

# MEMORIA DE CÁLCULO ESTRUCTURAL

DIN - FISDL  
08 JUN. 2017  
REVISADO



O.S. CONSTRUCTORES S.A. DE C.V.



**Marcos Miguel Sánchez Machuca**

**Ingeniero Civil**

**Consultoría y Construcción**

San Salvador, 12 de enero de 2017.


Presente

Estimados señores:

Adjunto encontrarán Memoria de Cálculo Estructural de las edificaciones de "Kinder 22 de abril" Final calle Chaparrastique, comunidad El Milagro, Colonia 22 de abril, Soyapango, San Salvador.

Quedamos a sus órdenes para la aclaración de cualquier duda relacionada con los datos.

Sin otro particular nos suscribimos a usted muy atentamente

  
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## DATOS DE MEMORIA DE CÁLCULO

### 1.0 Descripción del proyecto

El proyecto consiste en edificaciones de uno y dos niveles, las áreas aproximadas de las de un nivel: 350m<sup>2</sup> y de las de dos niveles 100 m<sup>2</sup> aproximadamente

A continuación se describen las principales características de la edificación objeto de esta memoria:

#### Dos Niveles:

Sistema sismo-resistente a base de marcos de concreto dúctiles en una dirección, y en la otra dirección paredes de mampostería reforzada.

#### Un Nivel:

Paredes de mampostería reforzada en dos direcciones.

### 2.0 Criterios para Análisis y Diseño

Para el cálculo de la estructura se usaron los siguientes reglamentos e información:

#### -Análisis:

- : Reglamento de El Salvador , 1997
- : Norma de Diseño por Sismo , 1997
- : UBC 1994

#### -Diseño:

- : AISC 9TH Edición
- : ACI 1999
- : UBC 1997 LRFD



### 3.0 Propiedades y Cargas Unitarias

- Propiedades:

- Acero Laminado	=2520	Kg/cm <sup>2</sup>
- Concreto f'c	=280	Kg/cm <sup>2</sup>
- Concreto fc	=210	Kg/cm <sup>2</sup>
- Acero fy	=4200	Kg/cm <sup>2</sup>
- Esf de suelo	=13.3	Ton/Pil

- Cargas:

- CF +IE	=25	Kg/m <sup>2</sup>
- Lámina de Techo	=15	Kg/m <sup>2</sup>
- Carga viva de techo	=40	Kg/m <sup>2</sup>
- Carga Muerta	=200	Kg/m <sup>2</sup>
Superpuesta		
- Carga Viva	=350	Kg/m <sup>2</sup>
- Carga divisiones livianas	=50	Kg/m <sup>2</sup>



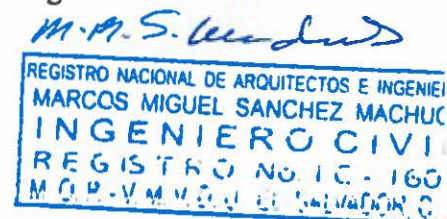
### 4.0 Análisis

#### 4.1. Análisis Sísmico Estático

Dado que la edificación es regular, se hizo un análisis estático mediante la rutina matricial ETABS, en el cual para encontrar las cargas laterales a las que la estructura estaría expuesta durante su vida útil; utiliza los datos dados por el reglamento de El Salvador 1997, Basado en UBC'94.

La ecuación básica para el cálculo de fuerzas laterales es:

$$V_b = C_s W_t \quad \text{y} \quad C_s = \frac{A C_o I}{R} \times \left( \frac{T_o}{T} \right)^{2/3}$$



En donde:

$V_b$  = Cortante Basal

$W_t$  = Peso Sísmico calculado según tabla de cargas antes descritas .

$A$  = Factor de Zonificación Sísmica,  $A = 0.40$

$I$  = Factor de Importancia: Grupo I,  $I = 1.2$

$T_o, C_o$  = Coeficiente de Sitio según características del suelo.

$R$  = Factor de Modificación de Respuesta,  $R = 10$  y  $R = 6$  (dos niveles)

$R = 6$  (Un Nivel)

$T$  = Periodo Fundamental de vibración de la estructura en la dirección bajo consideración.

## 5.0 Análisis Elástico

Con los resultados obtenidos como se explica en la sección 4.0 (cargas sísmicas) y de la evaluación de cargas gravitacionales, se procedió a realizar un análisis elástico mediante rutinas digitales de elemento finito. Estas rutinas permitieron conocer los distintos elementos mecánicos (flexión, cortante, axial, torsión), actuantes en cada uno de los elementos estructurales.

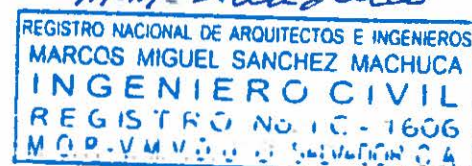
Rutinas empleadas:

- ETABS 9.7.4. (Diseño de Vigas y Columnas )
- RUTINA EN BASIC (Diseño de Zapatas y Placas Base).



## 6.0 Diseño de Elementos

Con las cargas obtenidas en la etapa 5, se diseñaron los diferentes elementos utilizando procedimientos sistemáticos de diseño. Para este propósito, se utilizaron los reglamentos AISC 9th Edition, ACI 1999 y Manuales de Mampostería reforzada, cuando correspondió.



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## **7.0 Datos de Diseño**

Adjunto se presentan datos de la memoria de cálculo del proyecto descrito, mostrando el proceso de análisis y diseño seguido.

## **CONCLUSIONES**

Se concluye que las edificaciones de uno y dos niveles en estructura de concreto se han diseñado de acuerdo a las normas técnicas que se desprenden del reglamento para la Seguridad Estructural de las Construcciones de El Salvador, las normas técnicas de diseño de sismo, Norma Técnica de Diseño por viento, Norma Técnica de Diseño cimentaciones y Taludes.

## **RECOMENDACIONES**

Se recomienda que el Ingeniero residente lleve un control en los resultados con respecto a los materiales, para que se cumplan las suposiciones de diseño con respecto a las resistencias. Por ejemplo: concreto y acero.

Se recomienda verificar niveles y colindancias para que los planos arquitectónicos no difieran de los estructurales.

Se recomienda en la construcción de pilotes llevar un control por el Laboratorio de suelos para aprobar la profundidad adecuada de desplante de pilotes.



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## **DATOS DE ENTRADA**



Sin titulo

ETABS v9.7.4 File:KINDER22QBRIL2M Units:Ton-m enero 11, 2017 17:45 PAGE 1

MATERIAL LIST BY ELEMENT TYPE

ELEMENT TYPE	MATERIAL	TOTAL MASS tons	NUMBER PIECES	NUMBER STUDS
Column	FC210FY2800	28.63	127	
Column	FC280FY4200	18.26	14	
Beam	FC210FY2800	28.14	45	0
Beam	A33	0.44	25	0
Beam	FC280FY4200	12.20	3	0
Beam	FC210FY4200	10.01	14	0
Brace	FC210FY2800	2.05	35	
Brace	A36	0.35	2	
Wall	MBLOQ	51.45		
Floor	FC210FY2800	21.31		
Floor	FC280FY4200	37.07		

ETABS v9.7.4 File:KINDER22QBRIL2M Units:Ton-m enero 11, 2017 17:45 PAGE 2

MATERIAL LIST BY SECTION

SECTION	ELEMENT TYPE	NUMBER PIECES	TOTAL LENGTH meters	TOTAL MASS tons	NUMBER STUDS
VC15X20	Beam	5	18.200	1.25	0
VC15X20	Brace	35	28.454	2.05	
VC20X40	Beam	36	85.600	15.65	0
2PC5CH16	Beam	25	77.100	0.44	0
CC30	Column	117	123.000	20.89	
VC30X40	Beam	14	38.980	10.01	0
SF60X40	Beam	3	21.150	12.20	0
VC30X60	Beam	4	28.200	11.25	0
C35X35	Column	8	23.000	6.77	
CC40	Column	2	3.200	0.97	
TU4X14X316	Brace	2	10.504	0.35	
C35X55	Column	14	39.470	18.26	
CPRS	Floor			0.87	
LD12	Floor			20.45	
PB15	Wall			51.45	
LD30	Floor			18.69	
LDEF132	Floor			18.38	



ETABS v9.7.4 File:KINDER22QBRIL2M Units:Ton-m enero 11, 2017 17:45 PAGE 3

MATERIAL LIST BY STORY

STORY	ELEMENT TYPE	MATERIAL	TOTAL WEIGHT tons	FLOOR AREA m2	UNIT WEIGHT kg/m2	NUMBER PIECES	NUMBER STUDS
STORY4	Column	FC280FY4200	0.68	0.000	1		
STORY4	Beam	FC210FY2800	0.63	0.000	3	0	
STORY4	Beam	A33	0.44	0.000	25	0	
STORY4	Brace	FC210FY2800	2.05	0.000	35		
STORY4	Brace	A36	0.35	0.000	2		
STORY4	Wall	MBLOQ	8.99	0.000			
STORY3	Column	FC210FY2800	4.12	6.048	681.4063	5	
STORY3	Column	FC280FY4200	6.48	6.048	1070.7813	5	
STORY3	Beam	FC210FY2800	8.10	6.048	1338.6752	27	0
STORY3	Wall	MBLOQ	31.30	6.048	5174.8889		
STORY3	Floor	FC280FY4200	1.89	6.048	312.3900		
STORY2	Column	FC210FY2800	2.71	123.718	21.9022	4	
STORY2	Column	FC280FY4200	11.10	123.718	89.7352	8	
STORY2	Beam	FC210FY2800	19.42	123.718	156.9395	15	0
STORY2	Beam	FC210FY4200	10.01	123.718	80.9481	14	0
STORY2	Wall	MBLOQ	11.17	123.718	90.2633		
STORY2	Floor	FC210FY2800	20.45	123.718	165.2876		
STORY2	Floor	FC280FY4200	16.50	123.718	133.3284		
STORY1	Column	FC210FY2800	21.80	28.920	753.7500	12	
STORY1	Beam	FC280FY4200	12.20	28.920	421.7000	14	
STORY1	Floor	FC210FY2800	0.87	28.920	29.8120		
STORY1	Floor	FC280FY4200	18.69	28.920	646.8178		
SUM	Column	FC210FY2800	28.63	158.686	180.4110	14	
SUM	Column	FC280FY4200	18.26	158.686	115.0570	14	
SUM	Beam	FC210FY2800	28.14	158.686	177.3524	45	0
SUM	Beam	A33	0.44	158.686	2.7452	25	0
SUM	Beam	FC280FY4200	12.20	158.686	76.8664	3	0





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SUM	Beam	FC210FY4200	10.01	158.686	63.1104	14	0
SUM	Brace	FC210FY2800	2.05	158.686	12.9264	35	
SUM	Brace	A36	0.35	158.686	2.2110	2	
SUM	Wall	MBLOQ	51.45	158.686	324.2310		
SUM	Floor	FC210FY2800	21.31	158.686	134.3164		
SUM	Floor	FC280FY4200	37.07	158.686	233.6072		
TOTAL	All	All	209.92	158.686	1322.8382	265	0

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MATERIAL PROPERTY DATA

MATERIAL NAME	MATERIAL TYPE	DESIGN TYPE	MATERIAL DIR/PLANE	MODULUS OF ELASTICITY	POISSON'S RATIO	THERMAL COEFF	SHEAR MODULUS
STEEL	Iso	Steel	All	20389019.158	0.3000	1.1700E-05	7841930.445
CONC	Iso	Concrete	All	2531050.650	0.2000	9.9000E-06	1054604.438
OTHER	Iso	None	All	20389019.158	0.3000	1.1700E-05	7841930.445
FC210FY2800	Iso	Concrete	All	2191954.160	0.2000	9.9000E-06	913314.233
MBLOQ	Iso	Concrete	All	750000.000	0.2000	9.9000E-06	312500.000
A50	Iso	Steel	All	20389019.200	0.3000	1.1700E-05	7841930.462
A36	Iso	Steel	All	20389019.200	0.3000	1.1700E-05	7841930.462
A33	Iso	Steel	All	20389019.200	0.3000	1.1700E-05	7841930.462
FIBRLT	Iso	Concrete	All	600000.000	0.2000	9.9000E-06	250000.000
LADB	Iso	Concrete	All	300000.000	0.2000	9.9000E-06	125000.000
FC280FY4200	Iso	Concrete	All	2531050.650	0.2000	9.9000E-06	1054604.438
FC245FY4200	Iso	Concrete	All	2367581.090	0.2000	9.9000E-06	986492.121
FC210FY4200	Iso	Concrete	All	2191954.160	0.2000	9.9000E-06	913314.233

MATERIAL PROPERTY MASS AND WEIGHT

MATERIAL NAME	MASS PER UNIT VOL	WEIGHT PER UNIT VOL
STEEL	7.9814E-01	7.8334E+00
CONC	2.4480E-01	2.4026E+00
OTHER	7.9814E-01	7.8334E+00
FC210FY2800	2.4480E-01	2.4030E+00
MBLOQ	2.2000E-01	2.2000E+00
A50	7.9810E-01	7.8334E+00
A36	7.9810E-01	7.8334E+00
A33	7.9810E-01	7.8334E+00
FIBRLT	1.5000E-01	1.5000E+00
LADB	2.2000E-01	2.2030E+00
FC280FY4200	2.4480E-01	2.4030E+00
FC245FY4200	2.4480E-01	2.4026E+00
FC210FY4200	2.4480E-01	2.4030E+00



MATERIAL DESIGN DATA FOR STEEL MATERIALS

MATERIAL NAME	STEEL FY	STEEL FU	STEEL COST (\$)
STEEL	35153.481	45699.526	27679.91
A50	35153.481	45699.526	27679.91
A36	25363.656	32972.753	2750.00
A33	23250.018	30225.024	1.25

MATERIAL DESIGN DATA FOR CONCRETE MATERIALS

MATERIAL NAME	LIGHTWEIGHT CONCRETE	CONCRETE FC	REBAR FY	REBAR FYS	LIGHTWT REDUC FACT
CONC	No	2812.279	42184.178	42184.178	N/A
FC210FY2800	No	2100.000	28000.000	28000.000	N/A
MBLOQ	No	1250.000	28000.000	28000.000	N/A
FIBRLT	No	650.000	28000.000	28000.000	N/A
LADB	No	500.000	20000.000	20000.000	N/A
FC280FY4200	No	2812.279	42184.178	42184.178	N/A
FC245FY4200	No	2450.000	42184.178	42184.178	N/A
FC210FY4200	No	2100.000	42184.178	42184.178	N/A

ETABS v9.7.4 File:KINDER22QBRIL2M Units:Ton-m enero 11, 2017 17:45 PAGE 5

*MS*

FRAME SECTION PROPERTY DATA

FRAME SECTION NAME	MATERIAL NAME	SECTION SHAPE NAME OR NAME IN SECTION DATABASE FILE
HSS4X.237	STEEL	HSS4X.237
HSS4X.250	STEEL	HSS4X.250





kinder22qbri12m.txt

VC25X45	FC210FY2800	Rectangular	Yes
VN35X20	FC210FY2800	Rectangular	Yes
VN40X20	FC210FY2800	Rectangular	Yes
PC4CH16	A33	Channel	
PC5CH16	A33	Channel	
PC6CH16	A33	Channel	
CF20X40	MBLOQ	Rectangular	Yes
CF20X60	MBLOQ	Rectangular	Yes
CF	CONC	Rectangular	Yes
C25X35	FC210FY2800	Rectangular	Yes
VM7.62X35X316	A36	Box/Tube	
2PC6CH16	A33	Box/Tube	
2PC4CH16	A33	Box/Tube	
C25X40	FC210FY4200	Rectangular	Yes
C25X25	FC210FY2800	Rectangular	Yes
SF50X30	FC210FY2800	Rectangular	Yes
SF50X35	FC210FY2800	Rectangular	Yes
SF45X35	FC210FY2800	Rectangular	Yes
VC25X50	FC210FY2800	Rectangular	Yes
C45X45	FC245FY4200	Rectangular	Yes
TU6X6X14	A36	Box/Tube	
TU8X8X14	A50	Box/Tube	
L1.5X316	A36	Angle	
SF100X25	FC210FY2800	Rectangular	Yes
SFT100-25X50	FC210FY2800	Tee	Yes
SF60X35	FC210FY2800	Rectangular	Yes
C30X30	FC210FY2800	Rectangular	Yes
C10X10	FC210FY2800	Rectangular	Yes
SF40X30	FC210FY2800	Rectangular	Yes
T25X25	FC210FY2800	Rectangular	Yes
VC15X10	FC210FY2800	Rectangular	Yes
2PC5CH16	A33	Box/Tube	
2PC8CH14	A33	Box/Tube	
VM5.08X25X316	A36	Box/Tube	
CC30	FC210FY2800	Circle	Yes
C20X40	FC210FY2800	Rectangular	Yes
C20X50	FC210FY2800	Rectangular	Yes
SF50X25	FC210FY2800	Rectangular	Yes
T20X20	FC210FY2800	Rectangular	Yes
SF40X25	FC210FY2800	Rectangular	Yes
SF75X30	FC210FY2800	Rectangular	Yes
C20X25	FC210FY2800	Rectangular	Yes
C25X50	FC210FY2800	Rectangular	Yes

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*M. Yes*  
REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC-160  
M.O.P.-V.M.V.D.U. EL SALVADOR C

	kinder22qbri12m.txt	
VC30x45	FC210FY2800 Rectangular	Yes
VC30x40	FC210FY4200 Rectangular	Yes
VC35x40	FC210FY2800 Rectangular	Yes
SF40x40	FC210FY2800 Rectangular	Yes
VC40x45	FC210FY2800 Rectangular	Yes
2PC8CH12	A36 Box/Tube	
VF45x30	FC210FY2800 Rectangular	Yes
VF55x35	FC210FY2800 Rectangular	Yes
VF40x30	FC210FY2800 Rectangular	Yes
SF60x45	FC280FY4200 Rectangular	Yes
SF60x40	FC280FY4200 Rectangular	Yes
C40x40	FC210FY2800 Rectangular	Yes
VC10x15	FC210FY2800 Rectangular	Yes
TU4x4x18	A36 Box/Tube	
TU4x6x18	A36 Box/Tube	
C50x50	FC210FY2800 Rectangular	Yes
SF70x25	FC210FY2800 Rectangular	Yes
SF55x25	FC210FY2800 Rectangular	Yes
SF45x25	FC210FY2800 Rectangular	Yes
T25x35	FC210FY2800 Rectangular	Yes
VC25x55	FC210FY4200 Rectangular	Yes
VC30x55	FC280FY4200 Rectangular	Yes
VC30x60	FC210FY2800 Rectangular	Yes
C35x60	FC210FY2800 Rectangular	Yes
C30x45	FC210FY2800 Rectangular	Yes
T30x30	FC210FY2800 Rectangular	Yes
C35x50	FC210FY2800 Rectangular	Yes
C35x35	FC210FY2800 Rectangular	Yes
CH4x1.5x316	A36 Channel	
CH6x1.75	A36 Channel	
LL1.5x1.5x316	A36 Double Angle	
CH4x1.5x14	A36 Channel	
CH4x1.5x75MM	A36 Channel	
SF75x35	FC210FY2800 Rectangular	Yes
SF30x20	FC210FY2800 Rectangular	Yes
PC3CH16	A33 Channel	
C40x50	FC245FY4200 Rectangular	Yes
C55x55	FC245FY4200 Rectangular	Yes
C40x45	FC245FY4200 Rectangular	Yes
VC30x50	FC210FY2800 Rectangular	Yes
VC20x45	FC210FY2800 Rectangular	Yes
VC15x45	FC210FY2800 Rectangular	Yes
CC20	FC210FY2800 Circle	Yes



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CC25	FC210FY2800 Circle	Yes
CC35	FC210FY2800 Circle	Yes
CC40	FC210FY2800 Circle	Yes
CC45	FC210FY2800 Circle	Yes
CC50	FC280FY4200 Circle	Yes
C30X40	FC210FY2800 Rectangular	Yes
TU2X4X18	A36 Box/Tube	
TU2X6X18	A36 Box/Tube	
TU2X8X18	A36 Box/Tube	
TU3X6X18	A36 Box/Tube	
TU3X8X18	A36 Box/Tube	
TU4X8X18	A36 Box/Tube	
TU4X10X18	A36 Box/Tube	
TU4X12X18	A36 Box/Tube	
TU4X8X316	A36 Box/Tube	
TU4X10X316	A36 Box/Tube	
TU4X12X316	A36 Box/Tube	
TU6X6X18	A36 Box/Tube	
TU6X6X316	A36 Box/Tube	
D38	A33 Circle	
D12	A33 Circle	
D58	A33 Circle	
CH5X14	A36 Channel	
CH4X316	A36 Channel	
CH6X14	A36 Channel	
TU12X12X14	A50 Box/Tube	
TU12X12X38	A50 Box/Tube	
LL1X316S2	A36 Double Angle	
C15X40	FC210FY2800 Rectangular	Yes
TUPC4CH16	A33 Box/Tube	
TU3X3X18	A36 Box/Tube	
VC10X23	FC210FY2800 Rectangular	Yes
VC10X25	FC210FY2800 Rectangular	Yes
VC10X30	FC210FY2800 Rectangular	Yes
VC20X12	FC210FY2800 Rectangular	Yes
CH5X2.5X316	A36 Channel	
FSEC1	STEEL Double Angle	
LL1X18S2.85	A36 Double Angle	
VM7.62X40X316	A36 Box/Tube	
TUPC5CH16	A33 Box/Tube	
TUPC6CH16	A33 Box/Tube	
VC18X40	FC210FY2800 Rectangular	
C45X55	FC245FY4200 Rectangular	Yes



	kinder22qbril2m.txt		
C40X60	FC245FY4200	Rectangular	Yes
PIPE2SCH40	A50	Pipe	
PIPE1.25CH40	A36	Pipe	
TU4X4X14	A36	Box/Tube	
TU3X3X316	A36	Box/Tube	
C70X70	FC280FY4200	Rectangular	Yes
PIPE2CH12	A33	Pipe	
PIPE8CH2	A50	Pipe	
TU2X2X18	A36	Box/Tube	
PIPE2.5CH12	A36	Pipe	
PIPE2CH8	A36	Pipe	
PIPE2.5CH8	A36	Pipe	
C50X55	FC245FY4200	Rectangular	Yes
C50X60	FC245FY4200	Rectangular	Yes
C55X60	FC245FY4200	Rectangular	Yes
L2X316	A36	Angle	
L2.5X316	A36	Angle	
L2.5X14	A36	Angle	
L1X316	A36	Angle	
L1X18	A36	Angle	
L1.5X18	A36	Angle	
TU4X6X316	A36	Box/Tube	
CH10X2X18	A36	Channel	
2PC6CH14	A33	Box/Tube	
2PC6CH12	A33	Box/Tube	
C35X45	FC210FY2800	Rectangular	Yes
VC20X15	FC210FY2800	Rectangular	Yes
TU8X8X3/16	A36	Box/Tube	
TU10X10X14	A36	Box/Tube	
TU10X10X5/16	A36	Box/Tube	
TU4X12X14	A36	Box/Tube	
TU4X14X316	A36	Box/Tube	
TU4X14X14	A36	Box/Tube	
TU5X14X14	A36	Box/Tube	
TU6X14X14	A36	Box/Tube	
TU6X16X14	A36	Box/Tube	
TU5X14X38	A36	Box/Tube	
TU6X16X38	A36	Box/Tube	
VCN15	OTHER	Rectangular	
CC60	FC280FY4200	Circle	
VC40X60	FC280FY4200	Rectangular	
PC4CH16C	A33	Box/Tube	
PC5CH16C	A33	Box/Tube	



Section Name	Material	Profile	Orientation	Notes
PC6CH16C	A33	Box/Tube		
CH2.5X18	A36	Channel		
CH5X316	A36	Channel		
VC20X80	FC210FY2800	Rectangular		Yes
VC25X80	FC210FY2800	Rectangular		Yes
VC30X75	FC210FY2800	Rectangular		Yes
VC30X70	FC210FY2800	Rectangular		Yes
VC30X80	FC210FY2800	Rectangular		Yes
VC30X85	FC210FY2800	Rectangular		Yes
VC30X65	FC210FY2800	Rectangular		Yes
VC35X75	FC210FY2800	Rectangular		Yes
VC40X75	FC210FY2800	Rectangular		Yes
VC25X75	FC210FY2800	Rectangular		Yes
VC35X80	FC210FY2800	Rectangular		Yes
VF70X35	FC210FY2800	Rectangular		Yes
VF70X30	FC210FY2800	Rectangular		Yes
VF55X30	FC210FY2800	Rectangular		Yes
HSS10X4X.250	STEEL	HSS10X4X.250		
HSS12X4X.250	STEEL	HSS12X4X.250		
C30X100	FC210FY4200	Rectangular		Yes
TUB06X6X1/2	STEEL	Box/Tube		
TUB06X21X316	STEEL	Box/Tube		
TU2X4X16	STEEL	Box/Tube		
C35X55	FC280FY4200	Rectangular		Yes

**DIN - FISD**  
 08 JUN. 2017  
**REVISAD**

**FRAME SECTION PROPERTY DATA**

FLANGE FRAME SECTION NAME THICK BOT	SECTION DEPTH	FLANGE WIDTH TOP	FLANGE THICK TOP	WEB THICK	FLANGE WIDTH BOT
HSS4X.237	0.1016	0.1016	0.0000	0.0060	0.1016
0.0000					
HSS4X.250	0.1016	0.1016	0.0000	0.0064	0.1016
0.0000					
HSS5X.250	0.1270	0.1270	0.0000	0.0064	0.1270
0.0000					
HSS5X.258	0.1270	0.1270	0.0000	0.0066	0.1270
0.0000					
HSS5X.312	0.1270	0.1270	0.0000	0.0079	0.1270
0.0000					
HSS5X.375	0.1270	0.1270	0.0000	0.0095	0.1270
0.0000					
HSS5X.500	0.1270	0.1270	0.0000	0.0127	0.1270
0.0000					
HSS6X.250	0.1524	0.1524	0.0000	0.0064	0.1524
0.0000					
HSS6X.280	0.1524	0.1524	0.0000	0.0071	0.1524
0.0000					
HSS6X.312	0.1524	0.1524	0.0000	0.0075	0.1524
0.0000					
HSS6X.375	0.1524	0.1524	0.0000	0.0095	0.1524
0.0000					
HSS7X.250	0.1778	0.1778	0.0000	0.0084	0.1778
0.0000					
HSS7X.312	0.1778	0.1778	0.0000	0.0075	0.1778
0.0000					
HSS7X.375	0.1778	0.1778	0.0000	0.0095	0.1778
0.0000					

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
**MARCOS MIGUEL SANCHEZ MACHIC**  
**INGENIERO CIVIL**  
 No. IC-16  
 M.O.P.-V.M.V.D. U. EL SALVADOR, C

	kinder22qbri12m.txt				
HSS7x.500	0.1778	0.1778	0.0000	0.0127	0.1778
0.0000					
ConcCo1	0.4572	0.4572	0.0000	0.0000	0.0000
0.0000					
ConcBm	0.4572	0.3048	0.0000	0.0000	0.0000
0.0000					
VC15x15	0.1500	0.1500	0.0000	0.0000	0.0000
0.0000					
VC15x20	0.2000	0.1500	0.0000	0.0000	0.0000
0.0000					
VC15x25	0.2500	0.1500	0.0000	0.0000	0.0000
0.0000					
VC15x30	0.3000	0.1500	0.0000	0.0000	0.0000
0.0000					
VC15x35	0.3500	0.1500	0.0000	0.0000	0.0000
0.0000					
VC15x40	0.4000	0.1500	0.0000	0.0000	0.0000
0.0000					
VC20x20	0.2000	0.2000	0.0000	0.0000	0.0000
0.0000					
VC20x25	0.2500	0.2000	0.0000	0.0000	0.0000
0.0000					
VC20x30	0.3000	0.2000	0.0000	0.0000	0.0000
0.0000					
VC20x35	0.3500	0.2000	0.0000	0.0000	0.0000
0.0000					
VC20x40	0.4000	0.2000	0.0000	0.0000	0.0000
0.0000					
VC25x40	0.4000	0.2500	0.0000	0.0000	0.0000
0.0000					
C30x50	0.5000	0.3000	0.0000	0.0000	0.0000
0.0000					
C15x15	0.1500	0.1500	0.0000	0.0000	0.0000
0.0000					
C15x20	0.2000	0.1500	0.0000	0.0000	0.0000
0.0000					
C20x20	0.2000	0.2000	0.0000	0.0000	0.0000
0.0000					
C20x30	0.3000	0.2000	0.0000	0.0000	0.0000
0.0000					
C15x25	0.2500	0.1500	0.0000	0.0000	0.0000
0.0000					
C15x30	0.3000	0.1500	0.0000	0.0000	0.0000
0.0000					
VN25x20	0.2000	0.2500	0.0000	0.0000	0.0000
0.0000					
VM7.62x30x316	0.3000	0.0762	0.0032	0.0032	0.0000
0.0000					
VC25x45	0.4500	0.2500	0.0000	0.0000	0.0000
0.0000					
VN35x20	0.2000	0.3500	0.0000	0.0000	0.0000
0.0000					
VN40x20	0.2000	0.4000	0.0000	0.0000	0.0000
0.0000					
PC4CH16	0.1020	0.0515	0.0017	0.0017	0.0000
0.0000					
PC5CH16	0.1280	0.0510	0.0017	0.0018	0.0000
0.0000					
PC6CH16	0.1530	0.0510	0.0017	0.0018	0.0000
0.0000					
CF20x40	0.4000	0.2000	0.0000	0.0000	0.0000
0.0000					
CF20x60	0.6000	0.2000	0.0000	0.0000	0.0000
0.0000					
CF	0.2000	0.2000	0.0000	0.0000	0.0000
0.0000					
C25x35	0.3500	0.2500	0.0000	0.0000	0.0000
0.0000					
VM7.62x35x316	0.3500	0.0762	0.0048	0.0048	0.0000
0.0000					
2PC6CH16	0.1524	0.1016	0.0016	0.0016	0.0000
0.0000					
2PC4CH16	0.1016	0.1016	0.0016	0.0016	0.0000
0.0000					
C25x40	0.4000	0.2500	0.0000	0.0000	0.0000
0.0000					
C25x25	0.2500	0.2500	0.0000	0.0000	0.0000
0.0000					
SF50x30	0.3000	0.5000	0.0000	0.0000	0.0000
0.0000					
SF50x35	0.3500	0.5000	0.0000	0.0000	0.0000
0.0000					
SF45x35	0.3500	0.4500	0.0000	0.0000	0.0000
0.0000					
VC25x50	0.5000	0.2500	0.0000	0.0000	0.0000
0.0000					

DIN - FIS  
08 JUN. 2017  
REVISA

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHO  
INGENIERO CIVIL  
REGISTRO No. IC-16  
O.P. - U. EL SALVADOR

M.S



	kinder22qbri12m.txt				
C45x45	0.4500	0.4500	0.0000	0.0000	0.0000
0.0000					
TU6x6x14	0.1524	0.1524	0.0064	0.0064	0.0000
0.0000					
TU8x8x14	0.2032	0.2032	0.0064	0.0064	0.0000
0.0000					
L1. 5x316	0.0381	0.0381	0.0048	0.0048	0.0000
0.0000					
SF100x25	0.2500	1.0000	0.0000	0.0000	0.0000
0.0000					
SFT100-25x50	0.5000	1.0000	0.2500	0.2500	0.0000
0.0000					
SF60x35	0.3500	0.6000	0.0000	0.0000	0.0000
0.0000					
C30x30	0.3000	0.3000	0.0000	0.0000	0.0000
0.0000					
C10x10	0.1000	0.1000	0.0000	0.0000	0.0000
0.0000					
SF40x30	0.3000	0.4000	0.0000	0.0000	0.0000
0.0000					
T25x25	0.2500	0.2500	0.0000	0.0000	0.0000
0.0000					
VC15x10	0.1000	0.1500	0.0000	0.0000	0.0000
0.0000					
2PC5CH16	0.1270	0.1016	0.0016	0.0016	0.0000
0.0000					
2PC8CH14	0.2032	0.1016	0.0018	0.0018	0.0000
0.0000					
VM5.08x25x316	0.2500	0.0508	0.0048	0.0032	0.0000
0.0000					
CC30	0.3000	0.3000	0.0000	0.0000	0.3000
0.0000					
C20x40	0.4000	0.2000	0.0000	0.0000	0.0000
0.0000					
C20x50	0.5000	0.2000	0.0000	0.0000	0.0000
0.0000					
SF50x25	0.2500	0.5000	0.0000	0.0000	0.0000
0.0000					
T20x20	0.2000	0.2000	0.0000	0.0000	0.0000
0.0000					
SF40x25	0.2500	0.4000	0.0000	0.0000	0.0000
0.0000					
SF75x30	0.3000	0.7500	0.0000	0.0000	0.0000
0.0000					
C20x25	0.2500	0.2000	0.0000	0.0000	0.0000
0.0000					
C25x50	0.5000	0.2500	0.0000	0.0000	0.0000
0.0000					
VC30x45	0.4500	0.3000	0.0000	0.0000	0.0000
0.0000					
VC30x40	0.4000	0.3000	0.0000	0.0000	0.0000
0.0000					
VC35x40	0.4000	0.3500	0.0000	0.0000	0.0000
0.0000					
SF40x40	0.4000	0.4000	0.0000	0.0000	0.0000
0.0000					
VC40x45	0.4500	0.4000	0.0000	0.0000	0.0000
0.0000					
2PC8CH12	0.2032	0.1016	0.0021	0.0021	0.0000
0.0000					
VF45x30	0.3000	0.4500	0.0000	0.0000	0.0000
0.0000					
VF55x35	0.3500	0.5500	0.0000	0.0000	0.0000
0.0000					
VF40x30	0.3000	0.4000	0.0000	0.0000	0.0000
0.0000					
SF60x45	0.4500	0.6000	0.0000	0.0000	0.0000
0.0000					
SF60x40	0.4000	0.6000	0.0000	0.0000	0.0000
0.0000					
C40x40	0.4000	0.4000	0.0000	0.0000	0.0000
0.0000					
VC10x15	0.1500	0.1000	0.0000	0.0000	0.0000
0.0000					
TU4x4x18	0.1016	0.1016	0.0032	0.0032	0.0000
0.0000					
TU4x6x18	0.1524	0.1016	0.0032	0.0032	0.0000
0.0000					
C50x50	0.5000	0.5000	0.0000	0.0000	0.0000
0.0000					
SF70x25	0.2500	0.7000	0.0000	0.0000	0.0000
0.0000					
SF55x25	0.2500	0.5500	0.0000	0.0000	0.0000
0.0000					
SF45x25	0.2500	0.4500	0.0000	0.0000	0.0000
0.0000					

DIN - FI  
08 JUN. 2  
REVISAR

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO N. IC - 1606  
M. D. V. M. V. D. U. EL SALVADOR, C. A.

	kinder22qbri12m.txt				
T25x35	0.3500	0.2500	0.0000	0.0000	0.0000
0.0000					
VC25x55	0.5500	0.2500	0.0000	0.0000	0.0000
0.0000					
VC30x55	0.5500	0.3000	0.0000	0.0000	0.0000
0.0000					
VC30x60	0.6000	0.3000	0.0000	0.0000	0.0000
0.0000					
C35x60	0.6000	0.3500	0.0000	0.0000	0.0000
0.0000					
C30x45	0.4500	0.3000	0.0000	0.0000	0.0000
0.0000					
T30x30	0.3000	0.3000	0.0000	0.0000	0.0000
0.0000					
C35x50	0.5000	0.3500	0.0000	0.0000	0.0000
0.0000					
C35x35	0.3500	0.3500	0.0000	0.0000	0.0000
0.0000					
CH4x1.5x316	0.1016	0.0400	0.0075	0.0047	0.0000
0.0000					
CH6x1.75	0.1524	0.0480	0.0087	0.0051	0.0000
0.0000					
LL1.5x1.5x316	0.0381	0.0762	0.0048	0.0048	0.0000
0.0000					
CH4x1.5x14	0.1016	0.0400	0.0075	0.0064	0.0000
0.0000					
CH4x1.5x75MM	0.1016	0.0500	0.0075	0.0075	0.0000
0.0000					
SF75x35	0.3500	0.7500	0.0000	0.0000	0.0000
0.0000					
SF30x20	0.2000	0.3000	0.0000	0.0000	0.0000
0.0000					
PC3CH16	0.0770	0.0385	0.0017	0.0018	0.0000
0.0000					
C40x50	0.5000	0.4000	0.0000	0.0000	0.0000
0.0000					
C55x55	0.5500	0.5500	0.0000	0.0000	0.0000
0.0000					
C40x45	0.4500	0.4000	0.0000	0.0000	0.0000
0.0000					
VC30x50	0.5000	0.3000	0.0000	0.0000	0.0000
0.0000					
VC20x45	0.4500	0.2000	0.0000	0.0000	0.0000
0.0000					
VC15x45	0.4500	0.1500	0.0000	0.0000	0.0000
0.0000					
CC20	0.2000	0.2000	0.0000	0.0000	0.2000
0.0000					
CC25	0.2500	0.2500	0.0000	0.0000	0.2500
0.0000					
CC35	0.3500	0.3500	0.0000	0.0000	0.3500
0.0000					
CC40	0.4000	0.4000	0.0000	0.0000	0.4000
0.0000					
CC45	0.4500	0.4500	0.0000	0.0000	0.4500
0.0000					
CC50	0.5000	0.5000	0.0000	0.0000	0.5000
0.0000					
C30x40	0.4000	0.3000	0.0000	0.0000	0.0000
0.0000					
TU2x4x18	0.1016	0.0508	0.0032	0.0032	0.0000
0.0000					
TU2x6x18	0.1524	0.0508	0.0032	0.0032	0.0000
0.0000					
TU2x8x18	0.2032	0.0508	0.0032	0.0032	0.0000
0.0000					
TU3x6x18	0.1524	0.0762	0.0032	0.0032	0.0000
0.0000					
TU3x8x18	0.2032	0.0762	0.0032	0.0032	0.0000
0.0000					
TU4x8x18	0.2032	0.1016	0.0032	0.0032	0.0000
0.0000					
TU4x10x18	0.2540	0.1016	0.0032	0.0032	0.0000
0.0000					
TU4x12x18	0.3048	0.1016	0.0032	0.0032	0.0000
0.0000					
TU4x8x316	0.2032	0.1016	0.0048	0.0048	0.0000
0.0000					
TU4x10x316	0.2540	0.1016	0.0048	0.0048	0.0000
0.0000					
TU4x12x316	0.3048	0.1016	0.0048	0.0048	0.0000
0.0000					
TU6x6x18	0.1524	0.1524	0.0032	0.0032	0.0000
0.0000					
TU6x6x316	0.1524	0.1524	0.0048	0.0048	0.0000
0.0000					

DIN - FISC  
08 JUN. 2017  
REVISADO

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC-1606  
M.O.P.-V.M.V.D.U. EL SALVADOR, C.A.

