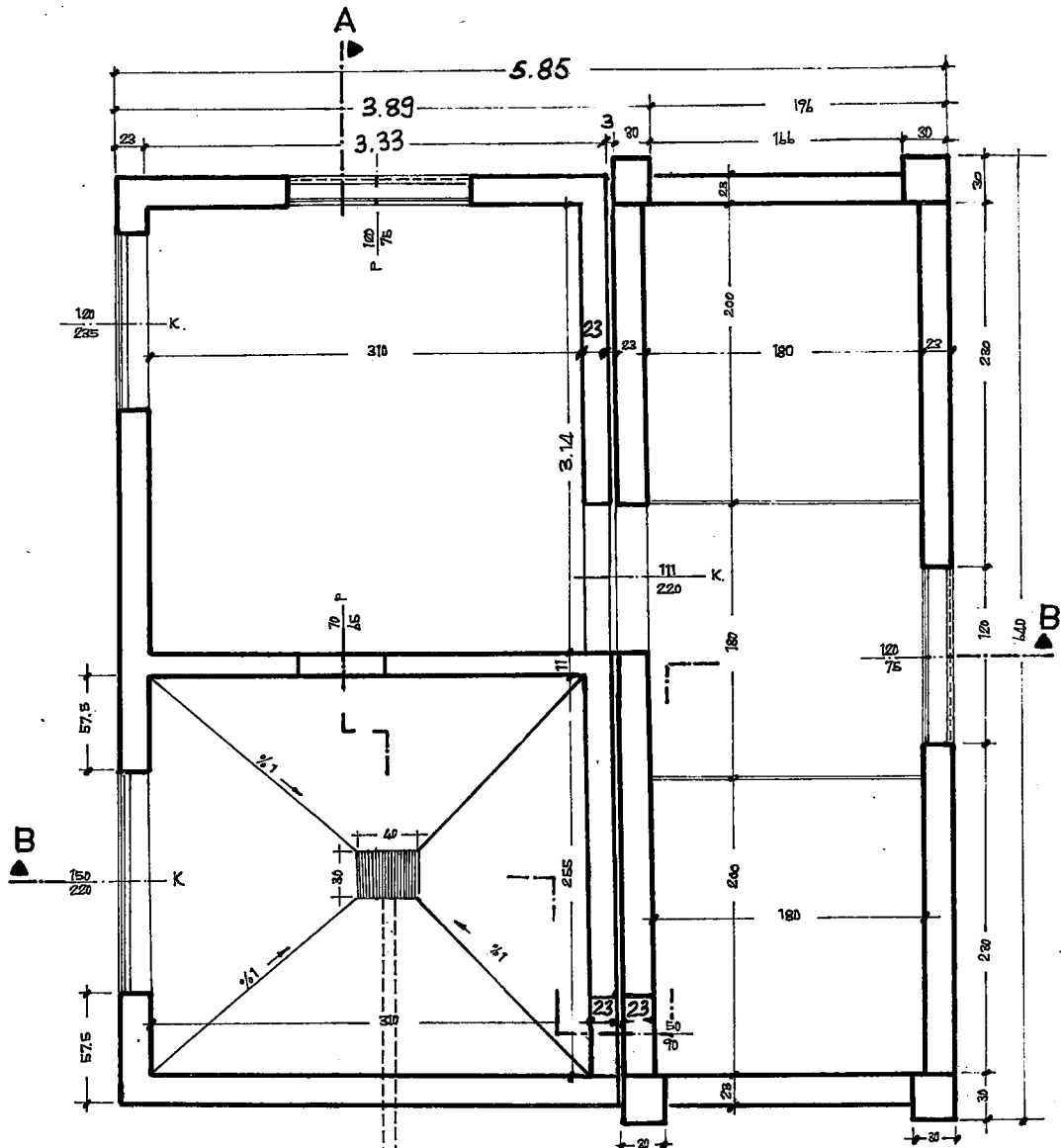
C - C KESİTİ

İLLER BANKASI

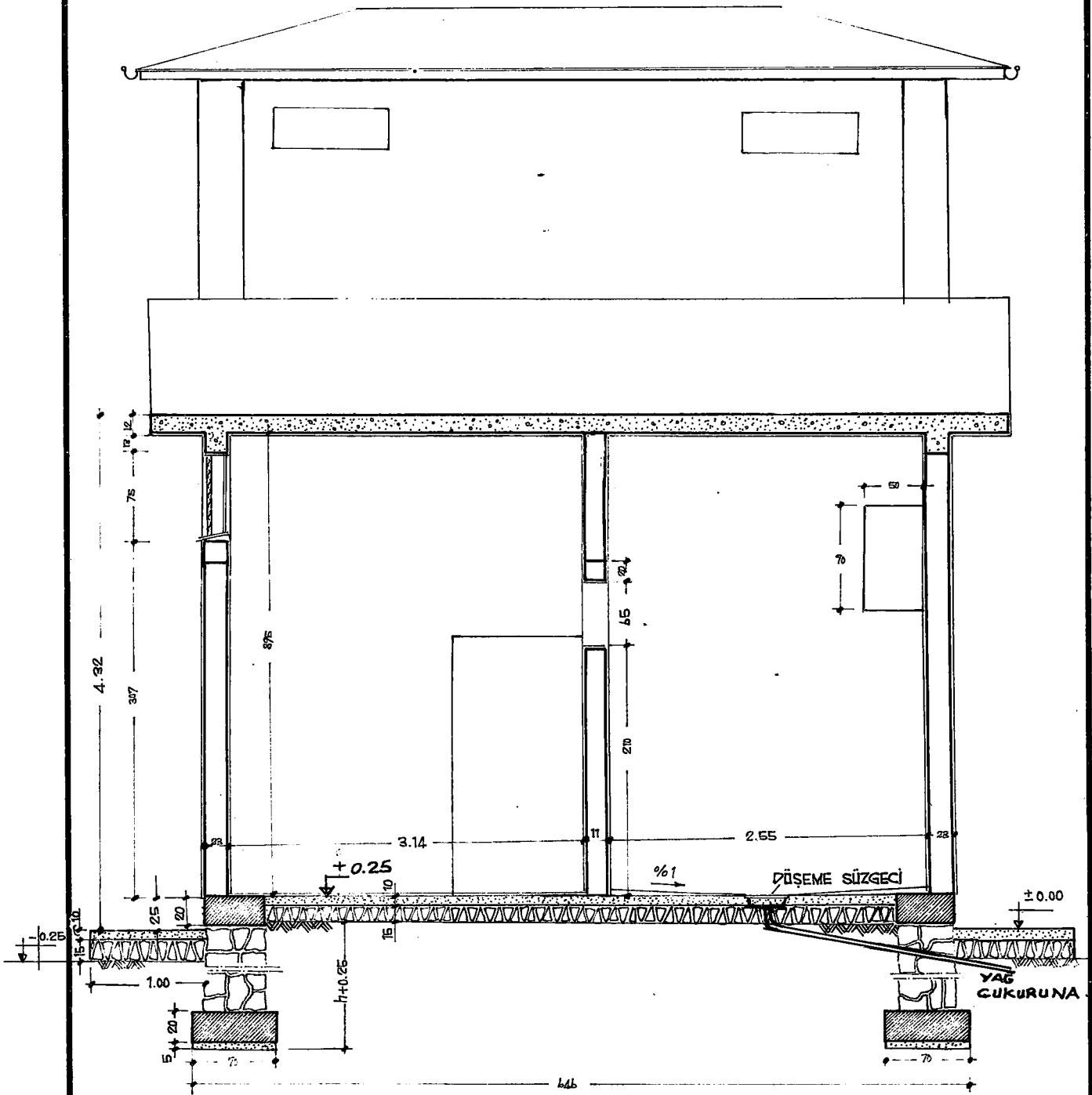
72
54

DEĞİŞİKLİK			TARİH	İMZA
a)			16.7.975	
b)				
6.3 - 15 - 34,5 kW 2 HÜCRELİ KULE ÇIKIŞI TİP TRANSFORMATÖR BİNASI MİMÂRİ PROJESİ			ÖLÇEK 1/50	
			NO.LU PLÂN İPTÂL EDİLDİ	
			NO.LU PLÂN İPTÂL EDİLDİ	
PROJİYİ YAPANIN .DİPL. NO. ÜNVANI, ADI, SOYADI	İMZA	İMZA TARİHİ	PLÂN NO	
YÜK. İNŞ. MÜH. ÇETİN PEKİNER OFA NO : 8730 - DİP. NO : 7153 TELEFON : 174701			114 _1/36	
SİZEN : 			ARŞİV KAYIT NO	

