

# REGISTROS DE PERFORACIÓN

**PROYECTO :** CASA MANABÍ Y VARGAS  
**LOCALIZ. :** CALLE MANABÍ Y VARGAS, CENTRO HISTÓRICO DE QUITO - QUITO - PROV. PICHINCHA  
**SOLICITA :** ARQ. JUAN FRANCISCO CAZORLA  
**REALIZADO :** ING. CARLOS ORTIZ  
**FECHA :** 19 de febrero del 2021



**OPERADOR:** S. Paucar  
**EQUIPO DE PERFORACIÓN:** Manual SPT  
**MARTILLO TIPO:** Safety ( 63.5 Kg)

**SONDEO No.:** P-3 PATIO

**NIVEL :** -0,18 m

Hoja 1 de 1

**NIVEL FREÁTICO:** -

PROF. (m)	NIVEL (m)	MUESTREO		W %	CONTENIDO DE HUMEDAD Y LÍMITES DE ATTERBERG	N SPT vs PROFUNDIDAD	GRANULOMETRÍA			LÍMITES			SUCS	PERFIL	DESCRIPCIÓN			
		P	No				% pasa			L.L.	L.P.	I.P.						
0,0	-0,2	P	3				4	40	200									
1,0	-1,2	P	3	24			29	98	90	65	33	28	5	ML		Limo arenoso de baja compresibilidad, color café claro, muy húmedo de consistencia media a dura.		
2,0	-2,2	P	3	9														
3,0	-3,2	P	3	21														
4,0	-4,2	P	3	78			22	97	84	50	NP	NP	NP	ML				
5,0	-5,2	P	3	73														
6,0	-6,2	P	3	71														
<b>FIN DEL SONDEO</b>																		

**SIMBOLOGÍA:** ◆ LÍMITE PLÁSTICO ▲ LÍMITE LÍQUIDO ◆ % DE HUMEDAD

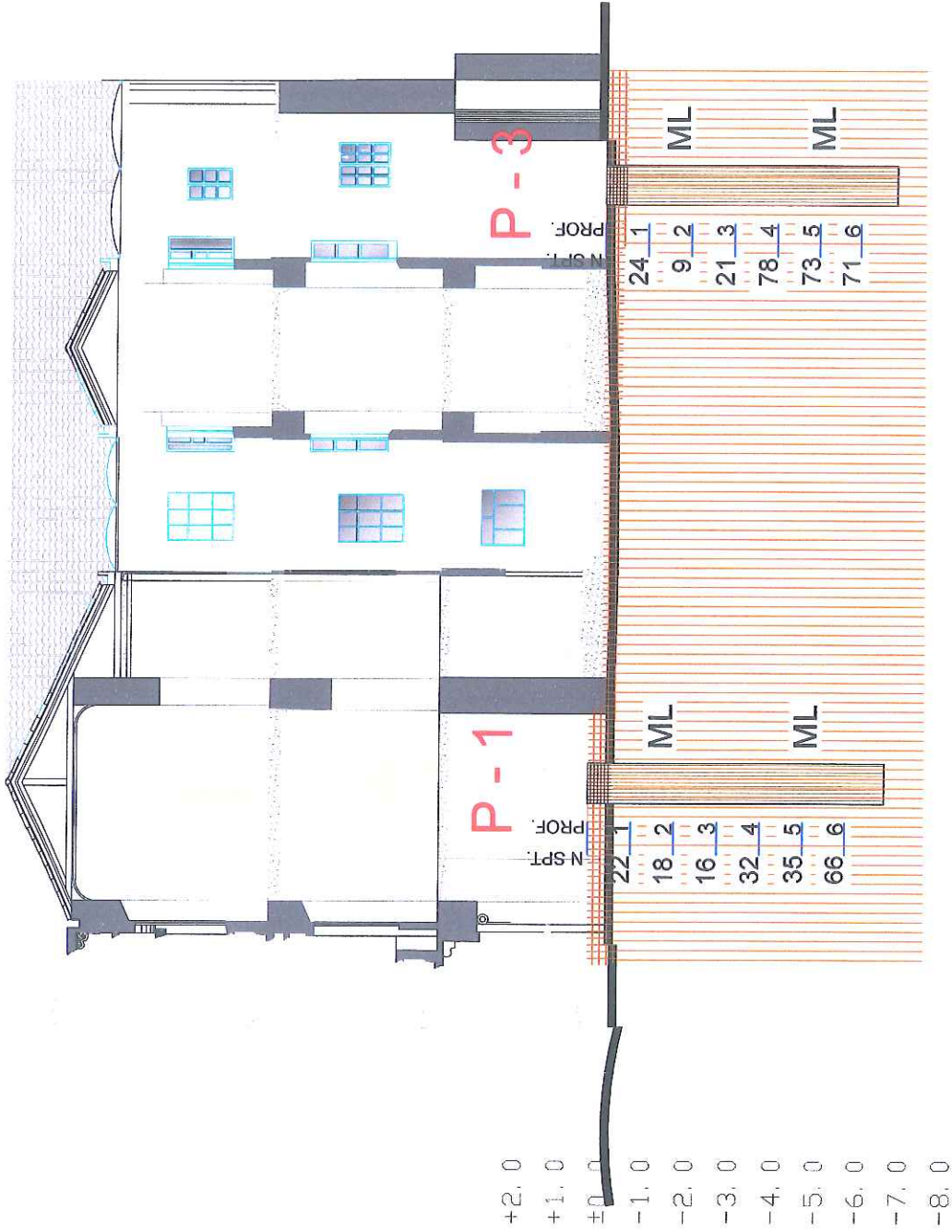


## PERFIL ESTRATIGRÁFICO

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CORTE A-A



**CASA MANABÍ Y VARGAS**  
 CALLE MANABÍ Y VARGAS, CENTRO HISTÓRICO DE QUITO - PROV. PICHINCHA



CONDOMINIO: PERFIL ESTRATIGRÁFICO  
 COORDINADOR DEL PROYECTO: ING. CARLOS ORTIZ  
 ESCALA: S/E  
 FECHA: FEBRERO DEL 2021



## CÁLCULO DE CAPACIDAD DE CARGA

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**PROYECTO :** CASA MANABÍ Y VARGAS  
**LOCALIZACIÓN :** CALLE MANABÍ Y VARGAS, CENTRO HISTÓRICO DE QUITO - QUITO - PROV. PICHINCHA  
**SOLICITA :** ARQ. JUAN FRANCISCO CAZORLA  
**REALIZADO :** ING. CARLOS ORTIZ  
**FECHA :** 22 de febrero del 2021



### ANÁLISIS DE CAPACIDAD DE CARGA POR ASENTAMIENTO EN FUNCIÓN DE " N " (SPT)

$\gamma = 1,60$  t/m<sup>3</sup>  
 $\gamma_{sat} = 1,70$  t/m<sup>3</sup>  
 Nivel Freático: m

PERFORACION: **P-1** LOCAL COMERCIAL CAFETERIA  
 NIVEL: -0,65 m

Prof. (m)	NIVEL m	N (spt)	N60corr	Nprom.	Q(mey)		PROMEDIO t/m <sup>2</sup>	qa (T/m <sup>2</sup> ) LOSAS	ÁNGULO DE FRICCIÓN OSAKI (°)	MÓDULO DE BALASTO	
					t/m <sup>2</sup> 1,00	t/m <sup>2</sup> 2,00		Según Bowles B= 7,50 m		Ksh t/m <sup>3</sup>	Ksv t/m <sup>3</sup>
0,00	-0,65										
1,00	-1,65	22	19,80	16,33	24,49	19,88	22,19	21,72	33,07	61,18	2449,05
2,00	-2,65	18	14,15	12,60	18,89	16,73	17,81	17,46	30,87	305,91	1889,31
3,00	-3,65	16	10,27	10,27	15,40	13,64	14,52	14,81	29,33	458,87	1540,20
4,00	-4,65	32	17,78	17,78	26,68	23,62	25,15	26,65	33,86	2447,28	2667,60
5,00	-5,65	35	19,72	19,72	29,58	26,19	27,89	30,65	34,86	1529,55	2957,55
6,00	-6,65	66	33,94	33,94	50,91	45,08	48,00	54,67	41,05	3670,92	5091,30

$\gamma = 1,60$  t/m<sup>3</sup>  
 $\gamma_{sat} = 1,70$  t/m<sup>3</sup>  
 Nivel Freático: m

PERFORACION: **P-2** PATIO  
 NIVEL: -0,32 m

Prof. (m)	NIVEL m	N (spt)	N60corr	Nprom.	Q(mey)		PROMEDIO t/m <sup>2</sup>	qa (T/m <sup>2</sup> ) LOSAS	ÁNGULO DE FRICCIÓN OSAKI (°)	MÓDULO DE BALASTO	
					t/m <sup>2</sup> 1,00	t/m <sup>2</sup> 2,00		Según Bowles B= 3,50 m		Ksh t/m <sup>3</sup>	Ksv t/m <sup>3</sup>
0,00	-0,32										
1,00	-1,32	19	17,10	14,35	21,52	17,47	19,50	19,09	31,94	30,59	2152,02
2,00	-2,32	13	10,22	10,22	15,33	13,57	14,45	14,16	29,29	122,36	1532,55
3,00	-3,32	30	19,25	19,25	28,88	25,57	27,23	27,77	34,62	183,55	2887,80
4,00	-4,32	52	28,90	28,90	43,35	38,39	40,87	43,30	39,04	1223,64	4334,85
5,00	-5,32	70	39,44	39,44	59,15	52,38	55,77	61,30	43,08	1529,55	5915,25
6,00	-6,32	72	37,03	37,03	55,54	49,18	52,36	59,64	42,21	1835,46	5554,20

**PROYECTO :** CASA MANABÍ Y VARGAS  
**LOCALIZACIÓN :** CALLE MANABÍ Y VARGAS, CENTRO HISTÓRICO DE QUITO - QUITO - PROV. PICHINCHA  
**SOLICITA :** ARQ. JUAN FRANCISCO CAZORLA  
**REALIZADO :** ING. CARLOS ORTIZ  
**FECHA :** 22 de febrero del 2021



**ANÁLISIS DE CAPACIDAD DE CARGA POR ASENTAMIENTO  
 EN FUNCIÓN DE " N " (SPT)**

$\gamma = 1,60$  t/m<sup>3</sup>  
 $\gamma_{sat} = 1,70$  t/m<sup>3</sup>  
 Nivel Freático: m

PERFORACION: **P-3** **PATIO**  
 NIVEL: -0,18 m

Prof. (m)	NIVEL (m)	N (spt)	N60corr	Nprom.	Q(mey)		PROMEDIO	qa (T/m <sup>2</sup> ) LOSAS	ÁNGULO DE FRICCIÓN	MÓDULO DE BALASTO	
					t/m <sup>2</sup>	t/m <sup>2</sup>		t/m <sup>2</sup>		Según Bowles	Ksh
					1,00	2,00	t/m <sup>2</sup>	B= 3,50 m	OSAKI (°)	t/m <sup>3</sup>	t/m <sup>3</sup>
0,00	-0,18										
1,00	-1,18	24	21,60	15,40	23,11	18,76	20,94	21,48	32,55	61,18	2310,60
2,00	-2,18	9	7,07	7,07	10,61	9,40	10,01	10,71	26,89	305,91	1061,10
3,00	-3,18	21	13,48	13,48	20,21	17,90	19,06	22,03	31,42	458,87	2021,40
4,00	-4,18	78	43,35	43,35	65,02	57,58	61,30	73,46	44,44	2447,28	6502,35
5,00	-5,18	73	41,13	39,28	58,92	52,17	55,55	66,57	43,03	1529,55	5892,03
6,00	-6,18	71	36,51	36,51	54,77	48,50	51,64	61,88	42,02	3670,92	5476,95



## ENSAYOS DE LABORATORIO

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## CLASIFICACIÓN DE SUELOS ASTM D2487



SOLICITADO POR :	ARQ. JUAN FRANCISCO CAZORLA	PERFORACION :	P - 1
PROYECTO :	CASA MANABI Y VARGAS	MUESTRA :	6,00
OBRA :	CASA MANABI Y VARGAS	PROFUNDIDAD :	6,00 - 6,45
LOCALIZACIÓN :	CALLE MANABI Y VARGAS, CENTRO HISTÓRICO DE QUITO - QUITO - PROV. PICHINCHA		
FECHA :	26 de febrero del 2021		

CONTENIDO DE HUMEDAD w	PESO HUM. + CAP.	PESO SECO + CAP.	PESO CÁPSULA	w (%)	w (%) prom.
	50,02	43,77	17,93	24,19	
	51,03	44,08	17,81	26,46	25,33

LÍMITES DE ATTERBERG	LÍMITE LIQUIDO ( WL )	NUM. GOLPES	PESO HUM. + CAP.	PESO SECO + CAP.	PESO CÁPSULA	w (%)	W L (%)
		33	34,92	31,22	16,54	25,20	
		28	32,12	28,60	15,43	26,73	
	16	33,98	29,85	15,26	28,31	26,66	

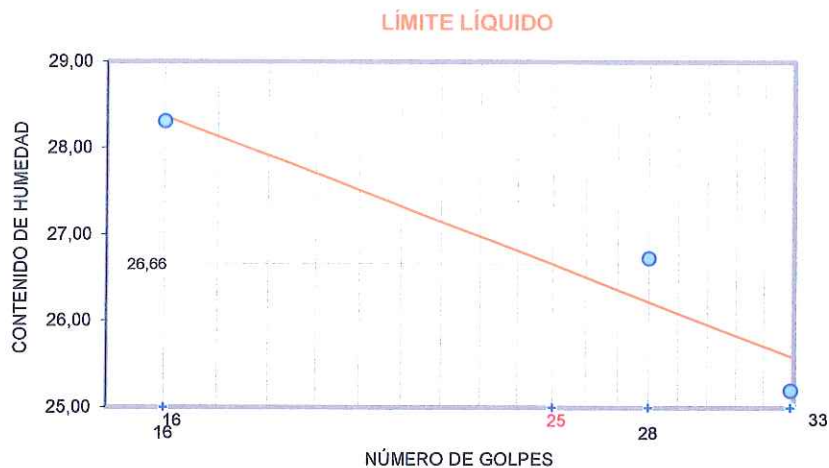
LÍMITES DE ATTERBERG	LÍMITE PLÁSTICO ( WP )	PESO HUM. + CAP.	PESO SECO + CAP.	PESO CÁPSULA	w (%)	W P (%)
		10,17	9,92	8,89	24,27	
		10,12	9,86	8,81	24,76	24,52

PESO INICIAL (gr)			110,10		
PESO PARA CÁLCULO (gr)			87,85	H	
TAMIZ ASTM	ABERT. (mm)	PESO RET. PARCIAL	PESO RET. ACUM.	% RETEN.	% PASA
3	75,00	0,00	0,00	0	100
1 1/2"	37,50	0,00	0,00	0	100
1	25,00	0,00	0,00	0	100
3/4"	19,00	0,00	0,00	0	100
1/2"	12,50	0,00	0,00	0	100
3/8"	9,50	0,00	0,00	0	100
No. 4	4,75	0,00	0,00	0	100
No. 10	2,00	0,76	0,76	1	99
No. 40	0,425	3,83	4,59	5	95
No. 200	0,075	22,14	26,73	30	70

CLASIFICACIÓN	
GRAVA	0
ARENA	30
FINOS	70

WL =	27
WP =	25
IP =	2

SUCS :	ML
AASHTO :	A-4
IG :	7



REALIZADO POR:

ING. ALEXANDRA ARAUJO

REVISADO POR:

ING. CARLOS ORTIZ



**CLASIFICACIÓN DE SUELOS**  
ASTM D2487



SOLICITADO POR :	ARQ. JUAN FRANCISCO CAZORLA	PERFORACIÓN :	P - 2
PROYECTO :	CASA MANABI Y VARGAS	MUESTRA :	3,00
OBRA :	CASA MANABI Y VARGAS	PROFUNDIDAD :	3,00 - 3,45
LOCALIZACIÓN :	CALLE MANABI Y VARGAS, CENTRO HISTÓRICO DE QUITO - QUITO - PROV. PICHINCHA		
FECHA :	26 de febrero del 2021		

CONTENIDO DE HUMEDAD w	PESO HUM. + CAP.	PESO SECO + CAP.	PESO CÁPSULA	w (%)	w (%) prom.
		48,87	41,97	17,90	28,67
	47,00	40,61	17,55	27,71	28,19

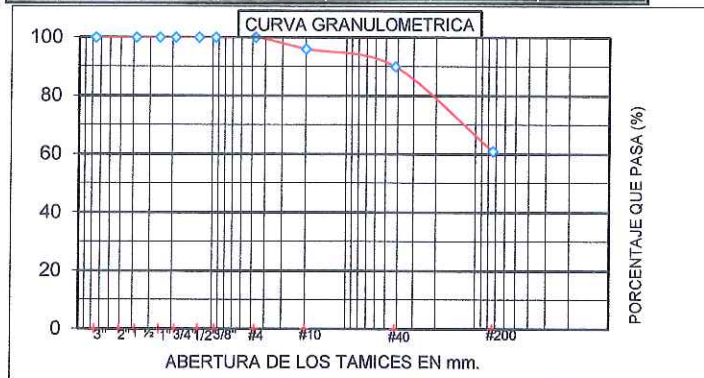
LÍMITES DE ATTERBERG	LÍMITE LIQUIDO (WL)	SUELO NO PLÁSTICO
	LÍMITE PLÁSTICO (WP)	SUELO NO PLÁSTICO

DISTRIBUCIÓN GRANULOMÉTRICA	PESO INICIAL (gr)		109,21		H	
	PESO PARA CÁLCULO (gr)		85,19		(D / H)	
	TAMIZ ASTM	ABERT. (mm)	PESO RET. PARCIAL	PESO RET. ACUM.	% RETEN.	% PASA
	3	75,00	0,00	0,00	0	100
1 1/2"	37,50	0,00	0,00	0	100	
1	25,00	0,00	0,00	0	100	
3/4"	19,00	0,00	0,00	0	100	
1/2"	12,50	0,00	0,00	0	100	
3/8"	9,50	0,00	0,00	0	100	
No. 4	4,75	0,39	0,39	0	100	
No. 10	2,00	3,12	3,51	4	96	
No. 40	0,425	5,26	8,77	10	90	
No. 200	0,075	24,66	33,43	39	61	