MS

	kinder22qbri12m.txt				
D38	0.0953	0.0953	0.0000	0.0000	0.0953
0.0000					
D12	0.0127	0.0127	0.0000	0.0000	0.0127
0.0000					
D58	0.0160	0.0160	0.0000	0.0000	0.0160
0.0000					
CH5X14	0.1270	0.0635	0.0064	0.0064	0.0000
0.0000					
CH4X316	0.1016	0.0508	0.0048	0.0048	0.0000
0.0000					
CH6X14	0.1524	0.0762	0.0064	0.0064	0.0000
0.0000					
TU12X12X14	0.3048	0.3048	0.0064	0.0064	0.0000
0.0000					
TU12X12X38	0.3048	0.3048	0.0095	0.0095	0.0000
0.0000					
LL1X316S2	0.0254	0.1016	0.0048	0.0048	0.0000
0.0000					
C15X40	0.4000	0.1500	0.0000	0.0000	0.0000
0.0000					
TUPC4CH16	0.1016	0.0508	0.0016	0.0016	0.0000
0.0000					
TU3X3X18	0.0762	0.0762	0.0032	0.0032	0.0000
0.0000					
VC10X23	0.2300	0.1500	0.0000	0.0000	0.0000
0.0000					
VC10X25	0.2500	0.1000	0.0000	0.0000	0.0000
0.0000					
VC10X30	0.3000	0.1500	0.0000	0.0000	0.0000
0.0000					
VC20X12	0.1200	0.2000	0.0000	0.0000	0.0000
0.0000					
CH5X2.5X316	0.1270	0.0635	0.0048	0.0048	0.0000
0.0000					
FSEC1	0.0762	0.1080	0.0064	0.0064	0.0000
0.0000					
LL1X18S2.85	0.0254	0.0793	0.0032	0.0032	0.0000
0.0000					
VM7.62X40X316	0.4000	0.0762	0.0048	0.0048	0.0000
0.0000					
TUPC5CH16	0.1270	0.0508	0.0016	0.0016	0.0000
0.0000					
TUPC6CH16	0.1524	0.0500	0.0016	0.0016	0.0000
0.0000					
VC18X40	0.4000	0.1800	0.0000	0.0000	0.0000
0.0000					
C45X55	0.5500	0.4500	0.0000	0.0000	0.0000
0.0000					
C40X60	0.6000	0.4000	0.0000	0.0000	0.0000
0.0000					
PIPE2SCH40	0.0603	0.0603	0.0000	0.0039	0.0603
0.0000					
PIPE1.25CH40	0.0318	0.0318	0.0000	0.0032	0.0318
0.0000					
TU4X4X14	0.1016	0.1016	0.0064	0.0064	0.0000
0.0000					
TU3X3X316	0.0762	0.0762	0.0048	0.0048	0.0000
0.0000					
C70X70	0.7000	0.7000	0.0000	0.0000	0.0000
0.0000					
PIPE2CH12	0.0508	0.0508	0.0000	0.0021	0.0508
0.0000					
PIPE8CH2	0.2286	0.2286	0.0000	0.0127	0.2286
0.0000					
TU2X2X18	0.1524	0.1016	0.0064	0.0064	0.0000
0.0000					
PIPE2.5CH12	0.0635	0.0635	0.0000	0.0021	0.0635
0.0000					
PIPE2CH8	0.0572	0.0572	0.0000	0.0032	0.0572
0.0000					
PIPE2.5CH8	0.0699	0.0699	0.0000	0.0032	0.0699
0.0000					
C50X55	0.5500	0.5000	0.0000	0.0000	0.0000
0.0000					
C50X60	0.6000	0.5000	0.0000	0.0000	0.0000
0.0000					
C55X60	0.6000	0.5500	0.0000	0.0000	0.0000
0.0000					
L2X316	0.0508	0.0508	0.0048	0.0048	0.0000
0.0000					
L2.5X316	0.0635	0.0635	0.0048	0.0048	0.0000
0.0000					
L2.5X14	0.0635	0.0635	0.0064	0.0064	0.0000
0.0000					
L1X316	0.0254	0.0254	0.0048	0.0048	0.0000
0.0000					

DIN - FIS  
08 JUN. 20  
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REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
No. 1C - 1606  
M.O.P.-V.M.V.D.U. EL SALVADOR, C.A.

	kinder22qbri12m.txt				
L1X18	0.0254	0.0254	0.0032	0.0032	0.0000
0.0000					
L1.5X18	0.0381	0.0381	0.0032	0.0032	0.0000
0.0000					
TU4X6X316	0.1524	0.1016	0.0048	0.0048	0.0000
0.0000					
CH10X2X18	0.2540	0.0508	0.0032	0.0032	0.0000
0.0000					
2PC6CH14	0.1524	0.1016	0.0018	0.0018	0.0000
0.0000					
2PC6CH12	0.1524	0.1016	0.0021	0.0021	0.0000
0.0000					
C35X45	0.4500	0.3500	0.0000	0.0000	0.0000
0.0000					
VC20X15	0.1500	0.2000	0.0000	0.0000	0.0000
0.0000					
TU8X8X3/16	0.2032	0.2032	0.0048	0.0048	0.0000
0.0000					
TU10X10X14	0.2540	0.2540	0.0064	0.0064	0.0000
0.0000					
TU10X10X5/16	0.2524	0.2540	0.0079	0.0079	0.0000
0.0000					
TU4X12X14	0.3048	0.1016	0.0064	0.0064	0.0000
0.0000					
TU4X14X316	0.3556	0.1016	0.0048	0.0048	0.0000
0.0000					
TU4X14X14	0.3556	0.1016	0.0064	0.0064	0.0000
0.0000					
TU5X14X14	0.3556	0.1270	0.0064	0.0064	0.0000
0.0000					
TU6X14X14	0.3556	0.1524	0.0064	0.0064	0.0000
0.0000					
TU6X16X14	0.4064	0.1524	0.0064	0.0064	0.0000
0.0000					
TU5X14X38	0.3556	0.1270	0.0095	0.0095	0.0000
0.0000					
TU6X16X38	0.4064	0.1524	0.0095	0.0095	0.0000
0.0000					
VCN15	0.1500	0.1500	0.0000	0.0000	0.0000
0.0000					
CC60	0.6000	0.6000	0.0000	0.0000	0.6000
0.0000					
VC40X60	0.6000	0.4000	0.0000	0.0000	0.0000
0.0000					
PC4CH16C	0.1016	0.0508	0.0016	0.0016	0.0000
0.0000					
PC5CH16C	0.1270	0.0508	0.0015	0.0015	0.0000
0.0000					
PC6CH16C	0.1524	0.0508	0.0016	0.0016	0.0000
0.0000					
CH2.5X18	0.0635	0.0318	0.0032	0.0032	0.0000
0.0000					
CH5X316	0.1270	0.0635	0.0048	0.0048	0.0000
0.0000					
VC20X80	0.0080	0.0020	0.0000	0.0000	0.0000
0.0000					
VC25X80	0.8000	0.2500	0.0000	0.0000	0.0000
0.0000					
VC30X75	0.7500	0.3000	0.0000	0.0000	0.0000
0.0000					
VC30X70	0.7000	0.3000	0.0000	0.0000	0.0000
0.0000					
VC30X80	0.8000	0.3000	0.0000	0.0000	0.0000
0.0000					
VC30X85	0.8500	0.3000	0.0000	0.0000	0.0000
0.0000					
VC30X65	0.6500	0.3000	0.0000	0.0000	0.0000
0.0000					
VC35X75	0.7500	0.3500	0.0000	0.0000	0.0000
0.0000					
VC40X75	0.7500	0.4000	0.0000	0.0000	0.0000
0.0000					
VC25X75	0.7500	0.2500	0.0000	0.0000	0.0000
0.0000					
VC35X80	0.8000	0.3500	0.0000	0.0000	0.0000
0.0000					
VF70X35	0.3500	0.7000	0.0000	0.0000	0.0000
0.0000					
VF70X30	0.3000	0.7000	0.0000	0.0000	0.0000
0.0000					
VF55X30	0.3000	0.5500	0.0000	0.0000	0.0000
0.0000					
HSS10X4X.250	0.2540	0.1016	0.0059	0.0059	0.0000
0.0000					
HSS12X4X.250	0.3048	0.1016	0.0059	0.0059	0.0000
0.0000					

DIN - FI  
08 JUN. 2  
REVISAR

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO No. 1C - 1606  
M. O. P. D. U. EL SALVADOR, C. A.

	kinder22qbri12m.txt				
C30x100	1.0000	0.3000	0.0000	0.0000	0.0000
0.0000					
TUBO6x6x1/2	0.1524	0.1524	0.0127	0.0127	0.0000
0.0000					
TUBO6x21x316	0.5300	0.1524	0.0047	0.0047	0.0000
0.0000					
TU2x4x16	0.1000	0.0500	0.0015	0.0015	0.0000
0.0000					
C35x55	0.5500	0.3500	0.0000	0.0000	0.0000
0.0000					

FRAME SECTION PROPERTY DATA

AREAS FRAME SECTION NAME A3	SECTION	TORSIONAL	MOMENTS OF INERTIA		SHEAR
	AREA	CONSTANT	I33	I22	A2
HSS4X.237	0.0017	0.0000	0.0000	0.0000	0.0015
0.0015					
HSS4X.250	0.0018	0.0000	0.0000	0.0000	0.0016
0.0016					
HSS5X.250	0.0023	0.0000	0.0000	0.0000	0.0020
0.0020					
HSS5X.258	0.0023	0.0000	0.0000	0.0000	0.0021
0.0021					
HSS5X.312	0.0028	0.0000	0.0000	0.0000	0.0025
0.0025					
HSS5X.375	0.0033	0.0000	0.0000	0.0000	0.0030
0.0030					
HSS5X.500	0.0043	0.0000	0.0000	0.0000	0.0038
0.0038					
HSS6X.250	0.0027	0.0000	0.0000	0.0000	0.0025
0.0025					
HSS6X.280	0.0030	0.0000	0.0000	0.0000	0.0027
0.0027					
HSS6X.312	0.0034	0.0000	0.0000	0.0000	0.0030
0.0030					
HSS6X.375	0.0040	0.0000	0.0000	0.0000	0.0036
0.0036					
HSS7X.250	0.0032	0.0000	0.0000	0.0000	0.0029
0.0029					
HSS7X.312	0.0040	0.0000	0.0000	0.0000	0.0036
0.0036					
HSS7X.375	0.0047	0.0000	0.0000	0.0000	0.0042
0.0042					
HSS7X.500	0.0062	0.0000	0.0000	0.0000	0.0055
0.0055					
ConcCol	0.2090	0.0062	0.0036	0.0036	0.1742
0.1742					
ConcBm	0.1394	0.0025	0.0024	0.0011	0.1161
0.1161					
VC15X15	0.0225	0.0001	0.0000	0.0000	0.0188
0.0188					
VC15X20	0.0300	0.0001	0.0001	0.0001	0.0250
0.0250					
VC15X25	0.0375	0.0002	0.0002	0.0001	0.0312
0.0312					
VC15X30	0.0450	0.0002	0.0003	0.0001	0.0375
0.0375					
VC15X35	0.0525	0.0003	0.0005	0.0001	0.0438
0.0438					
VC15X40	0.0600	0.0003	0.0008	0.0001	0.0500
0.0500					
VC20X20	0.0400	0.0002	0.0001	0.0001	0.0333
0.0333					
VC20X25	0.0500	0.0003	0.0003	0.0002	0.0417
0.0417					
VC20X30	0.0600	0.0005	0.0005	0.0002	0.0500
0.0500					
VC20X35	0.0700	0.0006	0.0007	0.0002	0.0583
0.0583					
VC20X40	0.0800	0.0007	0.0011	0.0003	0.0667
0.0667					
VC25X40	0.1000	0.0013	0.0013	0.0005	0.0833
0.0833					
C30x50	0.1500	0.0028	0.0031	0.0011	0.1250
0.1250					
C15X15	0.0225	0.0001	0.0000	0.0000	0.0188
0.0188					
C15X20	0.0300	0.0001	0.0001	0.0001	0.0250
0.0250					
C20X20	0.0400	0.0002	0.0001	0.0001	0.0333
0.0333					

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08 JUN. 2017  
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M.S.  
REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARGOS MIGUEL MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC-1606  
M. O. P. M. V. D. U. EL SALVADOR, C.A.

	kinder22qbri12m.txt				
C20x30	0.0600	0.0005	0.0005	0.0002	0.0500
0.0500					
C15x25	0.0375	0.0002	0.0002	0.0001	0.0313
0.0313					
C15x30	0.0450	0.0002	0.0003	0.0001	0.0375
0.0375					
VN25x20	0.0500	0.0003	0.0002	0.0003	0.0417
0.0417					
VM7.62x30x316	0.0024	0.0000	0.0000	0.0000	0.0019
0.0005					
VC25x45	0.1125	0.0015	0.0019	0.0006	0.0938
0.0938					
VN35x20	0.0700	0.0006	0.0002	0.0007	0.0583
0.0583					
VN40x20	0.0800	0.0007	0.0003	0.0011	0.0667
0.0667					
PC4CH16	0.0003	0.0000	0.0000	0.0000	0.0002
0.0002					
PC5CH16	0.0004	0.0000	0.0000	0.0000	0.0002
0.0002					
PC6CH16	0.0004	0.0000	0.0000	0.0000	0.0003
0.0002					
CF20x40	0.0800	0.0007	0.0011	0.0003	0.0667
0.0667					
CF20x60	0.1200	0.0013	0.0036	0.0004	0.1000
0.1000					
CF	0.0400	0.0002	0.0001	0.0001	0.0333
0.0333					
C25x35	0.0875	0.0010	0.0009	0.0005	0.0729
0.0729					
VM7.62x35x316	0.0040	0.0000	0.0001	0.0000	0.0033
0.0007					
2PC6CH16	0.0008	0.0000	0.0000	0.0000	0.0005
0.0003					
2PC4CH16	0.0006	0.0000	0.0000	0.0000	0.0003
0.0003					
C25x40	0.1000	0.0013	0.0013	0.0005	0.0833
0.0833					
C25x25	0.0625	0.0006	0.0003	0.0003	0.0521
0.0521					
SF50x30	0.1500	0.0028	0.0011	0.0031	0.1250
0.1250					
SF50x35	0.1750	0.0041	0.0018	0.0036	0.1458
0.1458					
SF45x35	0.1575	0.0034	0.0016	0.0027	0.1313
0.1313					
VC25x50	0.1250	0.0018	0.0026	0.0007	0.1042
0.1042					
C45x45	0.2025	0.0058	0.0034	0.0034	0.1688
0.1688					
TU6x6x14	0.0037	0.0000	0.0000	0.0000	0.0019
0.0019					
TU8x8x14	0.0050	0.0000	0.0000	0.0000	0.0026
0.0026					
L1.5x316	0.0003	0.0000	0.0000	0.0000	0.0002
0.0002					
SF100x25	0.2500	0.0044	0.0013	0.0208	0.2083
0.2083					
SFT100-25x50	0.3125	0.0059	0.0048	0.0212	0.1250
0.2083					
SF60x35	0.2100	0.0055	0.0021	0.0063	0.1750
0.1750					
C30x30	0.0900	0.0011	0.0007	0.0007	0.0750
0.0750					
C10x10	0.0100	0.0000	0.0000	0.0000	0.0083
0.0083					
SF40x30	0.1200	0.0019	0.0009	0.0016	0.1000
0.1000					
T25x25	0.0625	0.0006	0.0003	0.0003	0.0521
0.0521					
VC15x10	0.0150	0.0000	0.0000	0.0000	0.0125
0.0125					
2PC5CH16	0.0007	0.0000	0.0000	0.0000	0.0004
0.0003					
2PC8CH14	0.0011	0.0000	0.0000	0.0000	0.0004
0.0004					
VM5.08x25x316	0.0020	0.0000	0.0000	0.0000	0.0004
0.0005					
CC30	0.0707	0.0008	0.0004	0.0004	0.0521
0.0636					
C20x40	0.0800	0.0007	0.0011	0.0007	0.0636
0.0667					
C20x50	0.1000	0.0010	0.0021	0.0007	0.0636
0.0833					
SF50x25	0.1250	0.0018	0.0007	0.0026	0.1042
0.1042					

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REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC - 1606  
M.O.P. - V.M.V.D.U. EL SALVADOR, C.A.

	kinder22qbri12m.txt				
T20X20	0.0400	0.0002	0.0001	0.0001	0.0333
0.0333					
SF40X25	0.1000	0.0013	0.0005	0.0013	0.0833
0.0833					
SF75X30	0.2250	0.0051	0.0017	0.0105	0.1875
0.1875					
C20X25	0.0500	0.0003	0.0003	0.0002	0.0417
0.0417					
C25X50	0.1250	0.0018	0.0026	0.0007	0.1042
0.1042					
VC30X45	0.1350	0.0024	0.0023	0.0010	0.1125
0.1125					
VC30X40	0.1200	0.0019	0.0016	0.0009	0.1000
0.1000					
VC35X40	0.1400	0.0027	0.0019	0.0014	0.1167
0.1167					
SF40X40	0.1600	0.0036	0.0021	0.0021	0.1333
0.1333					
VC40X45	0.1800	0.0045	0.0030	0.0024	0.1500
0.1500					
2PC8CH12	0.0013	0.0000	0.0000	0.0000	0.0009
0.0004					
VF45X30	0.1350	0.0024	0.0010	0.0023	0.1125
0.1125					
VF55X35	0.1925	0.0048	0.0020	0.0049	0.1604
0.1604					
VF40X30	0.1200	0.0019	0.0009	0.0016	0.1000
0.1000					
SF60X45	0.2700	0.0098	0.0046	0.0081	0.2250
0.2250					
SF60X40	0.2400	0.0075	0.0032	0.0072	0.2000
0.2000					
C40X40	0.1600	0.0036	0.0021	0.0021	0.1333
0.1333					
VC10X15	0.0150	0.0000	0.0000	0.0000	0.0125
0.0125					
TU4X4X18	0.0012	0.0000	0.0000	0.0000	0.0006
0.0006					
TU4X6X18	0.0016	0.0000	0.0000	0.0000	0.0010
0.0006					
C50X50	0.2500	0.0088	0.0052	0.0052	0.2083
0.2083					
SF70X25	0.1750	0.0028	0.0009	0.0071	0.1458
0.1458					
SF55X25	0.1375	0.0020	0.0007	0.0035	0.1146
0.1146					
SF45X25	0.1125	0.0015	0.0006	0.0019	0.0938
0.0938					
T25X35	0.0875	0.0010	0.0009	0.0005	0.0729
0.0729					
VC25X55	0.1375	0.0020	0.0035	0.0007	0.1146
0.1146					
VC30X55	0.1650	0.0033	0.0042	0.0012	0.1375
0.1375					
VC30X60	0.1800	0.0037	0.0054	0.0014	0.1500
0.1500					
C35X60	0.2100	0.0055	0.0063	0.0021	0.1750
0.1750					
C30X45	0.1350	0.0024	0.0023	0.0010	0.1125
0.1125					
T30X30	0.0900	0.0011	0.0007	0.0007	0.0750
0.0750					
C35X50	0.1750	0.0041	0.0036	0.0018	0.1458
0.1458					
C35X35	0.1225	0.0021	0.0013	0.0013	0.1021
0.1021					
CH4X1.5X316	0.0010	0.0000	0.0000	0.0000	0.0005
0.0006					
CH6X1.75	0.0015	0.0000	0.0000	0.0000	0.0008
0.0008					
LL1.5X1.5X316	0.0006	0.0000	0.0000	0.0000	0.0004
0.0003					
CH4X1.5X14	0.0011	0.0000	0.0000	0.0000	0.0006
0.0006					
CH4X1.5X75MM	0.0014	0.0000	0.0000	0.0000	0.0008
0.0008					
SF75X35	0.2625	0.0076	0.0027	0.0027	0.2188
0.2188					
SF30X20	0.0600	0.0005	0.0002	0.0002	0.0500
0.0500					
PC3CH16	0.0003	0.0000	0.0000	0.0000	0.0001
0.0001					
C40X50	0.2000	0.0055	0.0042	0.0042	0.1667
0.1667					
C55X55	0.3025	0.0129	0.0076	0.0076	0.2521
0.2521					

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REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC - 1606  
M. O. P. - V. M. V. D. U. EL SALVADOR, C. A.

	kinder22qbri12m.txt				
C40x45	0.1800	0.0045	0.0030	0.0024	0.1500
0.1500					
VC30x50	0.1500	0.0028	0.0031	0.0011	0.1250
0.1250					
VC20x45	0.0900	0.0009	0.0015	0.0003	0.0750
0.0750					
VC15x45	0.0675	0.0004	0.0011	0.0001	0.0563
0.0563					
CC20	0.0314	0.0002	0.0001	0.0001	0.0283
0.0283					
CC25	0.0491	0.0004	0.0002	0.0002	0.0442
0.0442					
CC35	0.0962	0.0015	0.0007	0.0007	0.0866
0.0866					
CC40	0.1257	0.0025	0.0013	0.0013	0.1131
0.1131					
CC45	0.1590	0.0040	0.0020	0.0020	0.1431
0.1431					
CC50	0.1963	0.0061	0.0031	0.0031	0.1767
0.1767					
C30x40	0.1200	0.0019	0.0016	0.0009	0.1000
0.1000					
TU2x4x18	0.0009	0.0000	0.0000	0.0000	0.0006
0.0003					
TU2x6x18	0.0012	0.0000	0.0000	0.0000	0.0010
0.0003					
TU2x8x18	0.0016	0.0000	0.0000	0.0000	0.0013
0.0003					
TU3x6x18	0.0014	0.0000	0.0000	0.0000	0.0010
0.0005					
TU3x8x18	0.0017	0.0000	0.0000	0.0000	0.0013
0.0005					
TU4x8x18	0.0019	0.0000	0.0000	0.0000	0.0013
0.0006					
TU4x10x18	0.0022	0.0000	0.0000	0.0000	0.0016
0.0006					
TU4x12x18	0.0025	0.0000	0.0000	0.0000	0.0019
0.0006					
TU4x8x316	0.0028	0.0000	0.0000	0.0000	0.0019
0.0010					
TU4x10x316	0.0033	0.0000	0.0000	0.0000	0.0024
0.0010					
TU4x12x316	0.0038	0.0000	0.0000	0.0000	0.0029
0.0010					
TU6x6x18	0.0019	0.0000	0.0000	0.0000	0.0010
0.0010					
TU6x6x316	0.0028	0.0000	0.0000	0.0000	0.0015
0.0015					
D38	0.0071	0.0000	0.0000	0.0000	0.0064
0.0064					
D12	0.0001	0.0000	0.0000	0.0000	0.0001
0.0001					
D58	0.0002	0.0000	0.0000	0.0000	0.0002
0.0002					
CH5x14	0.0015	0.0000	0.0000	0.0000	0.0008
0.0008					
CH4x316	0.0009	0.0000	0.0000	0.0000	0.0005
0.0005					
CH6x14	0.0019	0.0000	0.0000	0.0000	0.0010
0.0010					
TU12x12x14	0.0076	0.0002	0.0001	0.0001	0.0039
0.0039					
TU12x12x38	0.0112	0.0002	0.0002	0.0002	0.0058
0.0058					
LL1x316s2	0.0004	0.0000	0.0000	0.0000	0.0002
0.0002					
C15x40	0.0600	0.0003	0.0008	0.0001	0.0500
0.0500					
TUPC4CH16	0.0005	0.0000	0.0000	0.0000	0.0003
0.0002					
TU3x3x18	0.0009	0.0000	0.0000	0.0000	0.0005
0.0005					
VC10x23	0.0345	0.0002	0.0002	0.0001	0.0288
0.0288					
VC10x25	0.0250	0.0001	0.0001	0.0000	0.0208
0.0208					
VC10x30	0.0450	0.0002	0.0003	0.0001	0.0375
0.0375					
VC20x12	0.0240	0.0001	0.0000	0.0000	0.0200
0.0200					
CH5x2.5x316	0.0012	0.0000	0.0000	0.0000	0.0006
0.0006					
FSEC1	0.0015	0.0000	0.0000	0.0000	0.0015
0.0006					
LL1x18s2.85	0.0003	0.0000	0.0000	0.0000	0.0002
0.0002					

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REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO N.º IC - 1606  
M.O.P.-V.M.V.D.U. EL SALVADOR, C.A.



	kinder22qbri12m.txt				
VM7.62x40x316	0.0044	0.0000	0.0001	0.0000	0.0038
0.0007					
TUPC5CH16	0.0006	0.0000	0.0000	0.0000	0.0004
0.0002					
TUPC6CH16	0.0006	0.0000	0.0000	0.0000	0.0005
0.0002					
VC18x40	0.0720	0.0006	0.0010	0.0002	0.0600
0.0600					
C45X55	0.2475	0.0084	0.0062	0.0042	0.2063
0.2063					
C40X60	0.2400	0.0075	0.0072	0.0032	0.2000
0.2000					
PIPE2SCH40	0.0007	0.0000	0.0000	0.0000	0.0004
0.0004					
PIPE1.25CH40	0.0003	0.0000	0.0000	0.0000	0.0002
0.0002					
TU4X4X14	0.0024	0.0000	0.0000	0.0000	0.0013
0.0013					
TU3X3X316	0.0014	0.0000	0.0000	0.0000	0.0007
0.0007					
C70X70	0.4900	0.0338	0.0200	0.0200	0.4083
0.4083					
PIPE2CH12	0.0003	0.0000	0.0000	0.0000	0.0002
0.0002					
PIPE8CH2	0.0086	0.0001	0.0001	0.0001	0.0047
0.0047					
TU2X2X18	0.0031	0.0000	0.0000	0.0000	0.0019
0.0013					
PIPE2.5CH12	0.0004	0.0000	0.0000	0.0000	0.0002
0.0002					
PIPE2CH8	0.0005	0.0000	0.0000	0.0000	0.0003
0.0003					
PIPE2.5CH8	0.0007	0.0000	0.0000	0.0000	0.0004
0.0004					
C50X55	0.2750	0.0105	0.0069	0.0057	0.2292
0.2292					
C50X60	0.3000	0.0124	0.0090	0.0063	0.2500
0.2500					
C55X60	0.3300	0.0152	0.0099	0.0083	0.2750
0.2750					
L2X316	0.0005	0.0000	0.0000	0.0000	0.0002
0.0002					
L2.5X316	0.0006	0.0000	0.0000	0.0000	0.0003
0.0003					
L2.5X14	0.0008	0.0000	0.0000	0.0000	0.0004
0.0004					
L1X316	0.0002	0.0000	0.0000	0.0000	0.0001
0.0001					
L1X18	0.0002	0.0000	0.0000	0.0000	0.0001
0.0001					
L1.5X18	0.0002	0.0000	0.0000	0.0000	0.0001
0.0001					
TU4X6X316	0.0023	0.0000	0.0000	0.0000	0.0015
0.0010					
CH10X2X18	0.0011	0.0000	0.0000	0.0000	0.0008
0.0003					
2PC6CH14	0.0009	0.0000	0.0000	0.0000	0.0006
0.0004					
2PC6CH12	0.0011	0.0000	0.0000	0.0000	0.0006
0.0004					
C35X45	0.1575	0.0034	0.0027	0.0016	0.1313
0.1313					
VC20X15	0.0300	0.0001	0.0001	0.0001	0.0250
0.0250					
TU8X8X3/16	0.0038	0.0000	0.0000	0.0000	0.0019
0.0019					
TU10X10X14	0.0063	0.0001	0.0001	0.0001	0.0032
0.0032					
TU10X10X5/16	0.0078	0.0001	0.0001	0.0001	0.0040
0.0040					
TU4X12X14	0.0050	0.0000	0.0001	0.0000	0.0039
0.0013					
TU4X14X316	0.0043	0.0000	0.0001	0.0000	0.0034
0.0010					
TU4X14X14	0.0056	0.0000	0.0001	0.0000	0.0045
0.0013					
TU5X14X14	0.0060	0.0000	0.0001	0.0000	0.0045
0.0016					
TU6X14X14	0.0063	0.0001	0.0001	0.0001	0.0045
0.0019					
TU6X16X14	0.0069	0.0001	0.0001	0.0001	0.0052
0.0019					
TU5X14X38	0.0088	0.0001	0.0001	0.0001	0.0068
0.0024					
TU6X16X38	0.0103	0.0001	0.0002	0.0000	0.0077
0.0029					

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REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
 MARCOS MIGUEL SANCHEZ MACHUCA  
 INGENIERO CIVIL  
 No. IC - 1606  
 M. Q. R. V. M. V. DOB 68  
 EL SALVADOR, C. A.