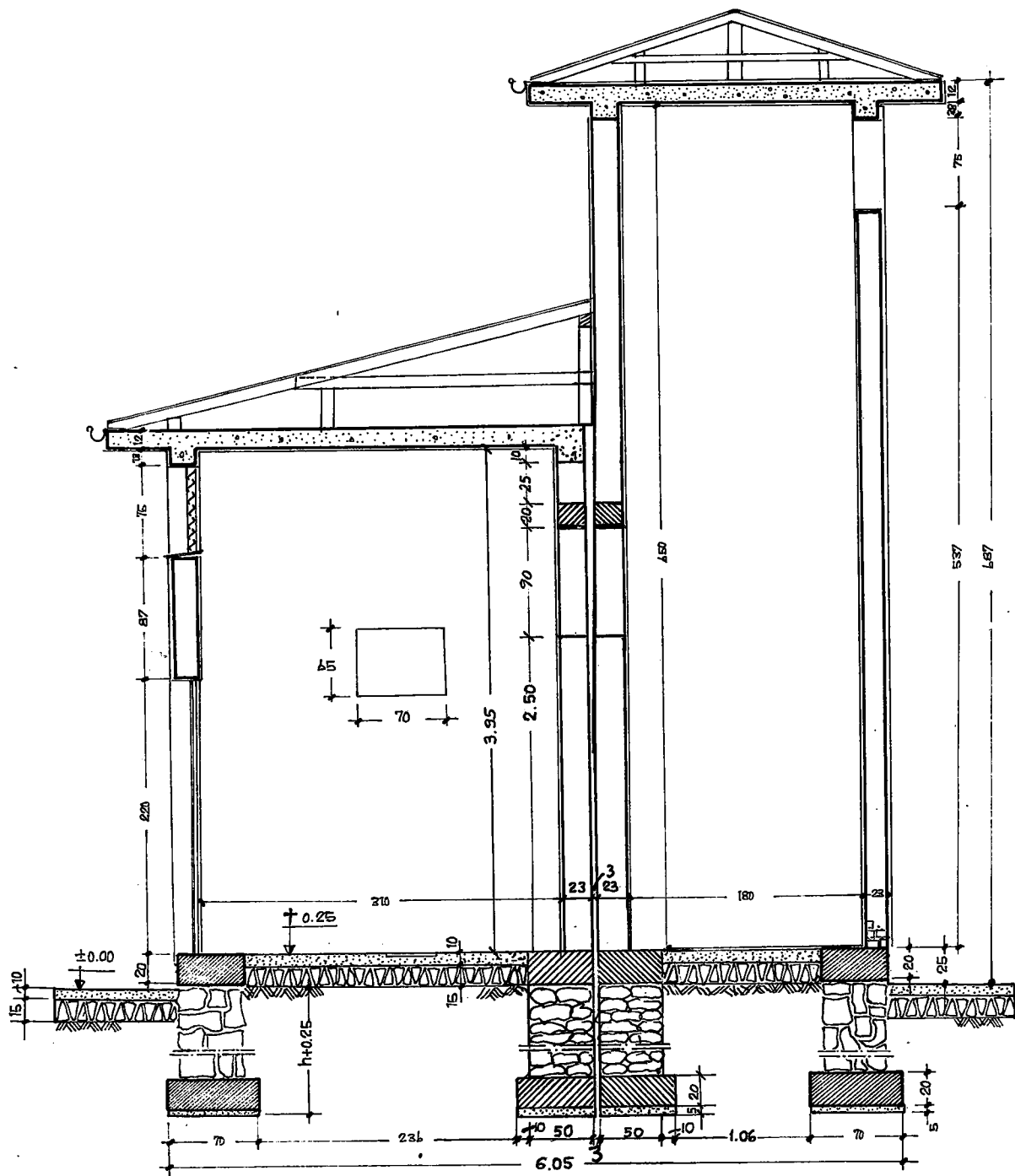
İLLER BANKASI
ENERJİ DAİRESİ
REİSLİĞİ



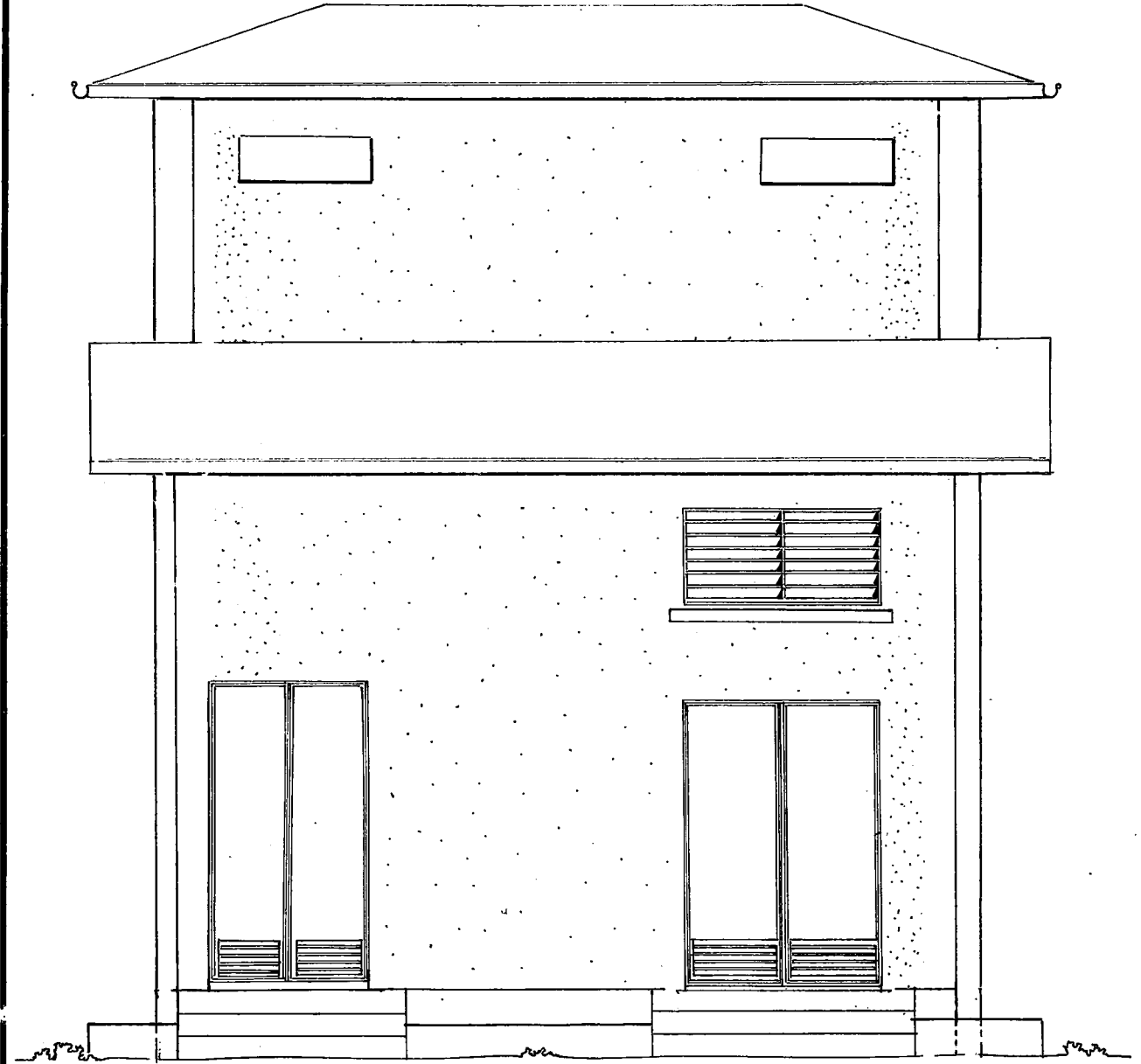
PLÂN



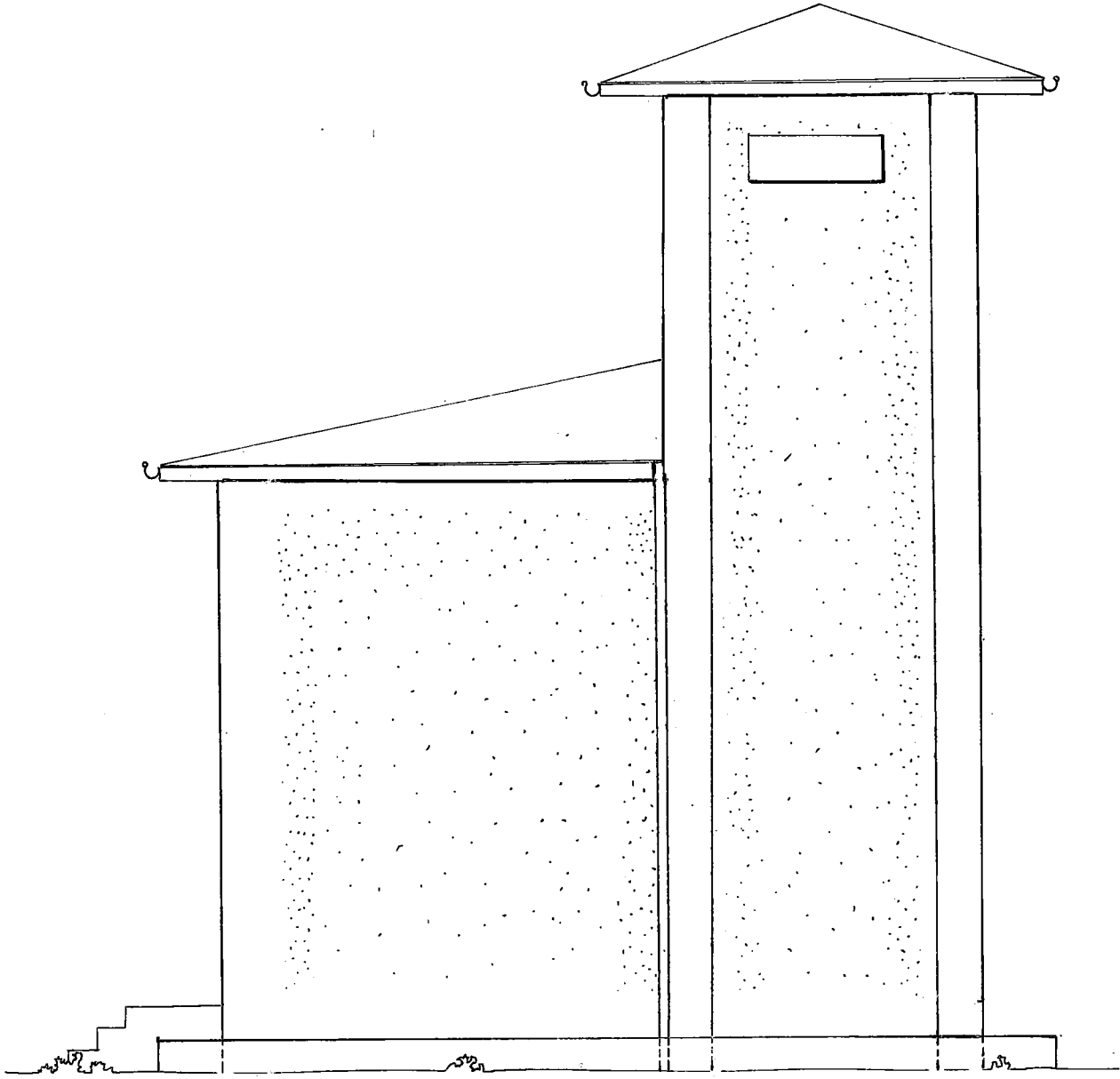
A-A KESİTİ



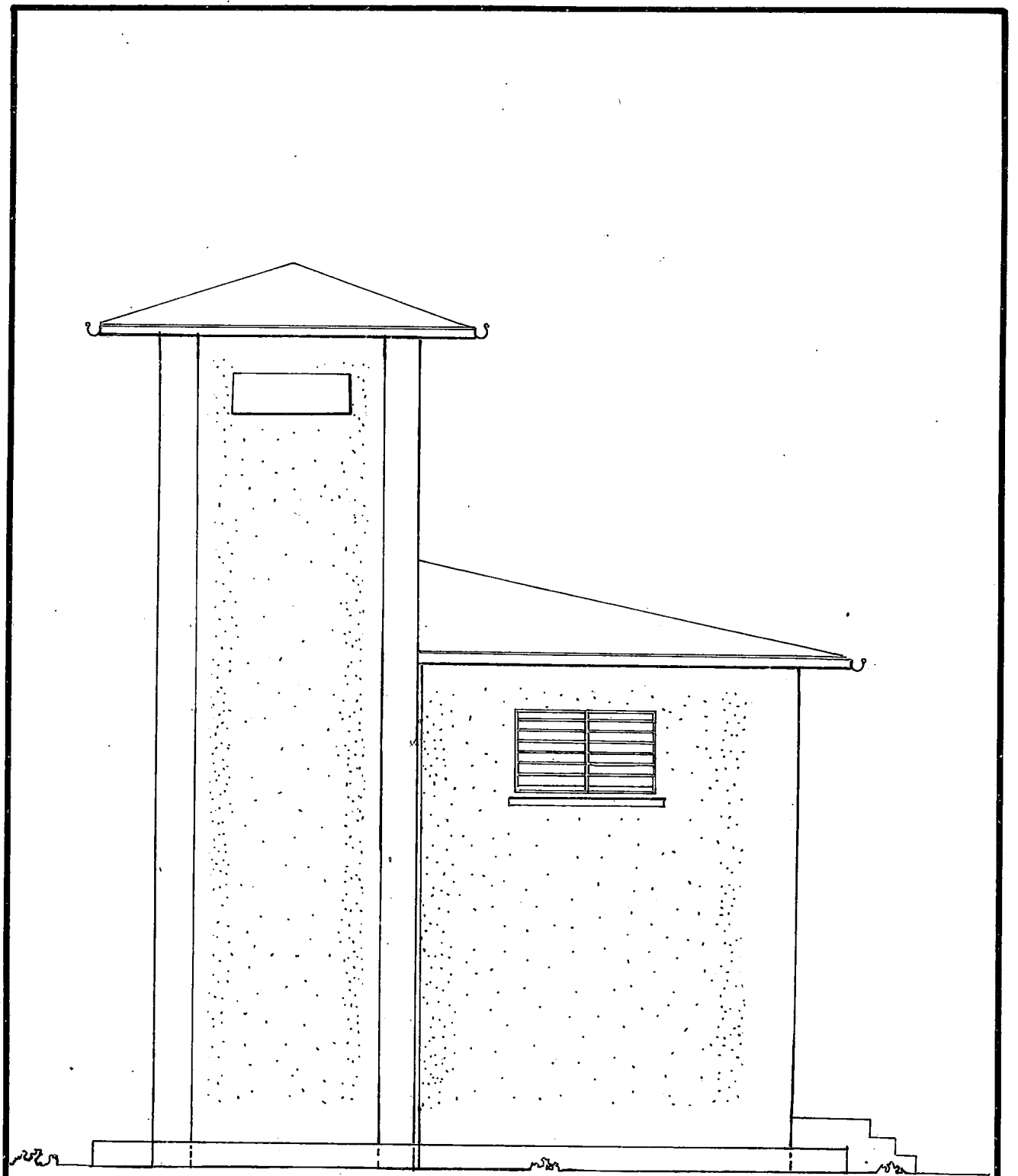
B-B KESITI



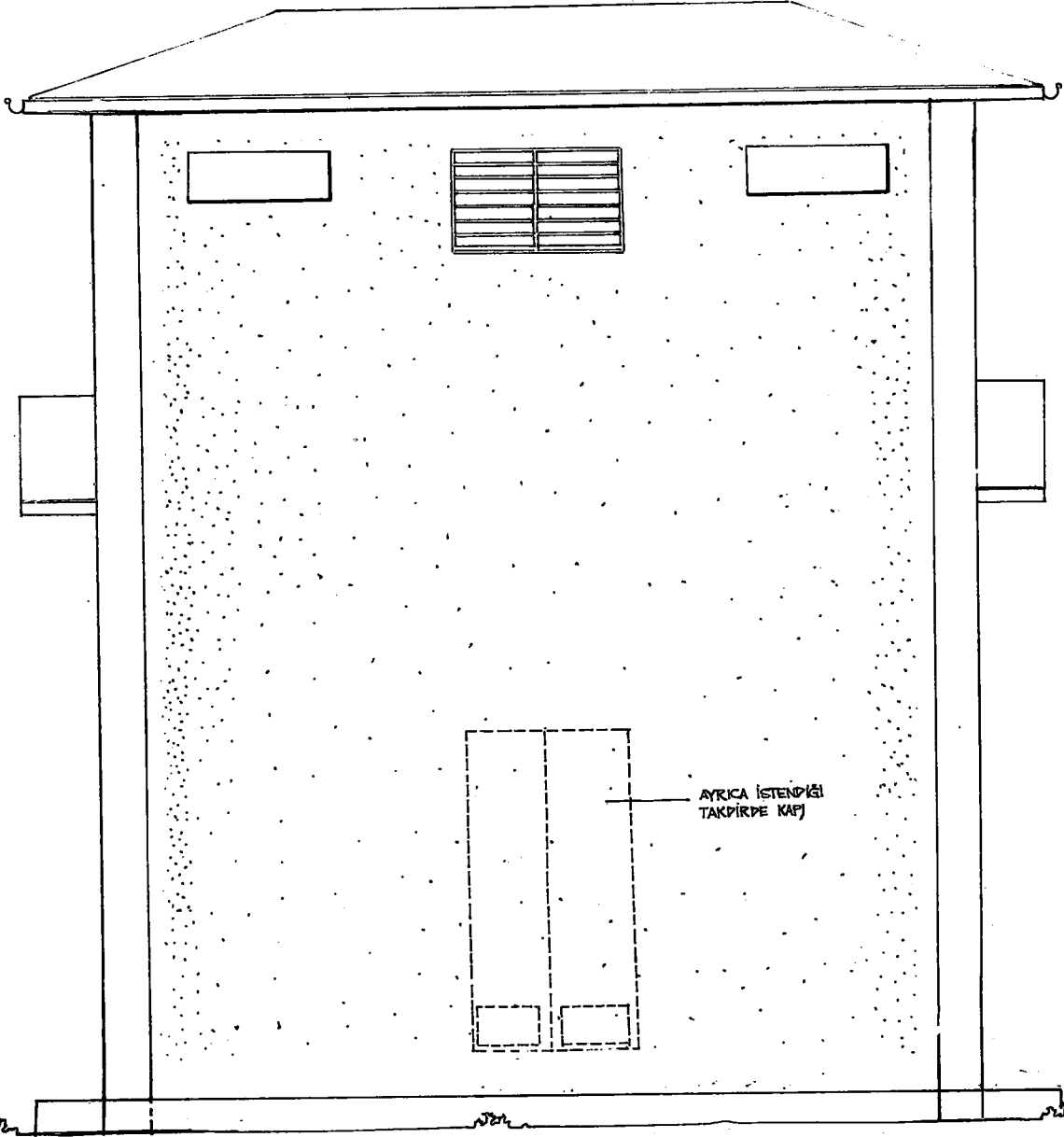
ÖN GÖRÜNÜŞ



SAG YAN CEPHE



SOL YAN CEPHE

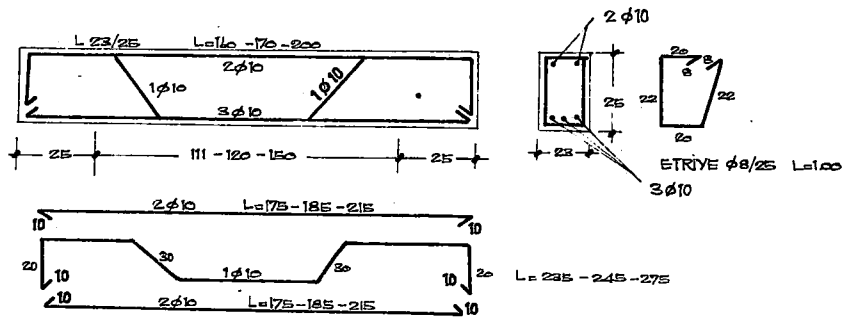
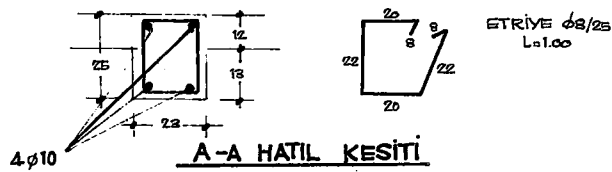
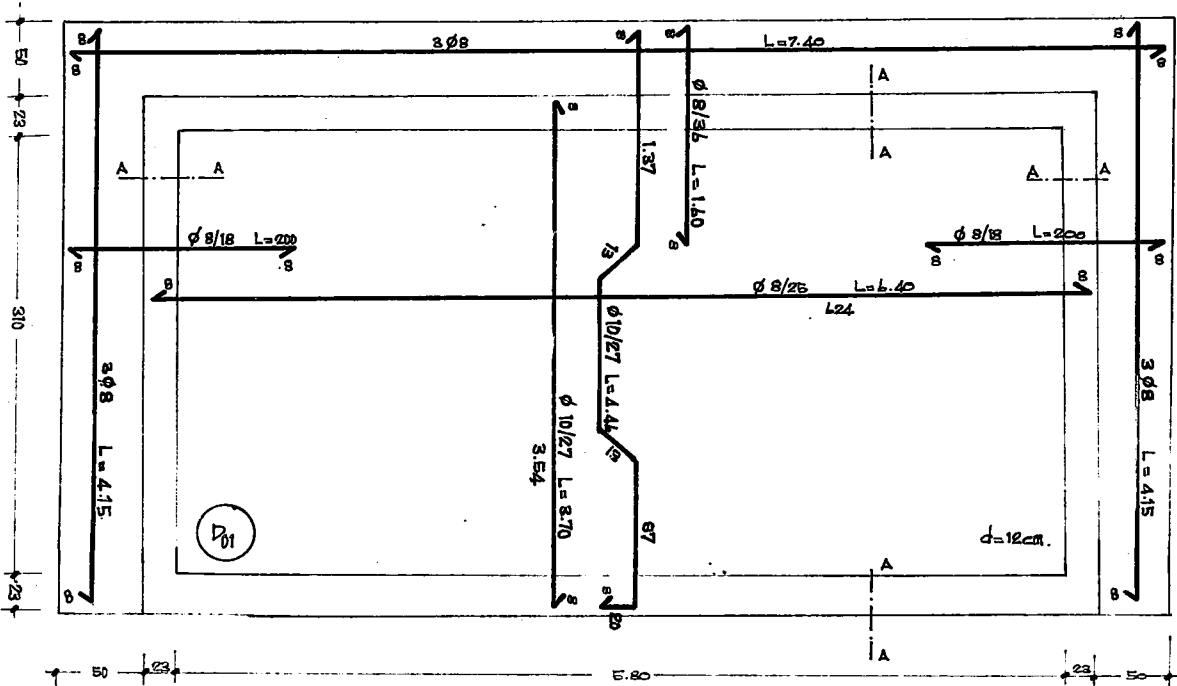


ARKA GÖRÜNÜŞ

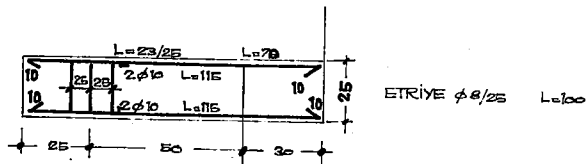
İLLER BANKASI

2H.K
372
54

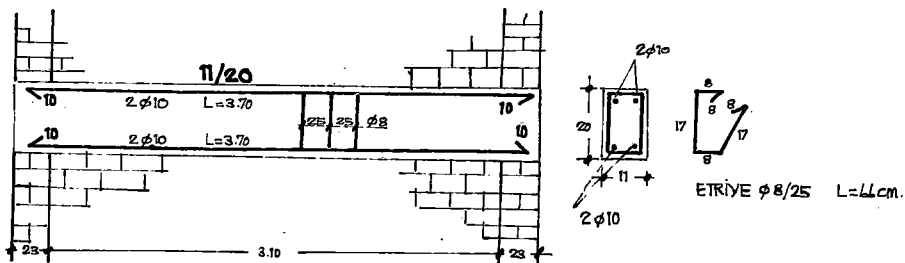
DEĞİŞİKLİK		TARİH.	İMZA
a)		16.7.975	
b)			
30_15_6,3 kV 2 HÜCRELİ KULE ÇIKIŞLI TRANSFORMATÖR BİNASI BETONARME RESİMLERİ		ÖLÇEK 1/50	
		NO.LU PLÂN İPTAL EDİLDİ	
		NO.LU PLÂN İPTAL EDİLDİ	