CLASIFICACIÓN	
GRAVA	0
ARENA	39
FINOS	61

WL =	-
WP =	-
IP =	NP

SUCS :	ML
AASHTO :	A-4
IG :	5



REALIZADO POR:

ING. ALEXANDRA ARAUJO

REVISADO POR:

ING. CARLOS ORTIZ

**CLASIFICACIÓN DE SUELOS**  
ASTM D2487



SOLICITADO POR :	ARQ. JUAN FRANCISCO CAZORLA	PERFORACION :	P - 2
PROYECTO :	CASA MANABI Y VARGAS	MUESTRA :	5,00
OBRA :	CASA MANABI Y VARGAS	PROFUNDIDAD :	5,00 - 5,45
LOCALIZACIÓN :	CALLE MANABI Y VARGAS, CENTRO HISTÓRICO DE QUITO - QUITO - PROV. PICHINCHA		
FECHA :	26 de febrero del 2021		

CONTENIDO DE HUMEDAD w	PESO HUM. + CAP.	PESO SECO + CAP.	PESO CÁPSULA	w (%)	w (%) prom.
		49,89	43,89	17,09	22,39
	48,13	42,55	17,44	22,22	22,31

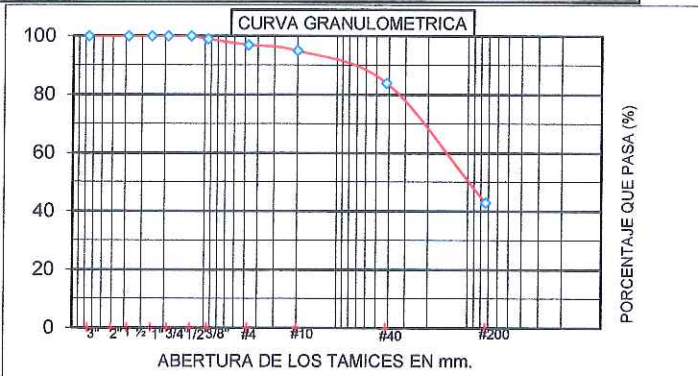
LÍMITES DE ATTERBERG	LÍMITE LIQUIDO (WL)	SUELO NO PLÁSTICO
	LÍMITE PLÁSTICO (WP)	SUELO NO PLÁSTICO

DISTRIBUCIÓN GRANULOMÉTRICA	PESO INICIAL (gr)		112,67		H	
	PESO PARA CÁLCULO (gr)		92,12		(D / H)	
	TAMIZ ASTM	ABERT. (mm)	PESO RET. PARCIAL	PESO RET. ACUM.	% RETEN.	% PASA
	3	75,00	0,00	0,00	0	100
1 1/2"	37,50	0,00	0,00	0	100	
1	25,00	0,00	0,00	0	100	
3/4"	19,00	0,00	0,00	0	100	
1/2"	12,50	0,00	0,00	0	100	
3/8"	9,50	0,84	0,84	1	99	
No. 4	4,75	1,72	2,56	3	97	
No. 10	2,00	2,24	4,80	5	95	
No. 40	0,425	9,88	14,68	16	84	
No. 200	0,075	38,26	52,94	57	43	

CLASIFICACIÓN	
GRAVA	3
ARENA	54
FINOS	43

WL =	-
WP =	-
IP =	NP

SUCS :	SM
AASHTO :	A-4
IG :	2



REALIZADO POR:

ING. ALEXANDRA ARAUJO

REVISADO POR:

ING. CARLOS ORTIZ

## CLASIFICACIÓN DE SUELOS ASTM D2487



SOLICITADO POR :	ARQ. JUAN FRANCISCO CAZORLA	PERFORACION :	P - 3
PROYECTO :	CASA MANABI Y VARGAS	MUESTRA :	2,00
OBRA :	CASA MANABI Y VARGAS	PROFUNDIDAD :	2,00 - 2,45
LOCALIZACIÓN :	CALLE MANABI Y VARGAS, CENTRO HISTÓRICO DE QUITO - QUITO - PROV. PICHINCHA		
FECHA :	26 de febrero del 2021		

CONTENIDO DE HUMEDAD w	PESO HUM. + CAP.	PESO SECO + CAP.	PESO CÁPSULA	w (%)	w (%) prom.
	48,04	41,06	17,20	29,25	
	47,09	40,12	16,37	29,35	29,30

LÍMITES DE ATTERBERG	LÍMITE LIQUIDO ( WL )	NUM. GOLPES	PESO HUM. + CAP.	PESO SECO + CAP.	PESO CÁPSULA	w (%)	WL (%)
		35	29,86	26,79	16,70	30,43	
		23	31,18	27,28	15,74	33,80	
	17	35,24	30,04	15,50	35,76	32,99	

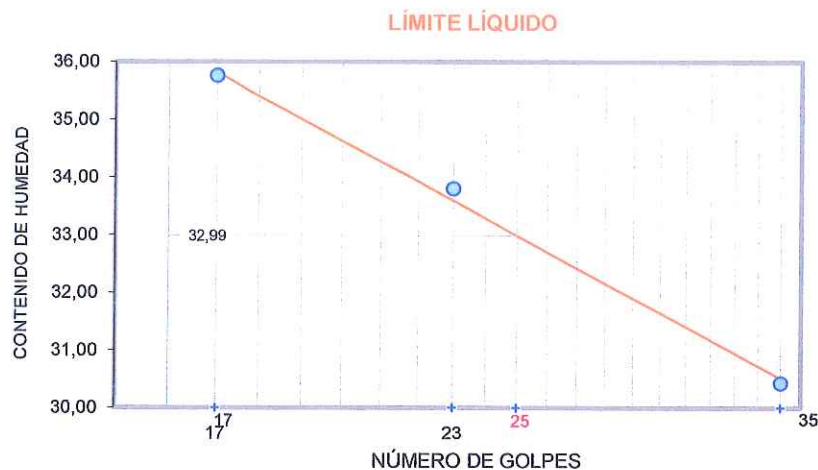
LÍMITES DE ATTERBERG	LÍMITE PLÁSTICO ( WP )	PESO HUM. + CAP.	PESO SECO + CAP.	PESO CÁPSULA	w (%)	WP (%)
		10,49	10,14	8,86	27,34	
		10,43	10,06	8,80	29,37	28,36

DISTRIBUCIÓN GRANULOMÉTRICA		PESO INICIAL (gr)			111,09		H	
		PESO PARA CÁLCULO (gr)			85,92		(D / H)	
TAMIZ ASTM	ABERT. (mm)	PESO RET. PARCIAL	PESO RET. ACUM.	% RETEN.	% PASA			
3	75,00	0,00	0,00	0	100			
1 1/2"	37,50	0,00	0,00	0	100			
1	25,00	0,00	0,00	0	100			
3/4"	19,00	0,00	0,00	0	100			
1/2"	12,50	0,00	0,00	0	100			
3/8"	9,50	0,69	0,69	1	99			
No. 4	4,75	0,67	1,36	2	98			
No. 10	2,00	2,27	3,63	4	96			
No. 40	0,425	4,91	8,54	10	90			
No. 200	0,075	21,18	29,72	35	65			

CLASIFICACIÓN	
GRAVA	2
ARENA	33
FINOS	65

WL =	33
WP =	28
IP =	5

SUCS :	ML
AASHTO :	A-4
IG :	6



REALIZADO POR:

ING. ALEXANDRA ARAUJO

REVISADO POR:

ING. CARLOS ORTIZ

**CLASIFICACIÓN DE SUELOS**  
ASTM D2487



SOLICITADO POR :	ARQ. JUAN FRANCISCO CAZORLA	PERFORACIÓN :	P - 3
PROYECTO :	CASA MANABÍ Y VARGAS	MUESTRA :	4,00
OBRA :	CASA MANABÍ Y VARGAS	PROFUNDIDAD :	4,00 - 4,45
LOCALIZACIÓN :	CALLE MANABÍ Y VARGAS, CENTRO HISTÓRICO DE QUITO - QUITO - PROV. PICHINCHA		
FECHA :	26 de febrero del 2021		

CONTENIDO DE HUMEDAD w	PESO HUM. + CAP.	PESO SECO + CAP.	PESO CÁPSULA	w (%)	w (%) prom.
		51,54	45,56	17,64	21,42
	50,26	43,98	16,08	22,51	

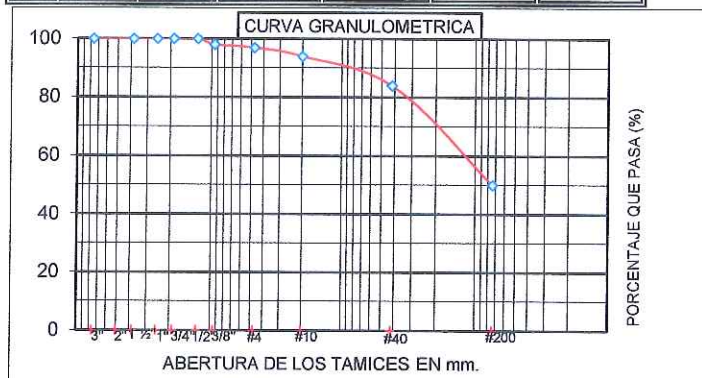
LÍMITES DE ATTERBERG	LÍMITE LIQUIDO (WL)	SUELO NO PLÁSTICO
	LÍMITE PLÁSTICO (WP)	SUELO NO PLÁSTICO

DISTRIBUCIÓN GRANULOMÉTRICA	PESO INICIAL (gr)		111,56		H	
	PESO PARA CÁLCULO (gr)		91,47		(D / H)	
	TAMIZ ASTM	ABERT. (mm)	PESO RET. PARCIAL	PESO RET. ACUM.	% RETEN.	% PASA
	3	75,00	0,00	0,00	0	100
1 1/2"	37,50	0,00	0,00	0	100	
1	25,00	0,00	0,00	0	100	
3/4"	19,00	0,00	0,00	0	100	
1/2"	12,50	0,00	0,00	0	100	
3/8"	9,50	1,79	1,79	2	98	
No. 4	4,75	0,84	2,63	3	97	
No. 10	2,00	2,91	5,54	6	94	
No. 40	0,425	9,24	14,78	16	84	
No. 200	0,075	30,80	45,58	50	50	

CLASIFICACIÓN	
GRAVA	3
ARENA	47
FINOS	50

WL =	-
WP =	-
IP =	NP

SUCS :	ML
AASHTO :	A-4
IG :	3



REALIZADO POR:

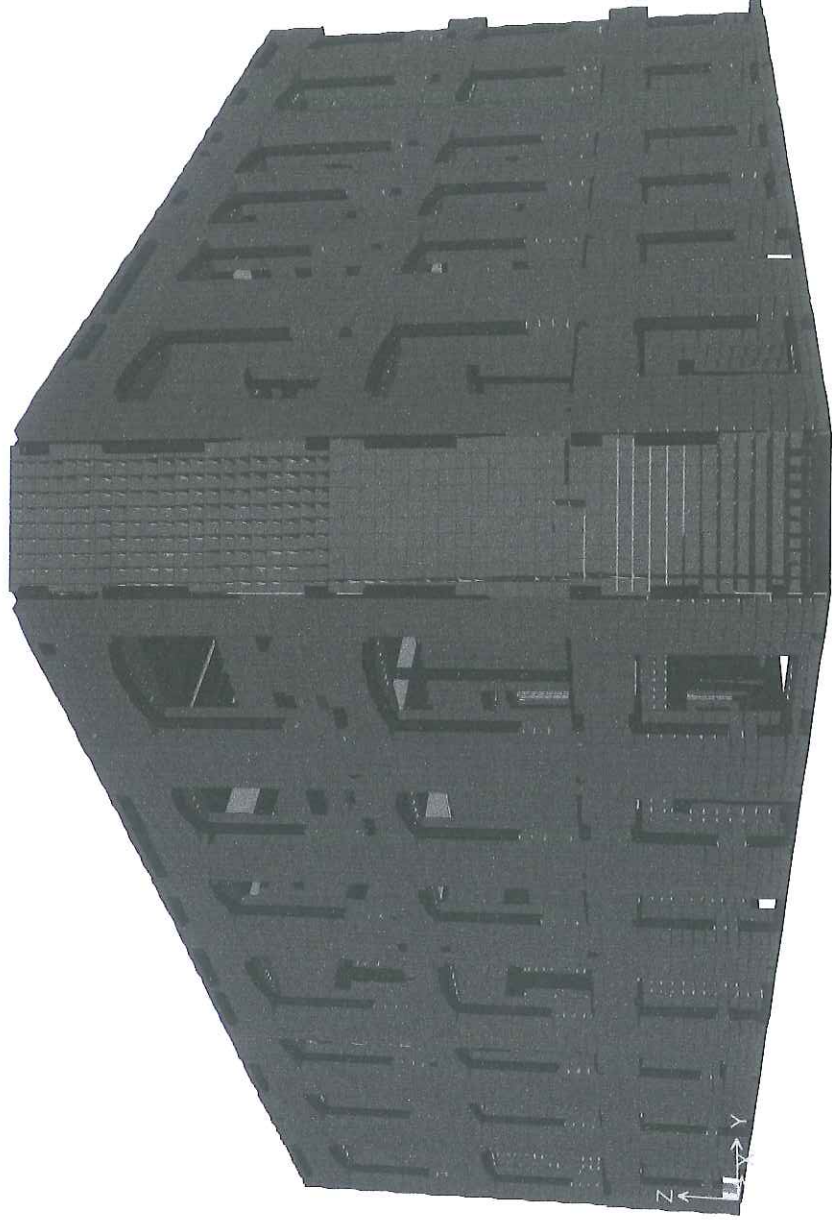
ING. ALEXANDRA ARAUJO

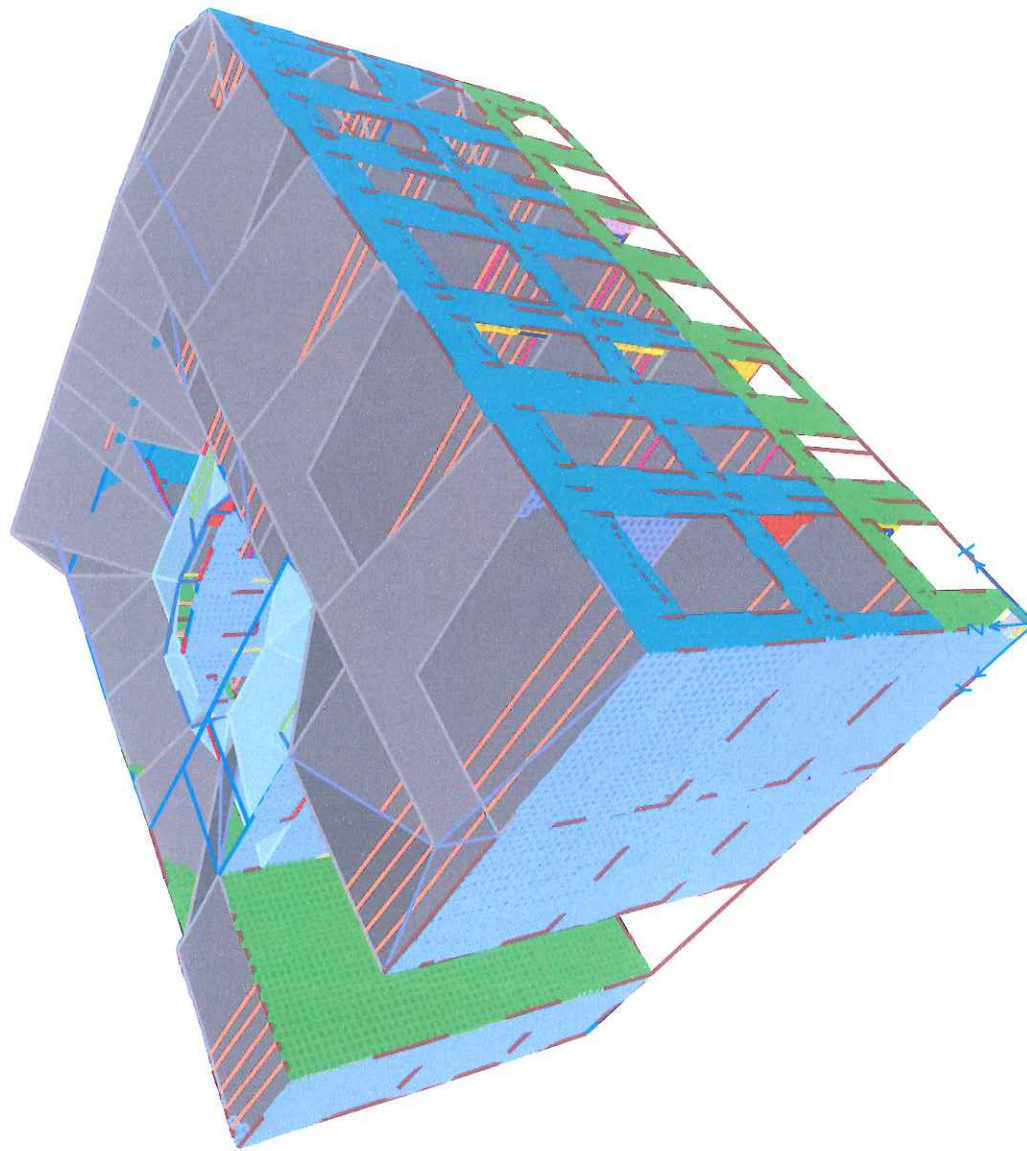
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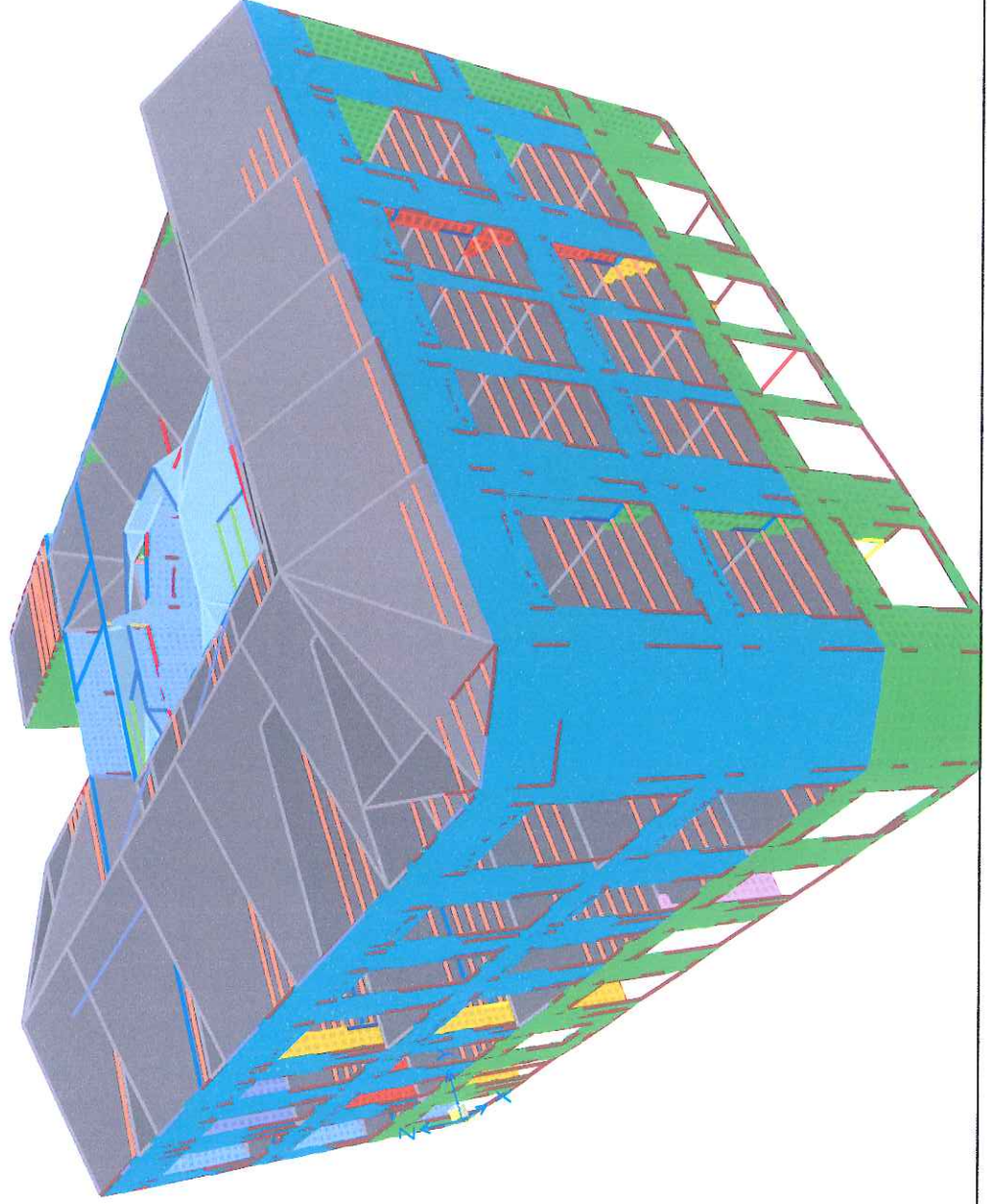
ING. CARLOS ORTIZ