	kinder22qbri12m.txt				
VCN15	0.0225	0.0001	0.0000	0.0000	0.0188
0.0188					
CC60	0.2827	0.0127	0.0064	0.0064	0.2545
0.2545					
VC40x60	0.2400	0.0075	0.0072	0.0032	0.2000
0.2000					
PC4CH16C	0.0005	0.0000	0.0000	0.0000	0.0003
0.0002					
PC5CH16C	0.0005	0.0000	0.0000	0.0000	0.0004
0.0002					
PC6CH16C	0.0006	0.0000	0.0000	0.0000	0.0005
0.0002					
CH2.5x18	0.0004	0.0000	0.0000	0.0000	0.0002
0.0002					
CH5x316	0.0012	0.0000	0.0000	0.0000	0.0006
0.0006					
VC20x80	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000					
VC25x80	0.2000	0.0033	0.0107	0.0010	0.1667
0.1667					
VC30x75	0.2250	0.0051	0.0105	0.0017	0.1875
0.1875					
VC30x70	0.2100	0.0046	0.0086	0.0016	0.1750
0.1750					
VC30x80	0.2400	0.0055	0.0128	0.0018	0.2000
0.2000					
VC30x85	0.2550	0.0060	0.0154	0.0019	0.2125
0.2125					
VC30x65	0.1950	0.0042	0.0069	0.0015	0.1625
0.1625					
VC35x75	0.2625	0.0076	0.0123	0.0027	0.2188
0.2188					
VC40x75	0.3000	0.0107	0.0141	0.0040	0.2500
0.2500					
VC25x75	0.1875	0.0031	0.0088	0.0010	0.1563
0.1563					
VC35x80	0.2800	0.0083	0.0149	0.0029	0.2333
0.2333					
VF70x35	0.2450	0.0069	0.0025	0.0100	0.2042
0.2042					
VF70x30	0.2100	0.0046	0.0016	0.0086	0.1750
0.1750					
VF55x30	0.1650	0.0033	0.0012	0.0042	0.1375
0.1375					
HSS10x4x.250	0.0040	0.0000	0.0000	0.0000	0.0030
0.0012					
HSS12x4x.250	0.0046	0.0000	0.0000	0.0000	0.0036
0.0012					
C30x100	0.3000	0.0073	0.0250	0.0023	0.2500
0.2500					
TUBO6x6x1/2	0.0071	0.0000	0.0000	0.0000	0.0039
0.0039					
TUBO6x21x316	0.0063	0.0001	0.0002	0.0000	0.0050
0.0014					
TU2x4x16	0.0004	0.0000	0.0000	0.0000	0.0003
0.0002					
C35x55	0.1925	0.0048	0.0049	0.0020	0.1604
0.1604					

FRAME SECTION PROPERTY DATA

GYRATION FRAME SECTION NAME R22	SECTION MODULI		PLASTIC MODULI		RADIUS OF
	S33	S22	Z33	Z22	R33
HSS4X.237	0.0000	0.0000	0.0001	0.0001	0.0340
0.0340					
HSS4X.250	0.0000	0.0000	0.0001	0.0001	0.0339
0.0339					
HSS5X.250	0.0001	0.0001	0.0001	0.0001	0.0429
0.0429					
HSS5X.258	0.0001	0.0001	0.0001	0.0001	0.0428
0.0428					
HSS5X.312	0.0001	0.0001	0.0001	0.0001	0.0424
0.0424					
HSS5X.375	0.0001	0.0001	0.0001	0.0001	0.0419
0.0419					
HSS5X.500	0.0001	0.0001	0.0002	0.0002	0.0409
0.0409					
HSS6X.250	0.0001	0.0001	0.0001	0.0001	0.0519
0.0519					
HSS6X.280	0.0001	0.0001	0.0001	0.0001	0.0515
0.0515					
HSS6X.317	0.0001	0.0001	0.0002	0.0002	0.0513

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MARCOS MIGUEL SANCHEZ MACHUCA  
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REGISTRO No. IC - 1606  
M.P. - V. M. V. 08/11/19

kinder22qbril2m.txt

0.0513					
HSS6X.375	0.0001	0.0001	0.0002	0.0002	0.0508
0.0508					
HSS7X.250	0.0001	0.0001	0.0002	0.0002	0.0608
0.0608					
HSS7X.312	0.0002	0.0002	0.0002	0.0002	0.0603
0.0603					
HSS7X.375	0.0002	0.0002	0.0003	0.0003	0.0598
0.0598					
HSS7X.500	0.0002	0.0002	0.0003	0.0003	0.0588
0.0588					
ConcCo1	0.0159	0.0159	0.0239	0.0239	0.1320
0.1320					
ConcBm	0.0106	0.0071	0.0159	0.0106	0.1320
0.0880					
VC15X15	0.0006	0.0006	0.0008	0.0008	0.0433
0.0433					
VC15X20	0.0010	0.0008	0.0015	0.0011	0.0577
0.0433					
VC15X25	0.0016	0.0009	0.0023	0.0014	0.0722
0.0433					
VC15X30	0.0023	0.0011	0.0034	0.0017	0.0866
0.0433					
VC15X35	0.0031	0.0013	0.0046	0.0020	0.1010
0.0433					
VC15X40	0.0040	0.0015	0.0060	0.0023	0.1155
0.0433					
VC20X20	0.0013	0.0013	0.0020	0.0020	0.0577
0.0577					
VC20X25	0.0021	0.0017	0.0031	0.0025	0.0722
0.0577					
VC20X30	0.0030	0.0020	0.0045	0.0030	0.0866
0.0577					
VC20X35	0.0041	0.0023	0.0061	0.0035	0.1010
0.0577					
VC20X40	0.0053	0.0027	0.0080	0.0040	0.1155
0.0577					
VC25X40	0.0067	0.0042	0.0100	0.0063	0.1155
0.0722					
C30X50	0.0125	0.0075	0.0188	0.0113	0.1443
0.0866					
C15X15	0.0006	0.0006	0.0008	0.0008	0.0433
0.0433					
C15X20	0.0010	0.0008	0.0015	0.0011	0.0577
0.0433					
C20X20	0.0013	0.0013	0.0020	0.0020	0.0577
0.0577					
C20X30	0.0030	0.0020	0.0045	0.0030	0.0866
0.0577					
C15X25	0.0016	0.0009	0.0023	0.0014	0.0722
0.0433					
C15X30	0.0023	0.0011	0.0034	0.0017	0.0866
0.0433					
VN25X20	0.0017	0.0021	0.0025	0.0031	0.0577
0.0722					
VM7.62x30x316	0.0002	0.0001	0.0002	0.0001	0.1010
0.0340					
VC25X45	0.0084	0.0047	0.0127	0.0070	0.1299
0.0722					
VN35X20	0.0023	0.0041	0.0035	0.0061	0.0577
0.1010					
VN40X20	0.0027	0.0053	0.0040	0.0080	0.0577
0.1155					
PC4CH16	0.0000	0.0000	0.0000	0.0000	0.0410
0.0164					
PC5CH16	0.0000	0.0000	0.0000	0.0000	0.0497
0.0156					
PC6CH16	0.0000	0.0000	0.0000	0.0000	0.0581
0.0151					
CF20X40	0.0053	0.0027	0.0080	0.0040	0.1155
0.0577					
CF20X60	0.0120	0.0040	0.0180	0.0060	0.1732
0.0577					
CF	0.0013	0.0013	0.0020	0.0020	0.0577
0.0577					
C25X35	0.0051	0.0036	0.0077	0.0036	0.1010
0.0722					
VM7.62x35x316	0.0003	0.0001	0.0004	0.0001	0.1155
0.0337					
2PC6CH16	0.0000	0.0000	0.0000	0.0000	0.0410
0.0428					
2PC4CH16	0.0000	0.0000	0.0000	0.0000	0.0410
0.0408					
C25X40	0.0067	0.0042	0.0100	0.0063	0.1155
0.0722					
C25X25	0.0026	0.0026	0.0039	0.0039	0.0722

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 MARCOS MIGUEL SANCHEZ MACHUCA  
 INGENIERO CIVIL  
 REGISTRO No. IC-160  
 M.O.P. V.M.V.D.U. EL SALVADOR, C.

kinder22qbri12m.txt

0.0722					
SF50X30	0.0075	0.0125	0.0113	0.0188	0.0866
0.1443					
SF50X35	0.0102	0.0146	0.0153	0.0219	0.1010
0.1443					
SF45X35	0.0092	0.0118	0.0138	0.0177	0.1010
0.1299					
VC25X50	0.0104	0.0052	0.0156	0.0078	0.1443
0.0722					
C45X45	0.0152	0.0152	0.0228	0.0228	0.1299
0.1299					
TU6X6X14	0.0002	0.0002	0.0002	0.0002	0.0597
0.0597					
TU8X8X14	0.0003	0.0003	0.0004	0.0004	0.0804
0.0804					
L1.5X316	0.0000	0.0000	0.0000	0.0000	0.0116
0.0116					
SF100X25	0.0104	0.0417	0.0156	0.0625	0.0722
0.2887					
SFT100-25X50	0.0146	0.0423	0.0303	0.0664	0.1233
0.2602					
SF60X35	0.0123	0.0210	0.0184	0.0315	0.1010
0.1732					
C30X30	0.0045	0.0045	0.0068	0.0068	0.0866
0.0866					
C10X10	0.0002	0.0002	0.0003	0.0003	0.0289
0.0289					
SF40X30	0.0060	0.0080	0.0090	0.0120	0.0866
0.1155					
T25X25	0.0026	0.0026	0.0039	0.0039	0.0722
0.0722					
VC15X10	0.0003	0.0004	0.0004	0.0006	0.0289
0.0433					
2PC5CH16	0.0000	0.0000	0.0000	0.0000	0.0497
0.0420					
2PC8CH14	0.0001	0.0000	0.0001	0.0000	0.0750
0.0440					
VM5.08X25X316	0.0001	0.0000	0.0002	0.0000	0.0853
0.0220					
CC30	0.0027	0.0027	0.0045	0.0045	0.0750
0.0750					
C20X40	0.0053	0.0027	0.0080	0.0040	0.1155
0.0577					
C20X50	0.0083	0.0033	0.0125	0.0050	0.1443
0.0577					
SF50X25	0.0052	0.0104	0.0078	0.0156	0.0722
0.1443					
T20X20	0.0013	0.0013	0.0020	0.0020	0.0577
0.0577					
SF40X25	0.0042	0.0067	0.0063	0.0100	0.0722
0.1155					
SF75X30	0.0113	0.0281	0.0169	0.0422	0.0866
0.2165					
C20X25	0.0021	0.0017	0.0031	0.0025	0.0722
0.0577					
C25X50	0.0104	0.0052	0.0156	0.0078	0.1443
0.0722					
VC30X45	0.0101	0.0068	0.0152	0.0101	0.1299
0.0866					
VC30X40	0.0080	0.0060	0.0120	0.0090	0.1155
0.0866					
VC35X40	0.0093	0.0082	0.0140	0.0123	0.1155
0.1010					
SF40X40	0.0107	0.0107	0.0160	0.0160	0.1155
0.1155					
VC40X45	0.0135	0.0120	0.0203	0.0180	0.1299
0.1155					
2PC8CH12	0.0001	0.0000	0.0001	0.0001	0.0748
0.0439					
VF45X30	0.0068	0.0101	0.0101	0.0152	0.0866
0.1299					
VF55X35	0.0112	0.0176	0.0168	0.0265	0.1010
0.1588					
VF40X30	0.0060	0.0080	0.0090	0.0120	0.0866
0.1155					
SF60X45	0.0203	0.0270	0.0304	0.0405	0.2299
0.1732					
SF60X40	0.0160	0.0240	0.0240	0.0155	0.1155
0.1732					
C40X40	0.0107	0.0107	0.0160	0.0155	0.1155
0.1155					
VC10X15	0.0004	0.0003	0.0006	0.0033	0.0433
0.0289					
TU4X4X18	0.0000	0.0000	0.0000	0.0000	0.0402
0.0402					
TI14X6X18	0.0001	0.0001	0.0001	0.0001	0.0577

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MARCOS MIGUEL SANCHEZ MACHUCA  
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REGISTRO No. IC - 1606  
M. O. P. - V. M. V. D. U. EL SALVADOR, C. A.

kinder22qbri12m.txt

0.0422	0.0208	0.0208	0.0313	0.0313	0.1443
C50X50					
0.1443	0.0073	0.0204	0.0109	0.0306	0.0722
SF70X25					
0.2021	0.0057	0.0126	0.0086	0.0189	0.0722
SF55X25					
0.1588	0.0047	0.0084	0.0070	0.0127	0.0722
SF45X25					
0.1299	0.0051	0.0036	0.0077	0.0055	0.1010
T25X35					
0.0722	0.0126	0.0057	0.0189	0.0086	0.1588
VC25X55					
0.0722	0.0151	0.0083	0.0227	0.0124	0.1588
VC30X55					
0.0866	0.0180	0.0090	0.0270	0.0135	0.1732
VC30X60					
0.0866	0.0210	0.0123	0.0315	0.0184	0.1732
C35X60					
0.1010	0.0101	0.0068	0.0152	0.0101	0.1299
C30X45					
0.0866	0.0045	0.0045	0.0068	0.0068	0.0866
T30X30					
0.0866	0.0146	0.0102	0.0219	0.0153	0.1443
C35X50					
0.1010	0.0071	0.0071	0.0107	0.0107	0.1010
C35X35					
0.1010	0.0000	0.0000	0.0000	0.0000	0.0397
CH4X1.5X316					
0.0125	0.0001	0.0000	0.0001	0.0000	0.0593
CH6X1.75					
0.0148	0.0000	0.0000	0.0000	0.0000	0.0118
LL1.5X1.5X316					
0.0184	0.0000	0.0000	0.0000	0.0000	0.0382
CH4X1.5X14					
0.0119	0.0000	0.0000	0.0000	0.0000	0.0385
CH4X1.5X75MM					
0.0150	0.0153	0.0328	0.0230	0.0492	0.1010
SF75X35					
0.2165	0.0020	0.0030	0.0030	0.0045	0.0577
SF30X20					
0.0866	0.0000	0.0000	0.0000	0.0000	0.0305
PC3CH16					
0.0121	0.0167	0.0133	0.0250	0.0200	0.1443
C40X50					
0.1155	0.0277	0.0277	0.0416	0.0416	0.1588
C55X55					
0.1588	0.0135	0.0120	0.0203	0.0180	0.1299
C40X45					
0.1155	0.0125	0.0075	0.0188	0.0113	0.1443
VC30X50					
0.0866	0.0068	0.0030	0.0101	0.0045	0.1299
VC20X45					
0.0577	0.0051	0.0017	0.0076	0.0025	0.1299
VC15X45					
0.0433	0.0008	0.0008	0.0013	0.0013	0.0500
CC20					
0.0500	0.0015	0.0015	0.0026	0.0026	0.0625
CC25					
0.0625	0.0042	0.0042	0.0071	0.0071	0.0875
CC35					
0.0875	0.0063	0.0063	0.0107	0.0107	0.1000
CC40					
0.1000	0.0089	0.0089	0.0152	0.0152	0.1125
CC45					
0.1125	0.0123	0.0123	0.0208	0.0208	0.1250
CC50					
0.1250	0.0080	0.0060	0.0120	0.0090	0.1155
C30X40					
0.0866	0.0000	0.0000	0.0000	0.0000	0.0365
TU2X4X18					
0.0211	0.0000	0.0000	0.0001	0.0000	0.0525
TU2X6X18					
0.0218	0.0001	0.0000	0.0001	0.0000	0.0680
TU2X8X18					
0.0223	0.0001	0.0000	0.0001	0.0000	0.0555
TU3X6X18					
0.0323	0.0001	0.0000	0.0001	0.0000	0.0555
TU3X8X18					
0.0331	0.0001	0.0000	0.0001	0.0000	0.0555
TU4X8X18					
0.0435	0.0001	0.0001	0.0001	0.0001	0.0555
TU4X10X18					
0.0444	0.0001	0.0001	0.0002	0.0002	0.0555
TU4X12X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X14X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X16X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X18X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X20X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X22X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X24X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X26X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X28X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X30X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X32X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X34X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X36X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X38X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X40X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X42X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X44X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X46X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X48X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X50X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X52X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X54X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X56X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X58X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X60X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X62X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X64X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X66X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X68X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X70X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X72X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X74X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X76X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X78X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X80X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X82X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X84X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X86X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X88X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X90X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X92X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X94X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X96X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X98X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555
TU4X100X18					
0.0450	0.0002	0.0001	0.0002	0.0002	0.0555

DIN - FI  
08 JUN. 2  
REVISAR

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO PROFESIONAL - 1606  
M.O.P. Y M.V.D.U. EL SALVADOR, C.A.

kinder22qbri12m.txt

0.0428					
TU4X10X316	0.0002	0.0001	0.0003	0.0001	0.0899
0.0437					
TU4X12X316	0.0003	0.0001	0.0004	0.0002	0.1057
0.0443					
TU6X6X18	0.0001	0.0001	0.0001	0.0001	0.0609
0.0609					
TU6X6X316	0.0001	0.0001	0.0002	0.0002	0.0603
0.0603					
D38	0.0001	0.0001	0.0001	0.0001	0.0238
0.0238					
D12	0.0000	0.0000	0.0000	0.0000	0.0032
0.0032					
D58	0.0000	0.0000	0.0000	0.0000	0.0040
0.0040					
CH5X14	0.0001	0.0000	0.0001	0.0000	0.0493
0.0195					
CH4X316	0.0000	0.0000	0.0000	0.0000	0.0396
0.0157					
CH6X14	0.0001	0.0000	0.0001	0.0000	0.0597
0.0236					
TU12X12X14	0.0007	0.0007	0.0008	0.0008	0.1219
0.1219					
TU12X12X38	0.0011	0.0011	0.0012	0.0012	0.1206
0.1206					
LL1X316S2	0.0000	0.0000	0.0000	0.0000	0.0075
0.0341					
C15X40	0.0040	0.0015	0.0060	0.0023	0.1155
0.0433					
TUPC4CH16	0.0000	0.0000	0.0000	0.0000	0.0372
0.0217					
TU3X3X18	0.0000	0.0000	0.0000	0.0000	0.0298
0.0298					
VC10X23	0.0013	0.0009	0.0020	0.0013	0.0664
0.0433					
VC10X25	0.0010	0.0004	0.0016	0.0006	0.0722
0.0289					
VC10X30	0.0023	0.0011	0.0034	0.0017	0.0866
0.0433					
VC20X12	0.0005	0.0008	0.0007	0.0012	0.0346
0.0577					
CH5X2.5X316	0.0000	0.0000	0.0001	0.0000	0.0499
0.0198					
FSEC1	0.0000	0.0000	0.0000	0.0000	0.0243
0.0219					
LL1X18S2.85	0.0000	0.0000	0.0000	0.0000	0.0077
0.0231					
VM7.62X40X316	0.0004	0.0001	0.0005	0.0001	0.1304
0.0339					
TUPC5CH16	0.0000	0.0000	0.0000	0.0000	0.0453
0.0222					
TUPC6CH16	0.0000	0.0000	0.0000	0.0000	0.0531
0.0222					
VC18X40	0.0048	0.0022	0.0072	0.0032	0.1155
0.0520					
C45X55	0.0227	0.0186	0.0340	0.0278	0.1588
0.1299					
C40X60	0.0240	0.0160	0.0360	0.0240	0.1732
0.1155					
PIPE2SCH40	0.0000	0.0000	0.0000	0.0000	0.0200
0.0200					
PIPE1.25CH40	0.0000	0.0000	0.0000	0.0000	0.0102
0.0102					
TU4X4X14	0.0001	0.0001	0.0001	0.0001	0.0390
0.0390					
TU3X3X316	0.0000	0.0000	0.0000	0.0000	0.0292
0.0292					
C70X70	0.0572	0.0572	0.0858	0.0858	0.2021
0.2021					
PIPE2CH12	0.0000	0.0000	0.0000	0.0000	0.0172
0.0172					
PIPE8CH2	0.0004	0.0004	0.0006	0.0006	0.0765
0.0765					
TU2X2X18	0.0001	0.0001	0.0002	0.0001	0.0365
0.0410					
PIPE2.5CH12	0.0000	0.0000	0.0000	0.0000	0.0217
0.0217					
PIPE2CH8	0.0000	0.0000	0.0000	0.0000	0.0191
0.0191					
PIPE2.5CH8	0.0000	0.0000	0.0000	0.0000	0.0236
0.0236					
C50X55	0.0252	0.0229	0.0378	0.0378	0.1443
0.1443					
C50X60	0.0300	0.0250	0.0450	0.0375	0.1732
0.1443					
C55X60	0.0330	0.0303	0.0495	0.0454	0.1732

DIN - FISC

08 JUN. 2017

REVISADO

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
 MARGOS MIGUEL SANCHEZ MACHUCA  
 INGENIERO CIVIL  
 REGISTRO No. IC - 1606  
 M. O. P. - V. M. V. O. D. I. S. E. EL SALVADOR, C.A.

kinder22qbri12m.txt

0.1588					
L2X316	0.0000	0.0000	0.0000	0.0000	0.0157
0.0157					
L2.5X316	0.0000	0.0000	0.0000	0.0000	0.0198
0.0198					
L2.5X14	0.0000	0.0000	0.0000	0.0000	0.0195
0.0195					
L1X316	0.0000	0.0000	0.0000	0.0000	0.0075
0.0075					
L1X18	0.0000	0.0000	0.0000	0.0000	0.0077
0.0077					
L1.5X18	0.0000	0.0000	0.0000	0.0000	0.0118
0.0118					
TU4X6X316	0.0001	0.0001	0.0001	0.0001	0.0571
0.0416					
CH10X2X18	0.0001	0.0000	0.0001	0.0000	0.0906
0.0134					
2PC6CH14	0.0000	0.0000	0.0000	0.0000	0.0583
0.0428					
2PC6CH12	0.0000	0.0000	0.0001	0.0000	0.0582
0.0426					
C35X45	0.0118	0.0092	0.0177	0.0138	0.1299
0.1010					
VC20X15	0.0008	0.0010	0.0011	0.0015	0.0433
0.0577					
TU8X8X3/16	0.0002	0.0002	0.0003	0.0003	0.0810
0.0810					
TU10X10X14	0.0005	0.0005	0.0006	0.0006	0.1011
0.1011					
TU10X10X5/16	0.0006	0.0006	0.0007	0.0007	0.0999
0.1004					
TU4X12X14	0.0004	0.0002	0.0005	0.0002	0.1050
0.0437					
TU4X14X316	0.0004	0.0002	0.0005	0.0002	0.1212
0.0448					
TU4X14X14	0.0005	0.0002	0.0006	0.0002	0.1205
0.0441					
TU5X14X14	0.0005	0.0003	0.0007	0.0003	0.1241
0.0550					
TU6X14X14	0.0006	0.0004	0.0007	0.0004	0.1272
0.0655					
TU6X16X14	0.0007	0.0004	0.0009	0.0004	0.1431
0.0662					
TU5X14X38	0.0007	0.0004	0.0010	0.0005	0.1227
0.0537					
TU6X16X38	0.0010	0.0006	0.0013	0.0006	0.1417
0.0649					
VCN15	0.0006	0.0006	0.0008	0.0008	0.0433
0.0433					
CC60	0.0212	0.0212	0.0360	0.0360	0.1500
0.1500					
VC40X60	0.0240	0.0160	0.0360	0.0240	0.1732
0.1155					
PC4CH16C	0.0000	0.0000	0.0000	0.0000	0.0372
0.0217					
PC5CH16C	0.0000	0.0000	0.0000	0.0000	0.0453
0.0222					
PC6CH16C	0.0000	0.0000	0.0000	0.0000	0.0532
0.0225					
CH2.5X18	0.0000	0.0000	0.0000	0.0000	0.0247
0.0098					
CH5X316	0.0000	0.0000	0.0001	0.0000	0.0499
0.0198					
VC20X80	0.0000	0.0000	0.0000	0.0000	0.0023
0.0006					
VC25X80	0.0267	0.0083	0.0400	0.0125	0.2309
0.0722					
VC30X75	0.0281	0.0113	0.0422	0.0169	0.2165
0.0866					
VC30X70	0.0245	0.0105	0.0368	0.0158	0.2021
0.0866					
VC30X80	0.0320	0.0120	0.0480	0.0180	0.2309
0.0866					
VC30X85	0.0361	0.0128	0.0542	0.0191	0.2454
0.0866					
VC30X65	0.0211	0.0098	0.0317	0.0146	0.2076
0.0866					
VC35X75	0.0328	0.0153	0.0492	0.0220	0.2165
0.1010					
VC40X75	0.0375	0.0200	0.0563	0.0215	0.2165
0.1155					
VC25X75	0.0234	0.0078	0.0352	0.0117	0.2165
0.0722					
VC35X80	0.0373	0.0163	0.0560	0.0245	0.2309
0.1010					
VF70X35	0.0143	0.0286	0.0214	0.0429	0.1010

DIN - FISI

08 JUN. 2017

REVISAD

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
 MARCOS MIGUEL SANCHEZ MACHUCA  
 INGENIERO CIVIL  
 REGISTRO No. IC - 1606  
 M.C.P.-V.M.V.D.U. EL SALVADOR, C.A.

kinder22qbri12m.txt

0.2021					
VF70X30	0.0105	0.0245	0.0158	0.0368	0.0866
0.2021					
VF55X30	0.0083	0.0151	0.0124	0.0227	0.0866
0.1588					
HSS10X4X.250	0.0002	0.0001	0.0003	0.0002	0.0884
0.0430					
HSS12X4X.250	0.0003	0.0002	0.0004	0.0002	0.1040
0.0437					
C30X100	0.0500	0.0150	0.0750	0.0225	0.2887
0.0866					
TUBO6X6X1/2	0.0003	0.0003	0.0004	0.0004	0.0573
0.0573					
TUBO6X21X316	0.0008	0.0004	0.0010	0.0004	0.1819
0.0683					
TU2X4X16	0.0000	0.0000	0.0000	0.0000	0.0366
0.0214					
C35X55	0.0176	0.0112	0.0265	0.0168	0.1588
0.1010					

FRAME SECTION WEIGHTS AND MASSES

FRAME SECTION NAME	TOTAL WEIGHT	TOTAL MASS	
HSS4X.237	0.0000	0.0000	
HSS4X.250	0.0000	0.0000	
HSS5X.250	0.0000	0.0000	
HSS5X.258	0.0000	0.0000	
HSS5X.312	0.0000	0.0000	
HSS5X.375	0.0000	0.0000	
HSS5X.500	0.0000	0.0000	
HSS6X.250	0.0000	0.0000	
HSS6X.280	0.0000	0.0000	
HSS6X.312	0.0000	0.0000	
HSS6X.375	0.0000	0.0000	
HSS7X.250	0.0000	0.0000	
HSS7X.312	0.0000	0.0000	
HSS7X.375	0.0000	0.0000	
HSS7X.500	0.0000	0.0000	
A-GravBm	N/A	N/A	Not available for auto select section
lists			
A-LatBm	N/A	N/A	Not available for auto select section
lists			
A-GravCo1	N/A	N/A	Not available for auto select section
lists			
A-LatCo1	N/A	N/A	Not available for auto select section
lists			
A-CompBm	N/A	N/A	Not available for auto select section
lists			
A-TrChdw10	N/A	N/A	Not available for auto select section
lists			
A-TrChdw12	N/A	N/A	Not available for auto select section
lists			
A-TrChdw14	N/A	N/A	Not available for auto select section
lists			
A-TrwebHSSO	N/A	N/A	Not available for auto select section
lists			
A-TrwebPIPE	N/A	N/A	Not available for auto select section
lists			
A-Trweb8	N/A	N/A	Not available for auto select section
lists			
A-Trweb10	N/A	N/A	Not available for auto select section
lists			
A-Trweb12	N/A	N/A	Not available for auto select section
lists			
ConcCo1	0.0000	0.0000	
ConcBm	0.0000	0.0000	
VC15X15	0.0000	0.0000	
VC15X20	3.3002	0.3362	
VC15X25	0.0000	0.0000	
VC15X30	0.0000	0.0000	
VC15X35	0.0000	0.0000	
VC15X40	0.0000	0.0000	
VC20X20	0.0000	0.0000	
VC20X25	0.0000	0.0000	
VC20X30	0.0000	0.0000	
VC20X35	0.0000	0.0000	
VC20X40	15.6483	1.5941	
VC25X40	0.0000	0.0000	
C30X50	0.0000	0.0000	
C15X15	0.0000	0.0000	
C15X20	0.0000	0.0000	
C20X20	0.0000	0.0000	
C20X30	0.0000	0.0000	





	kinder22qbri12m.txt	
C15X25	0.0000	0.0000
C15X30	0.0000	0.0000
VN25X20	0.0000	0.0000
VM7.62x30x316	0.0000	0.0000
VC25X45	0.0000	0.0000
VN35X20	0.0000	0.0000
VN40X20	0.0000	0.0000
PC4CH16	0.0000	0.0000
PC5CH16	0.0000	0.0000
PC6CH16	0.0000	0.0000
CF20X40	0.0000	0.0000
CF20X60	0.0000	0.0000
CF	0.0000	0.0000
C25X35	0.0000	0.0000
VM7.62x35x316	0.0000	0.0000
2PC6CH16	0.0000	0.0000
2PC4CH16	0.0000	0.0000
C25X40	0.0000	0.0000
C25X25	0.0000	0.0000
SF50X30	0.0000	0.0000
SF50X35	0.0000	0.0000
SF45X35	0.0000	0.0000
VC25X50	0.0000	0.0000
C45X45	0.0000	0.0000
TU6X6X14	0.0000	0.0000
TU8X8X14	0.0000	0.0000
L1.5x316	0.0000	0.0000
SF100X25	0.0000	0.0000
SFT100-25x50	0.0000	0.0000
SF60X35	0.0000	0.0000
C30X30	0.0000	0.0000
C10X10	0.0000	0.0000
SF40X30	0.0000	0.0000
T25X25	0.0000	0.0000
VC15X10	0.0000	0.0000
2PC5CH16	0.4356	0.0444
2PC8CH14	0.0000	0.0000
VM5.08x25x316	0.0000	0.0000
CC30	20.8925	2.1284
C20X40	0.0000	0.0000
C20X50	0.0000	0.0000
SF50X25	0.0000	0.0000
T20X20	0.0000	0.0000
SF40X25	0.0000	0.0000
SF75X30	0.0000	0.0000
C20X25	0.0000	0.0000
C25X50	0.0000	0.0000
VC30X45	0.0000	0.0000
VC30X40	10.0147	1.0202
VC35X40	0.0000	0.0000
SF40X40	0.0000	0.0000
VC40X45	0.0000	0.0000
2PC8CH12	0.0000	0.0000
VF45X30	0.0000	0.0000
VF55X35	0.0000	0.0000
VF40X30	0.0000	0.0000
SF60X45	0.0000	0.0000
SF60X40	12.1976	1.2426
C40X40	0.0000	0.0000
VC10X15	0.0000	0.0000
TU4x4x18	0.0000	0.0000
TU4x6x18	0.0000	0.0000
C50X50	0.0000	0.0000
SF70X25	0.0000	0.0000
SF55X25	0.0000	0.0000
SF45X25	0.0000	0.0000
T25X35	0.0000	0.0000
VC25X55	0.0000	0.0000
VC30X55	0.0000	0.0000
VC30X60	11.2460	1.1457
C35X60	0.0000	0.0000
C30X45	0.0000	0.0000
T30X30	0.0000	0.0000
C35X50	0.0000	0.0000
C35X35	6.7705	0.6897
CH4X1.5x316	0.0000	0.0000
CH6X1.75	0.0000	0.0000
LL1.5x1.5x316	0.0000	0.0000
CH4X1.5x14	0.0000	0.0000
CH4X1.5x75MM	0.0000	0.0000
SF75X35	0.0000	0.0000
SF30X20	0.0000	0.0000
PC3CH16	0.0000	0.0000
C40X50	0.0000	0.0000
C55X55	0.0000	0.0000
C40X45	0.0000	0.0000



*MF*



	kinder22qbril2m.txt	
VC30x50	0.0000	0.0000
VC20x45	0.0000	0.0000
VC15x45	0.0000	0.0000
CC20	0.0000	0.0000
CC25	0.0000	0.0000
CC35	0.0000	0.0000
CC40	0.9663	0.0984
CC45	0.0000	0.0000
CC50	0.0000	0.0000
C30x40	0.0000	0.0000
TU2x4x18	0.0000	0.0000
TU2x6x18	0.0000	0.0000
TU2x8x18	0.0000	0.0000
TU3x6x18	0.0000	0.0000
TU3x8x18	0.0000	0.0000
TU4x8x18	0.0000	0.0000
TU4x10x18	0.0000	0.0000
TU4x12x18	0.0000	0.0000
TU4x8x316	0.0000	0.0000
TU4x10x316	0.0000	0.0000
TU4x12x316	0.0000	0.0000
TU6x6x18	0.0000	0.0000
TU6x6x316	0.0000	0.0000
D38	0.0000	0.0000
D12	0.0000	0.0000
D58	0.0000	0.0000
CH5x14	0.0000	0.0000
CH4x316	0.0000	0.0000
CH6x14	0.0000	0.0000
TU12x12x14	0.0000	0.0000
TU12x12x38	0.0000	0.0000
LL1x316S2	0.0000	0.0000
C15x40	0.0000	0.0000
TUPC4CH16	0.0000	0.0000
TU3x3x18	0.0000	0.0000
VC10x23	0.0000	0.0000
VC10x25	0.0000	0.0000
VC10x30	0.0000	0.0000
VC20x12	0.0000	0.0000
CH5x2.5x316	0.0000	0.0000
FSEC1	0.0000	0.0000
LL1x18s2.85	0.0000	0.0000
VM7.62x40x316	0.0000	0.0000
TUPC5CH16	0.0000	0.0000
TUPC6CH16	0.0000	0.0000
VC18x40	0.0000	0.0000
C45x55	0.0000	0.0000
C40x60	0.0000	0.0000
PIPE2SCH40	0.0000	0.0000
PIPE1.25CH40	0.0000	0.0000
TU4x4x14	0.0000	0.0000
TU3x3x316	0.0000	0.0000
C70x70	0.0000	0.0000
PIPE2CH12	0.0000	0.0000
PIPE8CH2	0.0000	0.0000
TU2x2x18	0.0000	0.0000
PIPE2.5CH12	0.0000	0.0000
PIPE2CH8	0.0000	0.0000
PIPE2.5CH8	0.0000	0.0000
C50x55	0.0000	0.0000
C50x60	0.0000	0.0000
C55x60	0.0000	0.0000
L2x316	0.0000	0.0000
L2.5x316	0.0000	0.0000
L2.5x14	0.0000	0.0000
L1x316	0.0000	0.0000
L1x18	0.0000	0.0000
L1.5x18	0.0000	0.0000
TU4x6x316	0.0000	0.0000
CH10x2x18	0.0000	0.0000
2PC6CH14	0.0000	0.0000
2PC6CH12	0.0000	0.0000
C35x45	0.0000	0.0000
VC20x15	0.0000	0.0000
TU8x8x3/16	0.0000	0.0000
TU10x10x14	0.0000	0.0000
TU10x10x5/16	0.0000	0.0000
TU4x12x14	0.0000	0.0000
TU4x14x316	0.3509	0.0357
TU4x14x14	0.0000	0.0000
TU5x14x14	0.0000	0.0000
TU6x14x14	0.0000	0.0000
TU6x16x14	0.0000	0.0000
TU5x14x38	0.0000	0.0000
TU6x16x38	0.0000	0.0000
vcn15	0.0000	0.0000