PROJİYİ YAPANIN DİPL. NO. ÜNVANI, ADI, SOYADI	İMZA	İMZA TARİHİ	İLLER BANKASI ENERJİ DAİRESİ REİSLİĞİ
YİK. İNS. MÜH. ÇETİN PEKİNER. OPA NO : 8730 - DİPL. NO : 4753 TEL : 174701			
ÇİZEN : SAVAŞ BAYIR.			PLÂN NO 114_1/37 ARSİV KAYIT NO



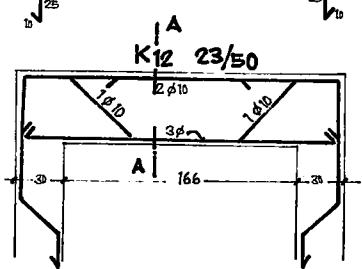
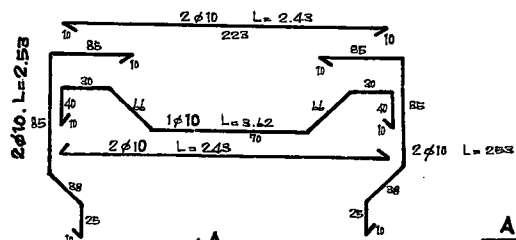
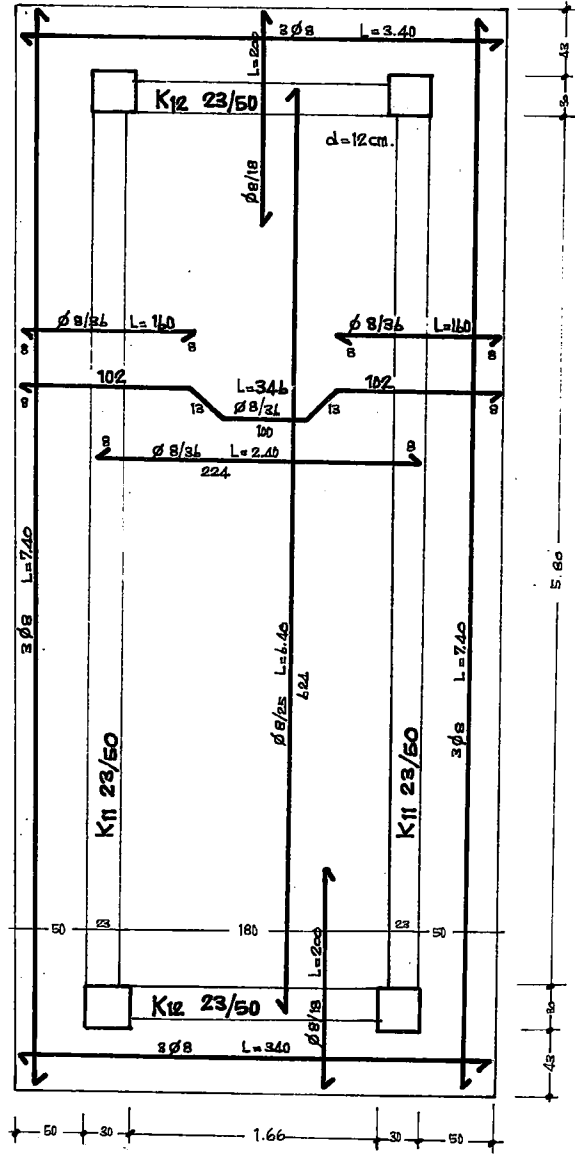
111/220 - 120/235 - 150/220 KAPI LENTOLARI



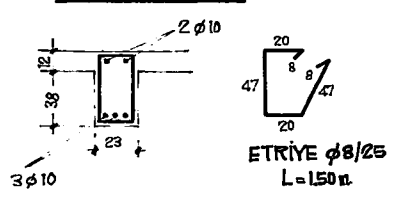
50/70 PENCERE LENTOSU

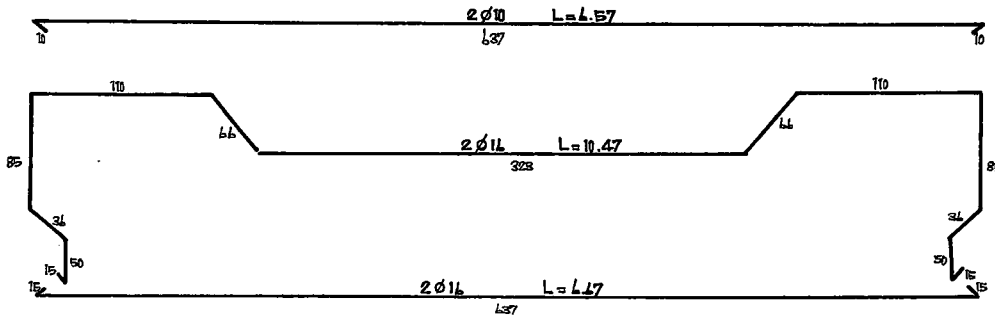


YARIM TUĞLA DUVAR ARA HATILI

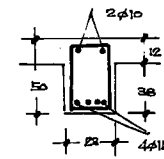


A - A KESİTİ

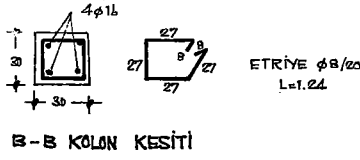




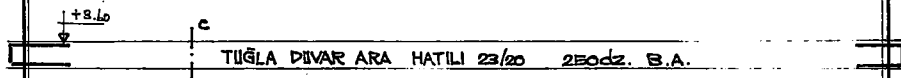
A-A KESİTİ



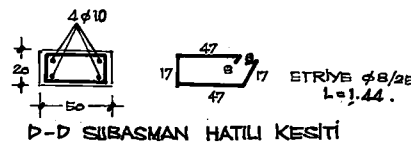
ETRİYE 8/25
L=1.50



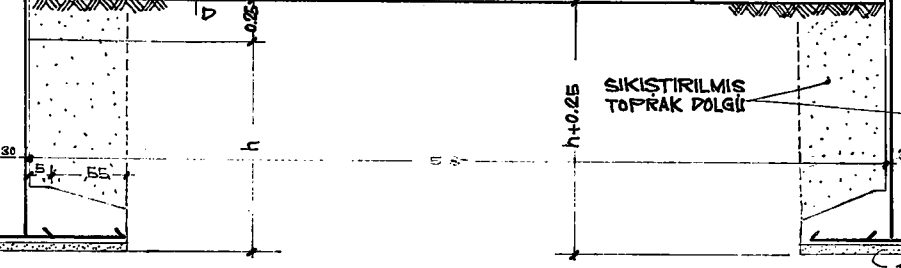
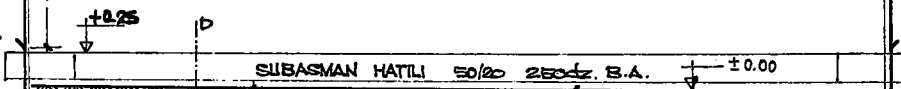
B-B KOLON KESİTİ