**PROYECTO  
ECO MUSEO BIBLIOTECA**

**VISTAS 3 D TOTAL**

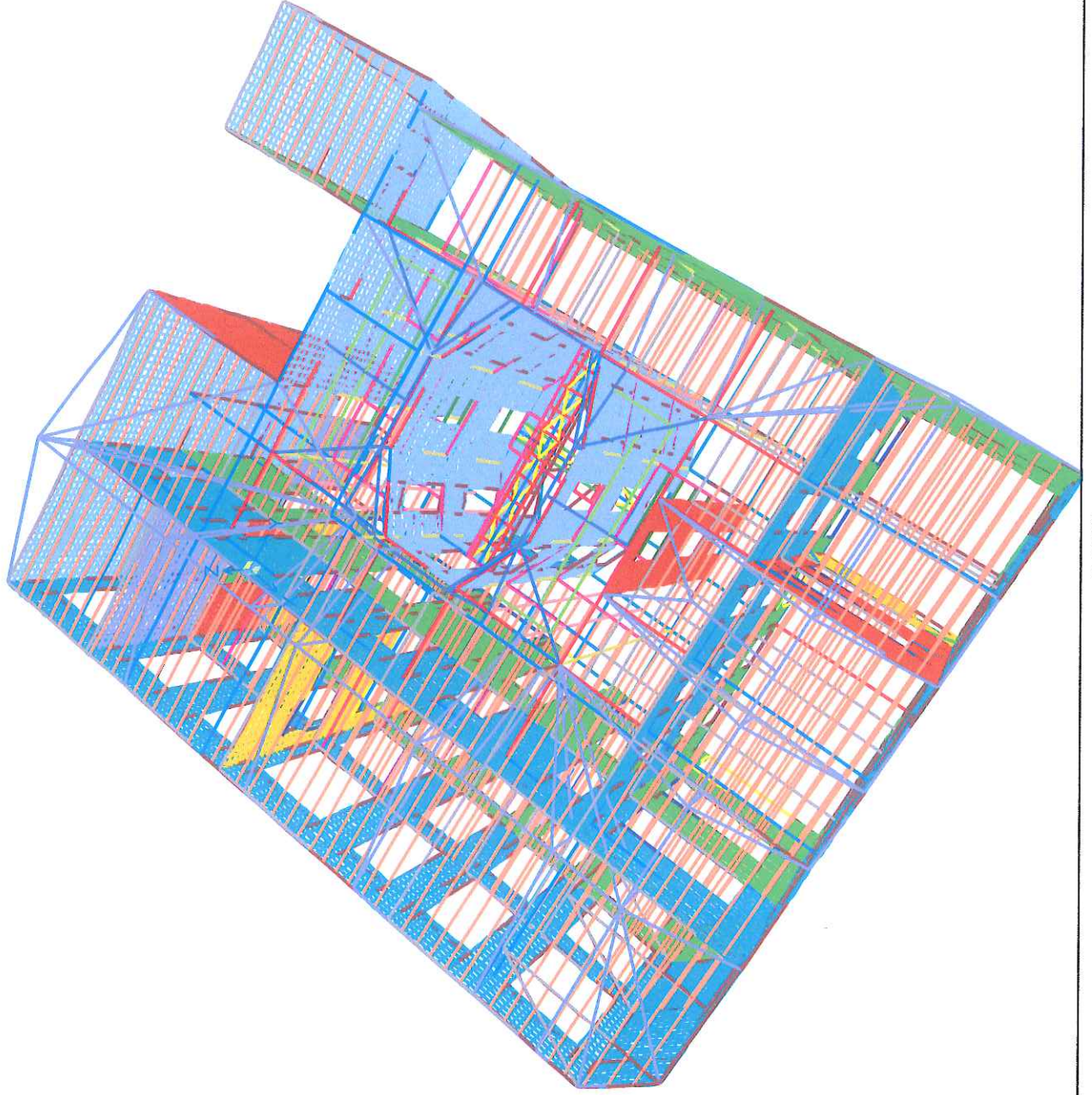


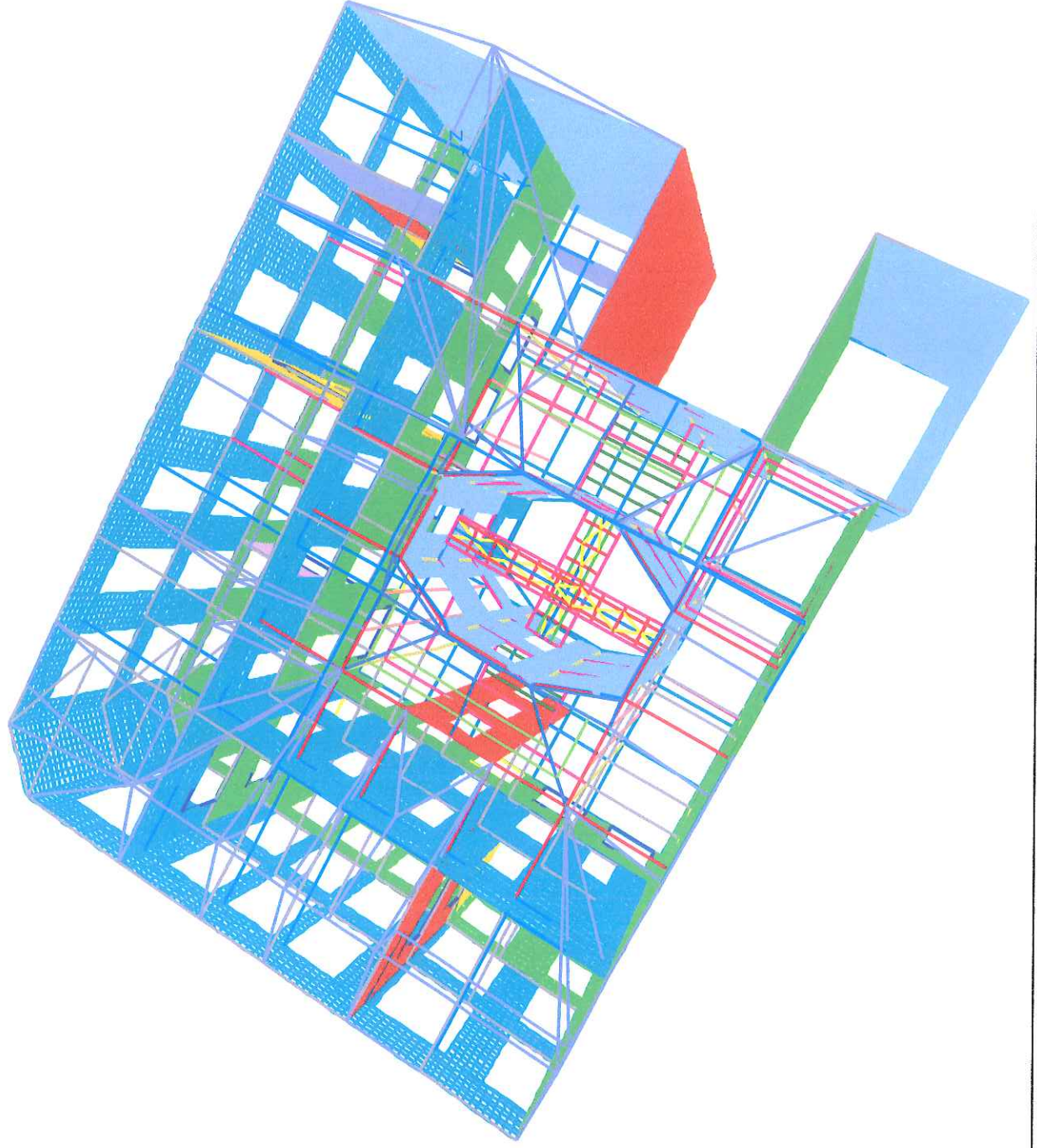




3-D View







**PROYECTO  
ECO MUSEO BIBLIOTECA**

**INFORMACION GENERAL SAP**

TABLE: Area Section Properties

Section Text	Material Text	MatAngle Degrees	AreaType Text	Type Text	DrillDOF Yes/No	Thickness m	BendThick m	Arc Degrees	InComp Yes/No	CoordSys Text
ASEC1	4000Psi	0	Shell	Shell-Thin	Yes	0.25	0.25			
cub met teja	MADERA C PAD-REFORT	0	Shell	Shell-Thin	Yes	0.12	0			
CUB POLICARB	POLICARBONATO	0	Shell	Shell-Thin	Yes	0.01	0			
LOSA 15	C 240	0	Shell	Shell-Thin	Yes	0.15	0.15			
PA 45	ADOBE	0	Shell	Shell-Thin	Yes	0.45	0.45			
piso mad	MADERA C PAD-REFORT	0	Shell	Shell-Thin	Yes	0.02	0			
piso madera 20 mm	MADERA C PAD-REFORT	0	Shell	Shell-Thin	Yes	0.02	0.02			
PL 20	LADRILLO	0	Shell	Shell-Thin	Yes	0.2	0.2			
PL 30	LADRILLO	0	Shell	Shell-Thin	Yes	0.3	0.3			
PL 40	LADRILLO	0	Shell	Shell-Thin	Yes	0.4	0.4			
PL 50	LADRILLO	0	Shell	Shell-Thin	Yes	0.5	0.5			
PL 60	LADRILLO	0	Shell	Shell-Thin	Yes	0.6	0.6			
PL 70	LADRILLO	0	Shell	Shell-Thin	Yes	0.7	0.7			
PL 80	LADRILLO	0	Shell	Shell-Thin	Yes	0.8	0.8			
PL 90	LADRILLO	0	Shell	Shell-Thin	Yes	0.8	0.8			

TABLE: Area Section Properties

Section Text	F11Mod Unitless	F22Mod Unitless	F12Mod Unitless	M11Mod Unitless	M22Mod Unitless	M12Mod Unitless	V13Mod Unitless	V23Mod Unitless	MMod Unitless	WMod Unitless
ASEC1	1	1	1	1	1	1	1	1	1	1
cub met teja	1	1	1	1	1	1	1	1	1	1
CUB POLICARB	1	1	1	1	1	1	1	1	1	1
LOSA 15	1	1	1	0.5	0.5	0.5	1	1	1	1
PA 45	1	1	1	0.5	0.5	0.5	1	1	1	1
piso mad	1	1	1	1	1	1	1	1	1	1
piso madera 20 mm	1	1	1	1	1	1	1	1	1	1
PL 20	1	1	1	0.5	0.5	0.5	1	1	1	1
PL 30	1	1	1	0.5	0.5	0.5	1	1	1	1
PL 40	1	1	1	0.5	0.5	0.5	1	1	1	1
PL 50	1	1	1	0.5	0.5	0.5	1	1	1	1
PL 60	1	1	1	0.5	0.5	0.5	1	1	1	1
PL 70	1	1	1	0.5	0.5	0.5	1	1	1	1
PL 80	1	1	1	0.5	0.5	0.5	1	1	1	1
PL 90	1	1	1	0.5	0.5	0.5	1	1	1	1



TABLE: Combination Definitions

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign	ConcDesign	AlumDesign	ColdDesign	Notes
Text	Text	Yes/No	Text	Text	Unitless	Text	Text	Text	Text	Text
UDCON1	Linear Add	No	Linear Static	DEAD	1.4	None	Strength	None	None	Dead Only; Strength
UDCON2	Linear Add	No	Linear Static	DEAD	1.2	None	Strength	None	None	Dead + Live; Strength
UDCON2			Linear Static	LIVE	1.6					
UDCON3	Linear Add	No	Linear Static	DEAD	1.3	None	Strength	None	None	Dead + Live + Static Earthquake; Strength
UDCON3			Linear Static	LIVE	1					
UDCON3			Linear Static	QUAKEK	1					
UDCON4	Linear Add	No	Linear Static	DEAD	1.3	None	Strength	None	None	Dead + Live - Static Earthquake; Strength
UDCON4			Linear Static	LIVE	1					
UDCON4			Linear Static	QUAKEK	-1					
UDCON5	Linear Add	No	Linear Static	DEAD	1.3	None	Strength	None	None	Dead + Live + Static Earthquake; Strength
UDCON5			Linear Static	LIVE	1					
UDCON5			Linear Static	QUAKEY	1					
UDCON6	Linear Add	No	Linear Static	DEAD	1.3	None	Strength	None	None	Dead + Live - Static Earthquake; Strength
UDCON6			Linear Static	LIVE	1					
UDCON6			Linear Static	QUAKEY	-1					
UDCON7	Linear Add	No	Linear Static	DEAD	0.8	None	Strength	None	None	Dead (min) + Static Earthquake; Strength
UDCON7			Linear Static	QUAKEK	1					
UDCON8	Linear Add	No	Linear Static	DEAD	0.8	None	Strength	None	None	Dead (min) - Static Earthquake; Strength
UDCON8			Linear Static	QUAKEK	-1					
UDCON9	Linear Add	No	Linear Static	DEAD	0.8	None	Strength	None	None	Dead (min) + Static Earthquake; Strength
UDCON9			Linear Static	QUAKEY	1					
UDCON10	Linear Add	No	Linear Static	DEAD	0.8	None	Strength	None	None	Dead (min) - Static Earthquake; Strength
UDCON10			Linear Static	QUAKEY	-1					
UDCON11	Linear Add	No	Linear Static	DEAD	1.3	None	Strength	None	None	Dead + Live + Response Spectrum; Strength
UDCON11			Linear Static	LIVE	1					
UDCON11			Response Spectrum	DINAMICO	1					
UDCON12	Linear Add	No	Linear Static	DEAD	0.8	None	Strength	None	None	Dead (min) + Response Spectrum; Strength
UDCON12			Response Spectrum	DINAMICO	1					
UDSTL1	Linear Add	No	Linear Static	DEAD	1.4	Strength	None	None	None	Dead Only; Strength
UDSTL2	Linear Add	No	Linear Static	DEAD	1.2	Strength	None	None	None	Dead + Live; Strength
UDSTL2			Linear Static	LIVE	1.6					
UDSTL3	Linear Add	No	Linear Static	DEAD	1.3	Strength	None	None	None	Dead + Live + Static Earthquake; Strength
UDSTL3			Linear Static	LIVE	1					
UDSTL3			Linear Static	QUAKEK	1					
UDSTL4	Linear Add	No	Linear Static	DEAD	1.3	Strength	None	None	None	Dead + Live - Static Earthquake; Strength
UDSTL4			Linear Static	LIVE	1					
UDSTL4			Linear Static	QUAKEK	-1					
UDSTL5	Linear Add	No	Linear Static	DEAD	1.3	Strength	None	None	None	Dead + Live + Static Earthquake; Strength
UDSTL5			Linear Static	LIVE	1					
UDSTL5			Linear Static	QUAKEY	1					
UDSTL6	Linear Add	No	Linear Static	DEAD	1.3	Strength	None	None	None	Dead + Live - Static Earthquake; Strength
UDSTL6			Linear Static	LIVE	1					
UDSTL6			Linear Static	QUAKEY	-1					
UDSTL7	Linear Add	No	Linear Static	DEAD	0.8	Strength	None	None	None	Dead (min) + Static Earthquake; Strength
UDSTL7			Linear Static	QUAKEK	1					
UDSTL8	Linear Add	No	Linear Static	DEAD	0.8	Strength	None	None	None	Dead (min) - Static Earthquake; Strength
UDSTL8			Linear Static	QUAKEK	-1					
UDSTL9	Linear Add	No	Linear Static	DEAD	0.8	Strength	None	None	None	Dead (min) + Static Earthquake; Strength
UDSTL9			Linear Static	QUAKEY	1					
UDSTL10	Linear Add	No	Linear Static	DEAD	0.8	Strength	None	None	None	Dead (min) - Static Earthquake; Strength
UDSTL10			Linear Static	QUAKEY	-1					
UDSTL11	Linear Add	No	Linear Static	DEAD	1.3	Strength	None	None	None	Dead + Live + Response Spectrum; Strength
UDSTL11			Linear Static	LIVE	1					
UDSTL11			Response Spectrum	DINAMICO	1					
UDSTL12	Linear Add	No	Linear Static	DEAD	0.8	Strength	None	None	None	Dead (min) + Response Spectrum; Strength
UDSTL12			Response Spectrum	DINAMICO	1					
UDSTL13	Linear Add	No	Linear Static	DEAD	1	Deflection	None	None	None	Dead Only; Deflection
UDSTL14	Linear Add	No	Linear Static	DEAD	1	Deflection	None	None	None	Dead + Live; Deflection
UDSTL14			Linear Static	LIVE	1					
D+L+QX	Linear Add	No	Linear Static	DEAD	1	None	None	None	None	
D+L+QX			Linear Static	LIVE	1					
D+L+QX			Linear Static	QUAKEK	1					
D+L+QY	Linear Add	No	Linear Static	DEAD	1	None	None	None	None	
D+L+QY			Linear Static	LIVE	1					
D+L+QY			Linear Static	QUAKEY	1					