DIN - FISDL  
08 JUN. 2017  
REVISADO

*MS*

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCCO MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC - 1606  
M.O.P. - V.M.V.D.U. EL SALVADOR, C.A.

	kinder22qbri12m.txt	
CC60	0.0000	0.0000
VC40x60	0.0000	0.0000
PC4CH16C	0.0000	0.0000
PC5CH16C	0.0000	0.0000
PC6CH16C	0.0000	0.0000
CH2.5x1.8	0.0000	0.0000
CH5x316	0.0000	0.0000
VC20x80	0.0000	0.0000
VC25x80	0.0000	0.0000
VC30x75	0.0000	0.0000
VC30x70	0.0000	0.0000
VC30x80	0.0000	0.0000
VC30x85	0.0000	0.0000
VC30x65	0.0000	0.0000
VC35x75	0.0000	0.0000
VC40x75	0.0000	0.0000
VC25x75	0.0000	0.0000
VC35x80	0.0000	0.0000
VF70x35	0.0000	0.0000
VF70x30	0.0000	0.0000
VF55x30	0.0000	0.0000
HSS10x4x.250	0.0000	0.0000
HSS12x4x.250	0.0000	0.0000
C30x100	0.0000	0.0000
TUBO6x6x1/2	0.0000	0.0000
TUBO6x21x316	0.0000	0.0000
TU2x4x16	0.0000	0.0000
C35x55	18.2579	1.8600

AUTO SELECT SECTION LISTS

AUTO SELECT LIST NAME: A-GravBm

AUTO SELECT LIST NAME: A-TrWebHSSO

FRAME SECTION NAME	FRAME SECTION NAME	FRAME SECTION NAME
HSS4X.237	HSS4X.250	HSS5X.250
HSS5X.258	HSS5X.312	HSS5X.375
HSS5X.500	HSS6X.250	HSS6X.280
HSS6X.312	HSS6X.375	HSS7X.250
HSS7X.312	HSS7X.375	HSS7X.500



AUTO SELECT LIST NAME: A-TrWebPIPE

CONCRETE COLUMN DATA

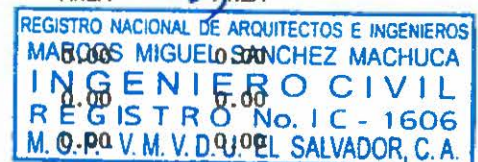
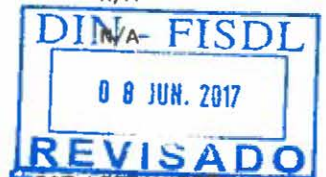
BAR FRAME SECTION NAME COVER	REINF CONFIGURATION		REINF	NUM BARS	NUM BARS
	LONGIT	LATERAL	SIZE/TYPE	3DIR/2DIR	CIRCULAR
ConcCol	Rectangular	Ties	#9/Design	3/3	N/A
0.0457	Rectangular	Ties	#6/Design	3/3	N/A
C30X50	Rectangular	Ties	#3/Design	2/2	N/A
0.0500	Rectangular	Ties	#4/Design	2/2	N/A
C15X15	Rectangular	Ties	#3/Design	3/3	N/A
0.0350	Rectangular	Ties	#4/Design	2/3	N/A
C15X20	Rectangular	Ties	#3/Design	3/3	N/A
0.0350	Rectangular	Ties	#4/Design	2/3	N/A
C20X20	Rectangular	Ties	#3/Design	3/3	N/A
0.0400	Rectangular	Ties	#4/Design	2/3	N/A
C20X30	Rectangular	Ties	#3/Design	2/3	N/A
0.0450	Rectangular	Ties	#3/Design	2/3	N/A
C15X25	Rectangular	Ties	#3/Design	2/3	N/A
0.0450	Rectangular	Ties	#3/Design	2/3	N/A
C15X30	Rectangular	Ties	#5/Design	3/2	N/A
0.0450	Rectangular	Ties	#5/Design	3/3	N/A
CF20X40	Rectangular	Ties	#5/Design	3/3	N/A
0.0457	Rectangular	Ties	#4/Design	3/3	N/A
CF20X60	Rectangular	Ties	#5/Design	3/3	N/A
0.0457	Rectangular	Ties	#4/Design	3/3	N/A
CF	Rectangular	Ties	#5/Design	3/3	N/A
0.0457	Rectangular	Ties	#5/Design	3/3	N/A
C25X35	Rectangular	Ties	#5/Design	3/3	N/A
0.0450	Rectangular	Ties	#5/Design	3/3	N/A
C25X40	Rectangular	Ties	#4/Design	3/3	N/A
0.0400	Rectangular	Ties	#6/Design	3/3	N/A
C25X25	Rectangular	Ties	#6/Design	3/3	N/A
0.0457	Rectangular	Ties	#6/Design	3/3	N/A
C45X45	Rectangular	Ties	#6/Design	3/3	N/A
0.0550	Rectangular	Ties	#6/Design	3/3	N/A



	kinder22qbri12m.txt			
C30x30	Rectangular Ties	#5/Check	3/3	N/A
0.0450				
CC30	Circular Spiral	#5/Design	N/A	6
0.0400				
C20x40	Rectangular Ties	#4/Design	3/3	N/A
0.0400				
C20x50	Rectangular Ties	#5/Design	2/4	N/A
0.0400				
C20x25	Rectangular Ties	#4/Design	3/3	N/A
0.0250				
C25x50	Rectangular Ties	#5/Design	3/4	N/A
0.0500				
C40x40	Rectangular Ties	#5/Design	3/3	N/A
0.0500				
C50x50	Rectangular Ties	#7/Design	3/3	N/A
0.0600				
C35x60	Rectangular Ties	#8/Design	3/3	N/A
0.0650				
C30x45	Rectangular Ties	#8/Design	3/3	N/A
0.0550				
C35x50	Rectangular Ties	#9/Design	3/3	N/A
0.0457				
C35x35	Rectangular Ties	#4/Design	3/3	N/A
0.0550				
C40x50	Rectangular Ties	#6/Design	3/3	N/A
0.0500				
C55x55	Rectangular Ties	#7/Design	3/3	N/A
0.0650				
C40x45	Rectangular Ties	#6/Design	3/3	N/A
0.0500				
CC20	Circular Spiral	#3/Design	N/A	6
0.0350				
CC25	Circular Spiral	#4/Design	N/A	6
0.0350				
CC35	Circular Spiral	#5/Design	N/A	6
0.0400				
CC40	Circular Spiral	#5/Design	N/A	6
0.0450				
CC45	Circular Spiral	#6/Design	N/A	6
0.0450				
CC50	Circular Spiral	#8/Design	N/A	8
0.0550				
C30x40	Rectangular Ties	#5/Design	3/3	N/A
0.0500				
C15x40	Rectangular Ties	#4/Design	2/3	N/A
0.0457				
C45x55	Rectangular Ties	#7/Design	4/3	N/A
0.0550				
C40x60	Rectangular Ties	#6/Design	3/3	N/A
0.0550				
C70x70	Rectangular Ties	#6/Design	4/4	N/A
0.0550				
C50x55	Rectangular Ties	#7/Design	3/3	N/A
0.0650				
C50x60	Rectangular Ties	#7/Design	3/3	N/A
0.0600				
C55x60	Rectangular Ties	#7/Design	3/3	N/A
0.0650				
C35x45	Rectangular Ties	#5/Design	3/3	N/A
0.0550				
CC60	Circular Ties	#7/Design	N/A	12
0.0650				
C30x100	Rectangular Ties	#6/Design	3/3	N/A
0.0457				
C35x55	Rectangular Ties	#9/Design	3/3	N/A
0.0350				

CONCRETE BEAM DATA

RIGHT FRAME SECTION NAME AREA	TOP COVER	BOT COVER	TOP LEFT AREA	TOP RIGHT AREA	BOT LEFT AREA	BOT AREA
Conc8m	0.0457	0.0457	0.00	0.00	0.00	0.00
0.00						
VC15x15	0.0300	0.0300	0.00	0.00	0.00	0.00
0.00						
VC15x20	0.0350	0.0350	0.00	0.00	0.00	0.00
0.00						
VC15x25	0.0350	0.0350	0.00	0.00	0.00	0.00
0.00						
VC15x30	0.0400	0.0400	0.00	0.00	0.00	0.00
0.00						



	kinder22qbri12m.txt				
VC15x35	0.0400	0.0400	0.00	0.00	0.00
0.00					
VC15x40	0.0400	0.0400	0.00	0.00	0.00
0.00					
VC20x20	0.0400	0.0400	0.00	0.00	0.00
0.00					
VC20x25	0.0350	0.0350	0.00	0.00	0.00
0.00					
VC20x30	0.0350	0.0350	0.00	0.00	0.00
0.00					
VC20x35	0.0400	0.0400	0.00	0.00	0.00
0.00					
VC20x40	0.0450	0.0450	0.00	0.00	0.00
0.00					
VC25x40	0.0500	0.0500	0.00	0.00	0.00
0.00					
VN25x20	0.0350	0.0350	0.00	0.00	0.00
0.00					
VC25x45	0.0500	0.0500	0.00	0.00	0.00
0.00					
VN35x20	0.0350	0.0350	0.00	0.00	0.00
0.00					
VN40x20	0.0350	0.0350	0.00	0.00	0.00
0.00					
SF50x30	0.0400	0.0600	0.00	0.00	0.00
0.00					
SF50x35	0.0400	0.0600	0.00	0.00	0.00
0.00					
SF45x35	0.0400	0.0600	0.00	0.00	0.00
0.00					
VC25x50	0.0500	0.0500	0.00	0.00	0.00
0.00					
SF100x25	0.0550	0.0550	0.00	0.00	0.00
0.00					
SFT100-25x50	0.0650	0.0650	0.00	0.00	0.00
0.00					
SF60x35	0.0500	0.0650	0.00	0.00	0.00
0.00					
C10x10	0.0150	0.0150	0.00	0.00	0.00
0.00					
SF40x30	0.0300	0.0500	0.00	0.00	0.00
0.00					
T25x25	0.0300	0.0500	0.00	0.00	0.00
0.00					
VC15x10	0.0200	0.0200	0.00	0.00	0.00
0.00					
SF50x25	0.0400	0.0400	0.00	0.00	0.00
0.00					
T20x20	0.0300	0.0300	0.00	0.00	0.00
0.00					
SF40x25	0.0300	0.0300	0.00	0.00	0.00
0.00					
SF75x30	0.0400	0.0400	0.00	0.00	0.00
0.00					
VC30x45	0.0550	0.0550	0.00	0.00	0.00
0.00					
VC30x40	0.0500	0.0500	0.00	0.00	0.00
0.00					
VC35x40	0.0400	0.0400	0.00	0.00	0.00
0.00					
SF40x40	0.0400	0.0400	0.00	0.00	0.00
0.00					
VC40x45	5.0000	5.0000	0.00	0.00	0.00
0.00					
VF45x30	0.0350	0.0500	0.00	0.00	0.00
0.00					
VF55x35	0.0350	0.0500	0.00	0.00	0.00
0.00					
VF40x30	0.0350	0.0500	0.00	0.00	0.00
0.00					
SF60x45	0.0400	0.0750	0.00	0.00	0.00
0.00					
SF60x40	0.0400	0.0700	0.00	0.00	0.00
0.00					
VC10x15	0.0150	0.0150	0.00	0.00	0.00
0.00					
SF70x25	0.0400	0.0750	0.00	0.00	0.00
0.00					
SF55x25	0.0400	0.0750	0.00	0.00	0.00
0.00					
SF45x25	0.0400	0.0750	0.00	0.00	0.00
0.00					
T25x35	0.0400	0.0750	0.00	0.00	0.00
0.00					
VC25x55	0.0550	0.0550	0.00	0.00	0.00
0.00					

DIN - FISD  
08 JUN. 2017  
REVISAD

M.S.  
REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC - 1606  
M. O. P. M. V. D. U. EL SALVADOR, C. A.

	kinder22qbril2m.txt				
VC30x55	0.0500	0.0600	0.00	0.00	0.00
0.00					
VC30x60	0.0600	0.0650	0.00	0.00	0.00
0.00					
T30x30	0.0500	0.0500	0.00	0.00	0.00
0.00					
SF75x35	0.0500	0.0500	0.00	0.00	0.00
0.00					
SF30x20	0.0400	0.0750	0.00	0.00	0.00
0.00					
VC30x50	0.0500	0.0600	0.00	0.00	0.00
0.00					
VC20x45	0.0450	0.0450	0.00	0.00	0.00
0.00					
VC15x45	0.0450	0.0550	0.00	0.00	0.00
0.00					
VC10x23	0.0200	0.0200	0.00	0.00	0.00
0.00					
VC10x25	0.0200	0.0200	0.00	0.00	0.00
0.00					
VC10x30	0.0200	0.0200	0.00	0.00	0.00
0.00					
VC20x12	0.0200	0.0200	0.00	0.00	0.00
0.00					
VC18x40	0.0400	0.0400	0.00	0.00	0.00
0.00					
VC20x15	0.0300	0.0300	0.00	0.00	0.00
0.00					
VC40x60	0.0650	0.0650	0.00	0.00	0.00
0.00					
VC20x80	0.0008	0.0008	0.00	0.00	0.00
0.00					
VC25x80	0.0800	0.0800	0.00	0.00	0.00
0.00					
VC30x75	0.0750	0.0750	0.00	0.00	0.00
0.00					
VC30x70	0.0700	0.0700	0.00	0.00	0.00
0.00					
VC30x80	0.0800	0.0800	0.00	0.00	0.00
0.00					
VC30x85	0.0850	0.0850	0.00	0.00	0.00
0.00					
VC30x65	0.0650	0.0650	0.00	0.00	0.00
0.00					
VC35x75	0.0750	0.0750	0.00	0.00	0.00
0.00					
VC40x75	0.0750	0.0750	0.00	0.00	0.00
0.00					
VC25x75	0.0750	0.0750	0.00	0.00	0.00
0.00					
VC35x80	0.0800	0.0800	0.00	0.00	0.00
0.00					
VF70x35	0.0350	0.0350	0.00	0.00	0.00
0.00					
VF70x30	0.0300	0.0300	0.00	0.00	0.00
0.00					
VF55x30	0.0300	0.0300	0.00	0.00	0.00
0.00					

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SHELL SECTION PROPERTY DATA

SHELL SECTION	MATERIAL NAME	SHELL TYPE	LOAD DIST ONE WAY	MEMBRANE THICK	BENDING THICK	TOTAL WEIGHT	TOTAL MASS
WALL1	CONC	Shell-Thin	No	0.2500	0.2500	0.0000	0.0000
SLAB1	CONC	Shell-Thin	No	0.2500	0.2500	0.0000	0.0000
LAMDEC2MM	A33	Membrane	No	0.0020	0.0020	0.0000	0.0000
PLANK1	CONC	Membrane	Yes	0.2500	0.2500	0.0000	0.0000
CPRS	FC210FY2800	Membrane	Yes	0.1200	0.1200	0.8651	0.0881
LD12	FC210FY2800	Membrane	Yes	0.1200	0.1200	20.4490	2.0832
LD15	FC210FY2800	Shell-Thin	No	0.1500	0.1500	0.0000	0.0000
PB10	MBLOQ	Shell-Thin	No	0.0800	0.0800	0.0000	0.0000
PB20	MBLOQ	Shell-Thin	No	0.1700	0.1700	0.0000	0.0000
PC15	FC210FY2800	Shell-Thin	No	0.1500	0.1500	0.0000	0.0000
PC20	FC210FY2800	Shell-Thin	No	0.2000	0.2000	0.0000	0.0000
PB15	MBLOQ	Shell-Thin	No	0.1200	0.1200	0.0000	0.0000
FIB1PLG	FIBRLT	Membrane	Yes	0.0250	0.0250	0.0000	0.0000
LD10	FC210FY2800	Membrane	No	0.1000	0.1000	0.0000	0.0000
LADB10	LADB	Shell-Thin	No	0.1000	0.1000	0.0000	0.0000
LADB15	LADB	Shell-Thin	No	0.1500	0.1500	0.0000	0.0000
LDEF20	FC280FY4200	Shell-Thin	No	0.2000	0.2000	0.0000	0.0000
LDEFUD20	FC280FY4200	Shell-Thin	Yes	0.2000	0.2000	0.0000	0.0000
PC8	FC210FY2800	Shell-Thin	No	0.0800	0.0800	0.0000	0.0000
PC10	FC210FY2800	Shell-Thin	No	0.1000	0.1000	0.0000	0.0000

DIN - FISDL  
 08 JUN. 2017  
 REVISADO

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
 MARCOS ANTONIO SANCHEZ MACHUCA  
 INGENIERO CIVIL  
 REGISTRO NACIONAL - 1606  
 M.O.P. D.U. E. SANTIAGO, C.A.

kinder22qbril2m.txt

ID	Material	Thickness	Shell	Thin	No	0.3800	0.3800	0.0000	0.0000
PB40	MBLOQ	Shell	Thin	No	0.3800	0.3800	0.0000	0.0000	
PB30	MBLOQ	Shell	Thin	No	0.3000	0.3000	0.0000	0.0000	
PC25	FC210FY2800	Shell	Thin	No	0.2500	0.2500	0.0000	0.0000	
Z150X150	FC210FY2800	Shell	Thin	No	1.5000	1.5000	0.0000	0.0000	
PB15LL	MBLOQ	Shell	Thin	No	0.1500	0.1500	0.0000	0.0000	
PB20LL	MBLOQ	Shell	Thin	No	0.2000	0.2000	0.0000	0.0000	
DCK63245	FC245FY4200	Membrane		No	0.0650	0.0650	0.0000	0.0000	
LGLV26	A33	Membrane		Yes	0.0013	0.0013	0.0000	0.0000	
PC30	FC210FY2800	Shell	Thin	No	0.3000	0.3000	0.0000	0.0000	
PC35	FC210FY2800	Shell	Thin	No	0.3500	0.3500	0.0000	0.0000	
LD20	FC280FY4200	Shell	Thin	No	0.2000	0.2000	0.0000	0.0000	
LOSA2MM	STEEL	Shell	Thin	No	0.0012	0.0012	0.0000	0.0000	
LD30	FC280FY4200	Shell	Thin	No	0.3000	0.3000	18.6857	1.9036	
LDEF132	FC280FY4200	Shell	Thin	No	0.1300	0.1300	18.3845	1.8729	

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DECK SECTION PROPERTY DATA

DECK SECTION	DECK TYPE	SLAB MATERIAL	DECK MATERIAL	DECK SHEAR THICK	DECK UNIT WT
LAMDEC2MM	Unfilled	N/A	A33	0.0020	1.1200E-02
DCK63245	Filled	FC245FY4200	N/A	N/A	1.1200E-02

DECK SECTION SHEAR STUD DATA

DECK SECTION	STUD DIAM	STUD HEIGHT	STUD FU
LAMDEC2MM	N/A	N/A	N/A
DCK63245	0.0127	0.1000	45699.526

DECK SECTION GEOMETRY DATA

DECK SECTION	SLAB DEPTH	RIB DEPTH	RIB WIDTH	RIB SPACING
LAMDEC2MM	N/A	0.0762	0.1524	0.3048
DCK63245	0.0650	0.0630	0.1524	0.3048

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STATIC LOAD CASES

STATIC CASE	CASE TYPE	AUTO LAT LOAD	SELF WT MULTIPLIER	NOTIONAL FACTOR	NOTIONAL DIRECTION
PP	DEAD	N/A	1.0000		
CV	LIVE	N/A	0.0000		
CMS	SUPER DEAD	N/A	0.0000		
CMP	SUPER DEAD	N/A	0.0000		
SX	QUAKE	UBC94	0.0000		
SY	QUAKE	UBC94	0.0000		
WX	WIND	UBC94	0.0000		
WY	WIND	UBC94	0.0000		

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LOADING COMBINATIONS

COMBO	COMBO TYPE	CASE	CASE TYPE	SCALE FACTOR
COMB1	ADD	PP	Static	1.4000
		CMS	Static	1.4000
		CMP	Static	1.4000
		CV	Static	1.7000
COMB2	ADD	PP	Static	1.0500
		CMS	Static	1.0500
		CMP	Static	1.0500
		CV	Static	1.2750
		SX	Static	1.4000
		SY	Static	0.4200
COMB3	ADD	PP	Static	1.0500
		CMS	Static	1.0500
		CMP	Static	1.0500
		CV	Static	1.2750
		SX	Static	-1.4000
COMB4	ADD	PP	Static	1.0500
		CMS	Static	1.0500
		CMP	Static	1.0500
		CV	Static	1.2750



kinder22qbri12m.txt

		SX	Static	0.4200
		SY	Static	1.4000
COMB5	ADD	PP	Static	1.0500
		CMS	Static	1.0500
		CMP	Static	1.0500
		CV	Static	1.2750
		SX	Static	-0.4200
		SY	Static	-1.4000
COMB6	ADD	PP	Static	0.9000
		CMS	Static	0.9000
		CMP	Static	0.9000
		SX	Static	1.4000
COMB7	ADD	SY	Static	0.4200
		PP	Static	0.9000
		CMS	Static	0.9000
		CMP	Static	0.9000
		SX	Static	-1.4000
		SY	Static	-0.4200
COMB8	ADD	PP	Static	0.9000
		CMS	Static	0.9000
		CMP	Static	0.9000
		SX	Static	0.4200
		SY	Static	1.4000
COMB9	ADD	PP	Static	0.9000
		CMS	Static	0.9000
		CMP	Static	0.9000
		SX	Static	-0.4200
		SY	Static	-1.4000
COMB1S	ADD	PP	Static	1.0000
		CMS	Static	1.0000
		CMP	Static	1.0000
		CV	Static	1.0000
COMB2S	ADD	PP	Static	1.0000
		CMS	Static	1.0000
		CMP	Static	1.0000
		CV	Static	1.0000
		SX	Static	1.0000
		SY	Static	0.3000
COMB3S	ADD	PP	Static	1.0000
		CMS	Static	1.0000
		CMP	Static	1.0000
		CV	Static	1.0000
		SX	Static	0.3000
		SY	Static	1.0000
DCON1	ADD	PP	Static	1.4000
		CMS	Static	1.4000
		CMP	Static	1.4000
DCON2	ADD	PP	Static	1.4000
		CV	Static	1.7000
		CMS	Static	1.4000
DCON3	ADD	CMP	Static	1.4000
		PP	Static	1.0500
		CV	Static	1.2750
		CMS	Static	1.0500
		CMP	Static	1.0500
		WX	Static	1.2750
DCON4	ADD	PP	Static	1.0500
		CV	Static	1.2750
		CMS	Static	1.0500
		CMP	Static	1.0500
		WX	Static	-1.2750
DCON5	ADD	PP	Static	1.0500
		CV	Static	1.2750
		CMS	Static	1.0500
		CMP	Static	1.0500
		WY	Static	1.2750
DCON6	ADD	PP	Static	1.0500
		CV	Static	1.2750
		CMS	Static	1.0500
		CMP	Static	1.0500
		WY	Static	-1.2750
DCON7	ADD	PP	Static	1.0500
		CMS	Static	1.0500
		CMP	Static	1.0500
		WX	Static	1.2750
DCON8	ADD	PP	Static	1.0500
		CMS	Static	1.0500
		CMP	Static	1.0500
		WX	Static	-1.2750
DCON9	ADD	PP	Static	1.0500
		CMS	Static	1.0500
		CMP	Static	1.0500
		WY	Static	1.2750
DCON10	ADD	PP	Static	1.0500
		CMS	Static	1.0500
		CMP	Static	1.0500





Sin titulo

ETABS v9.7.4 File:ARQ1NIVELKINDER22ABRIL Units:Ton-cm enero 12, 2017 10:09 PAGE 1

MATERIAL LIST BY ELEMENT TYPE

ELEMENT TYPE	MATERIAL	TOTAL MASS tons	NUMBER PIECES	NUMBER STUDS
Column	FC210FY2800	2.72	4	
Column	A36	0.23	5	
Column	FC280FY4200	45.05	125	
Beam	FC210FY2800	89.66	90	0
Beam	A36	0.57	8	0
Beam	A33	1.65	59	0
Brace	FC210FY2800	3.16	6	
Brace	A36	2.00	42	
Wall	MBLOQ	88.56		
Floor	FC210FY2800	94.90		

ETABS v9.7.4 File:ARQ1NIVELKINDER22ABRIL Units:Ton-cm enero 12, 2017 10:09 PAGE 2

MATERIAL LIST BY SECTION

SECTION	ELEMENT TYPE	NUMBER PIECES	TOTAL LENGTH meters	TOTAL MASS tons	NUMBER STUDS
VC15X20	Brace	6	43.818	3.16	
VC20X40	Beam	51	216.240	40.36	0
SF50X30	Beam	39	148.600	49.30	0
2PC8CH14	Beam	13	62.675	0.54	0
CC30	Column	4	16.000	2.72	
TU4X6X18	Beam	6	21.350	0.26	0
CC35	Column	3	12.000	2.77	
CC40	Column	122	140.000	42.28	
TU4X4X14	Column	5	12.000	0.23	
TU4X4X14	Brace	14	20.354	0.39	
2PC6CH14	Beam	46	155.494	1.11	0
TU4X14X14	Beam	2	7.028	0.31	0
TU4X14X14	Brace	28	36.515	1.61	
LD13EF	Floor			94.90	
PB15	Wall			88.56	



ETABS v9.7.4 File:ARQ1NIVELKINDER22ABRIL Units:Ton-cm enero 12, 2017 10:09 PAGE 3

MATERIAL LIST BY STORY

STORY	ELEMENT TYPE	MATERIAL	TOTAL WEIGHT tons	FLOOR AREA m2	UNIT WEIGHT kg/m2	NUMBER PIECES	NUMBER STUDS
STORY4	Beam	FC210FY2800	5.81	0.000	8	0	
STORY4	Beam	A36	0.31	0.000	2	0	
STORY4	Beam	A33	1.49	0.000	53	0	
STORY4	Brace	FC210FY2800	3.16	0.000	6		
STORY4	Brace	A36	1.61	0.000	28		
STORY4	Wall	MBLOQ	25.02	0.000			
STORY3	Beam	FC210FY2800	19.10	0.000	25	0	
STORY3	Beam	A33	0.15	0.000	6	0	
STORY3	Brace	A36	0.39	0.000	14		
STORY3	Wall	MBLOQ	8.75	0.000			
STORY2	Column	A36	0.23	0.000	5		
STORY2	Beam	FC210FY2800	1.13	0.000	1	0	
STORY2	Beam	A36	0.26	0.000	6	0	
STORY2	Wall	MBLOQ	54.79	0.000			
STORY1	Column	FC210FY2800	2.72	303.777	8.9465	4	
STORY1	Column	FC280FY4200	45.05	303.777	148.3001	125	
STORY1	Beam	FC210FY2800	63.62	303.777	209.4365	56	0
STORY1	Floor	FC210FY2800	94.90	303.777	312.3900		
SUM	Column	FC210FY2800	2.72	303.777	8.9465	4	
SUM	Column	A36	0.23	303.777	0.7486	5	
SUM	Column	FC280FY4200	45.05	303.777	148.3001	125	
SUM	Beam	FC210FY2800	89.66	303.777	295.1537		
SUM	Beam	A36	0.57	303.777	1.8724		
SUM	Beam	A33	1.65	303.777	5.4200		
SUM	Brace	FC210FY2800	3.16	303.777	10.3985		
SUM	Brace	A36	2.00	303.777	6.5853		
SUM	Wall	MBLOQ	88.56	303.777	291.5356		
SUM	Floor	FC210FY2800	94.90	303.777	312.3900		
TOTAL	All	All	328.49	303.777	1081.3506	339	0



MATERIAL PROPERTY DATA

MATERIAL NAME	MATERIAL TYPE	DESIGN TYPE	MATERIAL DIR/PLANE	MODULUS OF ELASTICITY	POISSON'S RATIO	THERMAL COEFF	SHEAR MODULUS
STEEL	Iso	Steel	All	2038.902	0.3000	1.1700E-05	784.193
CONC	Iso	Concrete	All	253.105	0.2000	9.9000E-06	105.460
OTHER	Iso	None	All	2038.902	0.3000	1.1700E-05	784.193
FC210FY2800	Iso	Concrete	All	219.195	0.2000	9.9000E-06	91.331
MBLOQ	Iso	Concrete	All	75.000	0.2000	9.9000E-06	31.250
A50	Iso	Steel	All	2038.902	0.3000	1.1700E-05	784.193
A36	Iso	Steel	All	2038.902	0.3000	1.1700E-05	784.193
A33	Iso	Steel	All	2038.902	0.3000	1.1700E-05	784.193
FIBRLT	Iso	Concrete	All	60.000	0.2000	9.9000E-06	25.000
LADB	Iso	Concrete	All	30.000	0.2000	9.9000E-06	12.500
FC280FY4200	Iso	Concrete	All	253.105	0.2000	9.9000E-06	105.460
FC245FY4200	Iso	Concrete	All	236.758	0.2000	9.9000E-06	98.649
FC210FY4200	Iso	Concrete	All	219.195	0.2000	9.9000E-06	91.331
A40	Iso	Steel	All	2038.902	0.3000	1.1700E-05	784.193
A60	Iso	Steel	All	2038.902	0.3000	1.1700E-05	784.193

MATERIAL PROPERTY MASS AND WEIGHT

MATERIAL NAME	MASS PER UNIT VOL	WEIGHT PER UNIT VOL
STEEL	7.9814E-09	7.8334E-06
CONC	2.4480E-09	2.4026E-06
OTHER	7.9814E-09	7.8334E-06
FC210FY2800	2.4480E-09	2.4030E-06
MBLOQ	2.2000E-09	2.2000E-06
A50	7.9810E-09	7.8334E-06
A36	7.9810E-09	7.8334E-06
A33	7.9810E-09	7.8334E-06
FIBRLT	1.5000E-09	1.5000E-06
LADB	2.2000E-09	2.2030E-06
FC280FY4200	2.4480E-09	2.4030E-06
FC245FY4200	2.4480E-09	2.4026E-06
FC210FY4200	2.4480E-09	2.4030E-06
A40	7.9810E-09	7.8334E-06
A60	7.9810E-09	7.8334E-06

MATERIAL DESIGN DATA FOR STEEL MATERIALS

MATERIAL NAME	STEEL FY	STEEL FU	STEEL COST (\$)
STEEL	3.515	4.570	27679.91
A50	3.515	4.570	27679.91
A36	2.536	3.297	2750.00
A33	2.325	3.023	1.25
A40	2.812	3.656	1.25
A60	4.218	5.484	1.25

MATERIAL DESIGN DATA FOR CONCRETE MATERIALS

MATERIAL NAME	LIGHTWEIGHT CONCRETE	CONCRETE FC	REBAR FY	REBAR FYS	LIGHTWT REDUC FACT
CONC	No	0.281	4.218	4.218	N/A
FC210FY2800	No	0.210	2.812	2.812	N/A
MBLOQ	No	0.125	2.812	2.812	N/A
FIBRLT	No	0.065	2.812	2.812	N/A
LADB	No	0.040	2.812	2.812	N/A
FC280FY4200	No	0.281	4.218	4.218	N/A
FC245FY4200	No	0.245	4.218	4.218	N/A
FC210FY4200	No	0.210	4.218	4.218	N/A



FRAME SECTION PROPERTY DATA

HSS4X.237	STEEL	HSS4X.237
HSS4X.250	STEEL	HSS4X.250
HSS5X.250	STEEL	HSS5X.250
HSS5X.258	STEEL	HSS5X.258



HSS5X.312	STEEL	Sin titulo HSS5X.312	
HSS5X.375	STEEL	HSS5X.375	
HSS5X.500	STEEL	HSS5X.500	
HSS6X.250	A36	HSS6X.250	
HSS6X.280	STEEL	HSS6X.280	
HSS6X.312	STEEL	HSS6X.312	
HSS6X.375	STEEL	HSS6X.375	
HSS7X.250	STEEL	HSS7X.250	
HSS7X.312	STEEL	HSS7X.312	
HSS7X.375	STEEL	HSS7X.375	
HSS7X.500	STEEL	HSS7X.500	
A-GravBm		Auto Select Section List	
A-LatBm		Auto Select Section List	
A-GravCol		Auto Select Section List	
A-LatCol		Auto Select Section List	
A-CompBm		Auto Select Section List	
A-TrChdw10		Auto Select Section List	
A-TrChdw12		Auto Select Section List	
A-TrChdw14		Auto Select Section List	
A-TrWebHSSO		Auto Select Section List	
A-TrWebPIPE		Auto Select Section List	
A-TrWeb8		Auto Select Section List	
A-TrWeb10		Auto Select Section List	
A-TrWeb12		Auto Select Section List	
ConcCol	CONC	Rectangular	Yes
ConcBm	CONC	Rectangular	Yes
VC15X15	FC210FY2800	Rectangular	Yes
VC15X20	FC210FY2800	Rectangular	Yes
VC15X25	FC210FY2800	Rectangular	Yes
VC15X30	FC210FY2800	Rectangular	Yes
VC15X35	FC210FY2800	Rectangular	Yes
VC15X40	FC210FY2800	Rectangular	Yes
VC20X20	FC245FY4200	Rectangular	Yes
VC20X25	FC210FY2800	Rectangular	Yes
VC20X30	FC245FY4200	Rectangular	Yes
VC20X35	FC210FY2800	Rectangular	Yes
VC20X40	FC210FY2800	Rectangular	Yes
VC25X40	FC210FY2800	Rectangular	Yes
C30X50	FC210FY2800	Rectangular	Yes
C15X15	FC210FY2800	Rectangular	Yes
C15X20	FC210FY2800	Rectangular	Yes
C20X20	FC210FY2800	Rectangular	Yes
C20X30	FC210FY2800	Rectangular	Yes
C15X25	FC210FY2800	Rectangular	Yes
C15X30	FC210FY2800	Rectangular	Yes
VN25X20	FC210FY2800	Rectangular	Yes
VM7.62X30X316	A36	Box/Tube	
VC25X45	FC210FY2800	Rectangular	Yes
VN35X20	FC210FY2800	Rectangular	Yes
VN40X20	FC210FY2800	Rectangular	Yes

**DIN - FISE**  
 08 JUN. 2017  
**REVISAD**

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
 MARCCOS MIGUEL SANCHEZ MACHUCA  
**INGENIERO CIVIL**  
 REGISTRO No. IC - 1606  
 M.O.P. - V.M.V.D.U. EL SALVADOR, C.A.