C-C KESİTİ



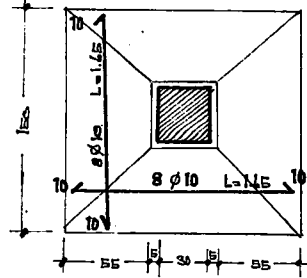
D-D SİBASMAN HATLI KESİTİ



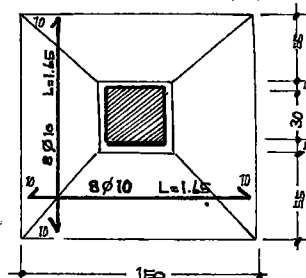
BLOKAT
200daZ BETON

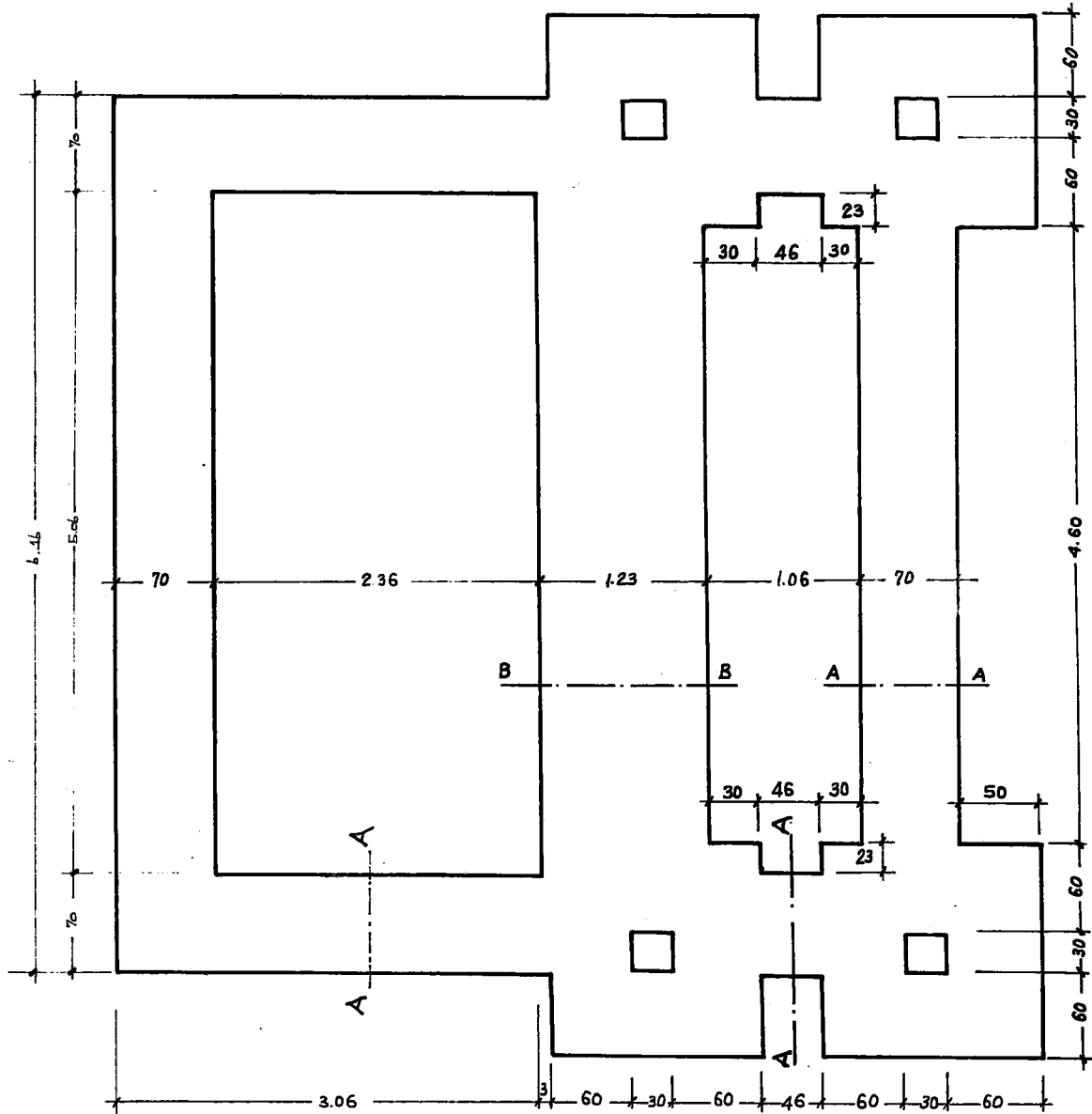
L=DEĞİŞKEN

L=DEĞİŞKEN

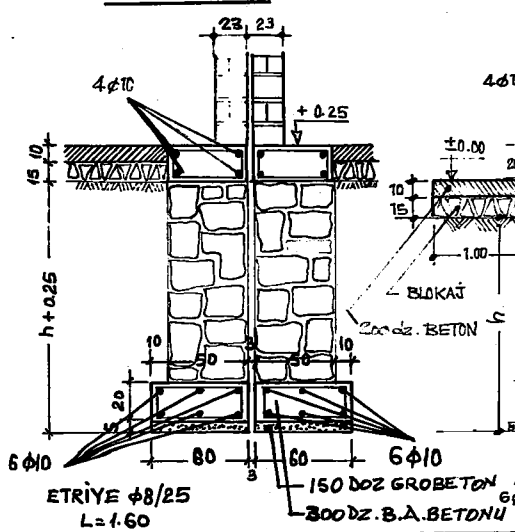


NOT : h(1.00) m.den AZ OLMAMAK ÜZERE MAHALLİNDE KONTROLLÜKÇA TESPİT EDİLECEKTİR

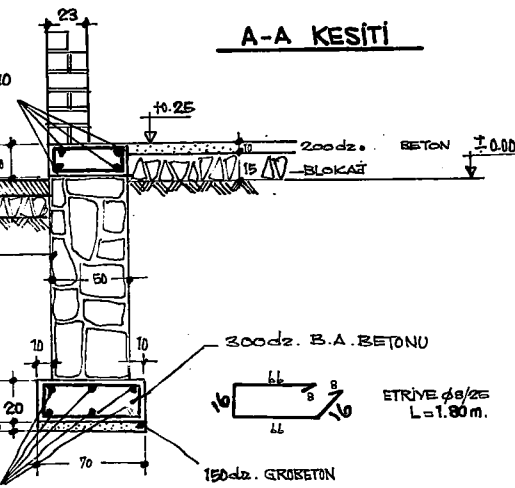


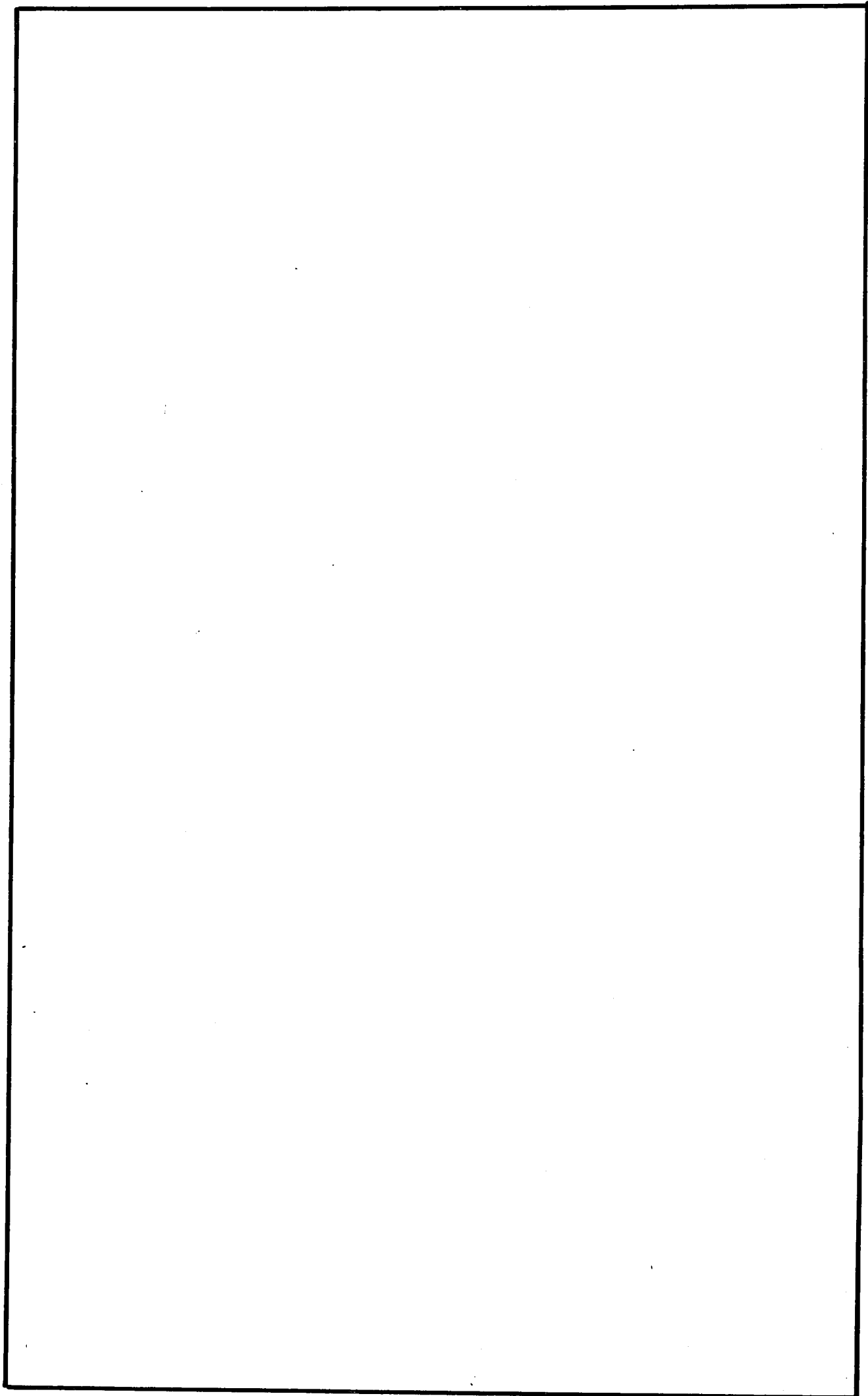


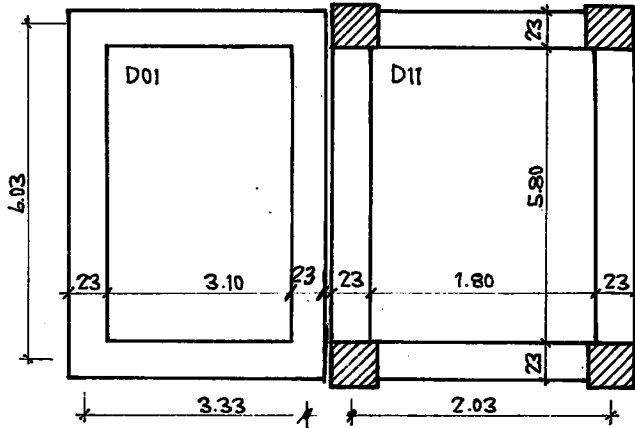
B-B KESİTİ



A-A KESİTİ





30-6.3-15-2 HÜCRELİ ÇIKIŞLAR KULELİTRANSFORMATÖR BİNASI BETONARME HESAPLARI

Malzeme St1 B160

Yük: Döşeme zati = $0.12 \times 2.4 = 0.288 \text{ t/m}^2$

Sıva = 0,057 "

çatı = 0,100 "

kar = 0,075 "