TABLE: Frame Section Properties 01 - General

SectionName Text	Material Text	Shape Text	t2 m	t3 m	t2 m	t3 m	tf m	tw m	t2b m	tfb m	Area m2	TorsConst m4	I33 m4	I22 m4	I23 m4
CM 20*20	MADERA C PAD-REFORT	Rectangular	0.2	0.2	0.2	0.2	0.015	0.009	0.2	0.015	0.04	0.000225	0.000133	0.000133	0
HE200B	A572Gr50	I/Wide Flange	0.2	0.2	0.2	0.2	0.015	0.009	0.2	0.015	0.00781	0.000000597	0.000057	0.00002	0
HE240B	A572Gr50	I/Wide Flange	0.24	0.24	0.24	0.24	0.017	0.01	0.24	0.017	0.0106	0.00000113	0.000113	0.000039	0
IPE100	A572Gr50	I/Wide Flange	0.1	0.055	0.055	0.0057	0.0041	0.0047	0.055	0.0057	0.00103	1.16E-08	0.00000171	0.000000159	0
IPE140	A572Gr50	I/Wide Flange	0.14	0.073	0.073	0.0069	0.0047	0.0056	0.073	0.0069	0.00164	0.000000024	0.00000541	0.000000449	0
IPE200	A572Gr50	I/Wide Flange	0.2	0.1	0.085	0.0056	0.0041	0.0056	0.1	0.0085	0.00285	6.92E-08	0.0000019	0.00000142	0
IPE240	A572Gr50	I/Wide Flange	0.24	0.12	0.098	0.0062	0.0041	0.0062	0.12	0.0098	0.00391	0.00000013	0.0000039	0.00000284	0
IPE270	A572Gr50	I/Wide Flange	0.27	0.135	0.102	0.0066	0.0041	0.0066	0.135	0.0102	0.00459	0.000000159	0.0000058	0.00000042	0
IPE300	A572Gr50	I/Wide Flange	0.3	0.15	0.107	0.0071	0.0041	0.0071	0.15	0.0107	0.00538	0.000000199	0.0000084	0.00000604	0
PENTA TC 2' CED40	A572Gr50	Pipe	0.22	0.22	0.004	0.004	0.004	0.004	0.22	0.004	0.002714	0.0000032	0.000016	0.000016	0
piso mad	MADERA C PAD-REFORT	Rectangular	0.24	0.11	0.11	0.004	0.004	0.004	0.11	0.004	0.0264	0.0000076	0.000127	0.000027	0
portico	A36	Box/Tube	0.2	0.1	0.004	0.004	0.004	0.004	0.1	0.004	0.002336	0.0000097	0.000012	0.000004208	0
TC 100X4	A36	Box/Tube	0.1	0.1	0.004	0.004	0.004	0.004	0.1	0.004	0.001536	0.000003539	0.000002363	0.000002363	0
TC 2'*4 MM CED 40	A572Gr50	Pipe	0.05	0.05	0.004	0.004	0.004	0.004	0.05	0.004	0.000578	3.081E-07	1.541E-07	1.541E-07	0
TR 100X4	A36	Pipe	0.1	0.1	0.003	0.003	0.003	0.003	0.1	0.003	0.001206	0.000002784	0.000001392	0.000001392	0
TR 50X3	A36	Pipe	0.05	0.05	0.003	0.003	0.003	0.003	0.05	0.003	0.000443	2.456E-07	1.228E-07	1.228E-07	0
TRIPLE TC 2' CED 40	A572Gr50	Pipe	0.14	0.14	0.004	0.004	0.004	0.004	0.14	0.004	0.001709	0.000007909	0.000003955	0.000003955	0
TV 60*20	MADERA C PAD-REFORT	Rectangular	0.2	0.6	0.6	0.004	0.004	0.004	0.6	0.004	0.12	0.0001264	0.0004	0.00036	0
VH 30*40	C 240	Rectangular	0.4	0.3	0.3	0.016	0.016	0.016	0.3	0.016	0.12	0.001944	0.0016	0.0009	0
VH 80*25	C 240	Rectangular	0.25	0.8	0.8	0.033	0.033	0.033	0.8	0.033	0.2	0.003347	0.001042	0.010667	0
VH 80*50	C 240	Rectangular	0.5	0.8	0.8	0.033	0.033	0.033	0.8	0.033	0.4	0.020375	0.008333	0.021333	0

TABLE: Frame Section Properties 01 - General

SectionName Text	A52 m2	A53 m2	S33 m3	S22 m3	Z33 m3	Z22 m3	R33 m	R22 m	AMod Unitless	A2Mod Unitless	A3Mod Unitless	J1Mod Unitless	I2Mod Unitless	I3Mod Unitless	M1Mod Unitless	W1Mod Unitless
CM 20*20	0.033333	0.033333	0.001333	0.001333	0.002	0.002	0.057735	0.057735	1	1	1	1	1	1	1	1
HE200B	0.0018	0.005	0.00057	0.0002	0.00643	0.000306	0.0854	0.050642	1	1	1	1	1	1	1	1
HE240B	0.0024	0.0068	0.000938	0.000327	0.01053	0.000498	0.103066	0.060835	1	1	1	1	1	1	1	1
IPE100	0.00041	0.000523	0.000034	5.78E-06	0.000339	9.15E-06	0.040745	0.012425	1	1	1	1	1	1	1	1
IPE140	0.000658	0.00084	0.000077	0.000012	0.00088	0.000019	0.057435	0.016546	1	1	1	1	1	1	1	1
IPE200	0.00112	0.001417	0.000194	0.000028	0.000221	0.000045	0.082568	0.022321	1	1	1	1	1	1	1	1
IPE240	0.001488	0.00196	0.000324	0.000047	0.000367	0.000074	0.09977	0.026951	1	1	1	1	1	1	1	1
IPE270	0.001782	0.002295	0.000429	0.000062	0.000484	0.000097	0.112314	0.03025	1	1	1	1	1	1	1	1
IPE300	0.00213	0.002675	0.000557	0.000081	0.000628	0.000125	0.124626	0.033506	1	1	1	1	1	1	1	1
PENTA TC 2' CED40	0.001357	0.001357	0.000144	0.000144	0.000187	0.000187	0.076381	0.076381	1	1	1	1	1	1	1	1
piso mad	0.022	0.022	0.001056	0.000484	0.001584	0.000726	0.069282	0.031754	1	1	1	1	1	1	1	1
portico	0.0016	0.0008	0.000124	0.000084	0.000152	0.000094	0.072866	0.042441	1	1	1	1	1	1	1	1
TC 100X4	0.0008	0.0008	0.000047	0.000047	0.000055	0.000055	0.039226	0.039226	1	1	1	1	1	1	1	1
TC 2'*4 MM CED 40	0.00029	0.00029	6.16E-06	6.16E-06	8.49E-06	8.49E-06	0.016325	0.016325	1	1	1	1	1	1	1	1
TR 100X4	0.000604	0.000604	0.000028	0.000028	0.000037	0.000037	0.033971	0.033971	1	1	1	1	1	1	1	1
TR 50X3	0.000222	0.000222	4.91E-06	4.91E-06	5.64E-06	5.64E-06	0.016651	0.016651	1	1	1	1	1	1	1	1
TRIPLE TC 2' CED 40	0.000855	0.000855	0.000056	0.000056	0.000074	0.000074	0.048104	0.048104	1	1	1	1	1	1	1	1
TV 60*20	0.1	0.1	0.004	0.012	0.006	0.006	0.057735	0.173205	1	1	1	1	1	1	1	1
VH 30*40	0.1	0.1	0.008	0.006	0.012	0.009	0.11547	0.086603	1	1	1	1	1	1	1	1
VH 80*25	0.166667	0.166667	0.008333	0.026667	0.0125	0.04	0.072169	0.23094	1	1	1	1	0	0.5	0.5	1
VH 80*50	0.333333	0.333333	0.033333	0.053333	0.05	0.08	0.144338	0.23094	1	1	1	1	0	0.5	0.5	1

**TABLE: Frame Section Properties 03 - Concrete Beam**

SectionName	RebarMatL	RebarMatC	TopCover	BotCover	TopLeftArea	TopRightArea	BotLeftArea	BotRightArea
Text	Text	Text	m	m	m2	m2	m2	m2
VH 30*40	A615Gr60	A615Gr60	0.025	0.025	0	0	0	0
VH 80*25	A615Gr60	A615Gr60	0.04	0.04	0	0	0	0
VH 80*50	A615Gr60	A615Gr60	0.04	0.04	0	0	0	0





**TABLE: Load Pattern Definitions**

LoadPat	DesignType	SelfWtMult	AutoLoad	GUID	Notes
Text	Text	Unitless	Text	Text	Text
DEAD	Dead	1		52a1af9a-2b89-4d4a-b80e-81330fa1ef27	
LIVE	Live	0		6678919a-3205-49e0-8565-02344856025e	Added 3/1/2021 11:47:45 PM
QUAKEX	Quake	0	USER COEFF	3cef5f8f-ca35-499b-a11b-7d0fcaa95c89	Added 3/1/2021 11:48:00 PM
QUAKEY	Quake	0	USER COEFF	0f68af2f-bacc-4a63-9e67-89e280e3209f	Added 3/1/2021 11:48:13 PM

**TABLE: Mass Source**

MassSource	Elements	Masses	Loads	IsDefault	LoadPat	Multiplier
Text	Yes/No	Yes/No	Yes/No	Yes/No	Text	Unitless
MSSSRC1	No	No	Yes	Yes	DEAD	1

TABLE: Material Properties 01 - General

Material	Type	Grade	SymType	TempDepend	Color
Text	Text	Text	Text	Yes/No	Text
3000Psi	Concrete	Fc 3000 psi	Isotropic	No	Yellow
4000Psi	Concrete	Fc 4000 psi	Isotropic	No	Cyan
A36	Steel	Grade 36	Isotropic	No	Cyan
A416Gr270	Tendon	Grade 270	Uniaxial	No	Magenta
A572Gr50	Steel	Grade 50	Isotropic	No	Cyan
A615Gr60	Rebar	Grade 60	Uniaxial	No	Magenta
ADOBE	Concrete	19.11 KG/CM2	Isotropic	No	Blue
C 240	Concrete	F'C 240 KG/CM2	Isotropic	No	Cyan
LADRILLO	Concrete	32.64 KG/CM2	Isotropic	No	Blue
MADERA C PAD-REFORT	Steel	150 KG/CM2	Isotropic	No	Green
POLICARBONATO	Other	20 MPA	Isotropic	No	Blue

TABLE: Material Properties 02 - Basic Mechanical Properties

Material	UnitWeight	UnitMass	E1	G12	U12	A1
Text	Tonf/m3	Tonf-s2/m4	Tonf/m2	Tonf/m2	Unitless	1/C
3000Psi	2.40277	0.245014307	2194996	914581.85	0.2	9.9E-06
4000Psi	2.40277	0.245014307	2534564	1056068.14	0.2	9.9E-06
A36	7.849048	0.800380071	20389019	7841930.45	0.3	1.17E-05
A416Gr270	7.849048	0.800380071	20037484			1.17E-05
A572Gr50	7.849048	0.800380071	20389019	7841930.45	0.3	1.17E-05
A615Gr60	7.849048	0.800380071	20389019			1.17E-05
ADOBE	1.67	0.170292604	81625	34010.42	0.2	9.9E-06
C 240	2.40277	0.245014307	2500000	1041666.67	0.2	9.9E-06
LADRILLO	1.69	0.172332036	244800	102000	0.2	9.9E-06
MADERA C PAD-REFORT	0.94	0.095853322	1000000	400000	0.25	0.000034
POLICARBONATO	0.8	0.081577295	2038	783.85	0.3	0.0000117

TABLE: Material Properties 03a - Steel Data

Material	Fy	Fu	EffFy	EffFu	SSCurveOp	SHard	SMax	SRup	FinalSlope	CoupModType
Text	Tonf/m2	Tonf/m2	Tonf/m2	Tonf/m2	Text	Unitless	Unitless	Unitless	Unitless	Text
A36	25310.51	40778.04	37965.76	44855.84	Simple	0.02	0.14	0.2	-0.1	Von Mises
A572Gr50	35153.48	45699.53	38668.83	50269.48	Simple	0.015	0.11	0.17	-0.1	Von Mises
MADERA C PAD-REFORT	1500	2145	1650	2235	Simple	0.015	0.11	0.17	-0.1	Von Mises

TABLE: Material Properties 03b - Concrete Data

Material	Fc	eFc	LtWtConc	LtWtFact	SSCurveOp	SSHysType	SFc	SCap	FinalSlope	FAngle	DAngle
Text	Tonf/m2	Tonf/m2	Yes/No	Unitless	Text	Text	Unitless	Unitless	Unitless	Degrees	Degrees
3000Psi	2109.21	2109.21	No		Mander	Takeda	0.001922	0.005	-0.1	0	0
4000Psi	2812.28	2812.28	No		Mander	Takeda	0.002219	0.005	-0.1	0	0
ADOBE	191.1	191.1	No		Mander	Takeda	0.001922	0.005	-0.1	0	0
C 240	2400	2400	Yes	1	Mander	Takeda	0.002219	0.005	-0.1	0	0
LADRILLO	326.4	326.4	No		Mander	Takeda	0.001922	0.005	-0.1	0	0

TABLE: Material Properties 03e - Rebar Data

Material	Fy	Fu	EffFy	EffFu	SSCurveOp	SSHysType	SHard	SCap	FinalSlope	UseCTDef	CoupModType
Text	Tonf/m2	Tonf/m2	Tonf/m2	Tonf/m2	Text	Text	Unitless	Unitless	Unitless	Yes/No	Text
A615Gr60	42184.18	63276.27	46402.6	69603.89	Simple	Kinematic	0.01	0.09	-0.1	No	Von Mises

TABLE: Material Properties 03g - Other Data

Material	SSHysType	FAngle	DAngle	CoupModType
Text	Text	Degrees	Degrees	Text
POLICARBONATO	Takeda	0	0	None

TABLE: Material Properties 03j - Coupled Nonlinear Von Mises Data

Material	YieldStress	LinIsoHard	soHardMo	LinKinHard	GnHardMo	NLIsoSaHard	UltStress	HardRate
Text	Tonf/m2	Yes/No	Tonf/m2	Yes/No	Tonf/m2	Yes/No	Unitless	Unitless
A36	37965.76	No		No		No		
A416Gr270	172322.4	No		No		No		
A572Gr50	38668.83	No		No		No		
A615Gr60	46402.6	No		No		No		
MADERA C PAD-REFORT	1650	No		No		No		

TABLE: Modal Load Participation Ratios

OutputCase Text	ItemType Text	Item Text	Static Percent	Dynamic Percent
MODAL	Acceleration	UX	95.2067	52.9847
MODAL	Acceleration	UY	94.4999	50.9296
MODAL	Acceleration	UZ	9.1515	1.8431