*ms*

Yes

		Sin título		
PC4CH16	A33	Channel		
PC5CH16	A33	Channel		
PC6CH16	A33	Channel		
CF20X40	MBLOQ	Rectangular	Yes	
CF20X60	MBLOQ	Rectangular	Yes	
CF	CONC	Rectangular	Yes	
C25X35	FC210FY2800	Rectangular	Yes	
VM7.62X35X316	A36	Box/Tube		
2PC6CH16	A33	Box/Tube		
2PC4CH16	A33	Box/Tube		
C25X40	FC210FY4200	Rectangular	Yes	
C25X25	FC210FY2800	Rectangular	Yes	
SF50X30	FC210FY2800	Rectangular		Yes
SF50X35	FC210FY2800	Rectangular		Yes
SF45X35	FC210FY2800	Rectangular		Yes
VC25X50	FC210FY2800	Rectangular		Yes
C45X45	FC245FY4200	Rectangular	Yes	
TU6X6X14	A36	Box/Tube		
TU8X8X14	A50	Box/Tube		
L1.5X316	A36	Angle		
SF100X25	FC210FY2800	Rectangular		Yes
SFT100-25X50	FC210FY2800	Tee		Yes
SF60X35	FC210FY2800	Rectangular		Yes
C30X30	FC210FY2800	Rectangular	Yes	
C10X10	FC210FY2800	Rectangular		Yes
SF40X30	FC210FY2800	Rectangular		Yes
T25X25	FC210FY2800	Rectangular		Yes
VC15X10	FC210FY2800	Rectangular		Yes
2PC5CH16	A33	Box/Tube		
2PC8CH14	A33	Box/Tube		
VM5.08X25X316	A36	Box/Tube		
CC30	FC210FY2800	Circle	Yes	
C20X40	FC210FY2800	Rectangular	Yes	
C20X50	FC210FY2800	Rectangular	Yes	
SF50X25	FC210FY2800	Rectangular		Yes
T20X20	FC210FY2800	Rectangular		Yes
SF40X25	FC210FY2800	Rectangular		Yes
SF75X30	FC210FY2800	Rectangular		Yes
C20X25	FC210FY2800	Rectangular	Yes	
C25X50	FC210FY2800	Rectangular	Yes	
VC30X45	FC210FY2800	Rectangular	Yes	
VC30X40	FC210FY2800	Rectangular	Yes	
VC35X40	FC210FY2800	Rectangular	Yes	

DIN - FISD  
08 JUN. 2017  
REVISAD

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
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Sin titulo

SF40X40	FC210FY2800 Rectangular	Yes
VC40X45	FC210FY2800 Rectangular	Yes
2PC8CH12	A36 Box/Tube	
VF45X30	FC210FY2800 Rectangular	Yes
VF55X35	FC210FY2800 Rectangular	Yes
VF40X30	FC210FY2800 Rectangular	Yes
SF60X45	FC280FY4200 Rectangular	Yes
SF60X40	FC280FY4200 Rectangular	Yes
C40X40	FC210FY2800 Rectangular	Yes
VC10X15	FC210FY2800 Rectangular	Yes
TU4X4X18	A36 Box/Tube	
TU4X6X18	A36 Box/Tube	
C50X50	FC245FY4200 Rectangular	Yes
SF70X25	FC210FY2800 Rectangular	Yes
SF55X25	FC210FY2800 Rectangular	Yes
SF45X25	FC210FY2800 Rectangular	Yes
T25X35	FC210FY2800 Rectangular	Yes
VC25X55	FC210FY2800 Rectangular	Yes
VC30X55	FC210FY2800 Rectangular	Yes
VC30X60	FC210FY2800 Rectangular	Yes
C35X60	FC210FY2800 Rectangular	Yes
C30X45	FC210FY2800 Rectangular	Yes
T30X30	FC210FY2800 Rectangular	Yes
C35X50	FC210FY2800 Rectangular	Yes
C35X35	FC210FY2800 Rectangular	Yes
CH4X1.5X316	A36 Channel	
CH6X1.75	A36 Channel	
LL1.5X1.5X316	A36 Double Angle	
CH4X1.5X14	A36 Channel	
CH4X1.5X75MM	A36 Channel	
SF75X35	FC210FY2800 Rectangular	Yes
SF30X20	FC210FY2800 Rectangular	Yes
PC3CH16	A33 Channel	
C40X50	FC245FY4200 Rectangular	Yes
C55X55	FC245FY4200 Rectangular	Yes
C40X45	FC245FY4200 Rectangular	Yes
VC30X50	FC210FY2800 Rectangular	Yes
VC20X45	FC245FY4200 Rectangular	Yes
VC15X45	FC210FY2800 Rectangular	Yes
CC20	FC210FY2800 Circle	Yes
CC25	FC210FY2800 Circle	Yes
CC35	FC280FY4200 Circle	Yes
CC40	FC280FY4200 Circle	Yes



## Sin título

CC45	FC210FY2800	Circle	Yes
CC50	FC280FY4200	Circle	Yes
C30X40	FC210FY2800	Rectangular	Yes
TU2X4X18	A36	Box/Tube	
TU2X6X18	A36	Box/Tube	
TU2X8X18	A36	Box/Tube	
TU3X6X18	A36	Box/Tube	
TU3X8X18	A36	Box/Tube	
TU4X8X18	A36	Box/Tube	
TU4X10X18	A36	Box/Tube	
TU4X12X18	A36	Box/Tube	
TU4X8X316	A36	Box/Tube	
TU4X10X316	A36	Box/Tube	
TU4X12X316	A36	Box/Tube	
TU6X6X18	A50	Box/Tube	
TU6X6X316	A36	Box/Tube	
D38	A33	Circle	
D12	A33	Circle	
D58	A33	Circle	
CH5X14	A36	Channel	
CH4X316	A36	Channel	
CH6X14	A36	Channel	
TU12X12X14	A50	Box/Tube	
TU12X12X38	A50	Box/Tube	
LL1X316S2	A36	Double Angle	
C15X40	FC210FY2800	Rectangular	Yes
TUPC4CH16	A33	Box/Tube	
TU3X3X18	A36	Box/Tube	
VC10X23	FC210FY2800	Rectangular	Yes
VC10X25	FC210FY2800	Rectangular	Yes
VC10X30	FC210FY2800	Rectangular	Yes
VC20X12	FC210FY2800	Rectangular	Yes
CH5X2.5X316	A36	Channel	
FSEC1	STEEL	Double Angle	
LL1X18S2.85	A36	Double Angle	
VM7.62X40X316	A36	Box/Tube	
TUPC5CH16	A33	Box/Tube	
TUPC6CH16	A33	Box/Tube	
VC18X40	FC210FY2800	Rectangular	
C45X55	FC245FY4200	Rectangular	
C40X60	FC245FY4200	Rectangular	
PIPE2SCH40	A50	Pipe	
PTPF1.75CH40	A36	Pipe	



		Sin título	
TU4X4X14	A36	Box/Tube	
TU3X3X316	A36	Box/Tube	
C70X70	FC280FY4200	Rectangular	Yes
PIPE2CH12	A33	Pipe	
PIPE8CH2	A50	Pipe	
TU2X2X18	A36	Box/Tube	
PIPE2.5CH12	A36	Pipe	
PIPE2CH8	A36	Pipe	
PIPE2.5CH8	A36	Pipe	
C50X55	FC210FY2800	Rectangular	Yes
C50X60	FC245FY4200	Rectangular	Yes
C55X60	FC245FY4200	Rectangular	Yes
L2X316	A36	Angle	
L2.5X316	A36	Angle	
L2.5X14	A36	Angle	
L1X316	A36	Angle	
L1X18	A36	Angle	
L1.5X18	A36	Angle	
TU4X6X316	A36	Box/Tube	
CH10X2X18	A36	Channel	
2PC6CH14	A33	Box/Tube	
2PC6CH12	A33	Box/Tube	
C35X45	FC210FY2800	Rectangular	Yes
VC20X15	FC210FY2800	Rectangular	Yes
TU8X8X3/16	A36	Box/Tube	
TU10X10X14	A36	Box/Tube	
TU10X10X5/16	A36	Box/Tube	
TU4X12X14	A36	Box/Tube	
TU4X14X316	A36	Box/Tube	
TU4X14X14	A36	Box/Tube	
TU5X14X14	A36	Box/Tube	
TU6X14X14	A36	Box/Tube	
TU6X16X14	A36	Box/Tube	
TU5X14X38	A36	Box/Tube	
TU6X16X38	A36	Box/Tube	
VCN15	OTHER	Rectangular	
CC60	FC280FY4200	Circle	Yes
VC40X60	FC280FY4200	Rectangular	
PC4CH16C	A33	Box/Tube	
PC5CH16C	A33	Box/Tube	
PC6CH16C	A33	Box/Tube	
CH2.5X18	A36	Channel	
CH5X316	A36	Channel	



Sin título

VC20x80	FC210FY2800 Rectangular	Yes
VC25x80	FC210FY2800 Rectangular	Yes
VC30x75	FC210FY2800 Rectangular	Yes
VC30x70	FC210FY2800 Rectangular	Yes
VC30x80	FC210FY2800 Rectangular	Yes
VC30x85	FC210FY2800 Rectangular	Yes
VC30x65	FC210FY2800 Rectangular	Yes
VC35x75	FC210FY2800 Rectangular	Yes
VC40x75	FC210FY2800 Rectangular	Yes
VC25x75	FC210FY2800 Rectangular	Yes
VC35x80	FC210FY2800 Rectangular	Yes
VF70x35	FC210FY2800 Rectangular	Yes
VF70x30	FC210FY2800 Rectangular	Yes
VF55x30	FC210FY2800 Rectangular	Yes
HSS10x4x.250	STEEL HSS10x4x.250	
HSS12x4x.250	STEEL HSS12x4x.250	
VC20x55	FC210FY4200 Rectangular	Yes
VC25x60	FC210FY2800 Rectangular	Yes
VC20x60	FC210FY2800 Rectangular	Yes
PD2	FC210FY2800 SD Section	
PD2A	FC210FY2800 SD Section	
C45x80	FC210FY2800 Rectangular	Yes
C10x40	FC210FY2800 Rectangular	Yes
C30x60	FC210FY2800 Rectangular	Yes
TU4x8CH14	A50 Box/Tube	
TU4x12CH12	A50 Box/Tube	
D88	A60 Circle	
L2x14	A36 Angle	
TU16x16x316	A36 Box/Tube	
TU16x16x18	A36 Box/Tube	
PIPE16x12	A36 Pipe	
VC75x45	FC245FY4200 Rectangular	Yes
VC45x20	FC210FY2800 Rectangular	Yes
TU8x8x12	A50 Box/Tube	
VC45x45	FC245FY4200 Rectangular	Yes
VC60x45	FC245FY4200 Rectangular	Yes
VC100x45	FC245FY4200 Rectangular	Yes
VC45x30	FC245FY4200 Rectangular	Yes
TU4x4CH12	A33 Box/Tube	
W21x33	A50 I/wide Flange	
W21A	A50 SD Section	
W21B	A50 SD Section	





Sin titulo

FRAME SECTION PROPERTY DATA

FLANGE FRAME SECTION NAME THICK BOT	SECTION DEPTH	FLANGE WIDTH TOP	FLANGE THICK TOP	WEB THICK	FLANGE WIDTH BOT
HSS4X.237 0.0000	10.1600	10.1600	0.0000	0.6020	10.1600
HSS4X.250 0.0000	10.1600	10.1600	0.0000	0.6350	10.1600
HSS5X.250 0.0000	12.7000	12.7000	0.0000	0.6350	12.7000
HSS5X.258 0.0000	12.7000	12.7000	0.0000	0.6553	12.7000
HSS5X.312 0.0000	12.7000	12.7000	0.0000	0.7938	12.7000
HSS5X.375 0.0000	12.7000	12.7000	0.0000	0.9525	12.7000
HSS5X.500 0.0000	12.7000	12.7000	0.0000	1.2700	12.7000
HSS6X.250 0.0000	15.2400	15.2400	0.0000	0.6350	15.2400
HSS6X.280 0.0000	15.2400	15.2400	0.0000	0.7112	15.2400
HSS6X.312 0.0000	15.2400	15.2400	0.0000	0.7938	15.2400
HSS6X.375 0.0000	15.2400	15.2400	0.0000	0.9525	15.2400
HSS7X.250 0.0000	17.7800	17.7800	0.0000	0.6350	17.7800
HSS7X.312 0.0000	17.7800	17.7800	0.0000	0.7938	17.7800
HSS7X.375 0.0000	17.7800	17.7800	0.0000	0.9525	17.7800
HSS7X.500 0.0000	17.7800	17.7800	0.0000	1.2700	17.7800
ConcCo1 0.0000	45.7200	45.7200	0.0000	0.0000	0.0000
ConcBm 0.0000	45.7200	30.4800	0.0000	0.0000	0.0000
VC15x15 0.0000	15.0000	15.0000	0.0000	0.0000	0.0000
VC15x20 0.0000	20.0000	15.0000	0.0000	0.0000	0.0000
VC15x25 0.0000	25.0000	15.0000	0.0000	0.0000	0.0000
VC15x30 0.0000	30.0000	15.0000	0.0000	0.0000	0.0000
VC15x35 0.0000	35.0000	15.0000	0.0000	0.0000	0.0000
VC15x40 0.0000	40.0000	15.0000	0.0000	0.0000	0.0000
VC20x20 0.0000	20.0000	20.0000	0.0000	0.0000	0.0000
VC20x25 0.0000	25.0000	20.0000	0.0000	0.0000	0.0000
VC20x30 0.0000	30.0000	20.0000	0.0000	0.0000	0.0000
VC20x35 0.0000	35.0000	20.0000	0.0000	0.0000	0.0000
VC20x40 0.0000	40.0000	20.0000	0.0000	0.0000	0.0000
VC25x40 0.0000	40.0000	25.0000	0.0000	0.0000	0.0000
C30x50 0.0000	50.0000	30.0000	0.0000	0.0000	0.0000
C15x15 0.0000	15.0000	15.0000	0.0000	0.0000	0.0000
C15x20 0.0000	20.0000	15.0000	0.0000	0.0000	0.0000
C20x20 0.0000	20.0000	20.0000	0.0000	0.0000	0.0000
C20x30 0.0000	30.0000	20.0000	0.0000	0.0000	0.0000
C15x25 0.0000	25.0000	15.0000	0.0000	0.0000	0.0000
C15x30 0.0000	30.0000	15.0000	0.0000	0.0000	0.0000
VN25x20 0.0000	20.0000	25.0000	0.0000	0.0000	0.0000
VM7.62x30x316 0.0000	30.0000	7.6200	0.3188	0.0000	0.0000
VC25x45 0.0000	45.0000	25.0000	0.0000	0.0000	0.0000

DIN - FIS  
08 JUN. 2012  
REVISAR

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
REGISTRO CIVIL No. IC-1606  
M.O.P.-V.M.V.D.U. EL SALVADOR, C.A.

	sin título				
VN35X20	20.0000	35.0000	0.0000	0.0000	0.0000
0.0000					
VN40X20	20.0000	40.0000	0.0000	0.0000	0.0000
0.0000					
PC4CH16	10.2000	5.1500	0.1700	0.1700	0.0000
0.0000					
PC5CH16	12.8000	5.1000	0.1700	0.1800	0.0000
0.0000					
PC6CH16	15.3000	5.1000	0.1700	0.1800	0.0000
0.0000					
CF20X40	40.0000	20.0000	0.0000	0.0000	0.0000
0.0000					
CF20X60	60.0000	20.0000	0.0000	0.0000	0.0000
0.0000					
CF	20.0000	20.0000	0.0000	0.0000	0.0000
0.0000					
C25X35	35.0000	25.0000	0.0000	0.0000	0.0000
0.0000					
VM7.62X35X316	35.0000	7.6200	0.4762	0.4762	0.0000
0.0000					
2PC6CH16	15.2400	10.1600	0.1600	0.1600	0.0000
0.0000					
2PC4CH16	10.1600	10.1600	0.1600	0.1600	0.0000
0.0000					
C25X40	40.0000	25.0000	0.0000	0.0000	0.0000
0.0000					
C25X25	25.0000	25.0000	0.0000	0.0000	0.0000
0.0000					
SF50X30	30.0000	50.0000	0.0000	0.0000	0.0000
0.0000					
SF50X35	35.0000	50.0000	0.0000	0.0000	0.0000
0.0000					
SF45X35	35.0000	45.0000	0.0000	0.0000	0.0000
0.0000					
VC25X50	50.0000	25.0000	0.0000	0.0000	0.0000
0.0000					
C45X45	45.0000	45.0000	0.0000	0.0000	0.0000
0.0000					
TU6X6X14	15.2400	15.2400	0.6350	0.6350	0.0000
0.0000					
TU8X8X14	20.3200	20.3200	0.6350	0.6350	0.0000
0.0000					
L1.5X316	3.8100	3.8100	0.4763	0.4763	0.0000
0.0000					
SF100X25	25.0000	100.0000	0.0000	0.0000	0.0000
0.0000					
SFT100-25X50	50.0000	100.0000	25.0000	25.0000	0.0000
0.0000					
SF60X35	35.0000	60.0000	0.0000	0.0000	0.0000
0.0000					
C30X30	30.0000	30.0000	0.0000	0.0000	0.0000
0.0000					
C10X10	10.0000	10.0000	0.0000	0.0000	0.0000
0.0000					
SF40X30	30.0000	40.0000	0.0000	0.0000	0.0000
0.0000					
T25X25	25.0000	25.0000	0.0000	0.0000	0.0000
0.0000					
VC15X10	10.0000	15.0000	0.0000	0.0000	0.0000
0.0000					
2PC5CH16	12.7000	10.1600	0.1600	0.1600	0.0000
0.0000					
2PC8CH14	20.3200	10.1600	0.1814	0.1814	0.0000
0.0000					
VM5.08X25X316	25.0000	5.0800	0.4763	0.3175	0.0000
0.0000					
CC30	30.0000	30.0000	0.0000	0.0000	30.0000
0.0000					
C20X40	40.0000	20.0000	0.0000	0.0000	0.0000
0.0000					
C20X50	50.0000	20.0000	0.0000	0.0000	0.0000
0.0000					
SF50X25	25.0000	50.0000	0.0000	0.0000	0.0000
0.0000					
T20X20	20.0000	20.0000	0.0000	0.0000	0.0000
0.0000					
SF40X25	25.0000	40.0000	0.0000	0.0000	0.0000
0.0000					
SF75X30	30.0000	75.0000	0.0000	0.0000	0.0000
0.0000					
C20X25	25.0000	20.0000	0.0000	0.0000	0.0000
0.0000					
C25X50	50.0000	25.0000	0.0000	0.0000	0.0000
0.0000					
VC30X45	45.0000	30.0000	0.0000	0.0000	0.0000
0.0000					

DIN - FIS  
08 JUN. 201  
REVISA

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUK  
INGENIERO CIVIL  
REGISTRO No. IC - 160  
M.O.P.-V.M.V.D.U. EL SALVADOR, C.

	sin título				
VC30x40	40.0000	30.0000	0.0000	0.0000	0.0000
0.0000					
VC35x40	40.0000	35.0000	0.0000	0.0000	0.0000
0.0000					
SF40x40	40.0000	40.0000	0.0000	0.0000	0.0000
0.0000					
VC40x45	45.0000	40.0000	0.0000	0.0000	0.0000
0.0000					
2PC8CH12	20.3200	10.1600	0.2120	0.2120	0.0000
0.0000					
VF45x30	30.0000	45.0000	0.0000	0.0000	0.0000
0.0000					
VF55x35	35.0000	55.0000	0.0000	0.0000	0.0000
0.0000					
VF40x30	30.0000	40.0000	0.0000	0.0000	0.0000
0.0000					
SF60x45	45.0000	60.0000	0.0000	0.0000	0.0000
0.0000					
SF60x40	40.0000	60.0000	0.0000	0.0000	0.0000
0.0000					
C40x40	40.0000	40.0000	0.0000	0.0000	0.0000
0.0000					
VC10x15	15.0000	10.0000	0.0000	0.0000	0.0000
0.0000					
TU4x4x18	10.1600	10.1600	0.3175	0.3175	0.0000
0.0000					
TU4x6x18	15.2400	10.1600	0.3175	0.3175	0.0000
0.0000					
C50x50	50.0000	50.0000	0.0000	0.0000	0.0000
0.0000					
SF70x25	25.0000	70.0000	0.0000	0.0000	0.0000
0.0000					
SF55x25	25.0000	55.0000	0.0000	0.0000	0.0000
0.0000					
SF45x25	25.0000	45.0000	0.0000	0.0000	0.0000
0.0000					
T25x35	35.0000	25.0000	0.0000	0.0000	0.0000
0.0000					
VC25x55	55.0000	25.0000	0.0000	0.0000	0.0000
0.0000					
VC30x55	55.0000	30.0000	0.0000	0.0000	0.0000
0.0000					
VC30x60	60.0000	30.0000	0.0000	0.0000	0.0000
0.0000					
C35x60	60.0000	35.0000	0.0000	0.0000	0.0000
0.0000					
C30x45	45.0000	30.0000	0.0000	0.0000	0.0000
0.0000					
T30x30	30.0000	30.0000	0.0000	0.0000	0.0000
0.0000					
C35x50	50.0000	35.0000	0.0000	0.0000	0.0000
0.0000					
C35x35	35.0000	35.0000	0.0000	0.0000	0.0000
0.0000					
CH4X1.5x316	10.1600	4.0000	0.7500	0.4700	0.0000
0.0000					
CH6X1.75	15.2400	4.8000	0.8700	0.5100	0.0000
0.0000					
LL1.5x1.5x316	3.8100	7.6200	0.4760	0.4760	0.0000
0.0000					
CH4X1.5x14	10.1600	4.0000	0.7500	0.6350	0.0000
0.0000					
CH4X1.5x75MM	10.1600	5.0000	0.7520	0.7500	0.0000
0.0000					
SF75x35	35.0000	75.0000	0.0000	0.0000	0.0000
0.0000					
SF30x20	20.0000	30.0000	0.0000	0.0000	0.0000
0.0000					
PC3CH16	7.7000	3.8500	0.1700	0.1800	0.0000
0.0000					
C40x50	50.0000	40.0000	0.0000	0.0000	0.0000
0.0000					
C55x55	55.0000	55.0000	0.0000	0.0000	0.0000
0.0000					
C40x45	45.0000	40.0000	0.0000	0.0000	0.0000
0.0000					
VC30x50	50.0000	30.0000	0.0000	0.0000	0.0000
0.0000					
VC20x45	45.0000	20.0000	0.0000	0.0000	0.0000
0.0000					
VC15x45	45.0000	15.0000	0.0000	0.0000	0.0000
0.0000					
CC20	20.0000	20.0000	0.0000	0.0000	0.0000
0.0000					
CC25	25.0000	25.0000	0.0000	0.0000	25.0000
0.0000					

DIN - FIS  
08 JUN. 2017  
REVISAR

REGISTRO NACIONAL DE ARQUITECTOS E INGEN  
MARCOS MIGUEL SANCHEZ MACHI  
INGENIERO CIVIL  
REGISTRO No. IC - 16  
M.O.P. - V.M.V.D.U. EL SALVADOR, I

ms

ArqInivelkinder22abril.txt						
CC45	1590.4313	402577.9180	201288.9590	201288.9590	1431.3881	
1431.3881						
CC50	1963.4954	613592.3152	306796.1576	306796.1576	1767.1458	
1767.1458						
C30x40	1200.0000	194385.0639	160000.0000	90000.0000	1000.0000	
1000.0000						
TU2x4x18	9.2742	95.5329	123.8803	41.2844	6.4516	
3.2258						
TU2x6x18	12.5000	162.9264	344.4613	59.6029	9.6774	
3.2258						
TU2x8x18	15.7258	232.6880	726.3320	77.9214	12.9032	
3.2258						
TU3x6x18	14.1129	339.2800	434.2654	147.1308	9.6774	
4.8387						
TU3x8x18	17.3387	496.1845	887.6758	190.1630	12.9032	
4.8387						
TU4x8x18	18.9516	824.6726	1049.0197	358.3357	12.9032	
6.4516						
TU4x10x18	22.1774	1108.1277	1818.5059	436.4875	16.1290	
6.4516						
TU4x12x18	25.4032	1398.9589	2874.1512	514.6393	19.3548	
6.4516						
TU4x8x316	28.1249	1191.1678	1529.5006	516.0746	19.3548	
9.6774						
TU4x10x316	32.9636	1603.2774	2662.8776	629.6034	24.1935	
9.6774						
TU4x12x316	37.8023	2026.0467	4221.5912	743.1321	29.0322	
9.6774						
TU6x6x18	18.9516	1055.0389	703.6777	703.6777	9.6774	
9.6774						
TU6x6x316	28.1249	1532.5866	1022.7876	1022.7876	14.5161	
14.5161						
D38	71.3306	809.7883	404.8941	404.8941	64.1975	
64.1975						
D12	1.2668	0.2554	0.1277	0.1277	1.1401	
1.1401						
D58	2.0106	0.6434	0.3217	0.3217	1.8096	
1.8096						
CH5x14	15.3226	1.9570	372.7656	58.5340	8.0645	
8.0645						
CH4x316	9.2247	0.6652	144.5216	22.6795	4.8392	
4.8392						
CH6x14	18.5484	2.3906	660.6590	103.5783	9.6774	
9.6774						
TU12x12x14	75.8063	16880.6232	11258.8433	11258.8433	38.7096	
38.7096						
TU12x12x38	112.4998	24521.3863	16364.6019	16364.6019	58.0644	
58.0644						
LL1x316S2	4.4236	0.3093	2.5058	51.4423	2.4196	
2.4577						
C15x40	600.0000	34386.2701	80000.0000	11250.0000	500.0000	
500.0000						
TUPC4CH16	4.7744	51.9172	66.0505	22.5579	3.2512	
1.6256						
TU3x3x18	9.2749	123.6483	82.5852	82.5909	4.8395	
4.8387						
VC10x23	345.0000	15404.0220	15208.7500	6468.7500	287.5000	
287.5000						
VC10x25	250.0000	6237.8134	13020.8333	2083.3333	208.3333	
208.3333						
VC10x30	450.0000	23174.1214	33750.0000	8437.5000	375.0000	
375.0000						
VC20x12	240.0000	7212.4694	2880.0000	8000.0000	200.0000	
200.0000						
CH5x2.5x316	11.6443	0.8481	290.4198	45.5019	6.0490	
6.0490						
FSEC1	15.1160	1.9521	89.4790	72.5891	9.6774	
6.2451						
LL1x18S2.85	3.0242	0.0966	1.8085	16.1334	1.6129	
1.6129						
VM7.62x40x316	44.4508	1627.1187	7560.3063	510.3384	38.1000	
7.2581						
TUPC5CH16	5.5872	69.7639	114.5082	27.4784	4.0640	
1.6256						
TUPC6CH16	6.3744	85.5764	179.5336	31.3043	4.8768	
1.6000						
VC18x40	720.0000	55790.3725	96000.0000	19440.0000	500.0000	
600.0000						
C45x55	2475.0000	841651.6563	623906.2500	4176.2500	2062.5000	
2062.5000						
C40x60	2400.0000	751249.3995	720000.0000	320000.0000	2000.0000	
2000.0000						
TU4x4x14	24.1935	548.7426	367.4543	367.4543	12.9032	
12.9032						
TU3x3x316	13.6088	173.6256	116.2648	116.2648	7.2581	
7.2581						

DIN - FIS  
08 JUN. 201

REVISAR

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
C. 17.9032 No. IC - 1606  
M.O.B.-V.M.V.D.U. EL SALVADOR, C.A.

C70x70  
 4083.3333  
 TU2X2X18  
 12.9032  
 C50x55  
 2291.6667  
 C50x60  
 2500.0000  
 C55x60  
 2750.0000  
 L2X316  
 2.4196  
 L2.5X316  
 3.0245  
 L2.5X14  
 4.0323  
 L1X316  
 1.2098  
 L1X18  
 0.8065  
 L1.5X18  
 1.2097  
 TU4X6X316  
 9.6774  
 CH10X2X18  
 3.2258  
 2PC6CH14  
 3.6982  
 2PC6CH12  
 4.3078  
 C35x45  
 1312.5000  
 VC20X15  
 250.0000  
 TU8X8X3/16  
 19.3548  
 TU10X10X14  
 32.2580  
 TU10X10X5/16  
 40.3225  
 TU4X12X14  
 12.9032  
 TU4X14X316  
 9.6774  
 TU4X14X14  
 12.9032  
 TU5X14X14  
 16.1290  
 TU6X14X14  
 19.3548  
 TU6X16X14  
 19.3548  
 TU5X14X38  
 24.2062  
 TU6X16X38  
 29.0474  
 VCN15  
 187.5000  
 CC60  
 2544.6900  
 VC40X60  
 2000.0000  
 PC4CH16C  
 1.6256  
 PC5CH16C  
 1.5240  
 PC6CH16C  
 1.6256  
 CH2.5X18  
 2.0161  
 CH5X316  
 6.0484  
 VC20X80  
 0.1333  
 VC25X80  
 1666.6667  
 VC30X75  
 1875.0000  
 VC30X70  
 1750.0000  
 VC30X80  
 2000.0000  
 VC30X85  
 2125.0000  
 VC30X65  
 1625.0000

Arq1nivelkinder22abril.txt

4900.0000	3381408.4932000833.33332000833.3333	4083.3333			
30.6451	1018.5433	977.0599	514.0025	19.3548	
2750.0000	1053871.3046	693229.1667	572916.6667	2291.6667	
3000.0000	1240246.4725	900000.0000	625000.0000	2500.0000	
3300.0000	1518935.4704	990000.0000	831875.0000	2750.0000	
4.6123	0.3362	11.3398	11.3398	2.4196	
5.8221	0.4277	22.7509	22.7509	3.0245	
7.6613	0.9899	29.2670	29.2670	4.0323	
2.1927	0.1532	1.2464	1.2464	1.2098	
1.5121	0.0483	0.9042	0.9042	0.8065	
2.3185	0.0754	3.2368	3.2368	1.2097	
23.2862	796.3629	759.0253	402.5459	14.5161	
11.0887	0.3662	909.2529	19.9735	8.0645	
9.1131	328.2147	309.5051	166.6043	5.5474	
10.5898	379.4171	358.1528	192.5007	6.4618	
1575.0000	337603.9582	265781.2500	160781.2500	1312.5000	
300.0000	12149.0665	5625.0000	10000.0000	250.0000	
37.8023	3721.3989	2482.3616	2482.3616	19.3548	
62.9031	9644.7000	6434.0273	6434.0273	32.2580	
77.8708	11710.2981	7776.9976	7853.4192	40.0685	
49.9999	2606.8224	5511.3810	953.6469	38.7096	
42.6410	2455.8469	6268.0759	856.6609	33.8709	
56.4515	3161.8026	8202.1437	1100.1950	45.1612	
59.6773	4798.7238	9185.9241	1803.0191	45.1612	
62.9031	6671.3134	10169.7044	2698.3503	45.1612	
69.3547	7938.9527	14202.8135	3042.6084	51.6128	
88.3507	6795.4391	13303.5670	2543.0642	67.7774	
102.8744	11353.1643	20670.4101	4335.1568	77.4598	
225.0000	7129.6878	4218.7500	4218.7500	187.5000	
2827.4334	1272345.0247	636172.5124	636172.5124	2544.6900	
2400.0000	751249.3995	720000.0000	320000.0000	2000.0000	
4.7744	51.9172	66.0505	22.5579	3.2512	
5.2440	65.6994	107.6769	25.8879	3.8100	
6.4000	88.0750	180.9891	32.3989	4.8768	
3.8306	0.1223	23.2978	3.6584	2.0161	
11.6431	0.8479	290.3928	45.4976	6.0484	
0.1600	0.0018	0.0085	0.0005	0.1333	
2000.0000	334700.61181066666.6667	104166.6667	1666.6667	1666.6667	
2250.0000	505262.88531054687.5000	168750.0000	1875.0000	1875.0000	
2100.0000	460378.2123	857500.0000	157500.0000	1750.0000	
2400.0000	550180.32151280000.0000	180000.0000	2000.0000	2000.0000	
2550.0000	595119.95961535312.5000	191250.0000	2125.0000	2125.0000	
1950.0000	415543.2181	686562.5000	146250.0000	1625.0000	

DIN - FIS  
 08 JUN. 201  
 REVISA

INGENIEROS ARQUITECTOS E INGENIERO CIVIL  
 MARCOS MIGUEL SANCHEZ MACHUCA  
 INGENIERO CIVIL  
 No. 1C - 160E  
 M.O.P. - M.V.D.U. EL SALVADOR, C.A.

