



EJERCICIO

Nombre del Alumno: José Trinidad López Domínguez

Nombre del tema:

ANALISIS DE PRECIOS UNITARIOS CIMENTACIONES

Parcial: 1°

Nombre de la Materia:

Costos Y presupuestos I

Nombre del profesor: Arq. Abraham Alfonso Andrade

Nombre de la Licenciatura: Arquitectura

Cuatrimestre: 5to

Fecha: Comitán de Domínguez a 23 de enero de 2025

DETALLE DE ZAPATA CORRIDA

ESCALA: 1:10

ACOTACIONES: METROS

CASTILLO DE
15x20 cm.

4 ϕ #3, E#2@15cm

f'c = 200 kg/cm²

0.15

0.80

NIVEL DE RELLENO

0.20

CADENA
DE DESPIANTE
DE 15x20 cm
4 ϕ #3, E#2@15cm
f'c = 200 kg/cm²

0.50

CONTRABRACE
DE 30x50 cm

7 ϕ #3
E#2.5@15cm
f'c = 200 kg/cm²

0.30

ANCLAJE DE
CASTILLO A
ZAPATA

0.35

ZAPATA
 ϕ #3@15cm
A.S.

0.15

PIANTILLA DE
CONCRETO POBRE

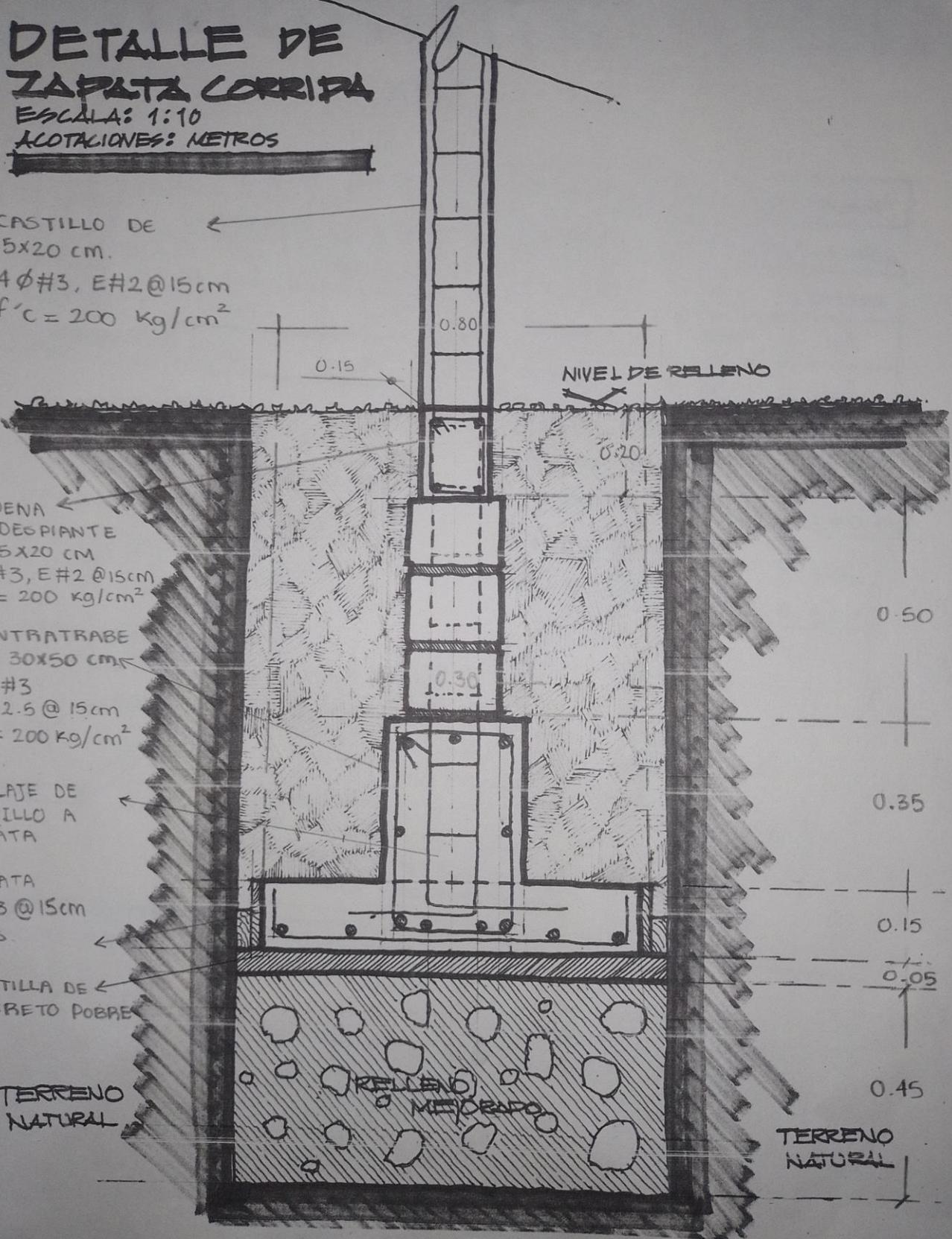
0.05

TERRENO
NATURAL

RELLENO
MEJORADO

0.45

TERRENO
NATURAL



BÁSICOS DEL CONCRETO

CONCRETO $f'_c = 100 \text{ Kg/cm}^2$		
MATERIAL	CANTIDAD	UNIDAD
CEMENTO	5	BULTOS
ARENA	0.633	M^3
GRAVA	0.72	M^3

BUITO DE GRAVA: 8

BUITO DE ARENA: 7

1 BOTE: 19 L = 18 L = 0.018

$\cdot 5 \times 8 = 40 \times 0.018 = 0.72$

$\cdot 5 \times 7 = 35 \times 0.018 = 0.63$

CONCRETO $f'_c = 200 \text{ Kg/cm}^2$		
MATERIAL	CANTIDAD	UNIDAD
CEMENTO	7	BULTOS
ARENA	0.504	M^3
GRAVA	0.756	M^3

BUITO DE GRAVA: 6

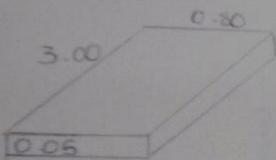
BUITO DE ARENA: 4

1 BOTE: 19 L = 18 L = 0.018

$\cdot 7 \times 6 = 42 \times 0.018 = 0.756$

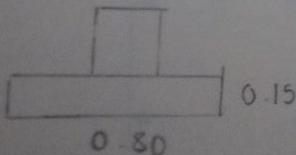
$\cdot 7 \times 4 = 28 \times 0.018 = 0.504$

PIANTILLA
 $f'_c = 100 \text{ Kg/cm}^2$



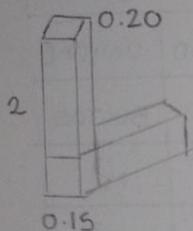
$V = 12 \text{ m}^3$	
Cemento: $5 \times 0.12 \text{ m}^3 = 0.6$	
GRAVA: $0.63 \times 0.12 \text{ m}^3 = 0.0756$	
ARENA: $0.72 \times 0.12 \text{ m}^3 = 0.0864$	