TABLE: Modal Participating Mass Ratios

OutputCase Text	StepType Text	StepNum Unitless	Period Sec	UX Unitless	UY Unitless	UZ Unitless	SumUX Unitless	SumUY Unitless	SumUZ Unitless	RX Unitless	RY Unitless	RZ Unitless	SumRX Unitless	SumRY Unitless	SumRZ Unitless
MODAL	Mode	1	0.181039	0.005143	0.439845	0.000017	0.005143	0.439845	0.000017	0.158763	0.001453	0.064556	0.158763	0.001453	0.064556
MODAL	Mode	2	0.168634	0.293062	0.029566	1.435E-06	0.292205	0.469411	0.000019	0.008503	0.08127	0.218735	0.167266	0.082723	0.283291
MODAL	Mode	3	0.147569	0.012719	0.002443	3.91E-07	0.310925	0.471854	0.000019	0.000618	0.002591	0.034092	0.167884	0.085314	0.317383
MODAL	Mode	4	0.135989	0.117946	0.033049	3.546E-08	0.428871	0.504903	0.000019	0.010128	0.03442	0.20297	0.178012	0.119733	0.520353
MODAL	Mode	5	0.122871	0.000016	1.634E-08	0.001418	0.428887	0.504903	0.001437	0.00007	0.001842	1.164E-06	0.178082	0.121576	0.520354
MODAL	Mode	6	0.116823	0.039168	0.000095	0.000012	0.468055	0.504998	0.001449	0.000168	0.012162	0.025804	0.178251	0.133738	0.546158
MODAL	Mode	7	0.113861	0.000944	0.000062	0.000243	0.468999	0.50506	0.001692	7.072E-06	0.0000143	0.000292	0.178258	0.133739	0.54645
MODAL	Mode	8	0.111978	0.000208	0.00003	0.000777	0.469207	0.50509	0.002469	2.829E-06	4.305E-06	0.000125	0.17826	0.133743	0.546576
MODAL	Mode	9	0.109595	0.000304	0.000054	6.861E-07	0.469511	0.505144	0.00247	0.000032	0.00002	0.000241	0.178292	0.133764	0.546817
MODAL	Mode	10	0.108243	8.91E-07	1.269E-07	0.002545	0.469512	0.505144	0.005015	0.003631	0.003079	2.029E-06	0.181923	0.136842	0.546819
MODAL	Mode	11	0.103055	0.060328	0.004151	0.00005	0.52984	0.509295	0.005064	0.003063	0.019901	0.048838	0.184987	0.156743	0.595657
MODAL	Mode	12	0.102324	6.97E-06	5.961E-07	0.013367	0.529847	0.509296	0.018431	0.012644	0.015241	5.539E-06	0.19763	0.171984	0.595662

TABLE: Modal Participation Factors

OutputCase Text	StepType Text	StepNum Unitless	Period Sec	UX Tonf-m	UY Tonf-m	UZ Tonf-m	RX Tonf-m	RY Tonf-m	RZ Tonf-m	ModalMass Tonf-m-s2	ModalStiff Tonf-m
MODAL	Mode	1	0.181039	1.289147	11.921803	0.074273	-53.753845	5.792508	43.679022	1	1204.524254
MODAL	Mode	2	0.168634	9.731326	-3.090915	-0.021535	12.439686	43.323382	80.401255	1	1388.256692
MODAL	Mode	3	0.147569	-2.027335	0.888577	0.011241	-3.352582	-7.734993	-31.741858	1	1812.872155
MODAL	Mode	4	0.135989	-6.173537	-3.267902	0.003385	13.577053	-28.194327	77.496667	1	2134.78347
MODAL	Mode	5	0.122871	-0.072259	0.002298	-0.677017	1.131747	6.522734	-0.185456	1	2614.924614
MODAL	Mode	6	0.116823	3.557599	0.175112	-0.062084	-1.74916	16.759427	-27.615047	1	2892.676564
MODAL	Mode	7	0.113861	-0.552443	-0.141608	-0.280205	0.358769	0.181702	2.938756	1	3045.182503
MODAL	Mode	8	0.111978	-0.259419	0.098025	-0.500936	0.226908	-0.315304	1.922889	1	3148.441224
MODAL	Mode	9	0.109595	0.313386	-0.132419	-0.01489	0.757824	0.68464	-2.669122	1	3286.845493
MODAL	Mode	10	0.108243	-0.016965	-0.006403	0.906888	-8.129399	-8.432031	0.244897	1	3369.438579
MODAL	Mode	11	0.103055	4.415195	-1.158187	-0.126527	7.466891	21.438513	-37.991273	1	3717.237103
MODAL	Mode	12	0.102324	-0.047446	0.013878	2.078266	15.169524	18.761125	0.404607	1	3770.575831

TABLE: Modal Periods And Frequencies

OutputCase Text	StepType Text	StepNum Unitless	Period Sec	Frequency Cyc/sec	CircFreq rad/sec	Eigenvalue rad2/sec2
MODAL	Mode	1	0.181039	5.5236723	34.706257	1204.5243
MODAL	Mode	2	0.168634	5.9300045	37.259317	1388.2567
MODAL	Mode	3	0.147569	6.7764731	42.577836	1812.8722
MODAL	Mode	4	0.135989	7.35355	46.203717	2134.7835
MODAL	Mode	5	0.122871	8.1386003	51.136334	2614.9246
MODAL	Mode	6	0.116823	8.5599272	53.783609	2892.6766
MODAL	Mode	7	0.113861	8.7826744	55.18317	3045.1823
MODAL	Mode	8	0.111978	8.9503386	56.110972	3148.4412
MODAL	Mode	9	0.109595	9.1245147	57.331017	3286.8455
MODAL	Mode	10	0.108243	9.2384456	58.046865	3369.4386
MODAL	Mode	11	0.103055	9.7035414	60.969149	3717.2371
MODAL	Mode	12	0.102324	9.7729116	61.405015	3770.5758

TABLE: Response Spectrum Modal Information

OutputCase Text	ModalCase Text	StepType Text	StepNum Unitless	Period Sec	DampRatio Unitless	U1Acc m/sec2	U2Acc m/sec2	U3Acc m/sec2	U1Amp m	U2Amp m	U3Amp m
DINAMICO	MODAL	Mode	1	0.181039	0.05	13.6896	10.7136	0	0.014651	0.106038	0
DINAMICO	MODAL	Mode	2	0.168634	0.05	13.6896	10.7136	0	0.095961	-0.023854	0
DINAMICO	MODAL	Mode	3	0.147569	0.05	13.6896	10.7136	0	-0.015309	0.005251	0
DINAMICO	MODAL	Mode	4	0.135989	0.05	13.6896	10.7136	0	-0.039589	-0.0164	0
DINAMICO	MODAL	Mode	5	0.122871	0.05	13.6896	10.7136	0	-0.000378	9.415E-06	0
DINAMICO	MODAL	Mode	6	0.116823	0.05	13.6896	10.7136	0	0.016836	0.000649	0
DINAMICO	MODAL	Mode	7	0.113861	0.05	13.6896	10.7136	0	-0.002484	-0.000498	0
DINAMICO	MODAL	Mode	8	0.111978	0.05	13.6896	10.7136	0	-0.001128	0.000334	0
DINAMICO	MODAL	Mode	9	0.109595	0.05	13.6896	10.7136	0	0.001305	-0.000432	0
DINAMICO	MODAL	Mode	10	0.108243	0.05	13.6896	10.7136	0	-0.000069	-0.00002	0
DINAMICO	MODAL	Mode	11	0.103055	0.05	13.6896	10.7136	0	0.01626	-0.003338	0
DINAMICO	MODAL	Mode	12	0.102324	0.05	13.6896	10.7136	0	-0.000172	0.000039	0

**PROYECTO**  
**ECO MUSEO BIBLIOTECA**  
**EDIFICACION FINAL CON REPOTENCIACION**

TABLE: Joint Displacements				SISMO X QUAKE X	SISMO Y QUAKE Y
Joint Text	OutputCase Text	CaseType Text	H PISO	U1 m	U2 m
		CUB	4.62	0.002400	0.011200
		P2	4	0.006410	0.007100
		P1	3.7	0.001800	0.001700

**DERIVAS DE PISO**

**ALTURA GENERAL DE ENTREPISO**

**R= 2**

NIVEL	DESPLAZ. RELATIV.		DERIVAS	
	U1	U2	U1	U2
H	m	m	m	m
	sismo x	sismo y	sismo x	sismo y
4.62	0.000600	0.009500	0.0003	0.0041
4	0.006410	0.007100	0.0032	0.0036
3.7	0.001800	0.001700	0.0010	0.0009

**MAX**

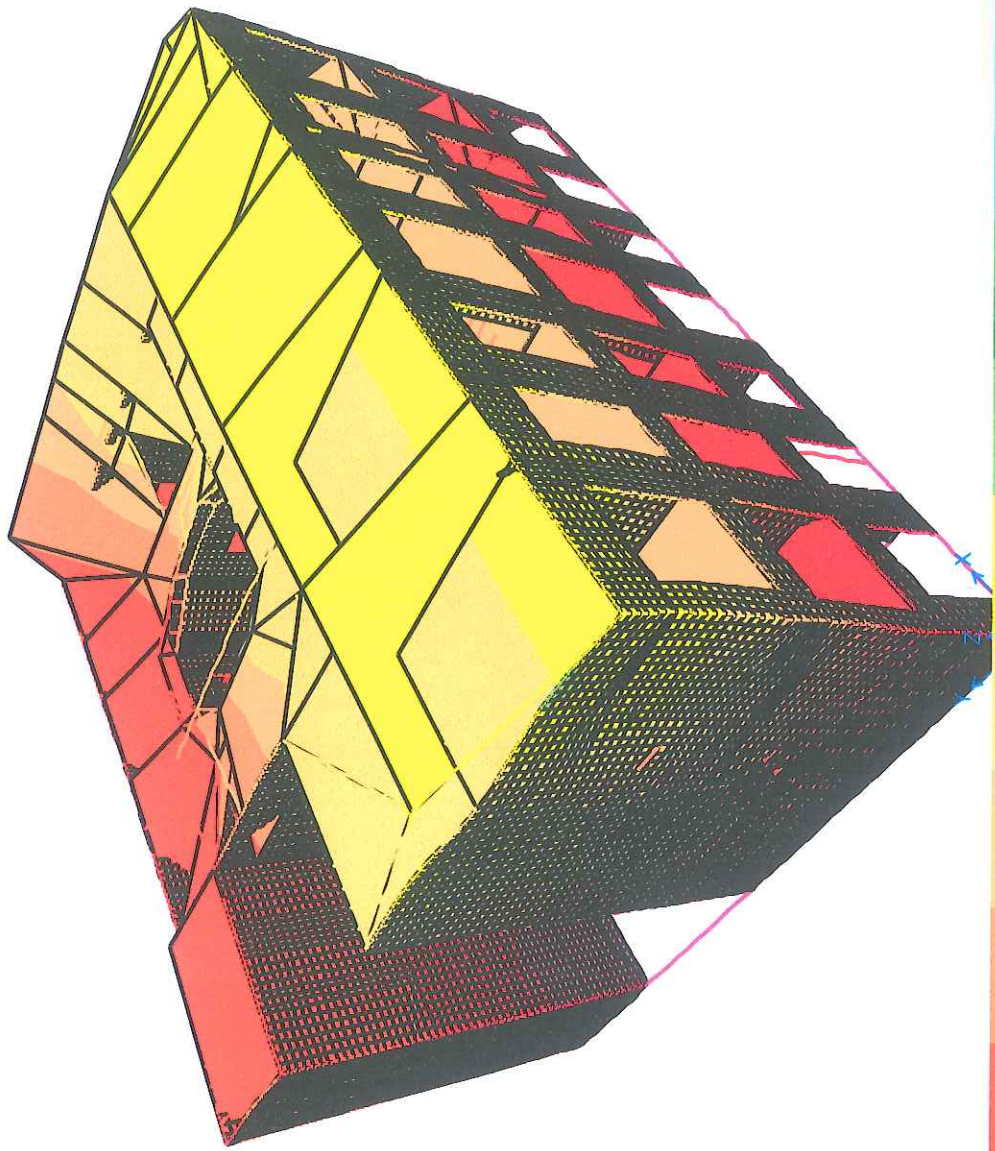
**sismo x**  
**0.0032**

**sismo y**  
**0.0041**

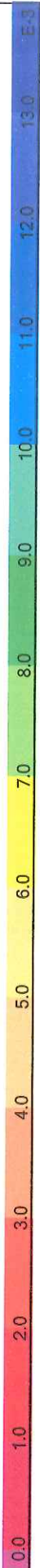
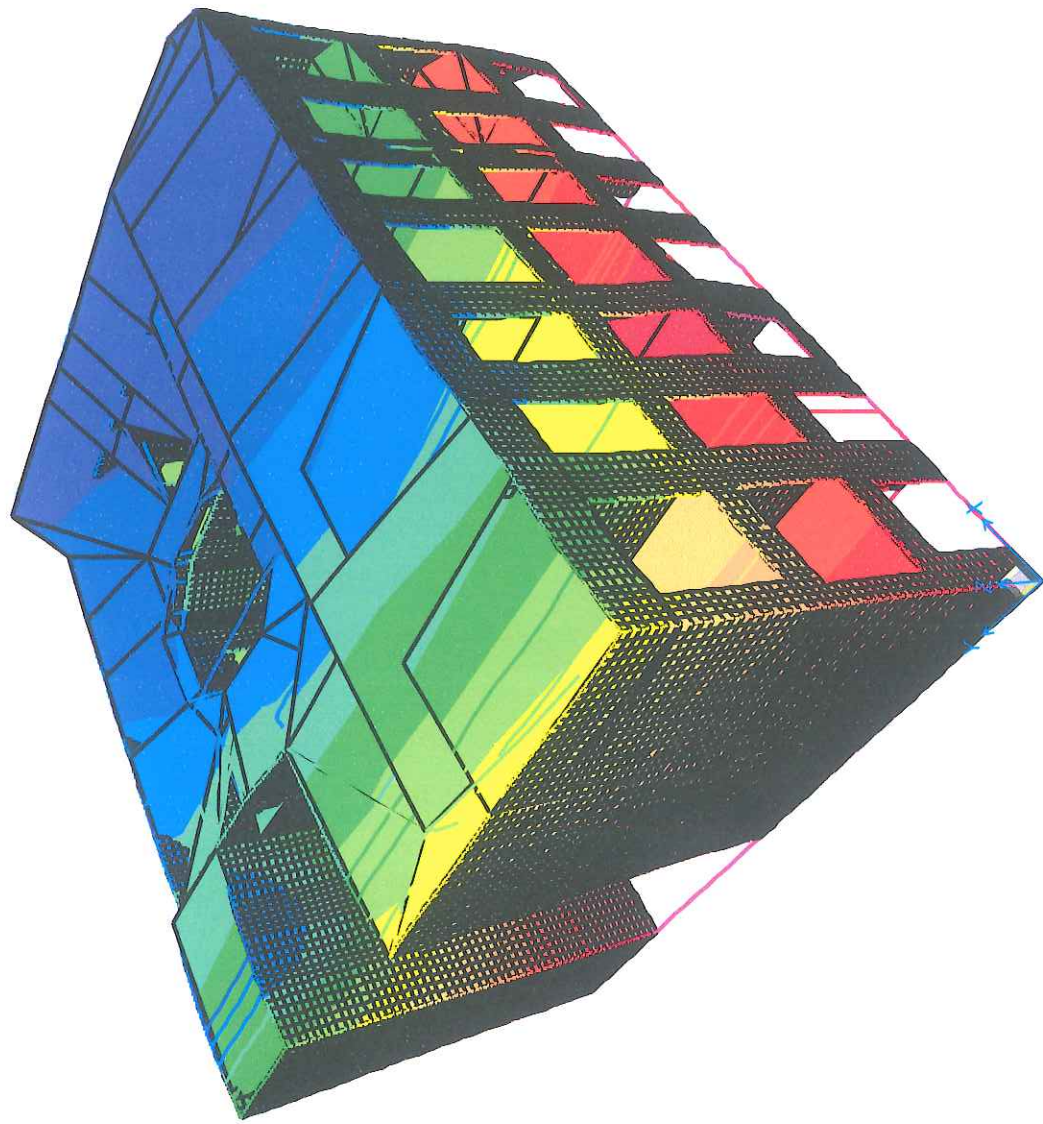
**DERIVA DE PISO NEC-SE-DS-2014**