VC35x75	2187.5000	2625.0000	757989.24151230468.7500	267968.7500	2187.5000
VC40x75	2500.0000	3000.0000	1066024.72401406250.0000	400000.0000	2500.0000
VC25x75	1562.5000	1875.0000	308678.1469	878906.2500	97656.2500
VC35x80	2333.3333	2800.0000	829164.19811493333.3333	285833.3333	2333.3333
VF70x35	2041.6667	2450.0000	686926.7351	250104.16671000416.6667	2041.6667
VF70x30	1750.0000	2100.0000	460378.2123	157500.0000	857500.0000
VF55x30	1375.0000	1650.0000	326154.7557	123750.0000	415937.5000
HSS10x4x.250	12.0258	39.8064	1972.9370	3109.2486	736.7297
HSS12x4x.250	12.0258	45.8064	2489.0639	4953.1540	874.0860
VC20x55	916.6667	1100.0000	113115.6261	277291.6667	36666.6667
VC25x60	1250.0000	1500.0000	230674.7933	450000.0000	78125.0000
VC20x60	1000.0000	1200.0000	126434.5690	360000.0000	40000.0000
PD2	3483.3506	4180.0000	167668.2179	42148.3333	50299333.33
PD2A	3483.3506	4180.0000	167668.2179	42148.3333	50299333.33
C45x80	3000.0000	3600.0000	1576052.97361920000.0000	607500.0000	3000.0000
C10x40	333.3333	400.0000	11234.0170	53333.3333	3333.3333
C30x60	1500.0000	1800.0000	370785.9428	540000.0000	135000.0000
TU4x8CH14	4.0640	16.0960	904.1332	1838.7812	333.3976
TU4x12CH12	4.2875	16.9720	951.5837	1937.1034	350.8145
D88	4.5604	5.0671	4.0863	2.0432	2.0432
L2X14	3.2258	6.0484	0.7731	14.4678	14.4678
TU16x16x316	38.1040	75.3006	29407.1789	19607.6331	19607.6331
TU16x16x18	25.4000	50.3968	19839.9606	13227.4871	13227.4871
PIPE16X12	81.1879	154.5258	58009.9940	29004.9970	29004.9970
VC75x45	2812.5000	3375.0000	1426293.9944	569531.25001582031.2500	2812.5000
VC45x20	750.0000	900.0000	86509.2527	30000.0000	151875.0000
TU8x8x12	51.6128	96.7740	8779.8816	5879.2689	5879.2689
VC45x45	1687.5000	2025.0000	577504.7147	341718.7500	341718.7500
VC60x45	2250.0000	2700.0000	984074.3861	455625.0000	810000.0000
VC100x45	3750.0000	4500.0000	2179311.4238	759375.0000	3750000.000
VC45x30	1125.0000	1350.0000	237700.0053	101250.0000	227812.5000
TU4x4CH12	4.3078	8.4359	208.7100	139.2032	139.2032

FRAME SECTION PROPERTY DATA

GYRATION FRAME SECTION NAME R22	SECTION MODULI		PLASTIC MODULI		RADIUS OF
	S33	S22	Z33	Z22	R33
HSS4X.237	38.3457	38.3457	51.6193	51.6193	3.4012
HSS4X.250	40.2302	40.2302	54.2412	54.2412	3.4012
HSS5X.250	65.1550	65.1550	86.8514	86.8514	4.2866
HSS5X.258	66.8592	66.8592	89.1456	89.1456	4.2814
HSS5X.312	78.6579	78.6579	105.8604	105.8604	4.2432
HSS5X.375	91.1121	91.1121	123.8862	123.8862	4.1933
HSS5X.500	112.7430	112.7430	157.3158	157.3158	4.0942

DIN - FISDI  
08 JUN. 2017  
REVISADO

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC - 1606  
M.O.P.-V.M.V.D.U. EL SALVADOR, C.A.

ArqInivelkinder22abril.txt

4.0942					
HSS6X.250	96.1374	96.1374	126.9997	126.9997	5.1872
5.1872					
HSS6X.280	105.4234	105.4234	140.4371	140.4371	5.1526
5.1526					
HSS6X.312	116.3482	116.3482	155.5132	155.5132	5.1308
5.1308					
HSS6X.375	135.4664	135.4664	183.5351	183.5351	5.0800
5.0800					
HSS7X.250	132.9693	132.9693	175.3416	175.3416	6.0840
6.0840					
HSS7X.312	161.9978	161.9978	214.6705	214.6705	6.0345
6.0345					
HSS7X.375	189.1535	189.1535	253.9995	253.9995	5.9794
5.9794					
HSS7X.500	239.7193	239.7193	326.1026	326.1026	5.8812
5.8812					
ConcCo1	15928.2262	15928.2262	23892.3393	23892.3393	13.1982
13.1982					
ConcBm	10618.8175	7079.2116	15928.2262	10618.8175	13.1982
8.7988					
VC15X15	562.5000	562.5000	843.7500	843.7500	4.3301
4.3301					
VC15X20	1000.0000	750.0000	1500.0000	1125.0000	5.7735
4.3301					
VC15X25	1562.5000	937.5000	2343.7500	1406.2500	7.2169
4.3301					
VC15X30	2250.0000	1125.0000	3375.0000	1687.5000	8.6603
4.3301					
VC15X35	3062.5000	1312.5000	4593.7500	1968.7500	10.1036
4.3301					
VC15X40	4000.0000	1500.0000	6000.0000	2250.0000	11.5470
4.3301					
VC20X20	1333.3333	1333.3333	2000.0000	2000.0000	5.7735
5.7735					
VC20X25	2083.3333	1666.6667	3125.0000	2500.0000	7.2169
5.7735					
VC20X30	3000.0000	2000.0000	4500.0000	3000.0000	8.6603
5.7735					
VC20X35	4083.3333	2333.3333	6125.0000	3500.0000	10.1036
5.7735					
VC20X40	5333.3333	2666.6667	8000.0000	4000.0000	11.5470
5.7735					
VC25X40	6666.6667	4166.6667	10000.0000	6250.0000	11.5470
7.2169					
C30X50	12500.0000	7500.0000	18750.0000	11250.0000	14.4338
8.6603					
C15X15	562.5000	562.5000	843.7500	843.7500	4.3301
4.3301					
C15X20	1000.0000	750.0000	1500.0000	1125.0000	5.7735
4.3301					
C20X20	1333.3333	1333.3333	2000.0000	2000.0000	5.7735
5.7735					
C20X30	3000.0000	2000.0000	4500.0000	3000.0000	8.6603
5.7735					
C15X25	1562.5000	937.5000	2343.7500	1406.2500	7.2169
4.3301					
C15X30	2250.0000	1125.0000	3375.0000	1687.5000	8.6603
4.3301					
VN25X20	1666.6667	2083.3333	2500.0000	3125.0000	5.7735
7.2169					
VM7.62X30X316	161.0104	71.6972	209.5300	77.6001	10.1205
3.4036					
VC25X45	8437.5000	4687.5000	12656.2500	7031.2500	12.9904
7.2169					
VN35X20	2333.3333	4083.3333	3500.0000	6125.0000	5.7735
10.1036					
VN40X20	2666.6667	5333.3333	4000.0000	8000.0000	5.7735
11.5470					
PC4CH16	11.2985	2.4214	12.9131	4.3634	4.1004
1.6370					
PC5CH16	15.3393	2.4591	17.9365	4.3147	4.9685
1.5604					
PC6CH16	19.5374	2.5081	23.1888	4.3438	5.8106
1.5141					
CF20X40	5333.3333	2666.6667	8000.0000	4000.0000	11.5470
5.7735					
CF20X60	12000.0000	4000.0000	18000.0000	6000.0000	17.3203
5.7735					
CF	1333.3333	1333.3333	2000.0000	2000.0000	5.7735
5.7735					
C25X35	5104.1667	3645.8333	7656.2500	5468.7500	10.1036
7.2169					
VM7.62X35X316	302.5807	117.9650	401.2894	129.6509	11.5470
3.3653					
PC6CH16	35.8806	29.0034	42.3226	32.1300	5.8367

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08 JUN. 2011  
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REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS CIVILES  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC-16  
M.O.P.-V.M.V.D.U. EL SALVADOR, C.A.

ArqInivelkinder22abril.txt

4.2847	21.0028	21.0028	24.0020	24.0020	4.0830
2PC4CH16					
4.0830	6666.6667	4166.6667	10000.0000	6250.0000	11.5470
C25X40					
7.2169	2604.1667	2604.1667	3906.2500	3906.2500	7.2169
C25X25					
7.2169	7500.0000	12500.0000	11250.0000	18750.0000	8.6603
SF50X30					
14.4338	10208.3333	14583.3333	15312.5000	21875.0000	10.1036
SF50X35					
14.4338	9187.5000	11812.5000	13781.2500	17718.7500	10.1036
SF45X35					
12.9904	10416.6667	5208.3333	15625.0000	7812.5000	14.4338
VC25X50					
7.2169	15187.5000	15187.5000	22781.2500	22781.2500	12.9904
C45X45					
12.9904	173.4013	173.4013	203.3020	203.3020	5.9681
TU6X6X14					
5.9681	318.1608	318.1608	369.2210	369.2210	8.0405
TU8X8X14					
8.0405	1.7064	1.7064	3.0755	3.0755	1.1600
L1.5X316					
1.1600	10416.6667	41666.6667	15625.0000	62500.0000	7.2169
SF100X25					
28.8675	14623.3974	42317.7083	30273.4375	66406.2500	12.3322
SFT100-25X50					
26.0208	12250.0000	21000.0000	18375.0000	31500.0000	10.1036
SF60X35					
17.3205	4500.0000	4500.0000	6750.0000	6750.0000	8.6603
C30X30					
8.6603	166.6667	166.6667	250.0000	250.0000	2.8868
C10X10					
2.8868	6000.0000	8000.0000	9000.0000	12000.0000	8.6603
SF40X30					
11.5470	2604.1667	2604.1667	3906.2500	3906.2500	7.2169
T25X25					
7.2169	250.0000	375.0000	375.0000	562.5000	2.8868
VC15X10					
4.3301	28.0974	25.0031	32.6462	28.0660	4.9736
2PC5CH16					
4.1964	60.4388	41.7255	73.2408	45.4874	7.4966
2PC8CH14					
4.4045	117.0835	38.2370	151.1392	42.5077	8.5311
VM5.08X25X316					
2.1977	2650.7188	2650.7188	4500.0000	4500.0000	7.5000
CC30					
7.5000	5333.3333	2666.6667	8000.0000	4000.0000	11.5470
C20X40					
5.7735	8333.3333	3333.3333	12500.0000	5000.0000	14.4338
C20X50					
5.7735	5208.3333	10416.6667	7812.5000	15625.0000	7.2169
SF50X25					
14.4338	1333.3333	1333.3333	2000.0000	2000.0000	5.7735
T20X20					
5.7735	4166.6667	6666.6667	6250.0000	10000.0000	7.2169
SF40X25					
11.5470	11250.0000	28125.0000	16875.0000	42187.5000	8.6603
SF75X30					
21.6506	2083.3333	1666.6667	3125.0000	2500.0000	7.2169
C20X25					
5.7735	10416.6667	5208.3333	15625.0000	7812.5000	14.4338
C25X50					
7.2169	10125.0000	6750.0000	15187.5000	10125.0000	12.9904
VC30X45					
8.6603	8000.0000	6000.0000	12000.0000	9000.0000	11.5470
VC30X40					
8.6603	9333.3333	8166.6667	14000.0000	12250.0000	11.5470
VC35X40					
10.1036	10666.6667	10666.6667	16000.0000	16000.0000	11.5470
SF40X40					
11.5470	13500.0000	12000.0000	20250.0000	18000.0000	12.9904
VC40X45					
11.5470	70.2505	48.3855	85.2712	52.9021	7.4838
2PC8CH12					
4.3918	6750.0000	10125.0000	10125.0000	15187.5000	8.6603
VF45X30					
12.9904	11229.1667	17645.8333	16843.7500	26468.7500	10.1036
VF55X35					
15.8771	6000.0000	8000.0000	9000.0000	12000.0000	11.5470
VF40X30					
11.5470	20250.0000	27000.0000	30375.0000	40500.0000	12.9904
SF60X45					
17.3205	16000.0000	24000.0000	24000.0000	36000.0000	11.5470
SF60X40					
17.3205	10666.6667	10666.6667	16000.0000	16000.0000	11.5470
C40X40					

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08 JUN. 20  
REVISAR

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS CIVILES  
MARCOS RAMIRO DEL SANCHEZ MACHO  
INGENIERO CIVIL  
REGISTRO No. IC - 16  
M.O.P. - 11.5470 U. EL SALVADOR



Arq1nive1kinder22abril.txt

11.5470					
VC10X15	375.0000	250.0000	562.5000	375.0000	4.3301
2.8868					
TU4X4X18	39.7701	39.7701	46.1526	46.1526	4.0203
4.0203					
TU4X6X18	68.7755	55.1543	81.9993	62.0276	5.7728
4.2210					
C50X50	20833.3333	20833.3333	31250.0000	31250.0000	14.4338
14.4338					
SF70X25	7291.6667	20416.6667	10937.5000	30625.0000	7.2169
20.2073					
SF55X25	5729.1667	12604.1667	8593.7500	18906.2500	7.2169
15.8771					
SF45X25	4687.5000	8437.5000	7031.2500	12656.2500	7.2169
12.9904					
T25X35	5104.1667	3645.8333	7656.2500	5468.7500	10.1036
7.2169					
VC25X55	12604.1667	5729.1667	18906.2500	8593.7500	15.8771
7.2169					
VC30X55	15125.0000	8250.0000	22687.5000	12375.0000	15.8771
8.6603					
VC30X60	18000.0000	9000.0000	27000.0000	13500.0000	17.3205
8.6603					
C35X60	21000.0000	12250.0000	31500.0000	18375.0000	17.3205
10.1036					
C30X45	10125.0000	6750.0000	15187.5000	10125.0000	12.9904
8.6603					
T30X30	4500.0000	4500.0000	6750.0000	6750.0000	8.6603
8.6603					
C35X50	14583.3333	10208.3333	21875.0000	15312.5000	14.4338
10.1036					
C35X35	7145.8333	7145.8333	10718.7500	10718.7500	10.1036
10.1036					
CH4X1.5X316	31.2088	5.7602	37.0420	10.4228	3.9678
1.2458					
CH6X1.75	70.3751	9.9575	83.2460	17.9920	5.9325
1.4839					
LL1.5X1.5X316	3.2991	5.4002	5.9665	9.7778	1.1822
1.8385					
CH4X1.5X14	32.9667	5.8145	40.1356	10.4923	3.8163
1.1909					
CH4X1.5X75MM	40.8050	9.0985	49.4228	16.4034	3.8463
1.5042					
SF75X35	15312.5000	32812.5000	22968.7500	49218.7500	10.1036
21.6506					
SF30X20	2000.0000	3000.0000	3000.0000	4500.0000	5.7735
8.6603					
PC3CH16	6.3737	1.3474	7.3660	2.4138	3.0524
1.2071					
C40X50	16666.6667	13333.3333	25000.0000	20000.0000	14.4338
11.5470					
C55X55	27729.1667	27729.1667	41593.7500	41593.7500	15.8771
15.8771					
C40X45	13500.0000	12000.0000	20250.0000	18000.0000	12.9904
11.5470					
VC30X50	12500.0000	7500.0000	18750.0000	11250.0000	14.4338
8.6603					
VC20X45	6750.0000	3000.0000	10125.0000	4500.0000	12.9904
5.7735					
VC15X45	5062.5000	1687.5000	7593.7500	2531.2500	12.9904
4.3301					
CC20	785.3982	785.3982	1333.3333	1333.3333	5.0000
5.0000					
CC25	1533.9808	1533.9808	2604.1667	2604.1667	6.2500
6.2500					
CC35	4209.2433	4209.2433	7145.8333	7145.8333	8.7500
8.7500					
CC40	6283.1853	6283.1853	10666.6667	10666.6667	10.0000
10.0000					
CC45	8946.1760	8946.1760	15187.5000	15187.5000	11.2500
11.2500					
CC50	12271.8463	12271.8463	20833.3333	20833.3333	12.5000
12.5000					
C30X40	8000.0000	6000.0000	12000.0000	9000.0000	11.5470
8.6603					
TU2X4X18	24.3859	16.2537	30.2777	18.4995	3.6548
2.1099					
TU2X6X18	45.2049	23.4657	57.9308	25.2595	4.2495
2.1836					
TU2X8X18	71.4894	30.6777	93.7775	33.8633	6.7961
2.2260					
TU3X6X18	56.9902	38.6170	69.9651	43.0861	7.3401
3.2288					
TU3X8X18	87.3697	49.9116	109.9086	54.8583	7.1552
3.3117					
TI4X8X18	103.2500	70.5385	126.0396	77.9076	7.4399

DIN - FISI  
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INSTITUTO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
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REGISTRO No. IC - 1606  
M.O.P.-V.M.V.D.U. EL SALVADOR, C.A.

## Arq1nivelkinder22abril.txt

4.3483					
TU4X10X18	143.1894	85.9227	178.2733	93.7775	9.0553
4.4364					
TU4X12X18	188.5926	101.3069	238.7006	109.6525	10.6368
4.5010					
TU4X8X316	150.5414	101.5895	185.3387	113.9013	7.3744
4.2836					
TU4X10X316	209.6754	123.9377	262.9212	137.3297	8.9879
4.3703					
TU4X12X316	277.0073	146.2859	352.7940	160.7581	10.5677
4.4338					
TU6X6X18	92.3462	92.3462	106.0678	106.0678	6.0935
6.0935					
TU6X6X316	134.2241	134.2241	155.7651	155.7651	6.0304
6.0304					
D38	84.9725	84.9725	144.2539	144.2539	2.3825
2.3825					
D12	0.2011	0.2011	0.3414	0.3414	0.3175
0.3175					
D58	0.4021	0.4021	0.6827	0.6827	0.4000
0.4000					
CH5X14	58.7032	12.9255	69.3890	23.2876	4.9323
1.9545					
CH4X316	28.4491	6.2404	33.5254	11.2421	3.9581
1.5680					
CH6X14	86.7007	18.9000	101.6510	34.0437	5.9681
2.3631					
TU12X12X14	738.7692	738.7692	848.5427	848.5427	12.1869
12.1869					
TU12X12X38	1073.7928	1073.7928	1246.1210	1246.1210	12.0608
12.0608					
LL1X316S2	1.4422	10.1264	2.6021	14.6976	0.7526
3.4101					
C15X40	4000.0000	1500.0000	6000.0000	2250.0000	11.5470
4.3301					
TUPC4CH16	13.0021	8.8811	15.8740	9.8106	3.7194
2.1737					
TU3X3X18	21.6759	21.6774	25.4140	25.4152	2.9840
2.9841					
VC10X23	1322.5000	862.5000	1983.7500	1293.7500	6.6395
4.3301					
VC10X25	1041.6667	416.6667	1562.5000	625.0000	7.2169
2.8868					
VC10X30	2250.0000	1125.0000	3375.0000	1687.5000	8.6603
4.3301					
VC20X12	480.0000	800.0000	720.0000	1200.0000	3.4641
5.7735					
CH5X2.5X316	45.7354	9.9215	53.4032	17.8690	4.9941
1.9768					
FSEC1	17.6606	13.4424	31.6073	25.4664	2.4330
2.1914					
LL1X18S2.85	1.0111	4.0690	1.8223	6.5819	0.7733
2.3097					
VM7.62X40X316	378.0153	133.9471	506.5036	146.6744	13.0416
3.3884					
TUPC5CH16	18.0328	10.8183	22.4537	11.8100	4.5271
2.2177					
TUPC6CH16	23.5608	12.5217	29.8725	13.5540	5.3071
2.2161					
VC18X40	4800.0000	2160.0000	7200.0000	3240.0000	11.5470
5.1962					
C45X55	22687.5000	18562.5000	34031.2500	27843.7500	15.8771
12.9904					
C40X60	24000.0000	16000.0000	36000.0000	24000.0000	17.3205
11.5470					
TU4X4X14	72.3335	72.3335	86.5442	86.5442	3.8972
3.8972					
TU3X3X316	30.5157	30.5157	36.5108	36.5108	2.9229
2.9229					
C70X70	57166.6667	57166.6667	85750.0000	85750.0000	20.2073
20.2073					
TU2X2X18	128.2231	101.1816	156.1892	117.2699	5.6465
4.0955					
C50X55	25208.3333	22916.6667	37812.5000	34375.0000	15.8771
14.4338					
C50X60	30000.0000	25000.0000	45000.0000	37500.0000	17.3205
14.4338					
C55X60	33000.0000	30250.0000	49500.0000	45375.0000	17.3205
15.8771					
L2X316	3.1202	3.1202	5.6211	5.6211	0.7539
1.5680					
L2.5X316	4.9607	4.9607	8.9345	8.9345	0.7539
1.9768					
L2.5X14	6.4628	6.4628	11.6438	11.6438	0.7539
1.9545					
L1X316	0.7194	0.7194	1.2973	1.2973	0.7539

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ArqInive1kinder22abril.txt

0.7539					
L1X18	0.5056	0.5056	0.9112	0.9112	0.7733
0.7733					
L1.5X18	1.1813	1.1813	2.1277	2.1277	1.1815
1.1815					
TU4X6X316	99.6096	79.2413	120.0464	90.4729	5.7092
4.1577					
CH10X2X18	71.5947	4.7235	89.1367	8.2315	9.0553
1.3421					
2PC6CH14	40.6175	32.7961	47.9819	36.4083	5.8277
4.2757					
2PC6CH12	47.0017	37.8938	55.6376	42.1885	5.8155
4.2636					
C35X45	11812.5000	9187.5000	17718.7500	13781.2500	12.9904
10.1036					
VC20X15	750.0000	1000.0000	1125.0000	1500.0000	4.3301
5.7735					
TU8X8X3/16	244.3269	244.3269	281.3566	281.3566	8.1035
8.1035					
TU10X10X14	506.6163	506.6163	584.3013	584.3013	10.1136
10.1136					
TU10X10X5/16	616.2439	618.3795	714.8950	718.0098	9.9935
10.0425					
TU4X12X14	361.6392	187.7258	463.4467	209.4472	10.4989
4.3673					
TU4X14X316	352.5352	168.6340	454.9571	184.1864	12.1242
4.4822					
TU4X14X14	461.3129	216.5738	598.6399	240.1729	12.0539
4.4147					
TU5X14X14	516.6436	283.9400	654.9705	313.9147	12.4067
5.4966					
TU6X14X14	571.9744	354.1142	711.3010	391.7532	12.7151
6.5496					
TU6X16X14	698.9574	399.2924	879.2684	438.8661	14.3103
6.6235					
TU5X14X38	748.2321	400.4825	958.5319	453.6075	12.2710
5.3650					
TU6X16X38	1017.2446	568.9182	1291.3067	638.0539	14.1749
6.4916					
VGN15	562.5000	562.5000	843.7500	843.7500	4.3301
4.3301					
CC60	21205.7504	21205.7504	36000.0000	36000.0000	15.0000
15.0000					
VC40X60	24000.0000	16000.0000	36000.0000	24000.0000	17.3205
11.5470					
PC4CH16C	13.0021	8.8811	15.8740	9.8106	3.7194
2.1737					
PC5CH16C	16.9570	10.1921	21.0951	11.1053	4.5314
2.2219					
PC6CH16C	23.7518	12.7555	30.0655	13.8095	5.3179
2.2500					
CH2.5X18	7.3379	1.6157	8.6736	2.9109	2.4662
0.9773					
CH5X316	45.7312	9.9205	53.3980	17.8673	4.9941
1.9768					
VC20X80	0.0213	0.0053	0.0320	0.0080	0.2309
0.0577					
VC25X80	26666.6667	8333.3333	40000.0000	12500.0000	23.0940
7.2169					
VC30X75	28125.0000	11250.0000	42187.5000	16875.0000	21.6506
8.6603					
VC30X70	24500.0000	10500.0000	36750.0000	15750.0000	20.2073
8.6603					
VC30X80	32000.0000	12000.0000	48000.0000	18000.0000	23.0940
8.6603					
VC30X85	36125.0000	12750.0000	54187.5000	19125.0000	24.5374
8.6603					
VC30X65	21125.0000	9750.0000	31687.5000	14625.0000	18.7639
8.6603					
VC35X75	32812.5000	15312.5000	49218.7500	22968.7500	21.6506
10.1036					
VC40X75	37500.0000	20000.0000	56250.0000	30000.0000	21.6506
11.5470					
VC25X75	23437.5000	7812.5000	35156.2500	11718.7500	21.6506
7.2169					
VC35X80	37333.3333	16333.3333	56000.0000	24500.0000	23.0940
10.1036					
VF70X35	14291.6667	28583.3333	21437.5000	42875.0000	10.1036
20.2073					
VF70X30	10500.0000	24500.0000	15750.0000	36750.0000	8.6603
20.2073					
VF55X30	8250.0000	15125.0000	12375.0000	22687.5000	8.6603
15.8771					
H5510X4X.250	244.8227	145.0255	311.3542	163.2152	10.1036
4.3021					
H5517X4X.250	325.0101	172.0642	419.5088	191.7286	10.3987

DIN - FIS  
08 JUN. 2011  
REVISA

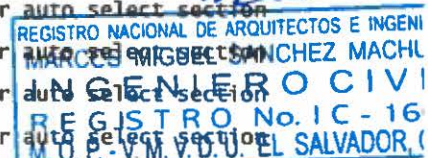
MS  
REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS ANTONIO SANCHEZ MA  
INGENIERO CIVIL  
REGISTRO No. IC-  
M.O.P. 9379 V.D.U. EL SALVADOR

ArqInive1kinder22abril.txt

4.3683					
VC20X55	10083.3333	3666.6667	15125.0000	5500.0000	15.8771
5.7735					
VC25X60	15000.0000	6250.0000	22500.0000	9375.0000	17.3205
7.2169					
VC20X60	12000.0000	4000.0000	18000.0000	6000.0000	17.3205
5.7735					
PD2	7663.3333	264733.3333	11495.0000	397100.0000	3.1754
109.6966					
PD2A	7663.3333	264733.3333	11495.0000	397100.0000	3.1754
109.6966					
C45X80	48000.0000	27000.0000	72000.0000	40500.0000	23.0940
12.9904					
C10X40	2666.6667	666.6667	4000.0000	1000.0000	11.5470
2.8868					
C30X60	18000.0000	9000.0000	27000.0000	13500.0000	17.3205
8.6603					
TU4X8CH14	120.6549	65.6294	152.0096	70.2419	10.6882
4.5512					
TU4X12CH12	127.1065	69.0580	160.2070	73.9892	10.6834
4.5464					
D88	1.6088	1.6088	2.7312	2.7312	0.6350
0.6350					
L2X14	4.0445	4.0445	7.2894	7.2894	1.5466
1.5466					
TU16X16X316	980.3817	980.3817	1116.1127	1116.1127	16.1367
16.1367					
TU16X16X18	661.3744	661.3744	749.9673	749.9673	16.2008
16.2008					
PIPE16X12	1450.2499	1450.2499	1905.6992	1905.6992	13.7005
13.7005					
VC75X45	25312.5000	42187.5000	37968.7500	63281.2500	12.9904
21.6506					
VC45X20	3000.0000	6750.0000	4500.0000	10125.0000	5.7735
12.9904					
TU8X8X12	578.6682	578.6682	692.3535	692.3535	7.7944
7.7944					
VC45X45	15187.5000	15187.5000	22781.2500	22781.2500	12.9904
12.9904					
VC60X45	20250.0000	27000.0000	30375.0000	40500.0000	12.9904
17.3205					
VC100X45	33750.0000	75000.0000	50625.0000	112500.0000	12.9904
28.8675					
VC45X30	6750.0000	10125.0000	10125.0000	15187.5000	8.6603
12.9904					
TU4X4CH12	27.4022	27.4022	31.4749	31.4749	4.0622
4.0622					

FRAME SECTION WEIGHTS AND MASSES

FRAME SECTION NAME	TOTAL WEIGHT	TOTAL MASS	
HSS4X.237	0.0000	0.0000	
HSS4X.250	0.0000	0.0000	
HSS5X.250	0.0000	0.0000	
HSS5X.258	0.0000	0.0000	
HSS5X.312	0.0000	0.0000	
HSS5X.375	0.0000	0.0000	
HSS5X.500	0.0000	0.0000	
HSS6X.250	0.0000	0.0000	
HSS6X.280	0.0000	0.0000	
HSS6X.312	0.0000	0.0000	
HSS6X.375	0.0000	0.0000	
HSS7X.250	0.0000	0.0000	
HSS7X.312	0.0000	0.0000	
HSS7X.375	0.0000	0.0000	
HSS7X.500	0.0000	0.0000	
A-GravBm	N/A	N/A	Not available for auto select section
lists			
A-LatBm	N/A	N/A	Not available for auto select section
lists			
A-GravCol	N/A	N/A	Not available for auto select section
lists			
A-LatCol	N/A	N/A	Not available for auto select section
lists			
A-CompBm	N/A	N/A	Not available for auto select section
lists			
A-TrChdw10	N/A	N/A	Not available for auto select section
lists			
A-TrChdw12	N/A	N/A	Not available for auto select section
lists			
A-TrChdw14	N/A	N/A	Not available for auto select section
lists			
A-TrwehHSSn	N/A	N/A	Not available for auto select section



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lists			
A-TrwebPIPE	N/A	N/A	Not available for auto select section
lists			
A-Trweb8	N/A	N/A	Not available for auto select section
lists			
A-Trweb10	N/A	N/A	Not available for auto select section
lists			
A-Trweb12	N/A	N/A	Not available for auto select section
lists			
ConcCo1	0.0000	0.0000	
Conc8m	0.0000	0.0000	
VC15X15	0.0000	0.0000	
VC15X20	3.1588	0.0032	
VC15X25	0.0000	0.0000	
VC15X30	0.0000	0.0000	
VC15X35	0.0000	0.0000	
VC15X40	0.0000	0.0000	
VC20X20	0.0000	0.0000	
VC20X25	0.0000	0.0000	
VC20X30	0.0000	0.0000	
VC20X35	0.0000	0.0000	
VC20X40	40.3562	0.0411	
VC25X40	0.0000	0.0000	
C30X50	0.0000	0.0000	
C15X15	0.0000	0.0000	
C15X20	0.0000	0.0000	
C20X20	0.0000	0.0000	
C20X30	0.0000	0.0000	
C15X25	0.0000	0.0000	
C15X30	0.0000	0.0000	
VN25X20	0.0000	0.0000	
VM7.62X30X316	0.0000	0.0000	
VC25X45	0.0000	0.0000	
VN35X20	0.0000	0.0000	
VN40X20	0.0000	0.0000	
PC4CH16	0.0000	0.0000	
PC5CH16	0.0000	0.0000	
PC6CH16	0.0000	0.0000	
CF20X40	0.0000	0.0000	
CF20X60	0.0000	0.0000	
CF	0.0000	0.0000	
C25X35	0.0000	0.0000	
VM7.62X35X316	0.0000	0.0000	
2PC6CH16	0.0000	0.0000	
2PC4CH16	0.0000	0.0000	
C25X40	0.0000	0.0000	
C25X25	0.0000	0.0000	
SF50X30	49.3047	0.0502	
SF50X35	0.0000	0.0000	
SF45X35	0.0000	0.0000	
VC25X50	0.0000	0.0000	
C45X45	0.0000	0.0000	
TU6X6X14	0.0000	0.0000	
TU8X8X14	0.0000	0.0000	
L1.5X316	0.0000	0.0000	
SF100X25	0.0000	0.0000	
SFT100-25X50	0.0000	0.0000	
SF60X35	0.0000	0.0000	
C30X30	0.0000	0.0000	
C10X10	0.0000	0.0000	
SF40X30	0.0000	0.0000	
T25X25	0.0000	0.0000	
VC15X10	0.0000	0.0000	
2PC5CH16	0.0000	0.0000	
2PC8CH14	0.5364	0.0005	
VM5.08X25X316	0.0000	0.0000	
CC30	2.7177	0.0028	
C20X40	0.0000	0.0000	
C20X50	0.0000	0.0000	
SF50X25	0.0000	0.0000	
T20X20	0.0000	0.0000	
SF40X25	0.0000	0.0000	
SF75X30	0.0000	0.0000	
C20X25	0.0000	0.0000	
C25X50	0.0000	0.0000	
VC30X45	0.0000	0.0000	
VC30X40	0.0000	0.0000	
VC35X40	0.0000	0.0000	
SF40X40	0.0000	0.0000	
VC40X45	0.0000	0.0000	
2PC8CH12	0.0000	0.0000	
VF45X30	0.0000	0.0000	
VF55X35	0.0000	0.0000	
VF40X30	0.0000	0.0000	
SF60X45	0.0000	0.0000	
CF60X40	0.0000	0.0000	



*MS*

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
 MARCOS MIGUEL SANCHEZ MACHUCA  
 INGENIERO CIVIL  
 REGISTRO No. IC - 1606  
 M. O. P. - V. M. V. D. U. EL SALVADOR, C. A.