 $q = q = 0.520 \text{ t/m}^2$ D01 DÖŞEMESİ:

$$\epsilon = \frac{6.03}{3.33} = 1.81 \text{ tek doğrultu.}$$

$$M = \frac{0.520 \times 3.33^2}{8} = 0.72 \text{ tm} \quad h = 10 \text{ cm.}$$

$C_b = 48 \text{ kg/cm}^2 \quad f_e = 5.80 \text{ cm}^2$
 donatı $\phi 10/13^5$ (1 düz 1 plye)
 diğer doğrultu tenzi $\phi 8/25$

D11 DÖŞEMESİ:

$$\epsilon = \frac{6.03}{2.03} = 2.97 \text{ tek doğrultuda.}$$

$$h = 10 \text{ cm} \quad C_b = 27 \text{ kg/cm}^2 \quad f_e = 2.09 \text{ cm}^2$$

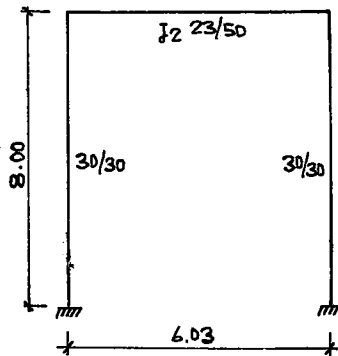
$$M = \frac{0.520 \times 2.03^2}{8} = 0.27 \text{ tm.}$$

donatı $\phi 8/18$ (1 plye düz)diğer doğrultu tenzi $\phi 8/25$ SACAK TAHKİKİ:

$$M = \frac{0.520 \times 0.62^2}{2} = 0.10 \text{ tm.}$$

donatı $\phi 8/18$ ÇERÇEVE HESABI:

sistem her iki istikamette çerçeve olarak hesaplanacak.

kiriş atalet momenti: $b = 2.25 d + b_1 = 2.25 \times 12 + 23 = 50 \text{ cm.}$

$$\frac{b_0}{b} = \frac{23}{50} = 0.46$$

$$\frac{d}{d_0} = \frac{12}{50} = 0.24$$

$$M = 1.87 \quad J_2 = \frac{50 \times 5.0^3}{1.87} = 33.42 \text{ dm}^4$$

$$J_1 = \frac{3.0^4}{12} = 6.75 \text{ dm}^4$$

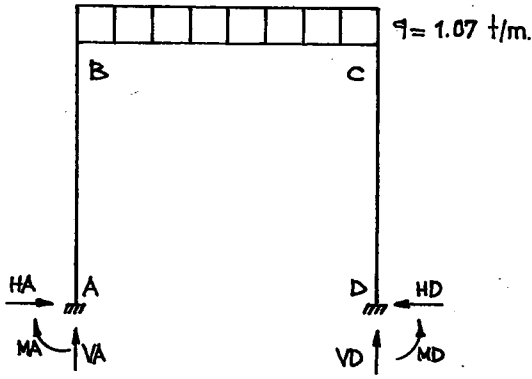
$$K = \frac{J_2}{J_1} \cdot \frac{h}{l} = \frac{33.42}{6.75} \cdot \frac{8.00}{6.03} = 6.6$$

$$N_1 = 6.6 + 2.0 = 8.6$$

$$N_2 = 6 \times 6.6 + 1 = 40.6$$

$$\frac{54}{72}$$

ZATI YÜK :



$$\begin{aligned} \text{yük : döşemeden} &= 0,5 \times 0,520 \times 2,03 = 0,530 \text{ t/m} \\ \text{Saçaktan} &= 0,50 \times 0,520 = 0,260 \text{ " } \\ \text{Kiriş zati} &= 0,23 \times 0,50 \times 2,1 = 0,240 \text{ " } \\ &= 1,07 \text{ t/m} \end{aligned}$$

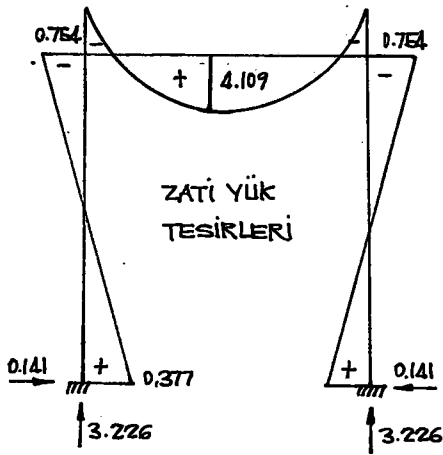
$$M_A = M_D = \frac{1,07 \times 6,03^2}{12 \times 8,6} = 0,377 \text{ tm.}$$

$$M_B = M_C = \frac{1,07 \times 6,03^2}{6,86} = 0,754 \text{ tm.}$$

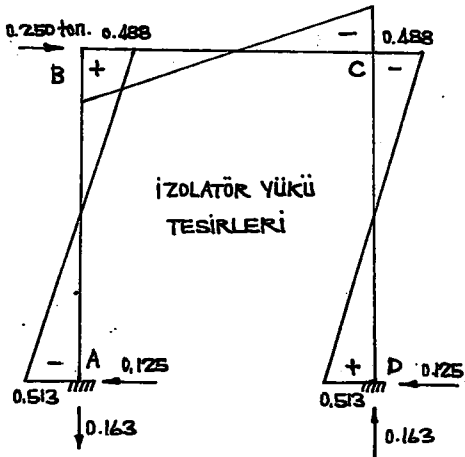
$$M_{\max} M = \frac{1,07 \times 6,03^2}{8} - 0,754 = 4,109 \text{ tm.}$$

$$V_A = V_D = \frac{1,07 \times 6,03}{2} = 3,226 \text{ ton.}$$

$$H_A = H_D = \frac{3 \times 0,377}{8,00} = 0,141 \text{ ton.}$$



İZOLATÖR YÜKÜ :



$$P = 0,250 \text{ ton.}$$

$$\begin{aligned} M_A & \left. \begin{aligned} &= - \\ &= + \end{aligned} \right\} = \pm \frac{0,25 \times 8,00}{2} \cdot \frac{1+3 \times 6,6}{40,6} = \begin{cases} -0,513 \\ +0,513 \end{cases} \\ M_D & \end{aligned}$$

$$\begin{aligned} M_B & \left. \begin{aligned} &= + \\ &= - \end{aligned} \right\} = \pm \frac{0,25 \times 8,00}{2} \times \frac{3 \times 6,6}{40,6} = \begin{cases} +0,488 \\ -0,488 \end{cases} \\ M_C & \end{aligned}$$

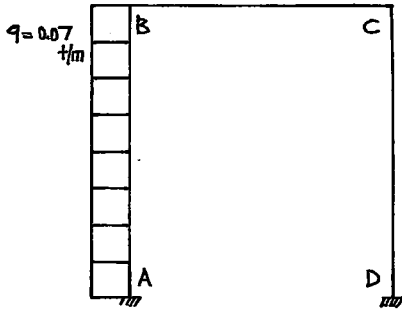
$$V_A = V_D = \frac{2 \times 0,488}{6,03} = 0,163$$

$$H_A = H_D = \frac{0,250}{2} = 0,125$$

TAM RÜZGÂR :

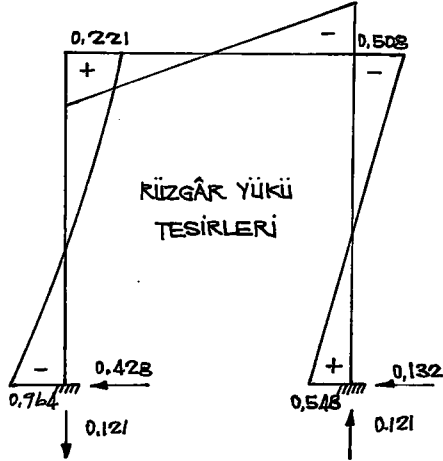
$$\text{RÜZGÂR YÜKÜ : } W = 1,2 \times 50 = 60 \text{ kg/m}^2$$

$$Q = 60 \times \frac{2,26}{2} \approx 70 \text{ kg/m.}$$



$$\begin{aligned} \left. \begin{array}{l} M_A \\ M_D \end{array} \right\} &= \frac{0,07 \times 8,0^2}{4} \left(-\frac{3+6,6}{6 \times 8,6} \mp \frac{1+4 \times 6,6}{40,6} \right) = \begin{cases} -0,964 \text{ tm.} \\ +0,548 \text{ tm.} \end{cases} \end{aligned}$$

$$\begin{aligned} \left. \begin{array}{l} M_B \\ M_C \end{array} \right\} &= \pm \frac{0,07 \times 8,0^2}{4} \left(-\frac{6,6}{6 \times 8,6} \pm \frac{2 \times 6,6}{40,6} \right) = \begin{cases} +0,221 \text{ tm.} \\ -0,508 \text{ tm.} \end{cases} \end{aligned}$$



$$V_A = V_D = \frac{0,07 \times 6,6 \times 8,0^2}{6,03 \times 40,6} = 0,121 \text{ ton.}$$

$$H_D = \frac{0,07 \times 8,00 (3+2 \times 6,6)}{8 \times 8,6} = 0,132 \text{ ton.}$$

$$H_A = -(0,07 \times 8,00 - 0,132) = -0,428 \text{ ton.}$$

KII ÇERÇEVE KIRIŞ HESABI:

$$G_b/b_e = 50/1400$$

$$M_{max} = 410,9 \text{ tcm.}$$

$$\psi = \frac{d}{h} = \frac{12}{47} = 0,26$$

$$i_3 = 0,797 \quad i_6 = 137$$

$$b = \frac{137 \times 410,9}{47^2} = 25,5 \text{ cm} < b_{max} = 4,5 \times 12 + 23 = 77 \text{ cm.}$$

$$f_e = \frac{0,797 \times 410,9}{47} = 6,97 \text{ cm}^2$$

donatı üstte 2φ10

altta 4φ16 (2Pilye)

MESNET TAHKİKİ:

$$X_{max} = -75,4 - 48,8 - 50,8 = -175 \text{ tcm.}$$

$$K_2 = 47 \sqrt{\frac{23}{175}} = 17,4 \rightarrow C_b = 30 \text{ Kğ/cm}^2 \quad K_3 = 0,777$$

$$f_e = \frac{0,777 \times 175}{47} = 2,9 \text{ cm}^2$$

Donatı mevcut 2φ10+2φ16 (5,60 cm²)
Kati ilave istemez

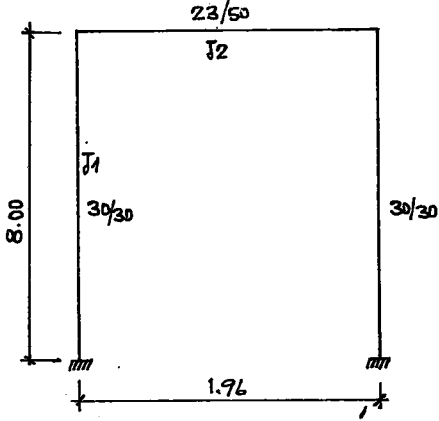
KAYMA TAHKİKİ:

$$C_o = \frac{3510}{23 \times 43} = 3,55 \text{ Kğ/cm}^2 < Z_{oem} = 6 \text{ Kğ/cm}^2$$

etr. φ 8/25

$$Z = k_z \cdot h = 0,919 \times 47 = 43$$

K12 KIRIŞI ÇERÇEVESİ:



$$b = 2,25 \times 12 + 23 = 50 \text{ cm.}$$

$$\frac{b_0}{b} = \frac{23}{50} = 0,46$$

$$I_2 = \frac{5 \times 5^3}{18,7} = 33,42 \text{ dm}^4$$

$$\frac{d}{d_0} = \frac{12}{50} = 0,24$$

$\mu = 18,7$

$$I_1 = \frac{3^4}{12} = 6,75 \text{ dm}^4$$

$$N_1 = 20 + 2 = 22$$

$$K = \frac{33,42}{6,75} \cdot \frac{8,00}{1,96} = 20$$

$$N_2 = 6 \times 20 + 1 = 121$$

ZATI YÜK:

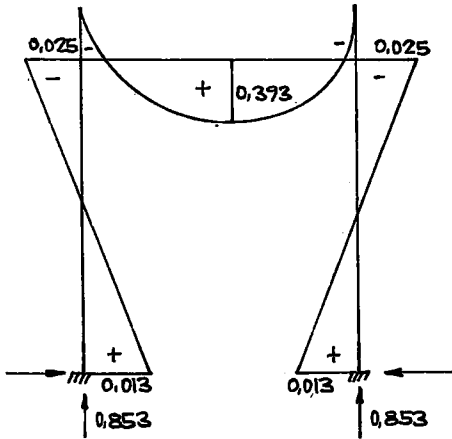


$$\text{Yük: döşemeden} = 0,315 \times 0,520 \times 2,03 = 0,33$$

$$\text{saçaktan} = 0,50 \times 0,520 = 0,26$$

$$\text{Kiriş zati} = 0,23 \times 0,50 \times 2,4 = 0,28$$

$$q = 0,87 \text{ t/m.}$$



$$M_A = M_D = \frac{0,87 \times 1,96^2}{12 \times 22} = 0,013 \text{ tm.}$$

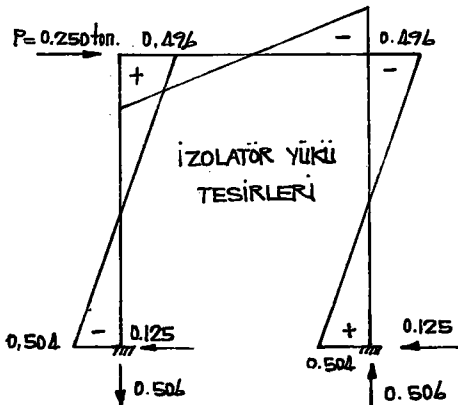
$$M_B = M_C = -\frac{0,87 \times 1,96^2}{6 \times 22} = -0,025 \text{ tm}$$

$$V_A = V_D = \frac{0,87 \times 1,96}{2} = 0,853 \text{ ton.}$$

$$\text{Max } M = \frac{0,87 \times 1,96^2}{8} - 0,025 = 0,393 \text{ tm.}$$

İZOLATÖR YÜKÜ:

$$P = 0,250 \text{ ton.}$$

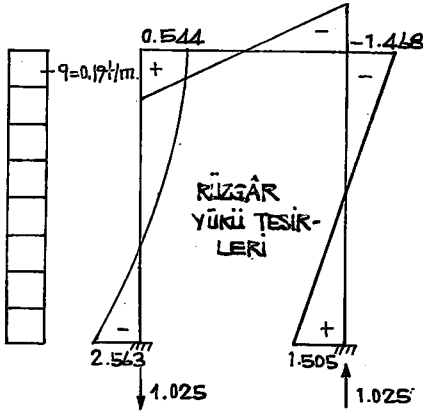


$$\begin{aligned} M_A & \left\{ \begin{aligned} &= \frac{0,25 \times 8}{2} \cdot \frac{1 + 3 \times 20}{121} = -0,504 \text{ tm} \\ &= \frac{0,25 \times 8}{2} \cdot \frac{1 + 3 \times 20}{121} = +0,504 \text{ tm.} \end{aligned} \right. \end{aligned}$$

$$\begin{aligned} M_B & \left\{ \begin{aligned} &= \frac{0,25 \times 8}{2} \cdot \frac{3 \times 20}{121} = +0,496 \text{ tm.} \\ &= \frac{0,25 \times 8}{2} \cdot \frac{3 \times 20}{121} = -0,496 \text{ tm.} \end{aligned} \right. \end{aligned}$$

$$V_A = -V_D = \frac{2 \times 0,496}{1,96} = 0,506 \text{ ton.}$$

RÜZGÂR YÜKÜ :



$$W = 1.2 \times 50 = 60 \text{ kg/cm}^2$$

$$q = 60 \times \frac{6.26}{2} = 0.170 \text{ t/m.}$$

$$M_A \begin{cases} \\ \\ \end{cases} = \frac{0.17 \times 8.0^2}{4} \left(-\frac{3+20}{4 \times 22} \mp \frac{1+4 \times 20}{121} \right) = \begin{cases} -2.563 \\ +1.505 \end{cases}$$

$$M_B \begin{cases} \\ \\ \end{cases} = \frac{0.17 \times 8.0^2}{4} \left(-\frac{20}{6 \times 22} \mp \frac{2 \times 20}{121} \right) = \begin{cases} +0.544 \\ -1.468 \end{cases}$$

$$V_A = -V_D = \frac{0.17 \times 20 \times 8.0^2}{1.96 \times 121} = 1.025$$

K12-KIRISI DONATI HESABI :

$$M_{max} = 39.3 \text{ tcm.}$$

$$f_e = \frac{0.797 \times 39.3}{47} = 0.66 \text{ cm}^2$$

min. teçizat üstte 2φ10
Altta 3φ10 (1 Pilye)

C MESNET TAHKİKİ : $X = -2.5 - 49.6 - 146.8 = -198.9 \text{ tcm.}$

$$k_2 = 47 \sqrt{\frac{23}{198.9}} = 16 \rightarrow C_b = 32 \text{ kg/cm}^2 \quad k_3 = 0.781$$

$$f_e = \frac{0.781 \times 198.9}{47} = 3.3 \text{ cm}^2$$

Mevcut 2φ10 + 1φ10 = 2.36 cm²
İlave 2φ10 = 1.57 cm²
3.93 cm²

B MESNETİ : $X = +54.4 + 49.6 - 2.5 = 101.5$

$$f_e = \frac{0.781 \times 101.5}{47} = 1.67 \text{ cm}^2$$

mevcut: 3φ10 = 2.36
İlave 2φ10 = 1.57
3.93 cm²

KOLON HESABI :

$$N_{zati} \approx 3.226 + 0.853 = 4.079 \text{ ton}$$

$$M_{xzati} = 0.377 \text{ t.m.} \quad M_y = 0.013$$

$$N_{izol.} = 0.163 + 0.506 = 0.669 \text{ "}$$

$$M_{xizol.} = 0.513 \text{ "} \quad M_y = 0.504$$

$$N_{rüzg.} = 1.025 \text{ "}$$

$$M_{xrüzg.} = \text{---} \text{ "} \quad M_y = 1.505$$

$$Kolon zati (0.30^2 \times 8.00) \times 2.4 = 1.728 \text{ "}$$

$$M_{max} = 0.87 \text{ t.m.} \quad M_{y_{max}} = 2.022$$

$$N = 7.501 \text{ ton.}$$

$$C_0 = \frac{7501}{30 \times 30} = 8.33 \text{ kg/cm}^2$$

$$\gamma = \frac{0.87}{7.50 \times 0.30} + \frac{2.022}{7.50 \times 0.30} = 1.30 \rightarrow \mu = \mu_0 = 0.004$$

$$F_e = F_e' = 0.004 \times 30 \times 30 = 3.6 \text{ cm}^2 \rightarrow F_e + F_e' = 2 \times 3.6$$

donati 4φ16 (8.04 cm²) = 7.20 cm²
Etr. φ8/20

6

FLANBAŖ TAHKIKI:

$$S = \frac{800}{30} = 27 \rightarrow w = 1.48$$

$$P_{cm} = \frac{(K_b \cdot F_b + C_s \cdot F_e)}{3W}$$

$$K_b = 144$$

$$F_b = 30 \times 30 = 900 \text{ cm}^2$$

$$C_s = 2400$$

$$F_e = 8.04 \text{ cm}^2$$

$$P_{cm} = \frac{144 \times 900 + 2400 \times 8.04}{3 \times 1.48} = 33.535 \text{ ton} > N = 7.501 \text{ ton}$$

TEMEL HESABI:

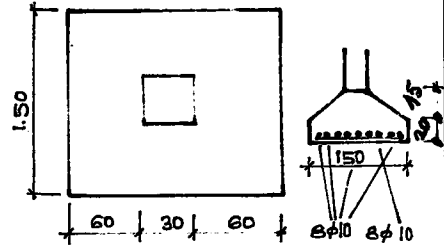
$$N = 11.53 \text{ ton}$$

$$M = 2.964 \text{ tm}$$

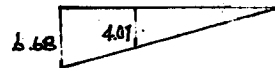
$$C_{zem} = 15 \text{ t/m}^2$$

$$e = \frac{M}{N} = \frac{2.022}{7.50} = 0.27 \text{ cm}$$

$$C_3 = \frac{7.50}{1.50 \times 1.50} \left(1 \mp \frac{6 \times 0.25}{1.50} \right) = \begin{cases} 6.68 \text{ t/m}^2 \\ 0.00 \end{cases}$$



$$C_3' = (15 - 2) \times 1.00 = 13 \text{ t/m}^2 > 6.68$$



$$M = \frac{1}{2} \times 4.01 \times 0.60 \times \frac{0.60}{3} + \frac{1}{2} \times 6.68 \times 0.60 \times \frac{2}{3} \times 0.60 = 1.04 \text{ t/m}$$

$$K_2 = 25 \sqrt{\frac{150}{104}} = 30$$

$$c_b = 16$$

$$K_3 = 0.751$$

$$f_e = \frac{0.751 \times 104}{25} = 3.12 \text{ cm}^2$$

Donatı 8φ10

Heriki istikamette.

ENERJİ VE TABİİ KAYNAKLAR
BAKANLIĞI

İLLER BANKASI ENERJİ DAİRESİ REİSLİĞİ

İLLER BANKASI
BÖLGE MÜDÜRLÜĞÜ

YÜKLENİCİ

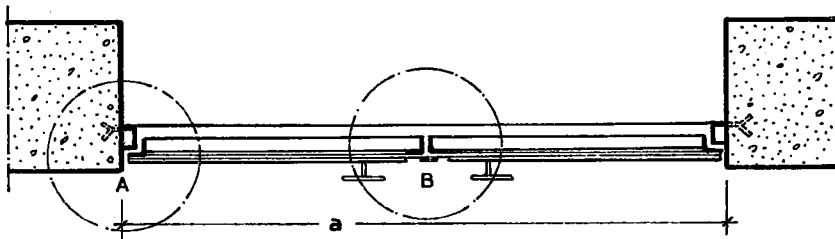
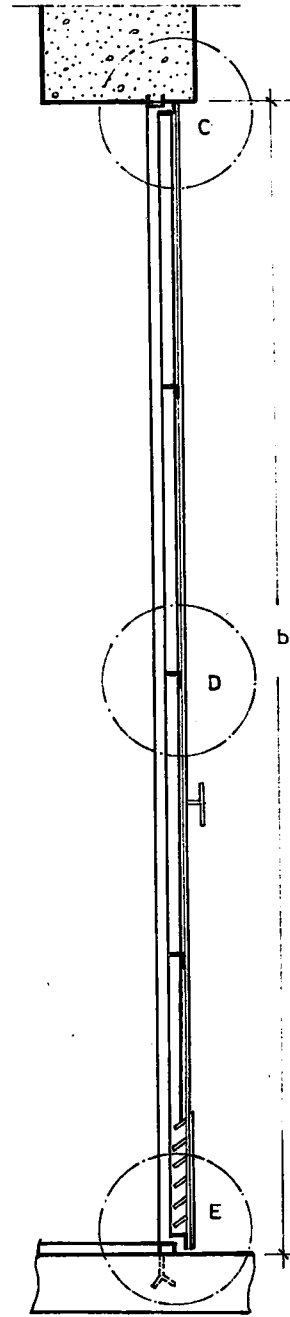
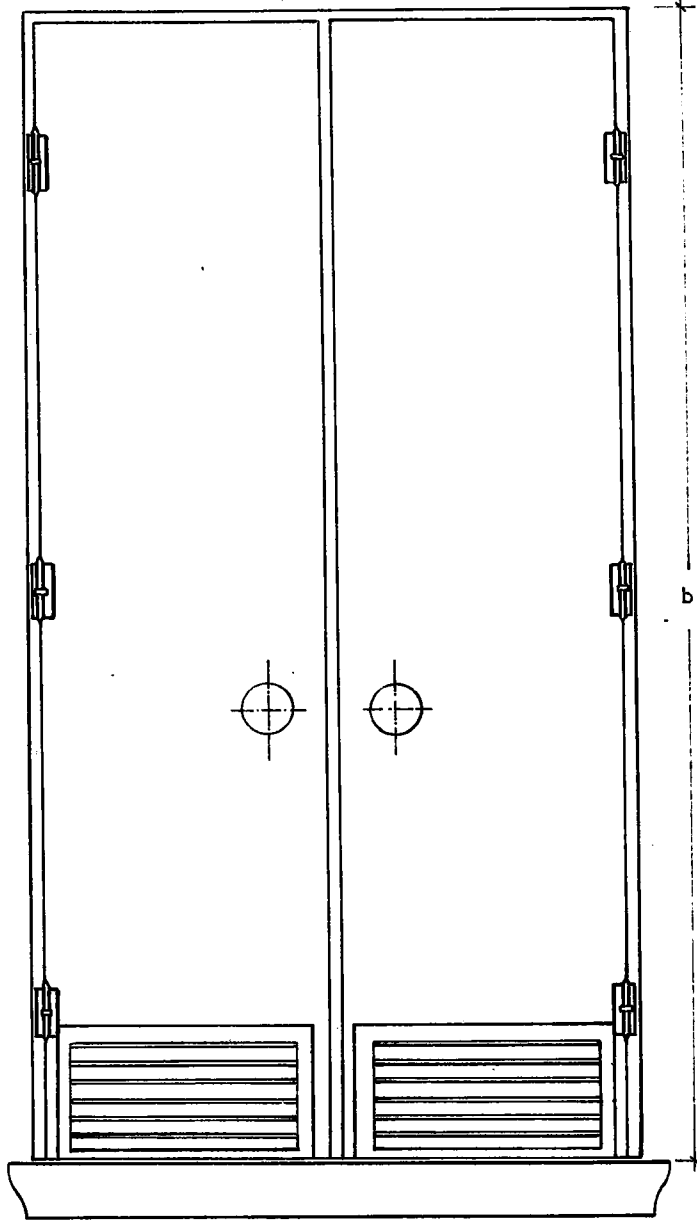
73

58

DEĞİŞİKLİK

DEĞİŞİKLİK SEBEBİ					
DEĞİŞİKLİĞE AİT PROJİYİ YAPANIN	ADI VE SOYADI	ÜNVANI	ODA NO.	TARİH	İMZA
TRAFO BİNALARI KAPI, PENCERE PANCUR, KABLO KANALI, TEL KAFES KAPI V.S DETAY PLÂNLARI					ÖLÇEK:
					NOLU PLÂN İPTÂL EDİLDİ
PROJİYİ YAPAN					NOLU PLÂN İPTÂL EDİLDİ
					İMZA
YÜK. MÜH. HÜSEYİN BODUR ODA NO: 343		8_10_1973			ARŞİV KAYIT NO:
ÇİZEN: İLKNUR ŞENİZ					

0.50 m.²



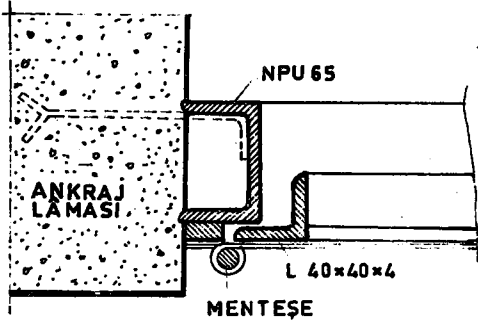
- ŞEBEKE TRAF0 MERKEZLERİNDE VE TRAF0 KAPISINDA
- ŞEBEKE TRAFOLARINDA VE GİRİŞ KAPISINDA
- TEVZİ MERKEZLERİNDE VE GİRİŞ KAPISINDA

(a) cm.