**0.02**

LA EDIFICACION CUMPLE LAS DERIVAS Y DEFORMACIONES UNITARIAS



Deformed Shape (QUAKEX) - Contours for Ux



Deformed Shape (QUAKEY) - Contours for Ux



**PROYECTO  
ECO MUSEO BIBLIOTECA  
PROYECTO REPOTENCIADO**

**RESULTADOS MAMPOSTERIAS**

**PROYECTO  
ECO MUSEO BIBLIOTECA  
RESULTADOS DEL ANALISIS DE MUESTRAS**

**PARAMETROS DE MAMPOSTERIAS**

DE ACUERDO A LOS ESTUDIOS DE RESISTENCIA DE LA PUCE LOS PARAMETROS DE RSISTENCIA DE LAS MAMPOSTERIAS SON

**B.3.5 MAMPOSTERIA DE LADRILLO** del analisis de laboratorio

NEC-SE-MP ANEXO 10

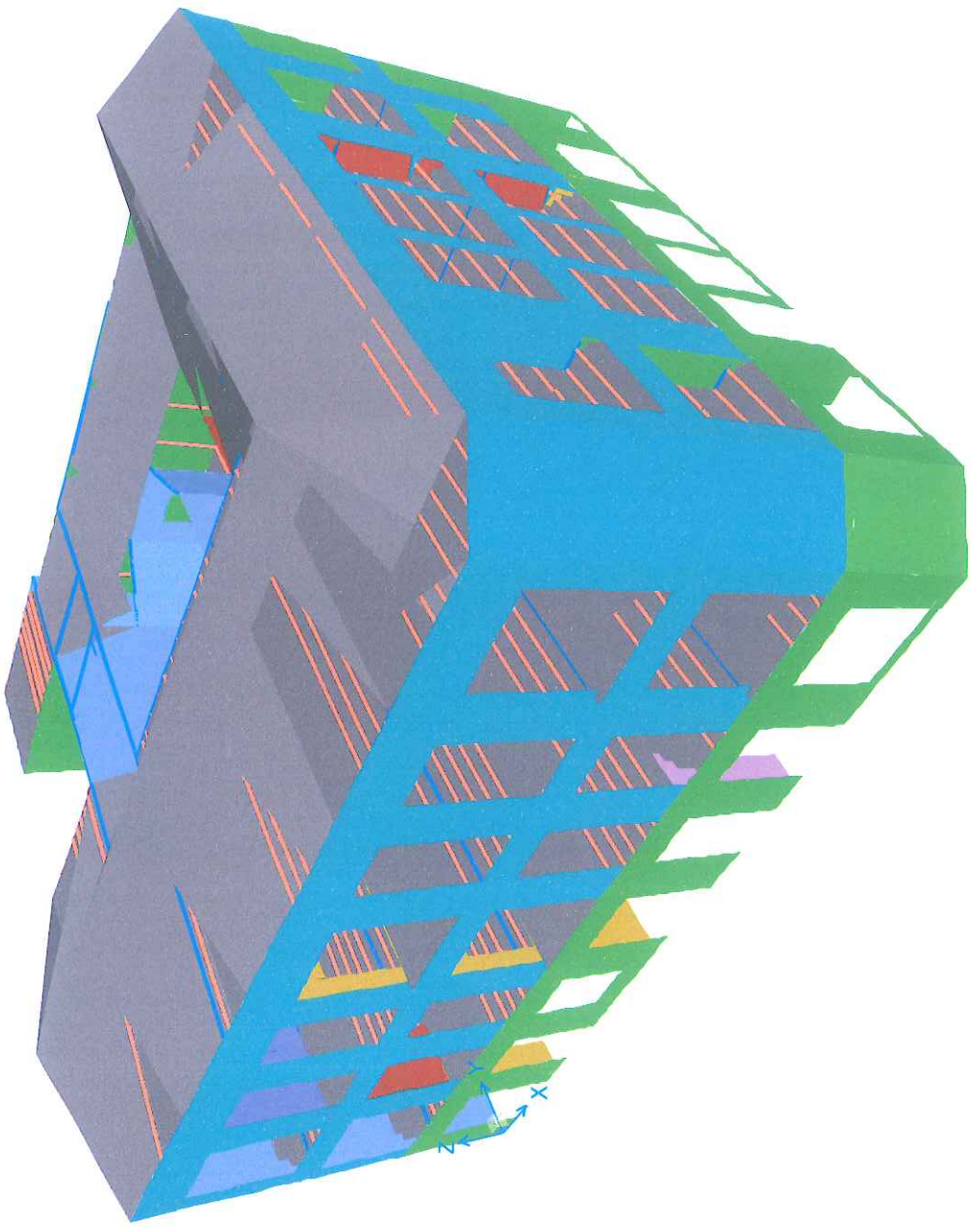
MUESTRA	RESIST. A LA COMPRESION		MEDIA ESTADISTICA		MODULO ELASTICIDAD KG/CM2	PESO UNIT GR/CM3	MATERIAL
	RESIST. KG/CM2	PONDERADA	PERCENT 17%	PERCENT 33%			
MUESTRA 1	11.22	41.96	11.22	11.22	3,427.20	1.44	LADRILLO
MUESTRA 2	12.24	49.94	12.24	12.24	3,406.80	1.31	LADRILLO
MUESTRA 3	15.30	78.03	15.30	15.30	3,651.60	1.32	LADRILLO
MUESTRA 4	18.36	112.36	18.36	18.36	3,835.20	1.42	LADRILLO
MUESTRA 5	14.28	67.97	14.28	14.28	-----	1.42	LADRILLO
MUESTRA 6	10.20	34.68	10.20	10.20	-----	1.44	LADRILLO
<b>PROMEDIO</b>	<b>13.60</b>	<b>13.04</b>	<b>12.512</b>	<b>8.84</b>	<b>3,580.20</b>	<b>1.36</b>	

Para el modulo de elasticidad se toma en consideracion las disposiciones del NEC-SE-DM 5.3.1.b

LOS ESFUERZOS MAXIMOS QUE ESTA MAMPOSTERIA DEBE RESISTIR BAJO CARGAS FACTORADAS SON:

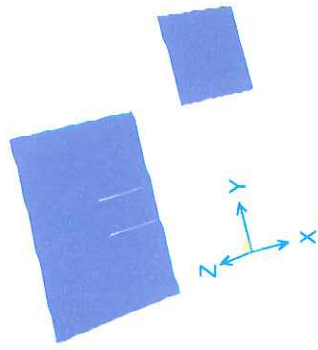
ESFUERZO ADMISIBLE A LA COMPRESION  
ESFUERZO ADMISIBLE A LA TENSION  
ESFUERZO ADMISIBLE AL CORTE

13.04 KG/CM2.  
1.30 KG/CM2.  
1.92 KG/CM2. RAIZ(F'M)/6

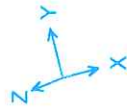




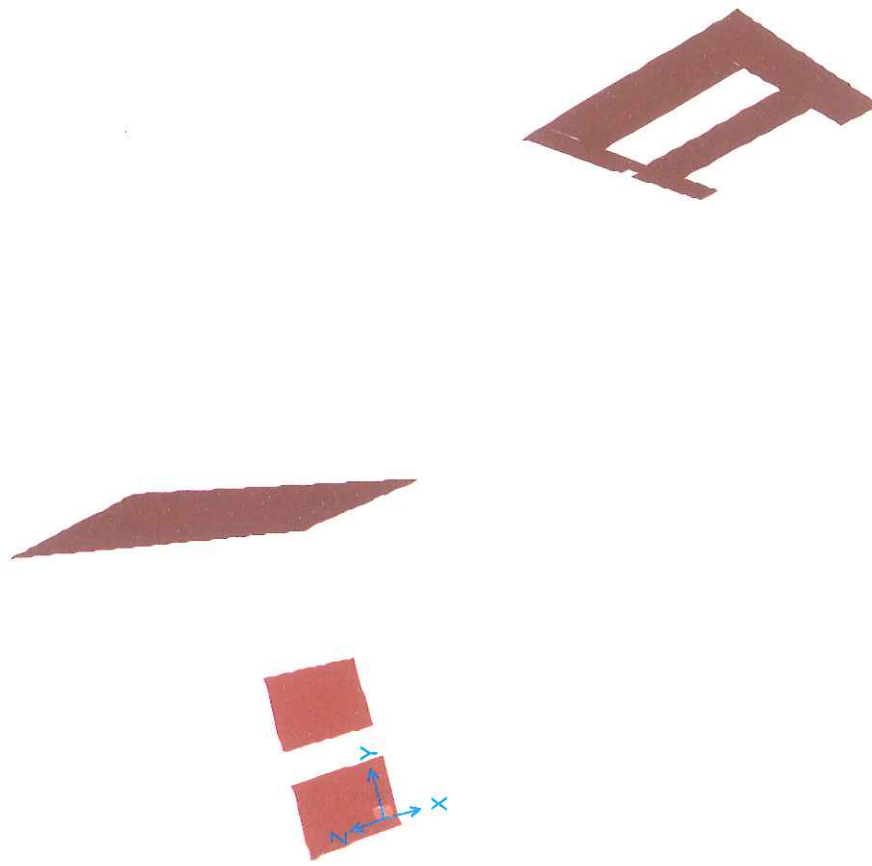
SOLID MASTROTERIAS



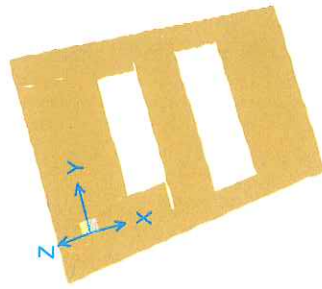
PAREDES NO CMV



PAZES 30 CAM.

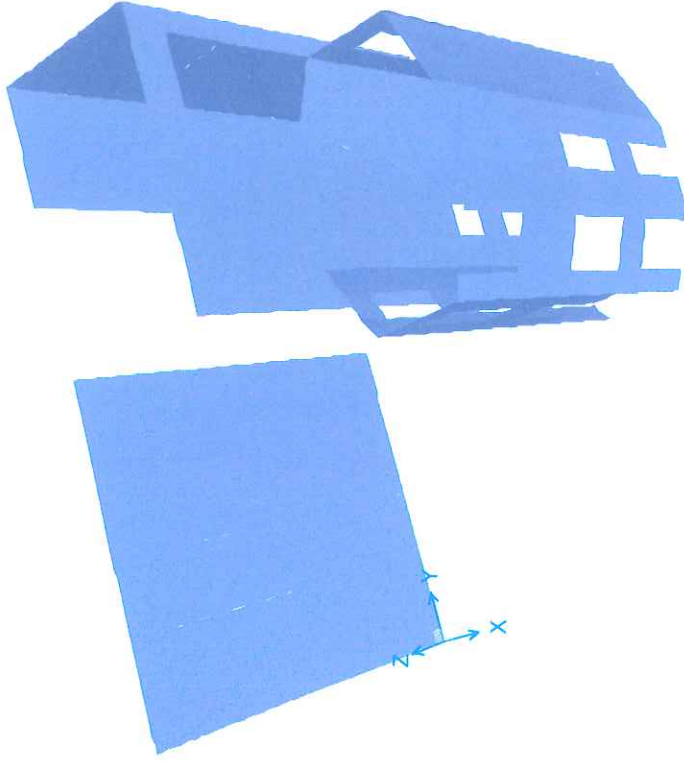


PARED 40 cm.

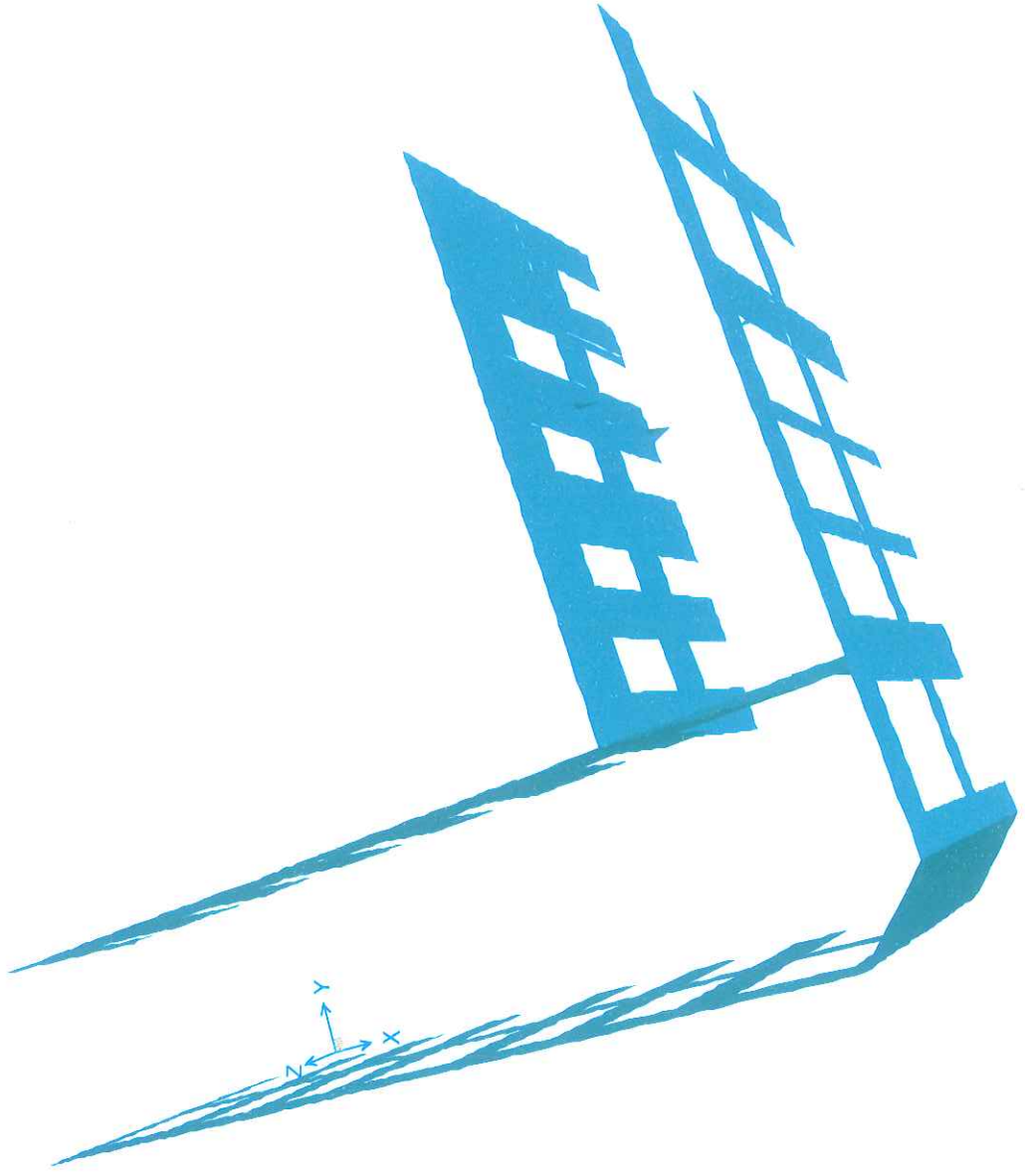


PAZED SO CMV.

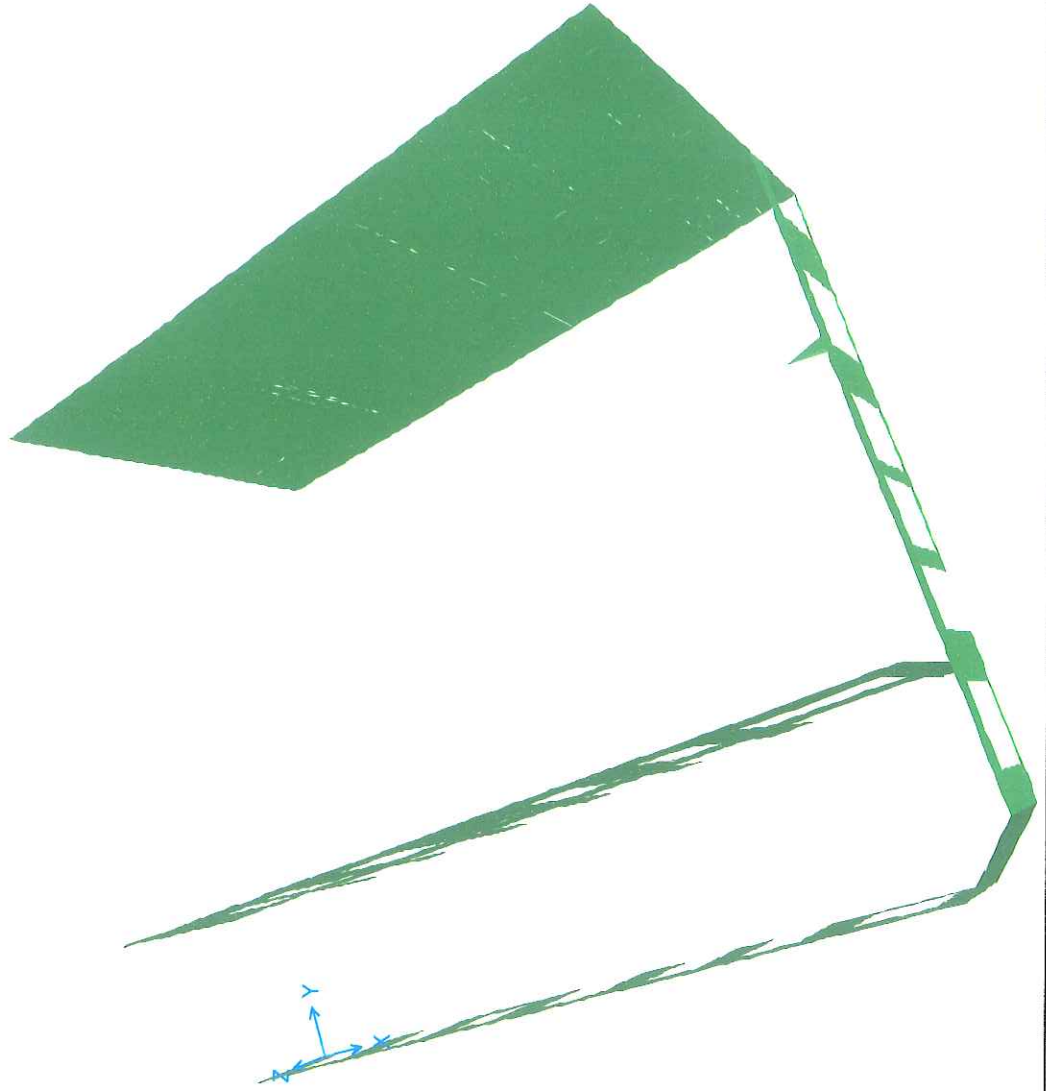




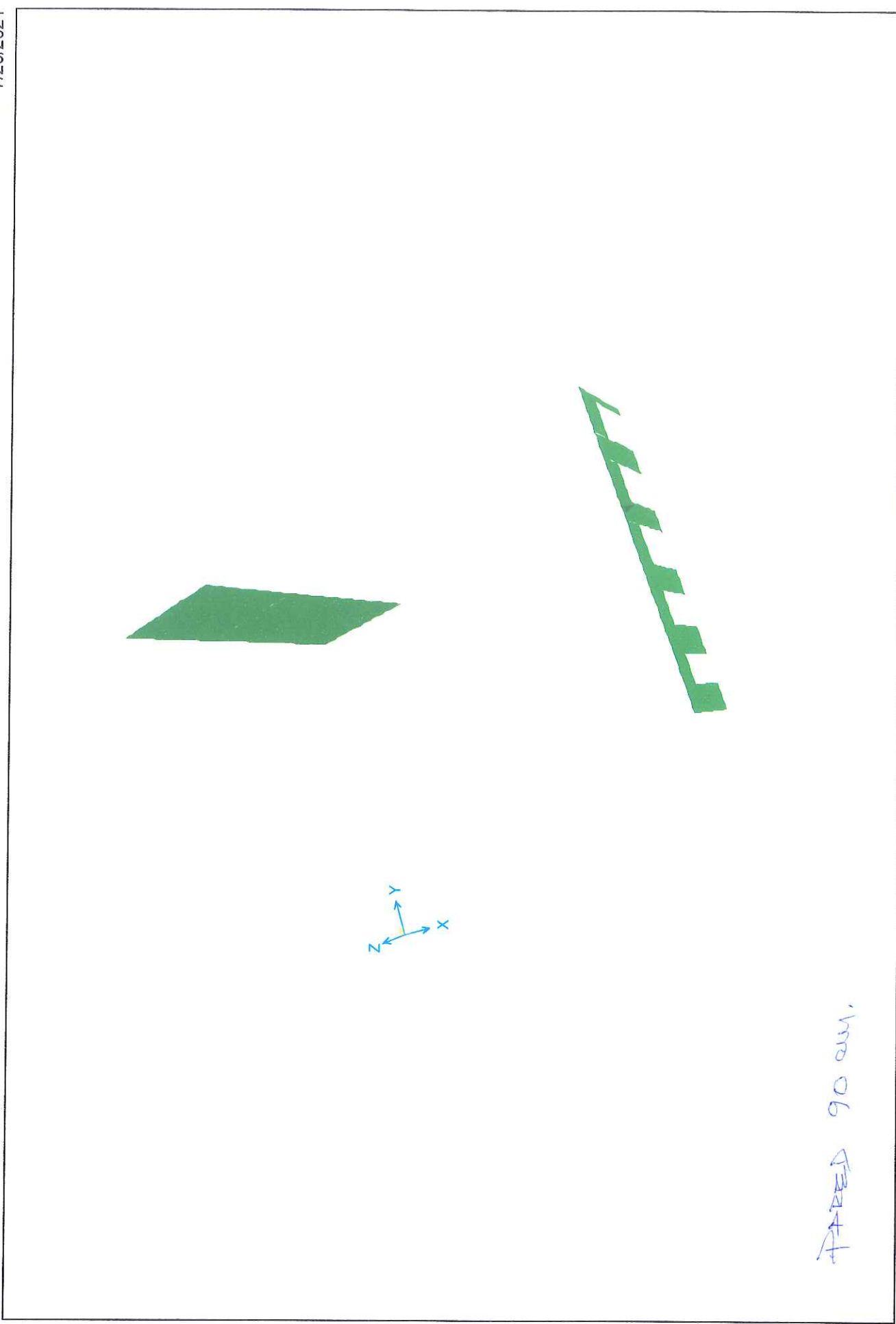
PARED 60 CM.