Arq1nive1kinder22abr11.txt

C40x40	0.0000	0.0000
VC10x15	0.0000	0.0000
TU4x4x18	0.0000	0.0000
TU4x6x18	0.2580	0.0003
C50x50	0.0000	0.0000
SF70x25	0.0000	0.0000
SF55x25	0.0000	0.0000
SF45x25	0.0000	0.0000
T25x35	0.0000	0.0000
VC25x55	0.0000	0.0000
VC30x55	0.0000	0.0000
VC30x60	0.0000	0.0000
C35x60	0.0000	0.0000
C30x45	0.0000	0.0000
T30x30	0.0000	0.0000
C35x50	0.0000	0.0000
C35x35	0.0000	0.0000
CH4x1.5x316	0.0000	0.0000
CH6x1.75	0.0000	0.0000
LL1.5x1.5x316	0.0000	0.0000
CH4x1.5x14	0.0000	0.0000
CH4x1.5x75MM	0.0000	0.0000
SF75x35	0.0000	0.0000
SF30x20	0.0000	0.0000
PC3CH16	0.0000	0.0000
C40x50	0.0000	0.0000
C55x55	0.0000	0.0000
C40x45	0.0000	0.0000
VC30x50	0.0000	0.0000
VC20x45	0.0000	0.0000
VC15x45	0.0000	0.0000
CC20	0.0000	0.0000
CC25	0.0000	0.0000
CC35	2.7743	0.0028
CC40	42.2758	0.0431
CC45	0.0000	0.0000
CC50	0.0000	0.0000
C30x40	0.0000	0.0000
TU2x4x18	0.0000	0.0000
TU2x6x18	0.0000	0.0000
TU2x8x18	0.0000	0.0000
TU3x6x18	0.0000	0.0000
TU3x8x18	0.0000	0.0000
TU4x8x18	0.0000	0.0000
TU4x10x18	0.0000	0.0000
TU4x12x18	0.0000	0.0000
TU4x8x316	0.0000	0.0000
TU4x10x316	0.0000	0.0000
TU4x12x316	0.0000	0.0000
TU6x6x18	0.0000	0.0000
TU6x6x316	0.0000	0.0000
D38	0.0000	0.0000
D12	0.0000	0.0000
D58	0.0000	0.0000
CH5x14	0.0000	0.0000
CH4x316	0.0000	0.0000
CH6x14	0.0000	0.0000
TU12x12x14	0.0000	0.0000
TU12x12x38	0.0000	0.0000
LL1x316S2	0.0000	0.0000
C15x40	0.0000	0.0000
TUPC4CH16	0.0000	0.0000
TU3x3x18	0.0000	0.0000
VC10x23	0.0000	0.0000
VC10x25	0.0000	0.0000
VC10x30	0.0000	0.0000
VC20x12	0.0000	0.0000
CH5x2.5x316	0.0000	0.0000
FSEC1	0.0000	0.0000
LL1x18S2.85	0.0000	0.0000
VM7.62x40x316	0.0000	0.0000
TUPC5CH16	0.0000	0.0000
TUPC6CH16	0.0000	0.0000
VC18x40	0.0000	0.0000
C45x55	0.0000	0.0000
C40x60	0.0000	0.0000
PIPE25CH40	0.0000	0.0000
PIPE1.25CH40	0.0000	0.0000
TU4x4x14	0.6132	0.0006
TU3x3x316	0.0000	0.0000
C70x70	0.0000	0.0000
PIPE2CH12	0.0000	0.0000
PIPE8CH2	0.0000	0.0000
TU2x2x18	0.0000	0.0000
PIPE2.5CH12	0.0000	0.0000
DTDF2CH8	0.0000	0.0000



Arq1nivelkinder22abril.txt

PIPE2.5CH8	0.0000	0.0000
C50X55	0.0000	0.0000
C50X60	0.0000	0.0000
C55X60	0.0000	0.0000
L2X316	0.0000	0.0000
L2.5X316	0.0000	0.0000
L2.5X14	0.0000	0.0000
L1X316	0.0000	0.0000
L1X18	0.0000	0.0000
L1.5X18	0.0000	0.0000
TU4X6X316	0.0000	0.0000
CH10X2X18	0.0000	0.0000
2PC6CH14	1.1100	0.0011
2PC6CH12	0.0000	0.0000
C35X45	0.0000	0.0000
VC20X15	0.0000	0.0000
TU8X8X3/16	0.0000	0.0000
TU10X10X14	0.0000	0.0000
TU10X10X5/16	0.0000	0.0000
TU4X12X14	0.0000	0.0000
TU4X14X316	0.0000	0.0000
TU4X14X14	1.9255	0.0020
TU5X14X14	0.0000	0.0000
TU6X14X14	0.0000	0.0000
TU6X16X14	0.0000	0.0000
TU5X14X38	0.0000	0.0000
TU6X16X38	0.0000	0.0000
VCN15	0.0000	0.0000
CC60	0.0000	0.0000
VC40X60	0.0000	0.0000
PC4CH16C	0.0000	0.0000
PC5CH16C	0.0000	0.0000
PC6CH16C	0.0000	0.0000
CH2.5X18	0.0000	0.0000
CH5X316	0.0000	0.0000
VC20X80	0.0000	0.0000
VC25X80	0.0000	0.0000
VC30X75	0.0000	0.0000
VC30X70	0.0000	0.0000
VC30X80	0.0000	0.0000
VC30X85	0.0000	0.0000
VC30X65	0.0000	0.0000
VC35X75	0.0000	0.0000
VC40X75	0.0000	0.0000
VC25X75	0.0000	0.0000
VC35X80	0.0000	0.0000
VF70X35	0.0000	0.0000
VF70X30	0.0000	0.0000
VF55X30	0.0000	0.0000
HSS10X4X.250	0.0000	0.0000
HSS12X4X.250	0.0000	0.0000
VC20X55	0.0000	0.0000
VC25X60	0.0000	0.0000
VC20X60	0.0000	0.0000
PD2	0.0000	0.0000
PD2A	0.0000	0.0000
C45X80	0.0000	0.0000
C10X40	0.0000	0.0000
C30X60	0.0000	0.0000
TU4X8CH14	0.0000	0.0000
TU4X12CH12	0.0000	0.0000
D88	0.0000	0.0000
L2X14	0.0000	0.0000
TU16X16X316	0.0000	0.0000
TU16X16X18	0.0000	0.0000
PIPE16X12	0.0000	0.0000
VC75X45	0.0000	0.0000
VC45X20	0.0000	0.0000
TU8X8X12	0.0000	0.0000
VC45X45	0.0000	0.0000
VC60X45	0.0000	0.0000
VC100X45	0.0000	0.0000
VC45X30	0.0000	0.0000
TU4X4CH12	0.0000	0.0000
W21X33	0.0000	0.0000
W21A	0.0000	0.0000
W21B	0.0000	0.0000

AUTO SELECT SECTION LISTS

AUTO SELECT LIST NAME: A-TrwebHSSO

FRAME SECTION NAME

FRAME SECTION NAME

HSS4X.237  
HSS4X 237

HSS4X.250  
HSS4X 250

FRAME SECTION NAME

HSS5X.250  
HSS5X 250



HSS5X.500  
HSS6X.312  
HSS7X.312

Arq1nive1kinder22abri1.txt  
HSS6X.250  
HSS6X.375  
HSS7X.375

HSS6X.280  
HSS7X.250  
HSS7X.500

CONCRETE COLUMN DATA

BAR FRAME SECTION NAME COVER	REINF CONFIGURATION		REINF	NUM BARS	NUM BARS
	LONGIT	LATERAL	SIZE/TYPE	3DIR/2DIR	CIRCULAR
ConcCo1					
4.5720		Rectangular Ties	#9/Design	3/3	N/A
C30x50		Rectangular Ties	#6/Design	3/3	N/A
5.0000		Rectangular Ties	#3/Design	2/2	N/A
C15x15		Rectangular Ties	#4/Design	2/2	N/A
3.5000		Rectangular Ties	#3/Design	3/3	N/A
C15x20		Rectangular Ties	#4/Design	2/3	N/A
3.5000		Rectangular Ties	#3/Design	2/3	N/A
C20x20		Rectangular Ties	#5/Design	3/2	N/A
4.0000		Rectangular Ties	#5/Design	3/3	N/A
C20x30		Rectangular Ties	#4/Design	3/3	N/A
4.5000		Rectangular Ties	#3/Design	2/3	N/A
C15x25		Rectangular Ties	#3/Design	2/3	N/A
4.5000		Rectangular Ties	#3/Design	2/3	N/A
C15x30		Rectangular Ties	#5/Design	3/2	N/A
4.5000		Rectangular Ties	#5/Design	3/3	N/A
CF20x40		Rectangular Ties	#5/Design	3/3	N/A
4.5700		Rectangular Ties	#5/Design	3/3	N/A
CF20x60		Rectangular Ties	#4/Design	3/2	N/A
4.5700		Rectangular Ties	#4/Design	3/2	N/A
CF		Rectangular Ties	#5/Design	2/3	N/A
4.5700		Rectangular Ties	#5/Design	3/3	N/A
C25x35		Rectangular Ties	#5/Design	3/3	N/A
4.5000		Rectangular Ties	#5/Design	3/3	N/A
C25x40		Rectangular Ties	#4/Design	3/3	N/A
4.0000		Rectangular Ties	#4/Design	3/3	N/A
C25x25		Rectangular Ties	#6/Design	3/3	N/A
4.5700		Rectangular Ties	#6/Design	3/3	N/A
C45x45		Rectangular Ties	#5/Design	3/3	N/A
5.5000		Rectangular Ties	#5/Design	3/3	N/A
C30x30		Rectangular Ties	#5/Design	3/3	N/A
4.5000		Circular Spiral	#5/Design	N/A	6
CC30		Rectangular Ties	#4/Design	3/3	N/A
4.0000		Rectangular Ties	#5/Design	2/4	N/A
C20x40		Rectangular Ties	#4/Design	3/3	N/A
4.0000		Rectangular Ties	#5/Design	3/3	N/A
C20x50		Rectangular Ties	#4/Design	3/3	N/A
4.0000		Rectangular Ties	#5/Design	3/4	N/A
C20x25		Rectangular Ties	#5/Design	3/3	N/A
2.5000		Rectangular Ties	#5/Design	3/3	N/A
C25x50		Rectangular Ties	#5/Design	3/3	N/A
5.0000		Rectangular Ties	#5/Design	3/3	N/A
C40x40		Rectangular Ties	#7/Design	3/3	N/A
5.0000		Rectangular Ties	#8/Design	3/3	N/A
C50x50		Rectangular Ties	#8/Design	3/3	N/A
6.0000		Rectangular Ties	#9/Design	3/3	N/A
C35x60		Rectangular Ties	#4/Design	3/3	N/A
6.5000		Rectangular Ties	#6/Design	3/3	N/A
C30x45		Rectangular Ties	#7/Design	3/3	N/A
5.5000		Rectangular Ties	#6/Design	3/3	N/A
C35x50		Rectangular Ties	#6/Design	3/3	N/A
4.5720		Rectangular Ties	#6/Design	3/3	N/A
C35x35		Rectangular Ties	#7/Design	3/3	N/A
5.5000		Rectangular Ties	#6/Design	3/3	N/A
C40x50		Rectangular Ties	#6/Design	3/3	N/A
5.0000		Rectangular Ties	#7/Design	3/3	N/A
C55x55		Rectangular Ties	#6/Design	3/3	N/A
6.5000		Rectangular Ties	#6/Design	3/3	N/A
C40x45		Rectangular Ties	#6/Design	3/3	N/A
5.0000		Circular Spiral	#3/Design	N/A	6
CC20		Circular Spiral	#4/Design	N/A	6
3.5000		Circular Spiral	#5/Design	N/A	6
CC25		Circular Spiral	#5/Design	N/A	6
3.5000		Circular Spiral	#6/Design	N/A	6
CC35		Circular Spiral	#8/Design	N/A	6
4.0000		Circular Spiral	#6/Design	N/A	6
CC40		Circular Spiral	#6/Design	N/A	6
4.5000		Circular Spiral	#8/Design	N/A	6
CC45		Rectangular Ties	#5/Design	3/3	N/A
4.5000		Rectangular Ties	#5/Design	3/3	N/A
CC50		Rectangular Ties	#5/Design	3/3	N/A
5.5000		Rectangular Ties	#5/Design	3/3	N/A
C30x40		Rectangular Ties	#5/Design	3/3	N/A
5.0000		Rectangular Ties	#5/Design	3/3	N/A
C15x40		Rectangular Ties	#4/Design	3/3	N/A

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INGENIERO CIVIL  
REGISTRO No. 8 C - 1606  
M. O. P. - V. M. V. D. U. EL SALVADOR, C. A.



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4.5700 C45x55	Rectangular Ties	#7/Design	4/3	N/A
5.5000 C40x60	Rectangular Ties	#6/Design	3/3	N/A
5.5000 C70x70	Rectangular Ties	#6/Design	4/4	N/A
5.5000 C50x55	Rectangular Ties	#7/Design	3/3	N/A
6.5000 C50x60	Rectangular Ties	#7/Design	3/3	N/A
6.0000 C55x60	Rectangular Ties	#7/Design	3/3	N/A
6.5000 C35x45	Rectangular Ties	#5/Design	3/3	N/A
5.5000 CC60	Circular Ties	#7/Design	N/A	12
6.5000 C45x80	Rectangular Ties	#5/Design	4/6	N/A
5.5000 C10x40	Rectangular Ties	#3A/Design	2/4	N/A
4.0000 C30x60	Rectangular Ties	#6/Design	3/3	N/A
5.5000				

CONCRETE BEAM DATA

RIGHT FRAME SECTION NAME AREA	TOP COVER	BOT COVER	TOP LEFT AREA	TOP RIGHT AREA	BOT LEFT AREA	BOT
ConcBm	4.5720	4.5720	0.00	0.00	0.00	
0.00						
VC15x15	3.0000	3.0000	0.00	0.00	0.00	
0.00						
VC15x20	3.5000	3.5000	0.00	0.00	0.00	
0.00						
VC15x25	3.5000	3.5000	0.00	0.00	0.00	
0.00						
VC15x30	4.0000	4.0000	0.00	0.00	0.00	
0.00						
VC15x35	4.0000	4.0000	0.00	0.00	0.00	
0.00						
VC15x40	4.0000	4.0000	0.00	0.00	0.00	
0.00						
VC20x20	4.0000	4.0000	0.00	0.00	0.00	
0.00						
VC20x25	3.5000	3.5000	0.00	0.00	0.00	
0.00						
VC20x30	3.5000	3.5000	0.00	0.00	0.00	
0.00						
VC20x35	4.0000	4.0000	0.00	0.00	0.00	
0.00						
VC20x40	4.5000	4.5000	0.00	0.00	0.00	
0.00						
VC25x40	5.0000	5.0000	0.00	0.00	0.00	
0.00						
VN25x20	3.5000	3.5000	0.00	0.00	0.00	
0.00						
VC25x45	5.0000	5.0000	0.00	0.00	0.00	
0.00						
VN35x20	3.5000	3.5000	0.00	0.00	0.00	
0.00						
VN40x20	3.5000	3.5000	0.00	0.00	0.00	
0.00						
SF50x30	4.0000	6.0000	0.00	0.00	0.00	
0.00						
SF50x35	4.0000	6.0000	0.00	0.00	0.00	
0.00						
SF45x35	4.0000	6.0000	0.00	0.00	0.00	
0.00						
VC25x50	5.0000	5.0000	0.00	0.00	0.00	
0.00						
SF100x25	5.5000	5.5000	0.00	0.00	0.00	
0.00						
SFT100-25x50	6.5000	6.5000	0.00	0.00	0.00	
0.00						
SF60x35	5.0000	6.5000	0.00	0.00	0.00	
0.00						
C10x10	1.5000	1.5000	0.00	0.00	0.00	
0.00						
SF40x30	3.0000	5.0000	0.00	0.00	0.00	
0.00						
T25x25	3.0000	5.0000	0.00	0.00	0.00	
0.00						

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VC15x10	2.0000	2.0000			0.00	0.00	0.00
0.00							
SF50x25	4.0000	4.0000			0.00	0.00	0.00
0.00							
T20x20	3.0000	3.0000			0.00	0.00	0.00
0.00							
SF40x25	3.0000	3.0000			0.00	0.00	0.00
0.00							
SF75x30	4.0000	4.0000			0.00	0.00	0.00
0.00							
VC30x45	5.5000	5.5000			0.00	0.00	0.00
0.00							
VC30x40	5.0000	5.0000			0.00	0.00	0.00
0.00							
VC35x40	4.0000	4.0000			0.00	0.00	0.00
0.00							
SF40x40	4.0000	4.0000			0.00	0.00	0.00
0.00							
VC40x45	500.0000	500.0000			0.00	0.00	0.00
0.00							
VF45x30	3.5000	5.0000			0.00	0.00	0.00
0.00							
VF55x35	3.5000	5.0000			0.00	0.00	0.00
0.00							
VF40x30	3.5000	5.0000			0.00	0.00	0.00
0.00							
SF60x45	4.0000	7.5000			0.00	0.00	0.00
0.00							
SF60x40	4.0000	7.0000			0.00	0.00	0.00
0.00							
VC10x15	1.5000	1.5000			0.00	0.00	0.00
0.00							
SF70x25	4.0000	7.5000			0.00	0.00	0.00
0.00							
SF55x25	4.0000	7.5000			0.00	0.00	0.00
0.00							
SF45x25	4.0000	7.5000			0.00	0.00	0.00
0.00							
T25x35	4.0000	7.5000			0.00	0.00	0.00
0.00							
VC25x55	5.5000	5.5000			0.00	0.00	0.00
0.00							
VC30x55	5.0000	6.0000			0.00	0.00	0.00
0.00							
VC30x60	6.0000	6.5000			0.00	0.00	0.00
0.00							
T30x30	5.0000	5.0000			0.00	0.00	0.00
0.00							
SF75x35	5.0000	5.0000			0.00	0.00	0.00
0.00							
SF30x20	4.0000	7.5000			0.00	0.00	0.00
0.00							
VC30x50	5.0000	6.0000			0.00	0.00	0.00
0.00							
VC20x45	4.5000	4.5000			0.00	0.00	0.00
0.00							
VC15x45	4.5000	5.5000			0.00	0.00	0.00
0.00							
VC10x23	2.0000	2.0000			0.00	0.00	0.00
0.00							
VC10x25	2.0000	2.0000			0.00	0.00	0.00
0.00							
VC10x30	2.0000	2.0000			0.00	0.00	0.00
0.00							
VC20x12	2.0000	2.0000			0.00	0.00	0.00
0.00							
VC18x40	4.0000	4.0000			0.00	0.00	0.00
0.00							
VC20x15	3.0000	3.0000			0.00	0.00	0.00
0.00							
VC40x60	6.5000	6.5000			0.00	0.00	0.00
0.00							
VC20x80	0.0800	0.0800			0.00	0.00	0.00
0.00							
VC25x80	8.0000	8.0000			0.00	0.00	0.00
0.00							
VC30x75	7.5000	7.5000			0.00	0.00	0.00
0.00							
VC30x70	7.0000	7.0000			0.00	0.00	0.00
0.00							
VC30x80	8.0000	8.0000			0.00	0.00	0.00
0.00							
VC30x85	8.5000	8.5000			0.00	0.00	0.00
0.00							
VC30x65	6.5000	6.5000			0.00	0.00	0.00
0.00							

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VC35x75	7.5000	7.5000	0.00	0.00	0.00			
0.00								
VC40x75	7.5000	7.5000	0.00	0.00	0.00			
0.00								
VC25x75	7.5000	7.5000	0.00	0.00	0.00			
0.00								
VC35x80	8.0000	8.0000	0.00	0.00	0.00			
0.00								
VF70x35	3.5000	3.5000	0.00	0.00	0.00			
0.00								
VF70x30	3.0000	3.0000	0.00	0.00	0.00			
0.00								
VF55x30	3.0000	3.0000	0.00	0.00	0.00			
0.00								
VC20x55	5.5000	5.5000	0.00	0.00	0.00			
0.00								
VC25x60	6.0000	6.0000	0.00	0.00	0.00			
0.00								
VC20x60	6.0000	6.0000	0.00	0.00	0.00			
0.00								
VC75x45	5.0000	5.0000	0.00	0.00	0.00			
0.00								
VC45x20	4.0000	4.0000	0.00	0.00	0.00			
0.00								
VC45x45	4.5000	4.5000	0.00	0.00	0.00			
0.00								
VC60x45	4.5000	4.5000	0.00	0.00	0.00			
0.00								
VC100x45	4.5000	4.5000	0.00	0.00	0.00			
0.00								
VC45x30	4.0000	4.0000	0.00	0.00	0.00			
0.00								

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SHELL SECTION PROPERTY DATA

SHELL SECTION	MATERIAL NAME	SHELL TYPE	LOAD DIST ONE WAY	MEMBRANE THICK	BENDING THICK	TOTAL WEIGHT	TOTAL MASS
WALL1	CONC	Shell-Thin	No	25.0000	25.0000	0.0000	0.0000
SLAB1	CONC	Shell-Thin	No	25.0000	25.0000	0.0000	0.0000
LAMDEC2MM	A33	Membrane	No	0.2000	0.2000	0.0000	0.0000
PLANK1	CONC	Membrane	Yes	25.0000	25.0000	0.0000	0.0000
CPRS	FC210FY2800	Membrane	Yes	12.0000	12.0000	0.0000	0.0000
LD13EF	FC210FY2800	Shell-Thin	No	13.0000	13.0000	94.8969	0.0967
PB10	MBLOQ	Shell-Thin	No	8.0000	8.0000	0.0000	0.0000
PB20	MBLOQ	Shell-Thin	No	17.0000	17.0000	0.0000	0.0000
PC15	FC210FY2800	Shell-Thin	No	15.0000	15.0000	0.0000	0.0000
PC20	FC245FY4200	Shell-Thin	No	20.0000	20.0000	0.0000	0.0000
PB15	MBLOQ	Shell-Thin	No	12.0000	12.0000	88.5618	0.0886
FIB1PLG	FIBRLT	Membrane	Yes	2.5000	2.5000	0.0000	0.0000
LD10	FC210FY2800	Membrane	No	10.0000	10.0000	0.0000	0.0000
LADB10	LADB	Shell-Thin	No	10.0000	10.0000	0.0000	0.0000
LADB15	LADB	Shell-Thin	No	15.0000	15.0000	0.0000	0.0000
LDEF20	FC280FY4200	Shell-Thin	No	20.0000	20.0000	0.0000	0.0000
LDEFUD20	FC280FY4200	Shell-Thin	Yes	20.0000	20.0000	0.0000	0.0000
PC8	FC210FY2800	Shell-Thin	No	8.0000	8.0000	0.0000	0.0000
PC10	FC210FY2800	Shell-Thin	No	10.0000	10.0000	0.0000	0.0000
PB40	MBLOQ	Shell-Thin	No	38.0000	38.0000	0.0000	0.0000
PB30	MBLOQ	Shell-Thin	No	30.0000	30.0000	0.0000	0.0000
PC25	FC245FY4200	Shell-Thin	No	25.0000	25.0000	0.0000	0.0000
Z150X150	FC210FY2800	Shell-Thin	No	150.0000	150.0000	0.0000	0.0000
PB15LL	MBLOQ	Shell-Thin	No	15.0000	15.0000	0.0000	0.0000
PB20LL	MBLOQ	Shell-Thin	No	20.0000	20.0000	0.0000	0.0000
DCK63245	FC245FY4200	Membrane	No	6.5000	6.5000	0.0000	0.0000
LGLV26	A33	Membrane	Yes	0.1280	0.1280	0.0000	0.0000
PC30	FC245FY4200	Shell-Thin	No	30.0000	30.0000	0.0000	0.0000
PC35	FC245FY4200	Shell-Thin	No	35.0000	35.0000	0.0000	0.0000
LD20	FC210FY2800	Shell-Thin	No	20.0000	20.0000	0.0000	0.0000
LOSA2MM	STEEL	Shell-Thin	No	0.1200	0.1200	0.0000	0.0000
LOSA25	FC210FY4200	Shell-Thin	No	25.0000	25.0000	0.0000	0.0000
PB25	MBLOQ	Shell-Thin	No	25.0000	25.0000	0.0000	0.0000
PB60	MBLOQ	Shell-Thin	No	60.0000	60.0000	0.0000	0.0000
LAM316	A36	Shell-Thin	No	0.4763	0.4756	0.0000	0.0000
LAM18	A36	Shell-Thin	No	0.3175	0.3175	0.0000	0.0000
LAM8MM	A50	Shell-Thin	No	0.8000	0.8000	0.0000	0.0000
PC40	FC245FY4200	Shell-Thin	No	40.0000	40.0000	0.0000	0.0000
PC45	FC245FY4200	Shell-Thin	No	45.0000	45.0000	0.0000	0.0000
PC50	FC245FY4200	Shell-Thin	No	50.0000	50.0000	0.0000	0.0000
PC55	FC245FY4200	Shell-Thin	No	55.0000	55.0000	0.0000	0.0000
PB50	MBLOQ	Shell-Thin	No	50.0000	50.0000	0.0000	0.0000
GLVD63T8	FC210FY2800	Membrane	No	8.0000	8.0000	0.0000	0.0000

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
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REPRO C-1606  
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STATIC LOAD CASES

STATIC CASE	CASE TYPE	AUTO LAT LOAD	SELF WT MULTIPLIER	NOTIONAL FACTOR	NOTIONAL DIRECTION
PP	DEAD	N/A	1.0000		
CMS	SUPER DEAD	N/A	0.0000		
CV	LIVE	N/A	0.0000		
EMP	OTHER	N/A	0.0000		
SY	QUAKE	UBC94	0.0000		
CMP	SUPER DEAD	N/A	0.0000		
SX	QUAKE	UBC94	0.0000		

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LOADING COMBINATIONS

COMBO	COMBO TYPE	CASE	CASE TYPE	SCALE FACTOR
COMB1	ADD	PP	Static	1.4000
		CMS	Static	1.4000
		CV	Static	1.7000
		EMP	Static	1.4000
COMB2	ADD	PP	Static	1.0500
		CMS	Static	1.0500
		CV	Static	1.2750
		EMP	Static	1.0500
		SX	Static	1.4000
		SY	Static	0.4200
COMB3	ADD	PP	Static	1.0500
		CMS	Static	1.0500
		CV	Static	1.2750
		EMP	Static	1.0500
		SX	Static	-1.4000
		SY	Static	-0.4200
COMB4	ADD	PP	Static	1.0500
		CMS	Static	1.0500
		CV	Static	1.2750
		EMP	Static	1.0500
		SX	Static	0.4200
		SY	Static	1.4000
COMB5	ADD	PP	Static	1.0500
		CMS	Static	1.0500
		CV	Static	1.2750
		EMP	Static	1.0500
		SX	Static	-0.4200
		SY	Static	-1.4000
COMB6	ADD	PP	Static	0.9000
		CMS	Static	0.9000
		EMP	Static	0.9000
		SX	Static	1.4000
		SY	Static	0.4200
COMB7	ADD	PP	Static	0.9000
		CMS	Static	0.9000
		EMP	Static	0.9000
		SX	Static	-1.4000
		SY	Static	-0.6300
COMB8	ADD	PP	Static	0.9000
		CMS	Static	0.9000
		EMP	Static	0.9000
		SX	Static	0.4200
		SY	Static	1.4000
COMB9	ADD	PP	Static	0.9000
		CMS	Static	0.9000
		EMP	Static	0.9000
		SX	Static	-1.4000
		SY	Static	-0.4200
COMBS1	ADD	PP	Static	1.0000
		CMS	Static	1.0000
		EMP	Static	1.0000
		CV	Static	1.0000
COMBS2	ADD	PP	Static	1.0000
		CMS	Static	1.0000
		EMP	Static	1.0000
		CV	Static	1.0000
		SX	Static	1.0000
		SY	Static	0.3000
COMB10	ADD	PP	Static	1.0000
		CMS	Static	1.0000
		EMP	Static	1.0000
		CV	Static	1.0000
		SX	Static	0.3000
		SY	Static	1.0000
DCON1	ADD	PP	Static	1.4000
		CMS	Static	1.4000

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**Marcos Miguel Sánchez Machuca**