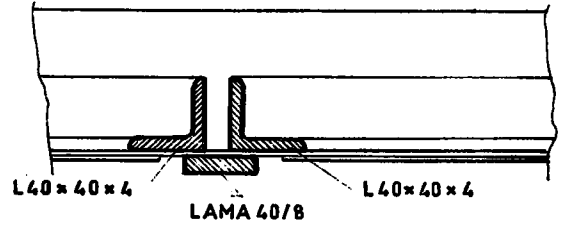
(b) cm

.....
.....
.....

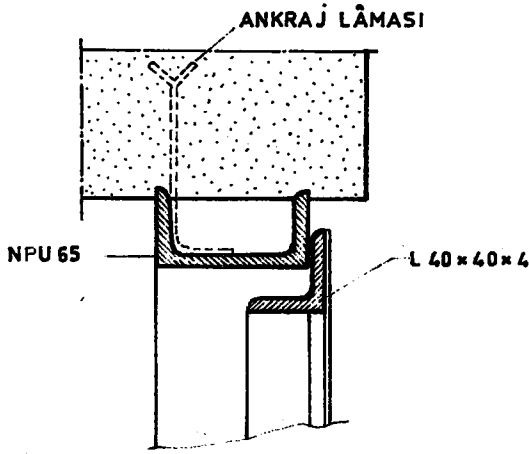
TRAF0 KAPI PLÂNI
ÖLÇEK:1/15



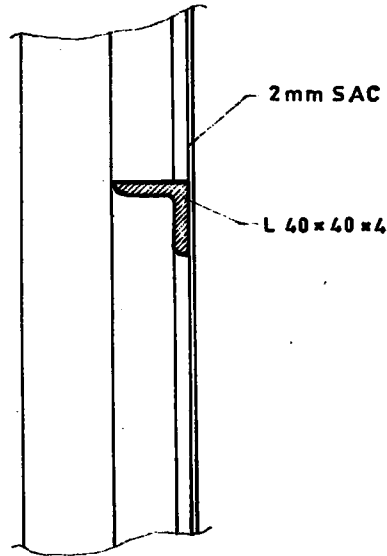
A DETAYI. ÖLÇEK: 1/4



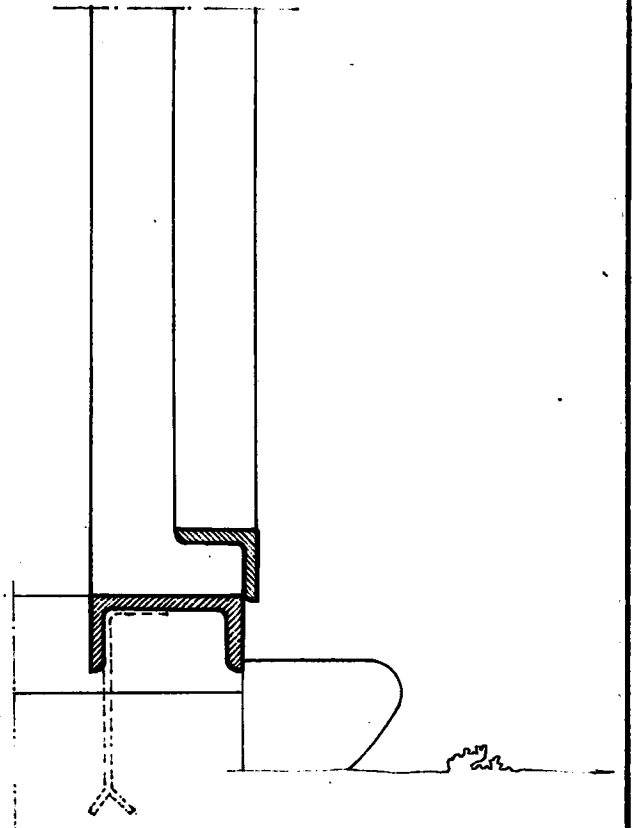
B DETAYI ÖLÇEK: 1/4



C. DETAYI ÖLÇEK: 1/4

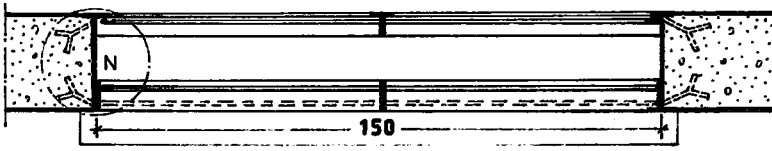
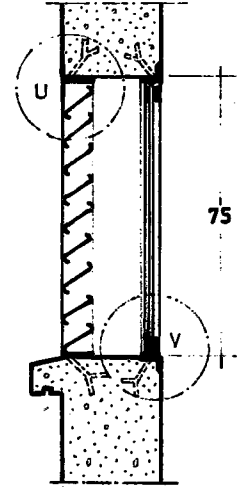
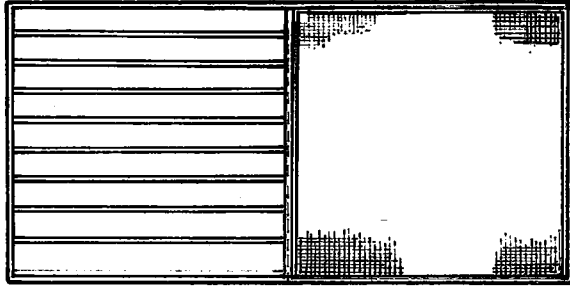


D DETAYI ÖLÇEK: 1/4



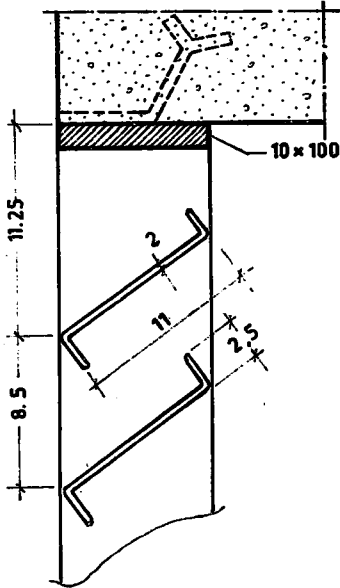
E DETAYI ÖLÇEK: 1/4

TRAFÖ KAPI DETAYLARI

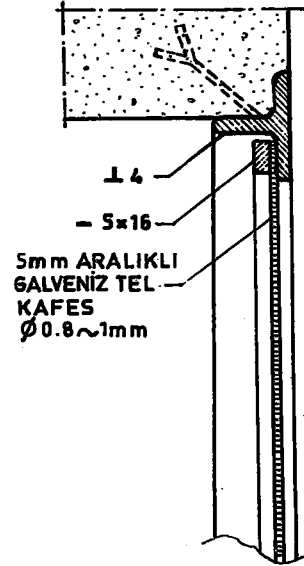


150 x 75 TRAF0 PENCERE TİPİ ÖLÇEK: 1/20

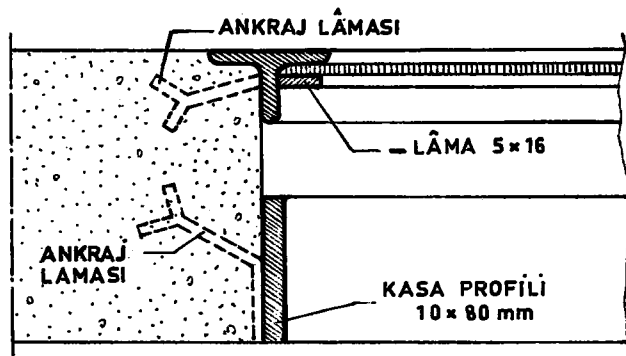
U DETAYI ÖLÇEK: 1/4



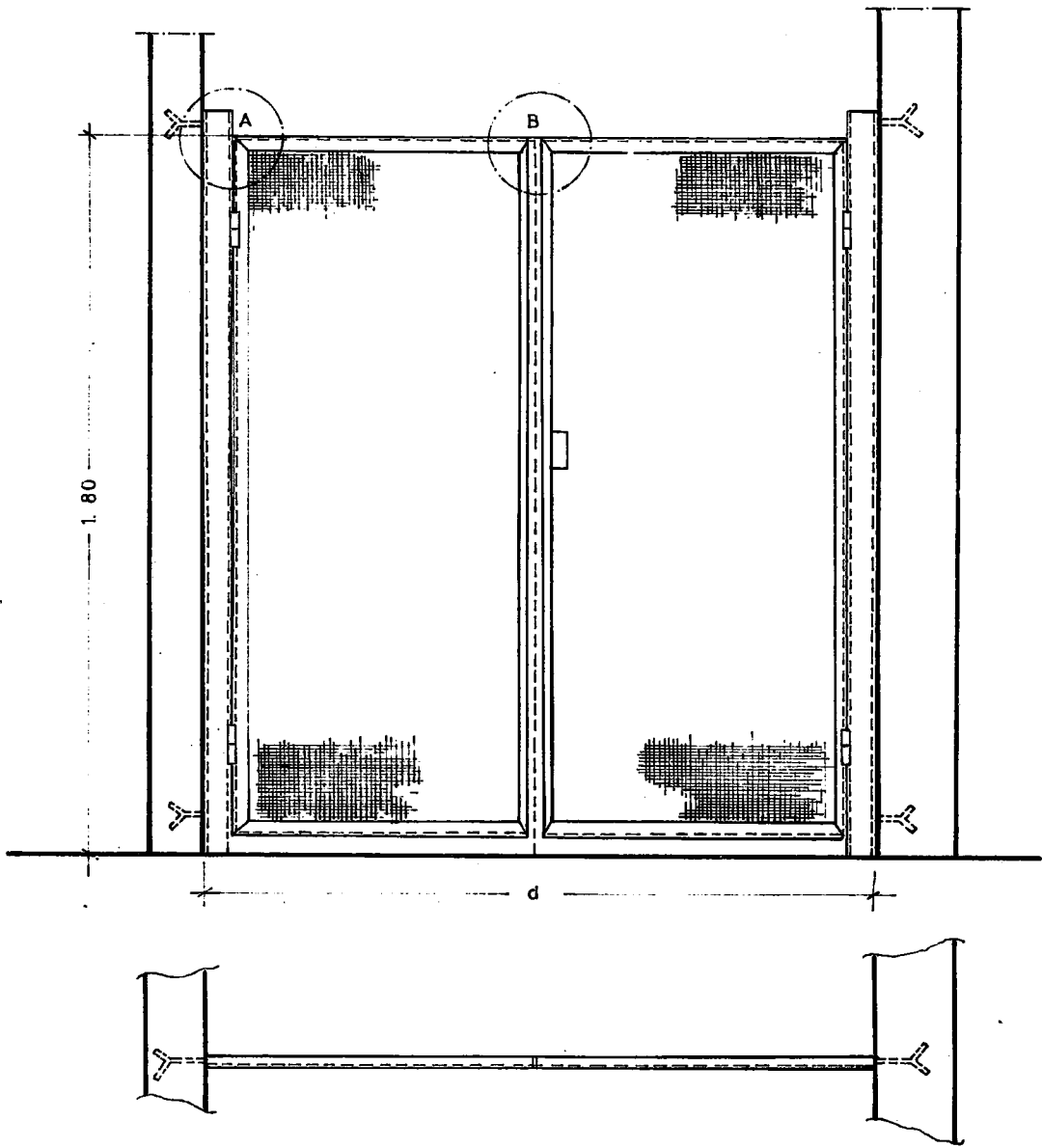
V DETAYI ÖLÇEK: 1/4



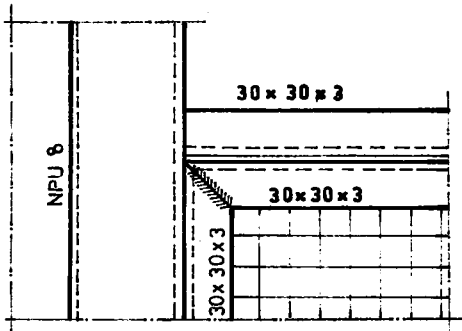
N DETAYI ÖLÇEK: 1/4



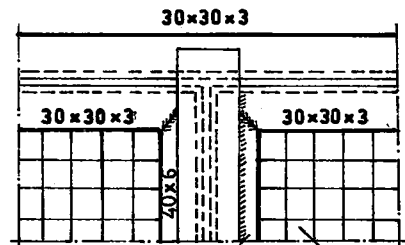
TRAF0 PANCUR PLÂNI VE DETAYLARI



- SEBEKE TRAFOLARINDA VE	30 KV LUK HÜCRELERDE	180 İLA 187
- " " "	15 KV LUK	" 120 İLA 131
- ANA TRAFÖ MERKEZLERİ VE	30 KV LUK	" cm.
- " " "	" 15 KV LUK	" cm.