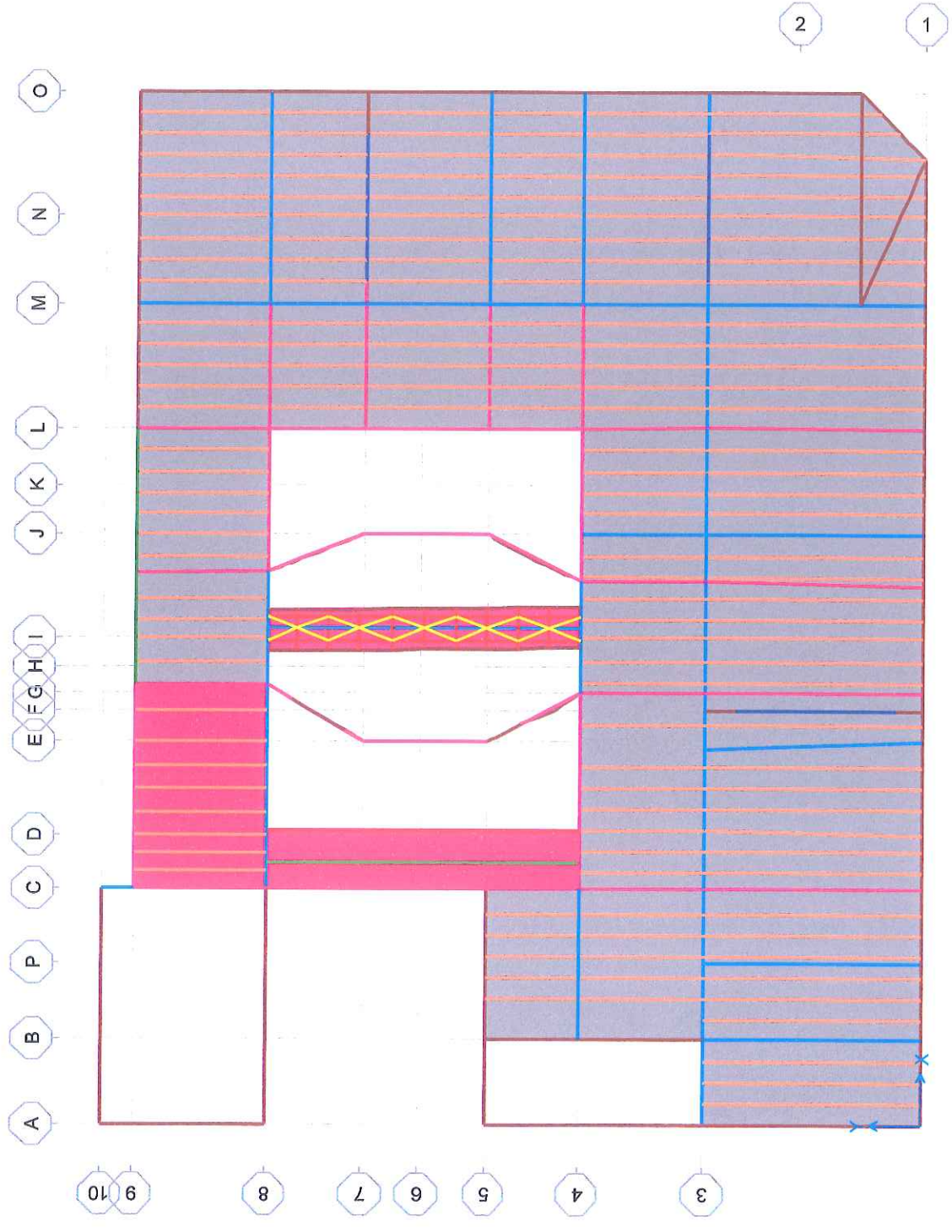
ADDED 7-0 cm

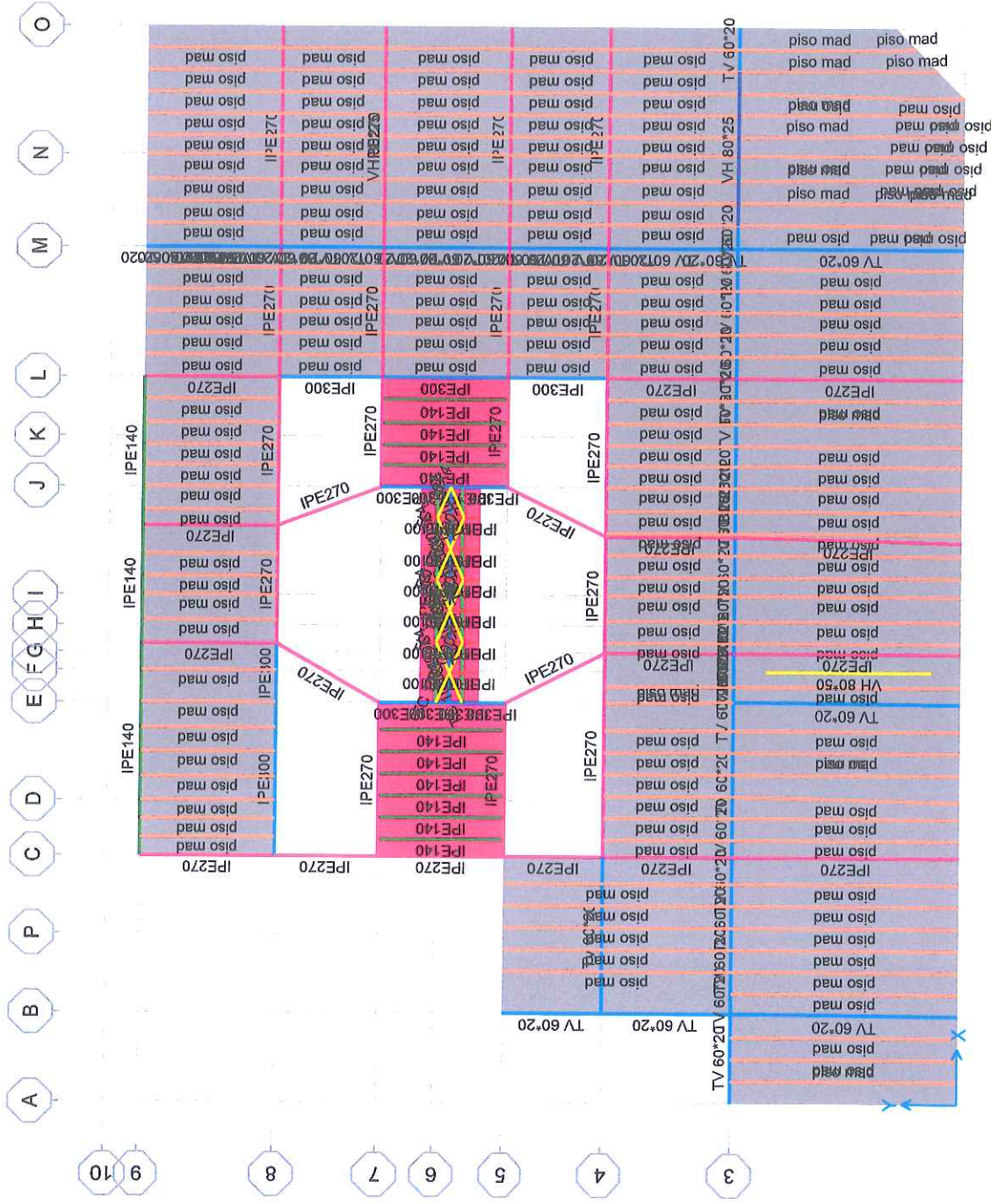


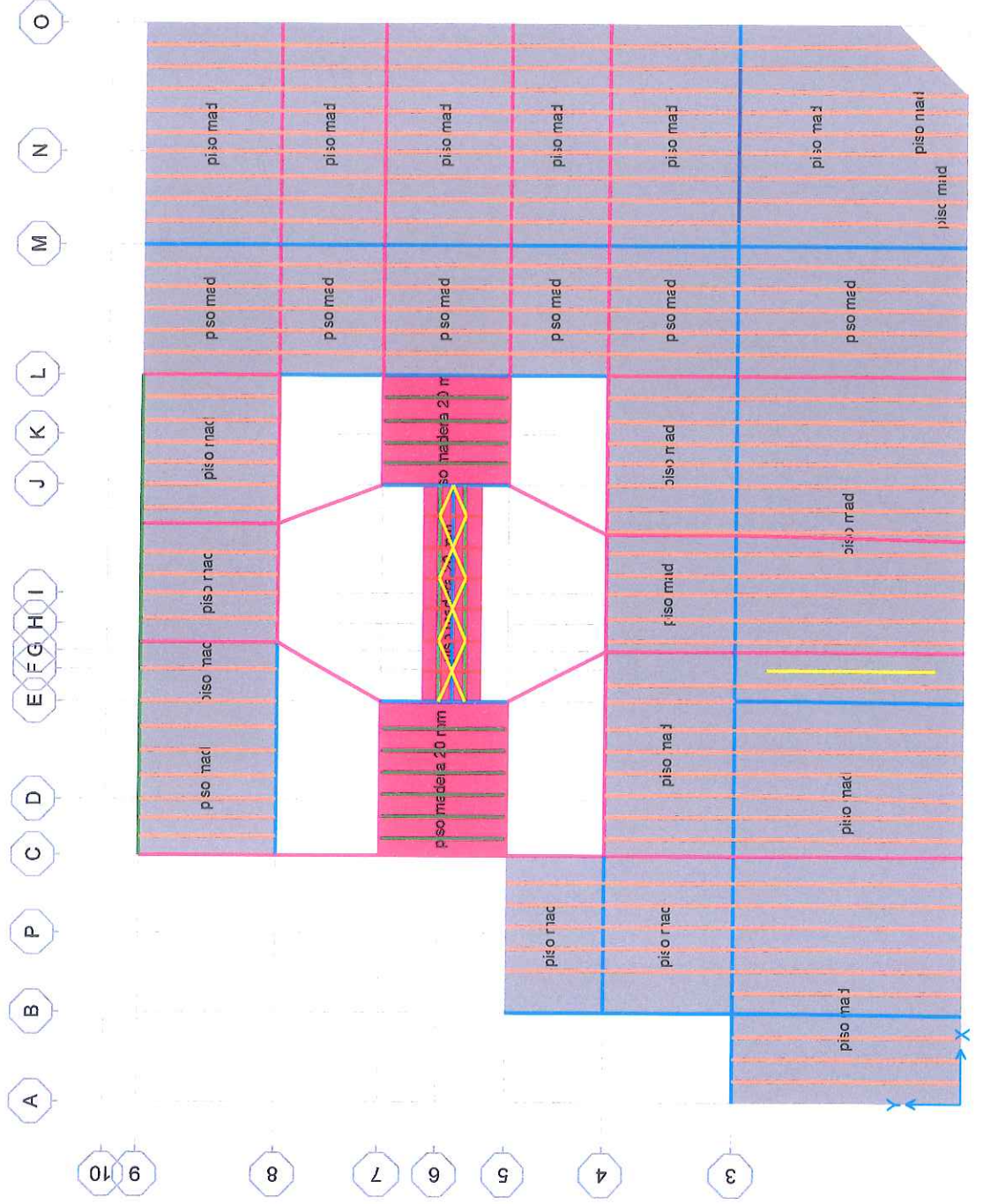
Faces 80 cm.

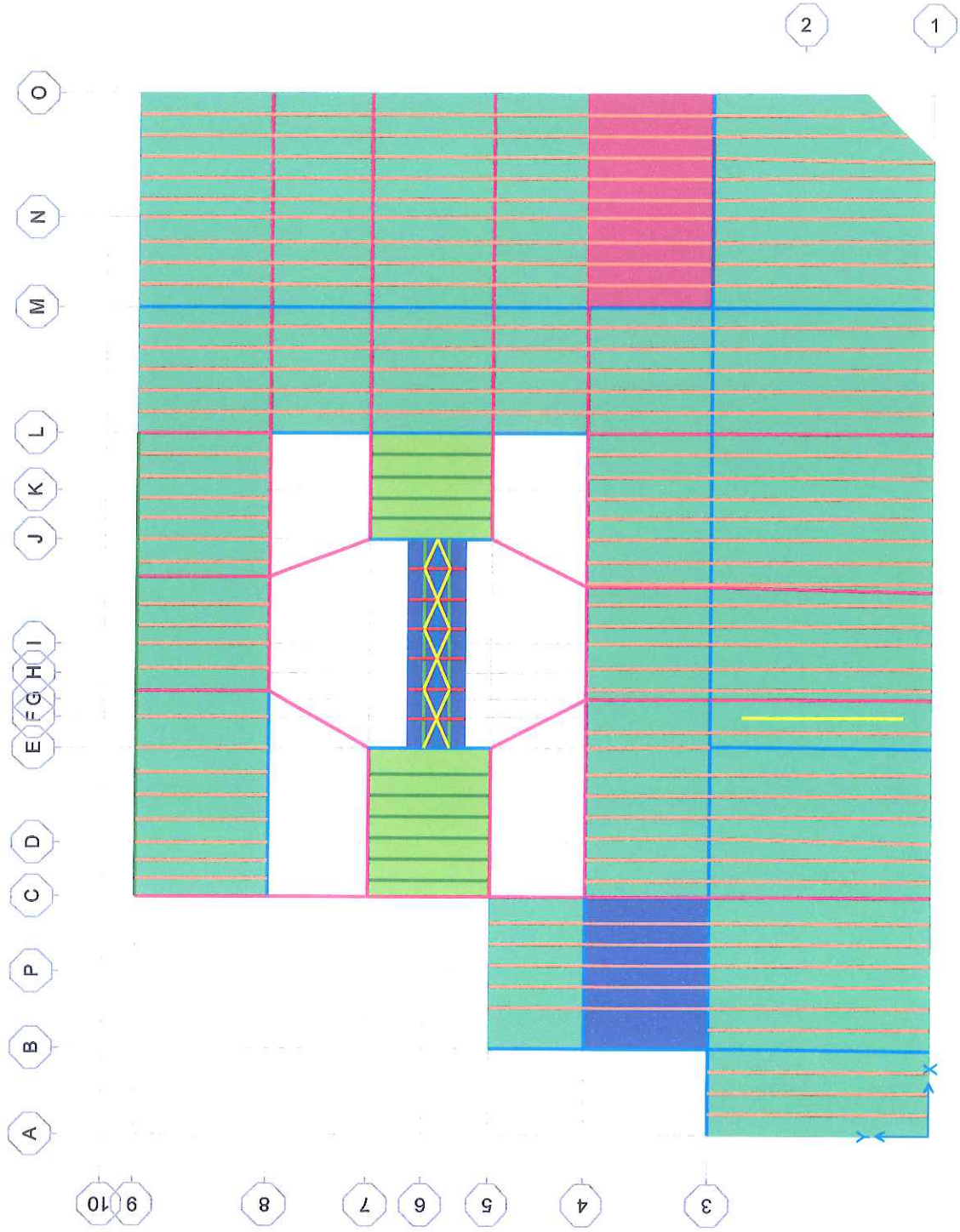


FIXED 90 deg.