MAS 10%	TOTAL
$0.6 \times 1.10 = 0.66$	0.66
$0.0756 \times 1.10 = 0.08316$	0.08316
$0.0864 \times 1.10 = 0.09504$	0.09504

ZAPATA Y CONTRATEBE
 $f'_c = 200 \text{ Kg/cm}^2$



$V = 0.675 \text{ m}^3$	
Cemento: $7 \times 0.675 \text{ m}^3 = 4.725$	
GRAVA: $0.756 \times 0.675 \text{ m}^3 = 0.516375$	
ARENA: $0.504 \times 0.675 \text{ m}^3 = 0.3402$	
MAS 10%	TOTAL
$4.725 \times 1.10 = 5.1975$	5.1975
$0.516375 \times 1.10 = 0.5680125$	0.5680125
$0.3402 \times 1.10 = 0.37422$	0.37422

CADENA DE DESPIANTE
Y CASTILLO.



$$V = 0.114 \text{ m}^3$$

$$\text{CEMENTO: } 7 \times 0.114 \text{ m} = 0.798$$

$$\text{GRAVA: } 0.765 \times 0.114 \text{ m}^3 = 0.08721$$

$$\text{ARENA: } 0.504 \times 0.114 \text{ m}^3 = 0.057456$$

MAS 10%	TOTAL
$0.798 \times 1.10 = 0.8778$	0.8778
$0.08721 \times 1.10 = 0.095931$	0.095931
$0.057456 \times 1.10 = 0.0632016$	0.0632016

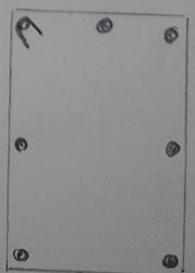
VARILLA	#	Kg/m ²
ALAMBROÓN	2	0.25
5/16"	2.5	0.38
3/8"	3	0.56
1/2"	4	0.99
5/8"	5	1.55
3/4"	6	2.23
7/8"	7	3.042
1"	8	3.97

• ZAPATA
 $\phi \#3 @ 15 \text{ cm A.S.}$

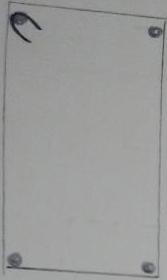
VARILLA	M.L.	Kg/M	PESO	15%	TOTAL
3		0.56			

• CONTRABE
 $7 \phi \#3, E \#2.5 @ 15 \text{ cm}$

VARILLA	ML	Kg/M	PESO	15%	TOTAL
3	7	0.56	3.92	0.588	4.508
2.5					



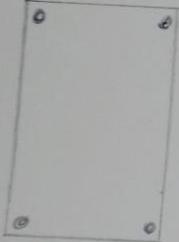
CADENA DE DESPIANTE DE 15x20 CM
 4Ø#3, E#2 @ 15 cm



VARILLA	ML	KG/M	PESO	15%	TOTAL
3	4	0.56	2.24	0.336	2.576
2	4.8	0.25	1.2	0.18	1.38
TOTAL					3.956
ALAMBRE DE AMARRE 5%					0.1978
COSTO MOXKG \$15 X 4.1538					4.1538

= \$62.307

CASTILLO
 4Ø#3, E#2 @ 15cm



VARILLA	ML	KG/M	PESO	15%	TOTAL
3	4	0.56	2.24	0.336	2.576
2	4.8	0.25	1.2	0.18	1.38
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