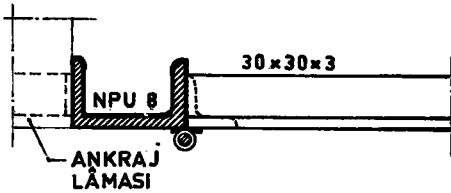
A DETAYI ÖLÇEK: 1/5



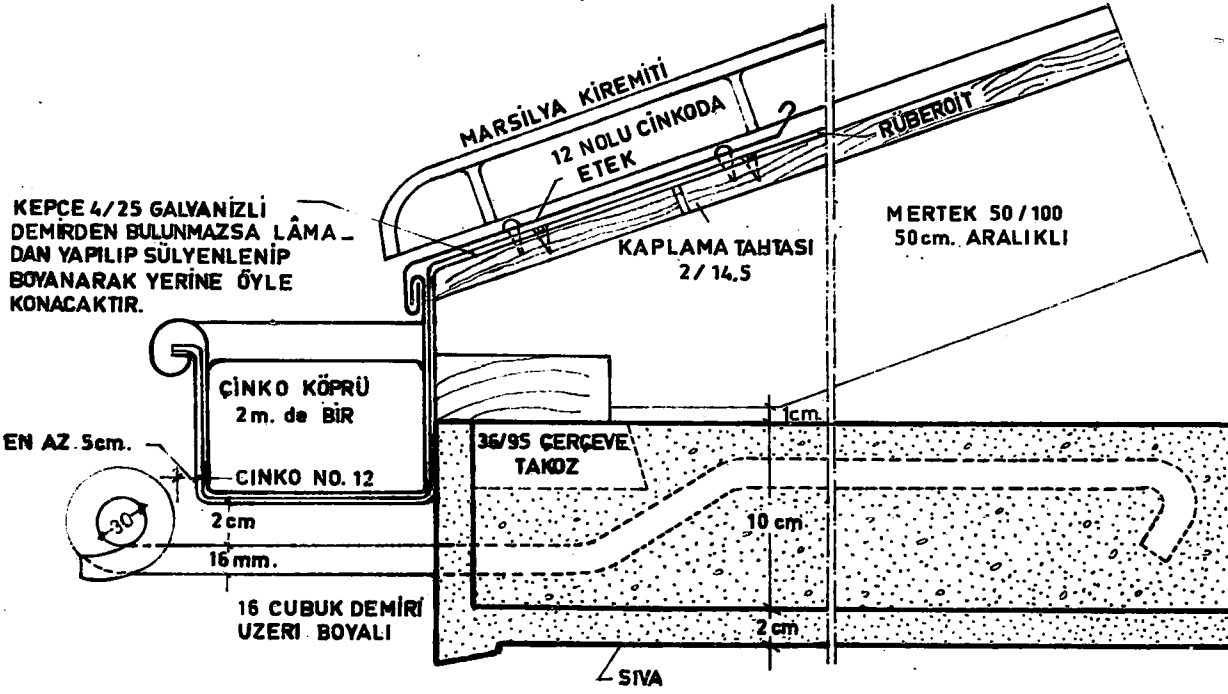
KAYNAK

30 mm ARALIKLI
3mm. KALINLIĞINDA
KAFES TELİ

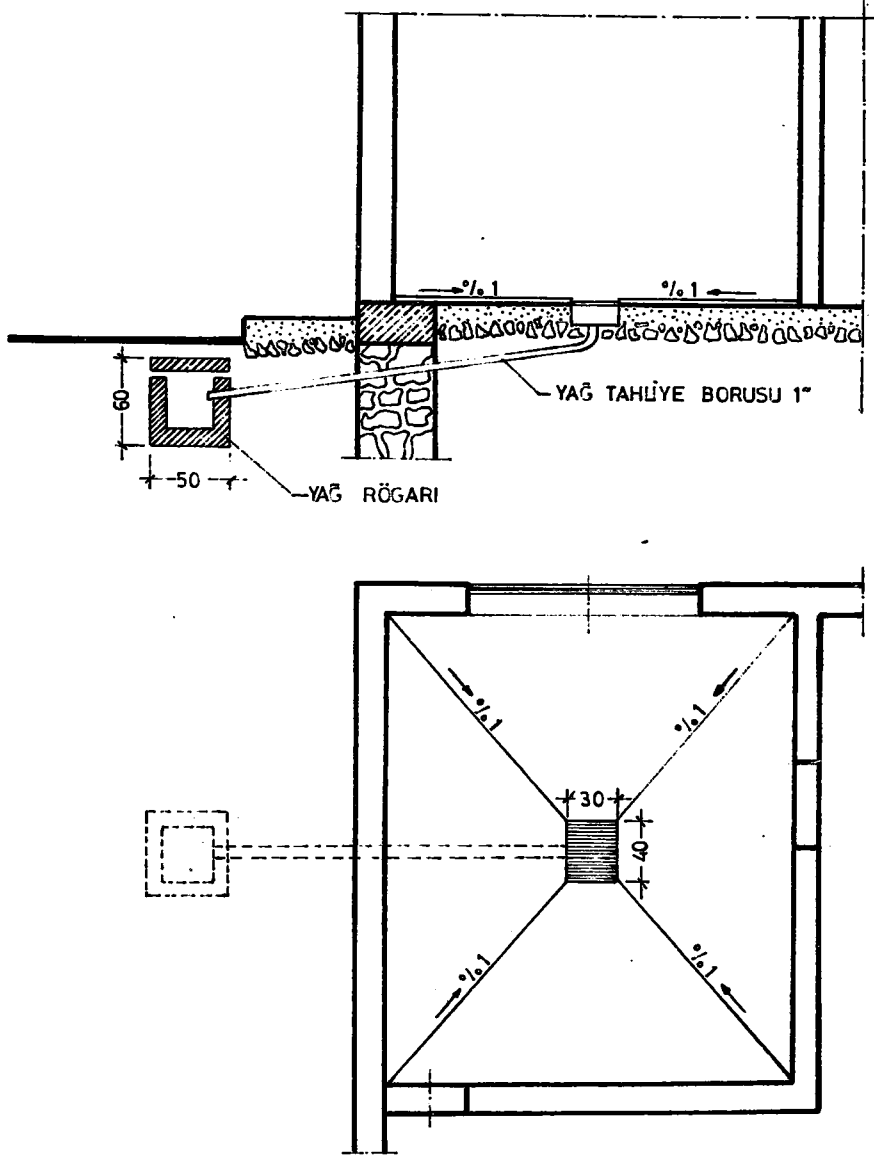
B DETAYI ÖLÇEK: 1/5

ANKRAJ
LAMASI

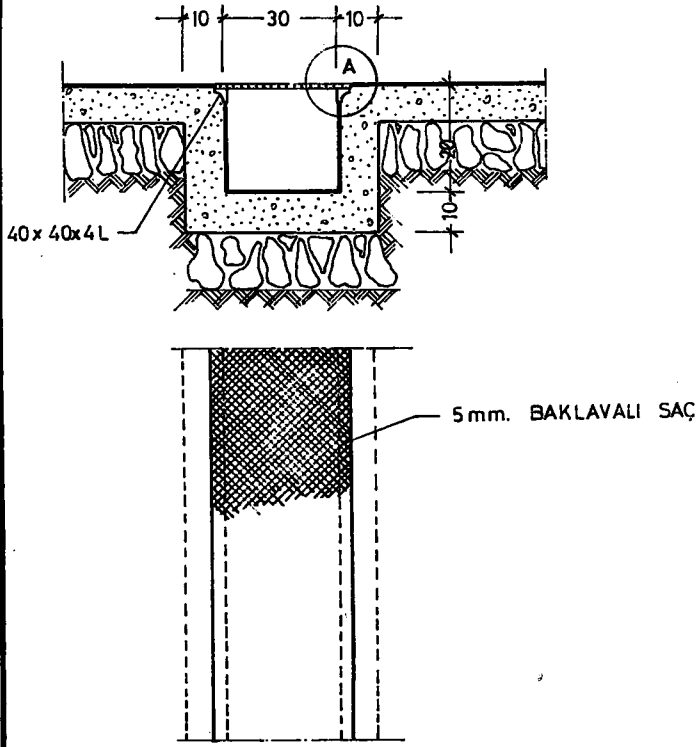
TEL KAFES KAPILAR VE DETAYLARI



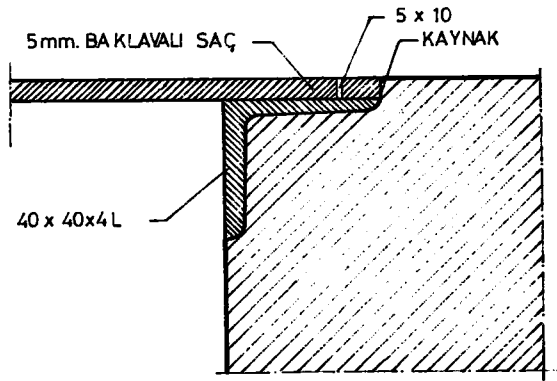
ÇATI DETAYI
ÖLÇEK: 1/4



TRAF0 YAĞ ÇUKURU DETAYI
ÖLÇEK: 1/50

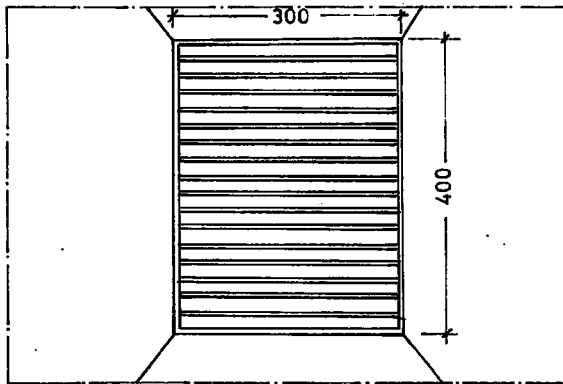
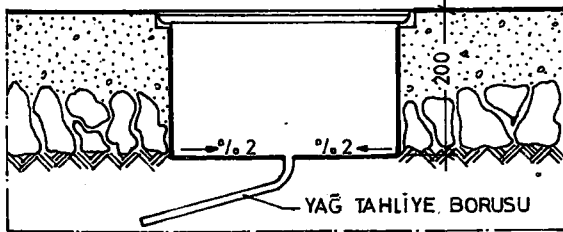


KABLO KANALI DETAYI

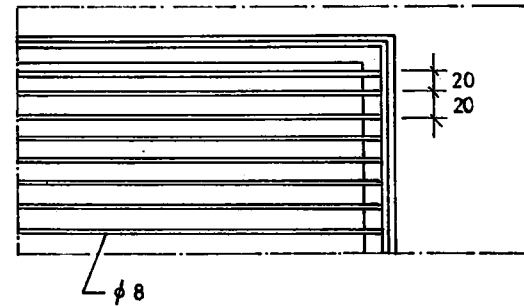
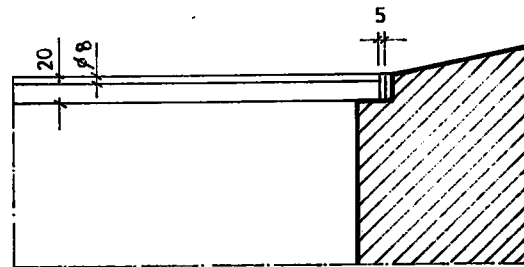


A DETAYI ÖLÇEK: 1/2,5

KABLO KANALI DETAYI



YAĞ ÇUKURU DETAYI ÖLÇEK: 1/10



IZGARA DETAYI ÖLÇEK: 1/5

YAĞ ÇUKURU DETAYI