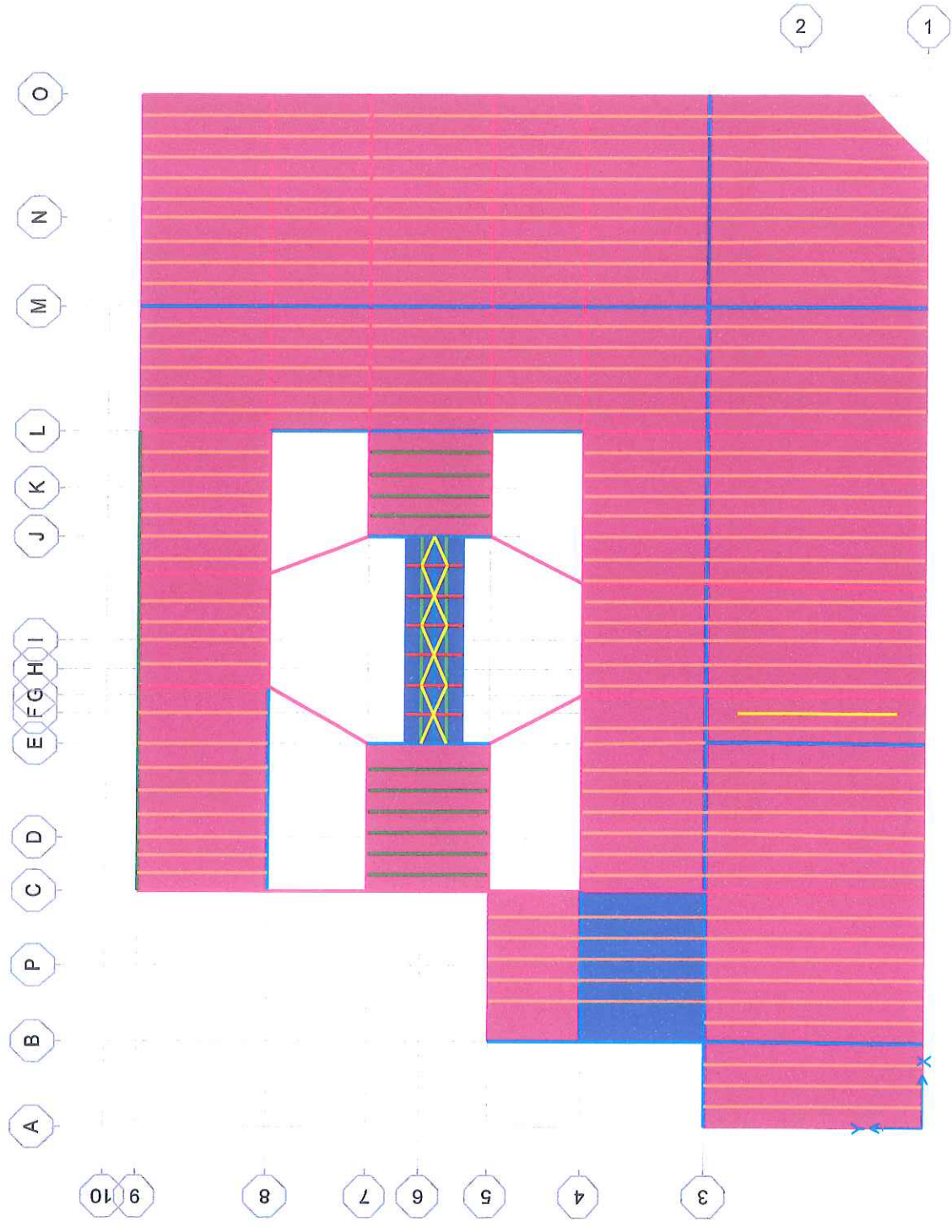




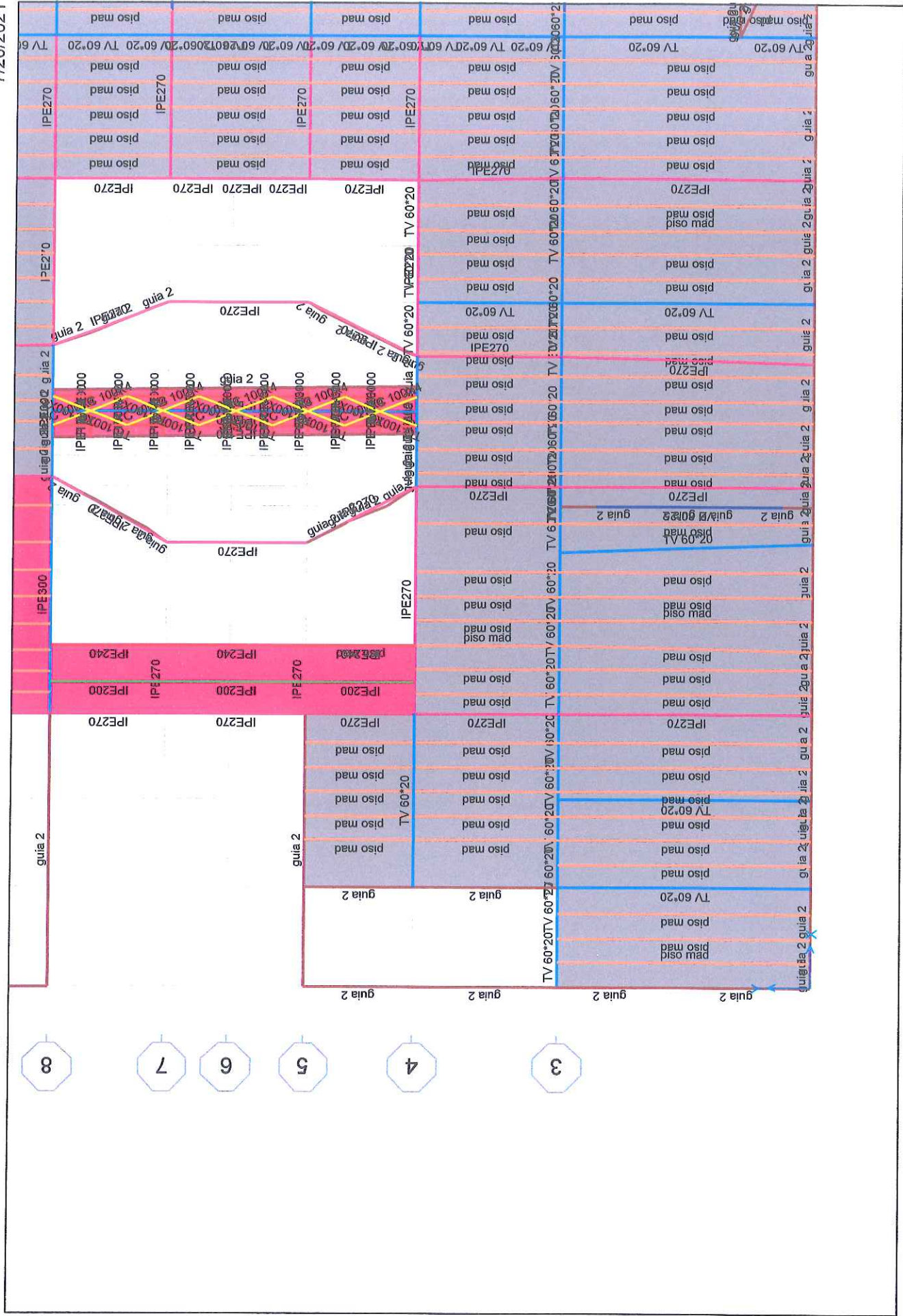


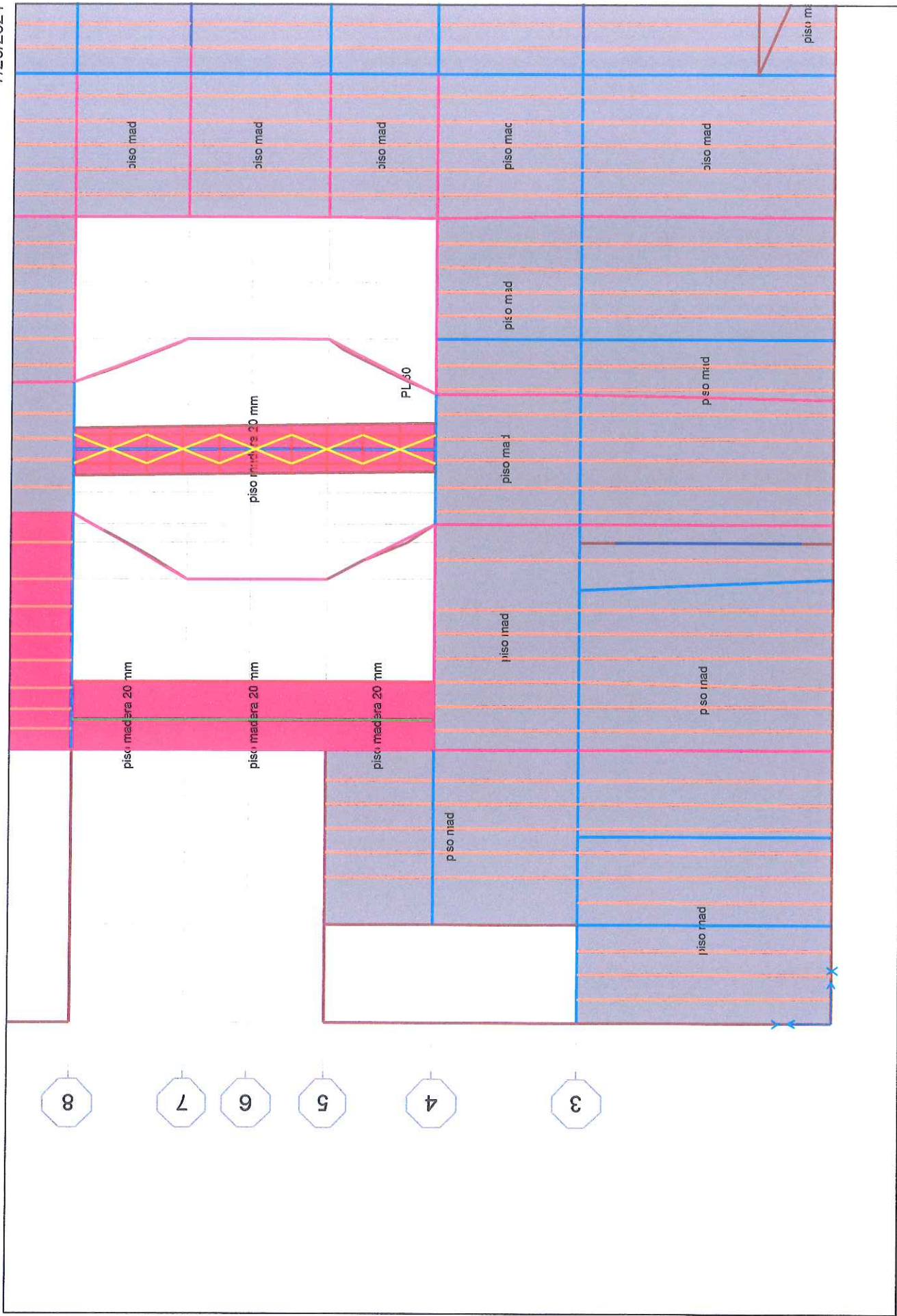
SAP2000 22.2.0  
Area Uniform to Frame (DEAD) (Local - Z) (1-Way)  
Tonf, m, C

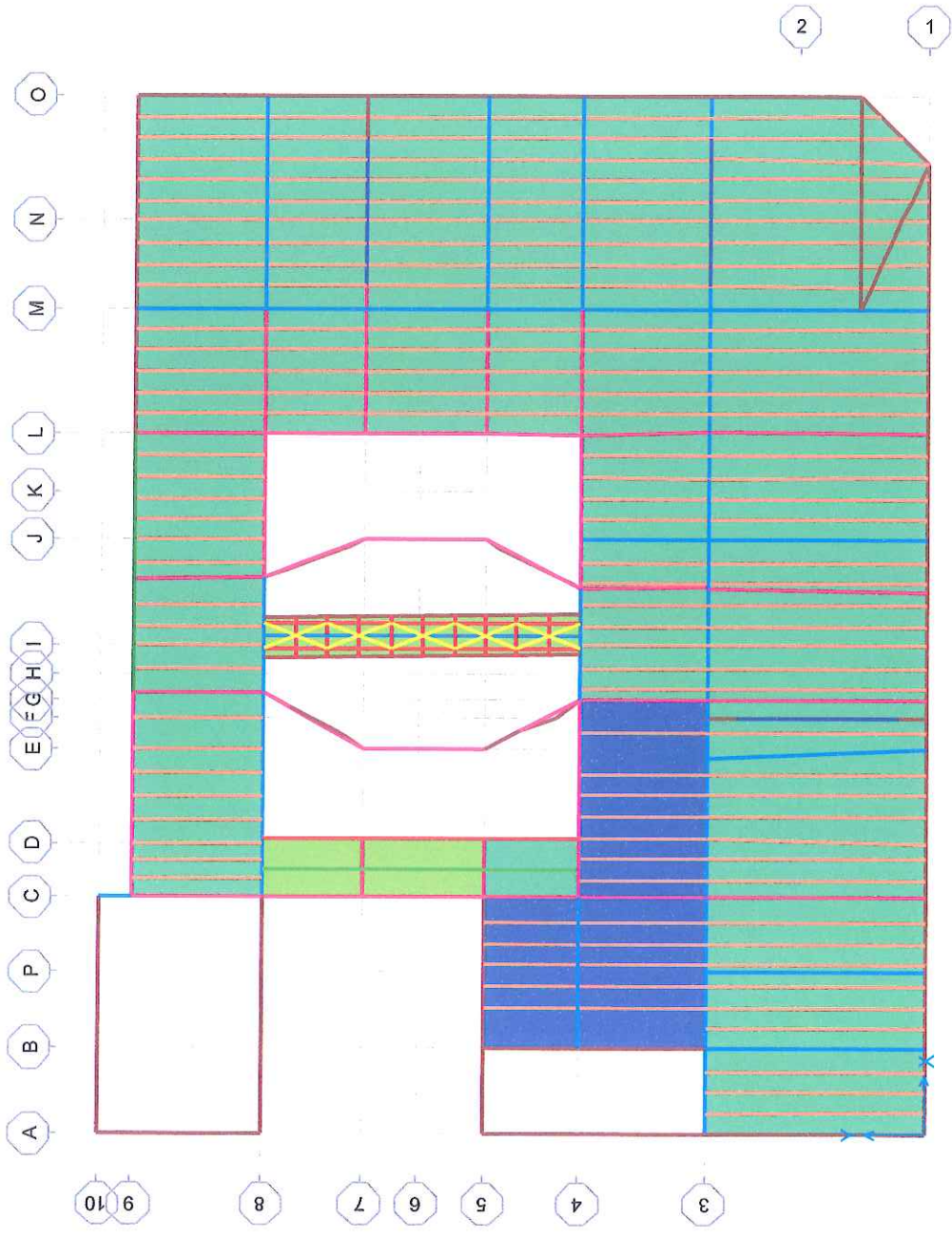


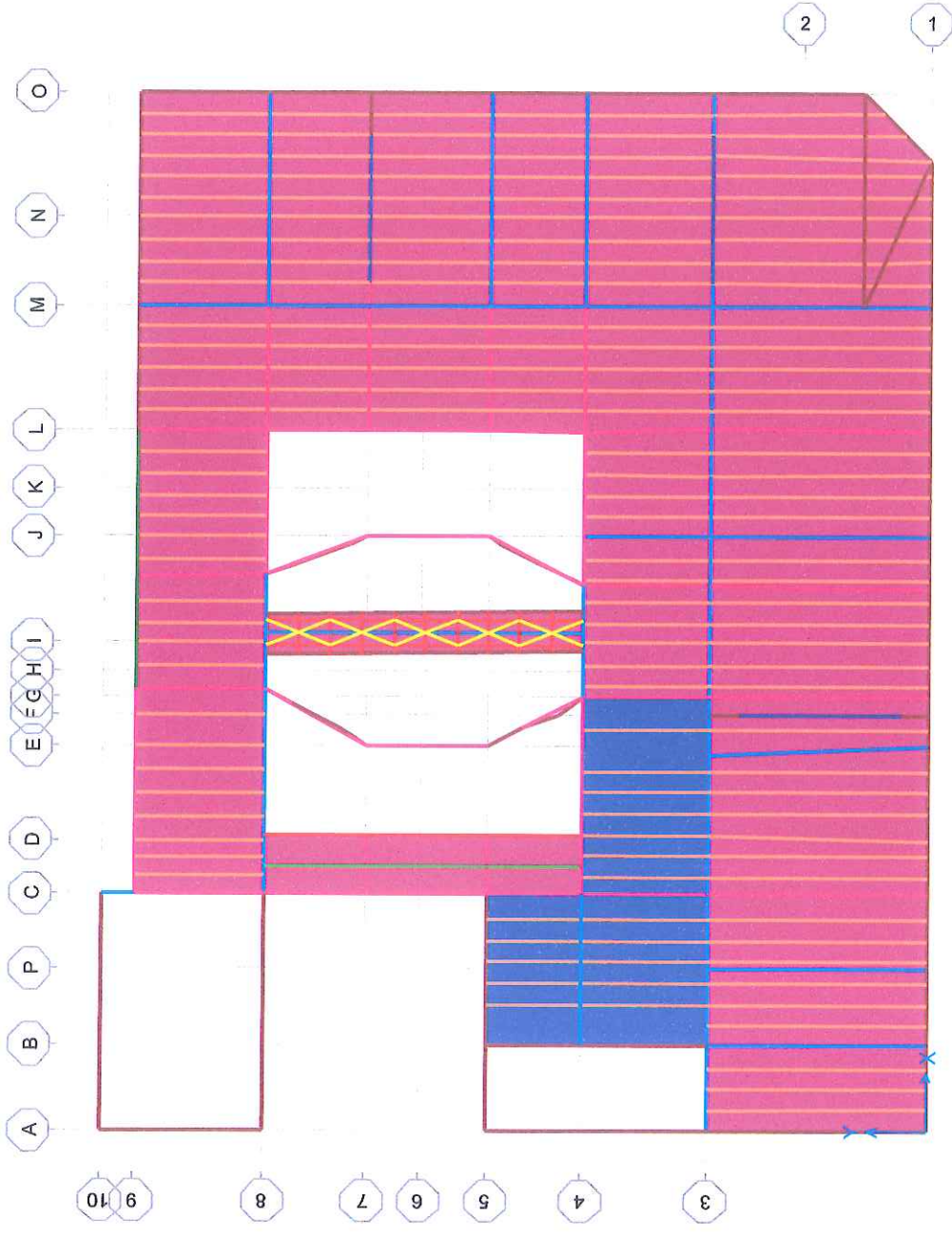












SAP2000 22.2.0  
Area Uniform to Frame (LIVE) (Local - Z) (1-Way)  
Tonf, m, C