**Ingeniero Civil**

**Consultoría y Construcción**



# ANÁLISIS SÍSMICO

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DCON2      ADD      CMP      Static      1.4000
            PP      Static      1.4000
            CMS      Static      1.4000
            CV      Static      1.7000
DCON3      ADD      CMP      Static      1.4000
            PP      Static      1.3305
            CMS      Static      1.3305
            CV      Static      1.2750
            CMP      Static      1.3305
            SY      Static      1.4025
DCON4      ADD      PP      Static      1.3305
            CMS      Static      1.3305
            CV      Static      1.2750
            CMP      Static      1.3305
            SY      Static      -1.4025
DCON5      ADD      PP      Static      1.3305
            CMS      Static      1.3305
            CV      Static      1.2750
            CMP      Static      1.3305
            SX      Static      1.4025
DCON6      ADD      PP      Static      1.3305
            CMS      Static      1.3305
            CV      Static      1.2750
            CMP      Static      1.3305
            SX      Static      -1.4025
DCON7      ADD      PP      Static      1.3305
            CMS      Static      1.3305
            CMP      Static      1.3305
            SY      Static      1.4025
DCON8      ADD      PP      Static      1.3305
            CMS      Static      1.3305
            CMP      Static      1.3305
            SY      Static      -1.4025
DCON9      ADD      PP      Static      1.3305
            CMS      Static      1.3305
            CMP      Static      1.3305
            SX      Static      1.4025
DCON10     ADD      PP      Static      1.3305
            CMS      Static      1.3305
            CMP      Static      1.3305
            SX      Static      -1.4025
DCON11     ADD      PP      Static      0.6140
            CMS      Static      0.6140
            CMP      Static      0.6140
            SY      Static      1.4300
DCON12     ADD      PP      Static      0.6140
            CMS      Static      0.6140
            CMP      Static      0.6140
            SY      Static      -1.4300
DCON13     ADD      PP      Static      0.6140
            CMS      Static      0.6140
            CMP      Static      0.6140
            SX      Static      1.4300
DCON14     ADD      PP      Static      0.6140
            CMS      Static      0.6140
            CMP      Static      0.6140
            SX      Static      -1.4300

```

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AUTO SEISMIC UBC94  
Case: SY

AUTO SEISMIC INPUT DATA

Direction: Y  
Typical Eccentricity = 5%  
Eccentricity Overrides: No

Period Calculation: Program Calculated  
Ct = 0.035 (in feet units)

Top Story: STORY5  
Bottom Story: STORY1

Rw = 6  
Z = 0.4  
S = 1.5  
I = 1.5  
hn = 475.000 (Building Height)

AUTO SEISMIC CALCULATION FORMULAS

Ta = Ct (hn^(3/4))



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If Z >= 0.35 (Zone 4) then: If Tetabs <= 1.30 Ta then T = Tetabs, else T = Ta  
 If Z < 0.35 (Zone 1, 2 or 3) then: If Tetabs <= 1.40 Ta then T = Tetabs, else T = Ta

$V = Z I C W / R_w$

$C = (1.25 S) / (T^{2/3})$

$C \leq 2.75$

$C \geq 0.075 R_w$ , that is,  $C \geq 0.4500$

If T <= 0.7 sec, then Ft = 0

If T > 0.7 sec, then Ft = 0.07 T V <= 0.25 V

AUTO SEISMIC CALCULATION RESULTS

Ta = 0.2745 sec  
 T Used = 0.3569 sec  
 C Used = 2.7500  
 W Used = 107.72

V Used = 0.2750W = 29.62

Ft Used = 0.00

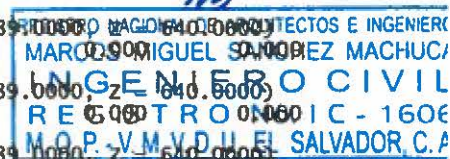
AUTO SEISMIC STORY FORCES

STORY	FX	FY	FZ	MX	MY	MZ
STORY5	(Forces reported at X = 0.0000, Y = 0.0000, Z = 875.0000)					
	0.00	0.00	0.00	0.000	0.000	0.000
STORY4	(Forces reported at X = 0.0000, Y = 0.0000, Z = 855.0000)					
	0.00	10.18	0.00	327.703	0.000	15650.221
STORY3	(Forces reported at X = 0.0000, Y = 0.0000, Z = 672.0000)					
	0.00	12.90	0.00	4.733	0.000	21422.097
STORY2	(Forces reported at X = 0.0000, Y = 0.0000, Z = 640.0000)					
	0.00	6.55	0.00	0.000	0.000	10058.599
STORY1	(Forces reported at X = 0.0000, Y = 0.0000, Z = 400.0000)					
	0.00	0.00	0.00	0.000	0.000	0.000



AUTO SEISMIC POINT FORCES

STORY	POINT	FX	FY	FZ	MX	MY	MZ
STORY2	2	(Point and forces located at X = 0.0000, Y = 996.0000, Z = 640.0000)					
		0.00	0.08	0.00	0.000	0.000	0.000
STORY2	1	(Point and forces located at X = 0.0000, Y = 289.0000, Z = 640.0000)					
		0.00	0.05	0.00	0.000	0.000	0.000
STORY2	4	(Point and forces located at X = 2353.0000, Y = 996.0000, Z = 640.0000)					
		0.00	0.07	0.00	0.000	0.000	0.000
STORY2	3	(Point and forces located at X = 2353.0000, Y = 289.0000, Z = 640.0000)					
		0.00	0.04	0.00	0.000	0.000	0.000
STORY2	6	(Point and forces located at X = 3339.0000, Y = 996.0000, Z = 640.0000)					
		0.00	0.05	0.00	0.000	0.000	0.000
STORY2	5	(Point and forces located at X = 2634.0000, Y = 996.0000, Z = 640.0000)					
		0.00	0.05	0.00	0.000	0.000	0.000
STORY2	7	(Point and forces located at X = 630.0000, Y = 289.0000, Z = 640.0000)					
		0.00	0.03	0.00	0.000	0.000	0.000
STORY2	8	(Point and forces located at X = 470.0000, Y = 289.0000, Z = 640.0000)					
		0.00	0.03	0.00	0.000	0.000	0.000
STORY2	11	(Point and forces located at X = 387.0000, Y = 289.0000, Z = 640.0000)					
		0.00	0.02	0.00	0.000	0.000	0.000
STORY2	12	(Point and forces located at X = 277.0000, Y = 289.0000, Z = 640.0000)					
		0.00	0.02	0.00	0.000	0.000	0.000
STORY2	14	(Point and forces located at X = 212.0000, Y = 289.0000, Z = 640.0000)					
		0.00	0.03	0.00	0.000	0.000	0.000
STORY2	15	(Point and forces located at X = 52.0000, Y = 289.0000, Z = 640.0000)					
		0.00	0.03	0.00	0.000	0.000	0.000



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STORY2	16	(Point and forces located at X = 703.0000, Y = 289.0000, Z = 640.0000)	0.00	0.05	0.00	0.000	0.000	0.000
STORY2	17	(Point and forces located at X = 65.0000, Y = 996.0000, Z = 640.0000)	0.00	0.02	0.00	0.000	0.000	0.000
STORY2	18	(Point and forces located at X = 307.0000, Y = 996.0000, Z = 640.0000)	0.00	0.02	0.00	0.000	0.000	0.000
STORY2	19	(Point and forces located at X = 387.0000, Y = 996.0000, Z = 640.0000)	0.00	0.02	0.00	0.000	0.000	0.000
STORY2	20	(Point and forces located at X = 626.0000, Y = 996.0000, Z = 640.0000)	0.00	0.02	0.00	0.000	0.000	0.000
STORY2	21	(Point and forces located at X = 703.0000, Y = 996.0000, Z = 640.0000)	0.00	0.07	0.00	0.000	0.000	0.000
STORY2	22	(Point and forces located at X = 1015.0000, Y = 996.0000, Z = 640.0000)	0.00	0.02	0.00	0.000	0.000	0.000
STORY2	23	(Point and forces located at X = 1255.0000, Y = 996.0000, Z = 640.0000)	0.00	0.02	0.00	0.000	0.000	0.000
STORY2	24	(Point and forces located at X = 1335.0000, Y = 996.0000, Z = 640.0000)	0.00	0.02	0.00	0.000	0.000	0.000
STORY2	25	(Point and forces located at X = 1575.0000, Y = 996.0000, Z = 640.0000)	0.00	0.02	0.00	0.000	0.000	0.000
STORY2	27	(Point and forces located at X = 1015.0000, Y = 289.0000, Z = 640.0000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	28	(Point and forces located at X = 1175.0000, Y = 289.0000, Z = 640.0000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	29	(Point and forces located at X = 1240.0000, Y = 289.0000, Z = 640.0000)	0.00	0.02	0.00	0.000	0.000	0.000
STORY2	30	(Point and forces located at X = 1350.0000, Y = 289.0000, Z = 640.0000)	0.00	0.02	0.00	0.000	0.000	0.000
STORY2	31	(Point and forces located at X = 1415.0000, Y = 289.0000, Z = 640.0000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	32	(Point and forces located at X = 1575.0000, Y = 289.0000, Z = 640.0000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	33	(Point and forces located at X = 943.0000, Y = 289.0000, Z = 640.0000)	0.00	0.05	0.00	0.000	0.000	0.000
STORY2	34	(Point and forces located at X = 1648.0000, Y = 289.0000, Z = 640.0000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	35	(Point and forces located at X = 943.0000, Y = 996.0000, Z = 640.0000)	0.00	0.07	0.00	0.000	0.000	0.000
STORY2	36	(Point and forces located at X = 1648.0000, Y = 996.0000, Z = 640.0000)	0.00	0.09	0.00	0.000	0.000	0.000
STORY2	37	(Point and forces located at X = 1720.0000, Y = 996.0000, Z = 640.0000)	0.00	0.02	0.00	0.000	0.000	0.000
STORY2	38	(Point and forces located at X = 1960.0000, Y = 996.0000, Z = 640.0000)	0.00	0.02	0.00	0.000	0.000	0.000
STORY2	39	(Point and forces located at X = 2040.0000, Y = 996.0000, Z = 640.0000)	0.00	0.02	0.00	0.000	0.000	0.000
STORY2	40	(Point and forces located at X = 2280.0000, Y = 996.0000, Z = 640.0000)	0.00	0.02	0.00	0.000	0.000	0.000
STORY2	41	(Point and forces located at X = 1720.0000, Y = 289.0000, Z = 640.0000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	42	(Point and forces located at X = 1880.0000, Y = 289.0000, Z = 640.0000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	43	(Point and forces located at X = 1945.0000, Y = 289.0000, Z = 640.0000)	0.00	0.02	0.00	0.000	0.000	0.000
STORY2	44	(Point and forces located at X = 2055.0000, Y = 289.0000, Z = 640.0000)	0.00	0.02	0.00	0.000	0.000	0.000
STORY2	45	(Point and forces located at X = 2120.0000, Y = 289.0000, Z = 640.0000)	0.00	0.03	0.00	0.000	0.000	0.000

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
 MARCO ANTONIO GUEZ MACHUCA  
 INGENIERO CIVIL  
 REGISTRO N.º C - 1606  
 M.O.P.-V.M.V.D.U. EL SALVADOR, C.A.



AUTO SEISMIC UBC94  
Case: SX

AUTO SEISMIC INPUT DATA

Direction: X  
Typical Eccentricity = 5%  
Eccentricity Overrides: No  
  
Period Calculation: Program Calculated  
Ct = 0.035 (in feet units)  
  
Top Story: STORY5  
Bottom Story: STORY1  
  
Rw = 6  
Z = 0.4  
S = 1.5  
I = 0.2  
hn = 475.000 (Building Height)

AUTO SEISMIC CALCULATION FORMULAS

Ta = Ct (hn^(3/4))  
  
If Z >= 0.35 (Zone 4) then: If Tetabs <= 1.30 Ta then T = Tetabs, else T = Ta  
If Z < 0.35 (Zone 1, 2 or 3) then: If Tetabs <= 1.40 Ta then T = Tetabs, else T = Ta  
  
V = Z I C W / Rw  
  
C = (1.25 S) / (T^(2/3))  
C <= 2.75  
C >= 0.075 Rw, that is, C >= 0.4500  
  
If T <= 0.7 sec, then Ft = 0  
If T > 0.7 sec, then Ft = 0.07 T V <= 0.25 V

AUTO SEISMIC CALCULATION RESULTS

Ta = 0.2745 sec  
T Used = 0.3447 sec  
C Used = 2.7500  
W Used = 107.72  
  
V Used = 0.0367W = 3.95  
  
Ft Used = 0.00



AUTO SEISMIC STORY FORCES

STORY	FX	FY	FZ	MX	MY	MZ
STORY5	(Forces reported at x = 0.0000, y = 0.0000, z = 875.0000)					
	0.00	0.00	0.00	0.000	0.000	0.000
STORY4	(Forces reported at x = 0.0000, y = 0.0000, z = 855.0000)					
	1.36	0.00	0.00	0.000	-43.694	-560.970
STORY3	(Forces reported at x = 0.0000, y = 0.0000, z = 672.0000)					
	1.72	0.00	0.00	0.000	-0.631	-1012.731
STORY2	(Forces reported at x = 0.0000, y = 0.0000, z = 640.0000)					
	0.87	0.00	0.00	0.000	0.000	-505.068
STORY1	(Forces reported at x = 0.0000, y = 0.0000, z = 400.0000)					
	0.00	0.00	0.00	0.000	0.000	0.000

AUTO SEISMIC POINT FORCES

STORY	POINT	FX	FY	FZ
STORY2	2	(Point and forces located at x = 0.0000, y = 996.0000, z = 640.0000)		
		0.01	0.00	0.000
STORY2	1	(Point and forces located at x = 0.0000, y = 289.0000, z = 640.0000)		
		0.01	0.00	0.000



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STORY2	4	(Point and forces located at x = 2353.0000, y = 996.0000, z = 640.0000)
		0.01 0.00 0.00 0.000 0.000 0.000
STORY2	3	(Point and forces located at x = 2353.0000, y = 289.0000, z = 640.0000)
		0.00 0.00 0.00 0.000 0.000 0.000
STORY2	6	(Point and forces located at x = 3339.0000, y = 996.0000, z = 640.0000)
		0.01 0.00 0.00 0.000 0.000 0.000
STORY2	5	(Point and forces located at x = 2634.0000, y = 996.0000, z = 640.0000)
		0.01 0.00 0.00 0.000 0.000 0.000
STORY2	7	(Point and forces located at x = 630.0000, y = 289.0000, z = 640.0000)
		0.00 0.00 0.00 0.000 0.000 0.000
STORY2	8	(Point and forces located at x = 470.0000, y = 289.0000, z = 640.0000)
		0.00 0.00 0.00 0.000 0.000 0.000
STORY2	11	(Point and forces located at x = 387.0000, y = 289.0000, z = 640.0000)
		0.00 0.00 0.00 0.000 0.000 0.000
STORY2	12	(Point and forces located at x = 277.0000, y = 289.0000, z = 640.0000)
		0.00 0.00 0.00 0.000 0.000 0.000
STORY2	14	(Point and forces located at x = 212.0000, y = 289.0000, z = 640.0000)
		0.00 0.00 0.00 0.000 0.000 0.000
STORY2	15	(Point and forces located at x = 52.0000, y = 289.0000, z = 640.0000)
		0.00 0.00 0.00 0.000 0.000 0.000
STORY2	16	(Point and forces located at x = 703.0000, y = 289.0000, z = 640.0000)
		0.01 0.00 0.00 0.000 0.000 0.000
STORY2	17	(Point and forces located at x = 65.0000, y = 996.0000, z = 640.0000)
		0.00 0.00 0.00 0.000 0.000 0.000
STORY2	18	(Point and forces located at x = 307.0000, y = 996.0000, z = 640.0000)
		0.00 0.00 0.00 0.000 0.000 0.000
STORY2	19	(Point and forces located at x = 387.0000, y = 996.0000, z = 640.0000)
		0.00 0.00 0.00 0.000 0.000 0.000
STORY2	20	(Point and forces located at x = 626.0000, y = 996.0000, z = 640.0000)
		0.00 0.00 0.00 0.000 0.000 0.000
STORY2	21	(Point and forces located at x = 703.0000, y = 996.0000, z = 640.0000)
		0.01 0.00 0.00 0.000 0.000 0.000
STORY2	22	(Point and forces located at x = 1015.0000, y = 996.0000, z = 640.0000)
		0.00 0.00 0.00 0.000 0.000 0.000
STORY2	23	(Point and forces located at x = 1255.0000, y = 996.0000, z = 640.0000)
		0.00 0.00 0.00 0.000 0.000 0.000
STORY2	24	(Point and forces located at x = 1335.0000, y = 996.0000, z = 640.0000)
		0.00 0.00 0.00 0.000 0.000 0.000
STORY2	25	(Point and forces located at x = 1575.0000, y = 996.0000, z = 640.0000)
		0.00 0.00 0.00 0.000 0.000 0.000
STORY2	27	(Point and forces located at x = 1015.0000, y = 289.0000, z = 640.0000)
		0.00 0.00 0.00 0.000 0.000 0.000
STORY2	28	(Point and forces located at x = 1175.0000, y = 289.0000, z = 640.0000)
		0.00 0.00 0.00 0.000 0.000 0.000
STORY2	29	(Point and forces located at x = 1240.0000, y = 289.0000, z = 640.0000)
		0.00 0.00 0.00 0.000 0.000 0.000
STORY2	30	(Point and forces located at x = 1350.0000, y = 289.0000, z = 640.0000)
		0.00 0.00 0.00 0.000 0.000 0.000
STORY2	31	(Point and forces located at x = 1415.0000, y = 289.0000, z = 640.0000)
		0.00 0.00 0.00 0.000 0.000 0.000
STORY2	32	(Point and forces located at x = 1575.0000, y = 289.0000, z = 640.0000)
		0.00 0.00 0.00 0.000 0.000 0.000
STORY2	33	(Point and forces located at x = 943.0000, y = 289.0000, z = 640.0000)
		0.01 0.00 0.00 0.000 0.000 0.000
STORY2	34	(Point and forces located at x = 1648.0000, y = 289.0000, z = 640.0000)
		0.00 0.00 0.00 0.000 0.000 0.000
STORY2	35	(Point and forces located at x = 943.0000, y = 996.0000, z = 640.0000)
		0.01 0.00 0.00 0.000 0.000 0.000

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCCS CIVIL EL SANCHO MACHUCA  
INGENIERO CIVIL  
REG. N.º 1606  
M.O.P. V.M.V.D.U. EL SALVADOR, C.A.

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STORY2	36	(Point and forces located at X = 1648.0000, Y = 996.0000, Z = 640.0000)
		0.01      0.00      0.00      0.000      0.000      0.000
STORY2	37	(Point and forces located at X = 1720.0000, Y = 996.0000, Z = 640.0000)
		0.00      0.00      0.00      0.000      0.000      0.000
STORY2	38	(Point and forces located at X = 1960.0000, Y = 996.0000, Z = 640.0000)
		0.00      0.00      0.00      0.000      0.000      0.000
STORY2	39	(Point and forces located at X = 2040.0000, Y = 996.0000, Z = 640.0000)
		0.00      0.00      0.00      0.000      0.000      0.000
STORY2	40	(Point and forces located at X = 2280.0000, Y = 996.0000, Z = 640.0000)
		0.00      0.00      0.00      0.000      0.000      0.000
STORY2	41	(Point and forces located at X = 1720.0000, Y = 289.0000, Z = 640.0000)
		0.00      0.00      0.00      0.000      0.000      0.000
STORY2	42	(Point and forces located at X = 1880.0000, Y = 289.0000, Z = 640.0000)
		0.00      0.00      0.00      0.000      0.000      0.000
STORY2	43	(Point and forces located at X = 1945.0000, Y = 289.0000, Z = 640.0000)
		0.00      0.00      0.00      0.000      0.000      0.000
STORY2	44	(Point and forces located at X = 2055.0000, Y = 289.0000, Z = 640.0000)
		0.00      0.00      0.00      0.000      0.000      0.000
STORY2	45	(Point and forces located at X = 2120.0000, Y = 289.0000, Z = 640.0000)
		0.00      0.00      0.00      0.000      0.000      0.000

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*mj*  
REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC - 1606  
M. O. P. - V. M. V. D. U. EL SALVADOR, C. A.

kinder22qbril2m.txt

DCON11	ADD	WY	Static	-1.2750
		PP	Static	0.9000
		CMS	Static	0.9000
DCON12	ADD	CMP	Static	0.9000
		WX	Static	1.3000
		PP	Static	0.9000
DCON13	ADD	CMS	Static	0.9000
		CMP	Static	0.9000
		WX	Static	-1.3000
DCON14	ADD	PP	Static	0.9000
		CMS	Static	0.9000
		CMP	Static	0.9000
DCON15	ADD	WY	Static	1.3000
		PP	Static	0.9000
		CMS	Static	0.9000
DCON16	ADD	CMP	Static	0.9000
		WY	Static	-1.3000
		PP	Static	1.3305
DCON17	ADD	CV	Static	1.2750
		CMS	Static	1.3305
		CMP	Static	1.3305
DCON18	ADD	SX	Static	2.1038
		PP	Static	1.3305
		CV	Static	1.2750
DCON19	ADD	CMS	Static	1.3305
		CMP	Static	1.3305
		SX	Static	-2.1038
DCON20	ADD	PP	Static	1.3305
		CV	Static	1.2750
		CMS	Static	1.3305
DCON21	ADD	CMP	Static	1.3305
		SY	Static	2.1038
		PP	Static	1.3305
DCON22	ADD	CV	Static	1.2750
		CMS	Static	1.3305
		CMP	Static	1.3305
DCON23	ADD	SY	Static	-2.1038
		PP	Static	1.3305
		CMS	Static	1.3305
DCON24	ADD	CMP	Static	1.3305
		SX	Static	2.1038
		PP	Static	1.3305
DCON25	ADD	CMS	Static	1.3305
		CMP	Static	1.3305
		SY	Static	2.1038
DCON26	ADD	PP	Static	1.3305
		CMS	Static	1.3305
		CMP	Static	1.3305
		SY	Static	-2.1038
		PP	Static	0.6140
		CMS	Static	0.6140
		CMP	Static	0.6140
		SX	Static	2.1450
		PP	Static	0.6140
		CMS	Static	0.6140
		CMP	Static	0.6140
		SY	Static	-2.1450
		PP	Static	0.6140
		CMS	Static	0.6140
		CMP	Static	0.6140
		SY	Static	2.1450
		PP	Static	0.6140
		CMS	Static	0.6140
		CMP	Static	0.6140
		SX	Static	-2.1450
		PP	Static	0.6140
		CMS	Static	0.6140
		CMP	Static	0.6140
		SY	Static	2.1450



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AUTO SEISMIC UBC94  
Case: SY

AUTO SEISMIC INPUT DATA

Direction: Y  
Typical Eccentricity = 5%  
Eccentricity Overrides: No

Period Calculation: Program Calculated  
Ct = 0.035 (in feet units)

Top Story: STORY4



kinder22qbril2m.txt

Bottom Story: STORY1

Rw = 10  
Z = 0.4  
S = 1.5  
I = 1.2  
hn = 7.270 (Building Height)

AUTO SEISMIC CALCULATION FORMULAS

$T_a = C_t (h_n^{3/4})$

If  $Z \geq 0.35$  (Zone 4) then: If  $T_{etabs} \leq 1.30 T_a$  then  $T = T_{etabs}$ , else  $T = T_a$   
If  $Z < 0.35$  (Zone 1, 2 or 3) then: If  $T_{etabs} \leq 1.40 T_a$  then  $T = T_{etabs}$ , else  $T = T_a$

$V = Z I C W / R_w$

$C = (1.25 S) / (T^{2/3})$   
 $C \leq 2.75$   
 $C \geq 0.075 R_w$ , that is,  $C \geq 0.7500$

If  $T \leq 0.7$  sec, then  $F_t = 0$   
If  $T > 0.7$  sec, then  $F_t = 0.07 T V \leq 0.25 V$

AUTO SEISMIC CALCULATION RESULTS

$T_a = 0.3778$  sec  
 $T$  Used =  $0.3683$  sec  
 $C$  Used =  $2.7500$   
 $W$  Used =  $204.52$

$V$  Used =  $0.1320W = 27.00$

$F_t$  Used =  $0.00$



AUTO SEISMIC STORY FORCES

STORY	FX	FY	FZ	MX	MY	MZ
STORY4 (Forces reported at X = 0.0000, Y = 0.0000, Z = 10.2700)	0.00	1.15	0.00	0.237	0.000	9.265
STORY3 (Forces reported at X = 0.0000, Y = 0.0000, Z = 8.8000)	0.00	9.57	0.00	0.000	0.000	55.407
STORY2 (Forces reported at X = 0.0000, Y = 0.0000, Z = 6.0000)	0.00	16.28	0.00	9.404	0.000	80.434
STORY1 (Forces reported at X = 0.0000, Y = 0.0000, Z = 3.0000)	0.00	0.00	0.00	0.000	0.000	0.000

AUTO SEISMIC POINT FORCES

STORY	POINT	FX	FY	FZ	MX	MY	MZ
STORY2	63	(Point and forces located at X = 2.3200, Y = 6.7000, Z = 6.0000)	0.00	1.16	0.00	0.000	0.000
STORY2	64	(Point and forces located at X = 9.3700, Y = 6.7000, Z = 6.0000)	0.00	1.08	0.00	0.000	0.000
STORY2	65	(Point and forces located at X = 9.3700, Y = 3.3500, Z = 6.0000)	0.00	1.48	0.00	0.000	0.000
STORY2	59	(Point and forces located at X = 2.3200, Y = 3.3500, Z = 6.0000)	0.00	1.71	0.00	0.000	0.000
STORY2	66	(Point and forces located at X = 2.3200, Y = 0.0000, Z = 6.0000)	0.00	1.15	0.00	0.000	0.000
STORY2	67	(Point and forces located at X = 9.3700, Y = 0.0000, Z = 6.0000)	0.00	0.94	0.00	0.000	0.000
STORY2	68	(Point and forces located at X = 0.0000, Y = 6.7000, Z = 6.0000)	0.00	0.47	0.00	0.000	0.000
STORY2	69	(Point and forces located at X = 0.0000, Y = 3.3500, Z = 6.0000)	0.00	0.62	0.00	0.000	0.000
STORY2	70	(Point and forces located at X = 0.0000, Y = 0.0000, Z = 6.0000)	0.00	0.43	0.00	0.000	0.000



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**REVISADO**

08 JUN. 2017

REGISTRO NACIONAL DE INGENIEROS CIVIL

MARCOS MIGUEL SANCHEZ MACHUCA

M.O.P.-V.M.A.-B.M.A. N° 1909

		(Point and forces located at X = 2.3200, Y = 8.7000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
		(Point and forces located at X = 0.0000, Y = 8.7000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	81	(Point and forces located at X = 3.3271, Y = 0.0000, Z = 6.0000)	0.00	0.08	0.00	0.000	0.000	0.000
STORY2	82	(Point and forces located at X = 4.3343, Y = 0.0000, Z = 6.0000)	0.00	0.08	0.00	0.000	0.000	0.000
STORY2	83	(Point and forces located at X = 5.3414, Y = 0.0000, Z = 6.0000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	73	(Point and forces located at X = 5.8450, Y = 0.0000, Z = 6.0000)	0.00	0.05	0.00	0.000	0.000	0.000
STORY2	84	(Point and forces located at X = 6.3486, Y = 0.0000, Z = 6.0000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	85	(Point and forces located at X = 7.3557, Y = 0.0000, Z = 6.0000)	0.00	0.08	0.00	0.000	0.000	0.000
STORY2	86	(Point and forces located at X = 8.3629, Y = 0.0000, Z = 6.0000)	0.00	0.08	0.00	0.000	0.000	0.000
STORY2	91	(Point and forces located at X = 3.3271, Y = 6.7000, Z = 6.0000)	0.00	0.08	0.00	0.000	0.000	0.000
STORY2	92	(Point and forces located at X = 4.3343, Y = 6.7000, Z = 6.0000)	0.00	0.08	0.00	0.000	0.000	0.000
STORY2	93	(Point and forces located at X = 5.3414, Y = 6.7000, Z = 6.0000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	80	(Point and forces located at X = 5.8450, Y = 6.7000, Z = 6.0000)	0.00	0.05	0.00	0.000	0.000	0.000
STORY2	94	(Point and forces located at X = 6.3486, Y = 6.7000, Z = 6.0000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	95	(Point and forces located at X = 7.3557, Y = 6.7000, Z = 6.0000)	0.00	0.08	0.00	0.000	0.000	0.000
STORY2	96	(Point and forces located at X = 8.3629, Y = 6.7000, Z = 6.0000)	0.00	0.08	0.00	0.000	0.000	0.000
STORY2	504	(Point and forces located at X = 0.2900, Y = 6.7000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	505	(Point and forces located at X = 0.2900, Y = 6.9500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	506	(Point and forces located at X = 0.0000, Y = 6.9500, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	507	(Point and forces located at X = 0.2900, Y = 7.2000, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	508	(Point and forces located at X = 0.0000, Y = 7.2000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	509	(Point and forces located at X = 0.2900, Y = 7.4500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	510	(Point and forces located at X = 0.0000, Y = 7.4500, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	511	(Point and forces located at X = 0.2900, Y = 7.7000, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	512	(Point and forces located at X = 0.0000, Y = 7.7000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	513	(Point and forces located at X = 0.2900, Y = 7.9500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	514	(Point and forces located at X = 0.0000, Y = 7.9500, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	515	(Point and forces located at X = 0.2900, Y = 8.2000, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	516	(Point and forces located at X = 0.0000, Y = 8.2000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000

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		0.00	0.00	0.00	0.000	0.000	0.000
STORY2	517	(Point and forces located at X = 0.2900, Y = 8.4500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000
STORY2	518	(Point and forces located at X = 0.0000, Y = 8.4500, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000
STORY2	519	(Point and forces located at X = 0.2900, Y = 8.7000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000
STORY2	520	(Point and forces located at X = 0.5800, Y = 6.7000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000
STORY2	521	(Point and forces located at X = 0.5800, Y = 6.9500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000
STORY2	522	(Point and forces located at X = 0.5800, Y = 7.2000, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000
STORY2	523	(Point and forces located at X = 0.5800, Y = 7.4500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000
STORY2	524	(Point and forces located at X = 0.5800, Y = 7.7000, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000
STORY2	525	(Point and forces located at X = 0.5800, Y = 7.9500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000
STORY2	526	(Point and forces located at X = 0.5800, Y = 8.2000, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000
STORY2	527	(Point and forces located at X = 0.5800, Y = 8.4500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000
STORY2	528	(Point and forces located at X = 0.5800, Y = 8.7000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000
STORY2	529	(Point and forces located at X = 0.8700, Y = 6.7000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000
STORY2	530	(Point and forces located at X = 0.8700, Y = 6.9500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000
STORY2	531	(Point and forces located at X = 0.8700, Y = 7.2000, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000
STORY2	532	(Point and forces located at X = 0.8700, Y = 7.4500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000
STORY2	533	(Point and forces located at X = 0.8700, Y = 7.7000, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000
STORY2	534	(Point and forces located at X = 0.8700, Y = 7.9500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000
STORY2	535	(Point and forces located at X = 0.8700, Y = 8.2000, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000
STORY2	536	(Point and forces located at X = 0.8700, Y = 8.4500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000
STORY2	537	(Point and forces located at X = 0.8700, Y = 8.7000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000
STORY2	146	(Point and forces located at X = 1.1600, Y = 6.7000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000
STORY2	538	(Point and forces located at X = 1.1600, Y = 6.9500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000
STORY2	539	(Point and forces located at X = 1.1600, Y = 7.2000, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000
STORY2	540	(Point and forces located at X = 1.1600, Y = 7.4500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000
STORY2	541	(Point and forces located at X = 1.1600, Y = 7.7000, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000
STORY2	542	(Point and forces located at X = 1.1600, Y = 7.9500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000
STORY2	543	(Point and forces located at X = 1.1600, Y = 8.2000, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000

**DIN - FIS**  
08 JUN. 2017  
**REVISAR**

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL GONZALEZ MACHO  
**INGENIERO CIVIL**  
REGISTRO No. IC-16  
M.O.P. V.M.V.D.U. EL SALVADOR

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STORY2	544	(Point and forces located at X = 1.1600, Y = 8.4500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	545	(Point and forces located at X = 1.1600, Y = 8.7000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	546	(Point and forces located at X = 1.4500, Y = 6.7000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	547	(Point and forces located at X = 1.4500, Y = 6.9500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	548	(Point and forces located at X = 1.4500, Y = 7.2000, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	549	(Point and forces located at X = 1.4500, Y = 7.4500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	550	(Point and forces located at X = 1.4500, Y = 7.7000, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	551	(Point and forces located at X = 1.4500, Y = 7.9500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	552	(Point and forces located at X = 1.4500, Y = 8.2000, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	553	(Point and forces located at X = 1.4500, Y = 8.4500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	554	(Point and forces located at X = 1.4500, Y = 8.7000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	555	(Point and forces located at X = 1.7400, Y = 6.7000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	556	(Point and forces located at X = 1.7400, Y = 6.9500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	557	(Point and forces located at X = 1.7400, Y = 7.2000, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	558	(Point and forces located at X = 1.7400, Y = 7.4500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	559	(Point and forces located at X = 1.7400, Y = 7.7000, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	560	(Point and forces located at X = 1.7400, Y = 7.9500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	561	(Point and forces located at X = 1.7400, Y = 8.2000, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	562	(Point and forces located at X = 1.7400, Y = 8.4500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	563	(Point and forces located at X = 1.7400, Y = 8.7000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	564	(Point and forces located at X = 2.0300, Y = 6.7000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	565	(Point and forces located at X = 2.0300, Y = 6.9500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	566	(Point and forces located at X = 2.0300, Y = 7.2000, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	567	(Point and forces located at X = 2.0300, Y = 7.4500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	568	(Point and forces located at X = 2.0300, Y = 7.7000, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	569	(Point and forces located at X = 2.0300, Y = 7.9500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	570	(Point and forces located at X = 2.0300, Y = 8.2000, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	571	(Point and forces located at X = 2.0300, Y = 8.4500, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000	0.000
STORY2	572	(Point and forces located at X = 2.0300, Y = 8.7000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000

DIN - FIS  
0.0000 8 JUN. 2017  
REVISAI

REGISTRO NACIONAL DE INGENIEROS E INGENIERAS  
MARCOS MIGUEL SANCHEZ MACHO  
INGENIERO CIVIL  
REGISTRO No. IC-16  
M. Ochoa V.M.V.D. de El Salvador



kinder22qbri12m.txt

STORY2	573	(Point and forces located at X = 2.3200, Y = 6.9500, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	574	(Point and forces located at X = 2.3200, Y = 7.2000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	575	(Point and forces located at X = 2.3200, Y = 7.4500, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	576	(Point and forces located at X = 2.3200, Y = 7.7000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	577	(Point and forces located at X = 2.3200, Y = 7.9500, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	578	(Point and forces located at X = 2.3200, Y = 8.2000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	579	(Point and forces located at X = 2.3200, Y = 8.4500, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	582	(Point and forces located at X = 3.1900, Y = 6.7000, Z = 6.0000)	0.00	0.08	0.00	0.000	0.000	0.000
STORY2	584	(Point and forces located at X = 6.8500, Y = 6.7000, Z = 6.0000)	0.00	0.16	0.00	0.000	0.000	0.000
STORY2	585	(Point and forces located at X = 2.3200, Y = 9.1000, Z = 6.0000)	0.00	0.44	0.00	0.000	0.000	0.000
STORY2	586	(Point and forces located at X = 0.0000, Y = 9.1000, Z = 6.0000)	0.00	0.17	0.00	0.000	0.000	0.000
STORY2	587	(Point and forces located at X = 0.2900, Y = 9.1000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	588	(Point and forces located at X = 0.5800, Y = 9.1000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	589	(Point and forces located at X = 0.8700, Y = 9.1000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	590	(Point and forces located at X = 1.1600, Y = 9.1000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	591	(Point and forces located at X = 1.4500, Y = 9.1000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	592	(Point and forces located at X = 1.7400, Y = 9.1000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	593	(Point and forces located at X = 2.0300, Y = 9.1000, Z = 6.0000)	0.00	0.00	0.00	0.000	0.000	0.000
STORY2	594	(Point and forces located at X = 9.3700, Y = 9.1000, Z = 6.0000)	0.00	0.43	0.00	0.000	0.000	0.000
STORY2	595	(Point and forces located at X = 3.1900, Y = 9.1000, Z = 6.0000)	0.00	0.08	0.00	0.000	0.000	0.000
STORY2	596	(Point and forces located at X = 6.8500, Y = 9.1000, Z = 6.0000)	0.00	0.16	0.00	0.000	0.000	0.000
STORY2	597	(Point and forces located at X = 0.7733, Y = 0.0000, Z = 6.0000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	598	(Point and forces located at X = 1.5467, Y = 0.0000, Z = 6.0000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	607	(Point and forces located at X = 8.3629, Y = 9.1000, Z = 6.0000)	0.00	0.04	0.00	0.000	0.000	0.000
STORY2	606	(Point and forces located at X = 7.3557, Y = 9.1000, Z = 6.0000)	0.00	0.04	0.00	0.000	0.000	0.000
STORY2	605	(Point and forces located at X = 6.3486, Y = 9.1000, Z = 6.0000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	601	(Point and forces located at X = 5.8450, Y = 9.1000, Z = 6.0000)	0.00	0.02	0.00	0.000	0.000	0.000
STORY2	604	(Point and forces located at X = 5.3414, Y = 9.1000, Z = 6.0000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	603	(Point and forces located at X = 4.3343, Y = 9.1000, Z = 6.0000)						

DIN - FISE  
 08 JUN. 2017  
 REVISAD

REGISTRO NACIONAL DE INGENIEROS E INGENIERAS  
 MARCOS MIGUEL SANCHEZ MACHUCA  
 INGENIERO CIVIL  
 REGISTRO No. IC - 1606  
 M. D. C.; V.Z.M.; V.D. SALVADOR, C.A.

DIN - FISDL  
08 JUN. 2017  
REVISADO

		0.00	kinder22qbril2m.txt 0.04	0.00	0.000	0.000	0.000
STORY2	602	(Point and forces located at X = 3.3271, Y = 9.1000, Z = 6.0000)	0.00	0.04	0.00	0.000	0.000
STORY2	609	(Point and forces located at X = 1.5467, Y = 9.1000, Z = 6.0000)	0.00	0.03	0.00	0.000	0.000
STORY2	608	(Point and forces located at X = 0.7733, Y = 9.1000, Z = 6.0000)	0.00	0.03	0.00	0.000	0.000
STORY2	610	(Point and forces located at X = 0.0000, Y = 5.8625, Z = 6.0000)	0.00	0.03	0.00	0.000	0.000
STORY2	611	(Point and forces located at X = 0.0000, Y = 5.0250, Z = 6.0000)	0.00	0.02	0.00	0.000	0.000
STORY2	612	(Point and forces located at X = 0.0000, Y = 4.1875, Z = 6.0000)	0.00	0.02	0.00	0.000	0.000
STORY2	613	(Point and forces located at X = 0.0000, Y = 2.5125, Z = 6.0000)	0.00	0.02	0.00	0.000	0.000
STORY2	614	(Point and forces located at X = 0.0000, Y = 1.6750, Z = 6.0000)	0.00	0.03	0.00	0.000	0.000
STORY2	615	(Point and forces located at X = 0.0000, Y = 0.8375, Z = 6.0000)	0.00	0.03	0.00	0.000	0.000
STORY2	616	(Point and forces located at X = 9.3700, Y = 8.5000, Z = 6.0000)	0.00	0.02	0.00	0.000	0.000
STORY2	617	(Point and forces located at X = 9.3700, Y = 7.9000, Z = 6.0000)	0.00	0.02	0.00	0.000	0.000
STORY2	277	(Point and forces located at X = 9.3700, Y = 7.3000, Z = 6.0000)	0.00	0.02	0.00	0.000	0.000
STORY2	618	(Point and forces located at X = 0.0000, Y = 8.3000, Z = 6.0000)	0.00	0.02	0.00	0.000	0.000
STORY2	619	(Point and forces located at X = 0.0000, Y = 7.5000, Z = 6.0000)	0.00	0.02	0.00	0.000	0.000
STORY2	620	(Point and forces located at X = 9.3700, Y = 5.8625, Z = 6.0000)	0.00	0.05	0.00	0.000	0.000
STORY2	621	(Point and forces located at X = 9.3700, Y = 5.0250, Z = 6.0000)	0.00	0.05	0.00	0.000	0.000
STORY2	622	(Point and forces located at X = 9.3700, Y = 4.1875, Z = 6.0000)	0.00	0.04	0.00	0.000	0.000
STORY2	623	(Point and forces located at X = 9.3700, Y = 2.5125, Z = 6.0000)	0.00	0.04	0.00	0.000	0.000
STORY2	624	(Point and forces located at X = 9.3700, Y = 1.6750, Z = 6.0000)	0.00	0.05	0.00	0.000	0.000
STORY2	625	(Point and forces located at X = 9.3700, Y = 0.8375, Z = 6.0000)	0.00	0.05	0.00	0.000	0.000
STORY2	626	(Point and forces located at X = 6.8500, Y = 7.5000, Z = 6.0000)	0.00	0.03	0.00	0.000	0.000
STORY2	627	(Point and forces located at X = 6.8500, Y = 8.3000, Z = 6.0000)	0.00	0.03	0.00	0.000	0.000
STORY2	788	(Point and forces located at X = 9.3700, Y = 3.7688, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000
STORY2	789	(Point and forces located at X = 9.3700, Y = 2.9313, Z = 6.0000)	0.00	0.01	0.00	0.000	0.000
STORY2	790-1	(Point and forces located at X = 3.2013, Y = 3.3500, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000
STORY2	791-1	(Point and forces located at X = 3.2013, Y = 4.1875, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000
STORY2	792-1	(Point and forces located at X = 2.3200, Y = 4.1875, Z = 3.2000)	0.00	0.03	0.00	0.000	0.000
STORY2	793-1	(Point and forces located at X = 3.2013, Y = 5.0250, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000

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MARCOS MACHUCA SANCHEZ MACHUCA  
INGENIERO CIVIL  
No. 006 - 1606  
O.P. - P.M. V.D.U. EL SALVADOR, C.A.

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STORY2	794-1	(Point and forces located at X = 2.3200, Y = 5.0250, Z = 3.2000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	795-1	(Point and forces located at X = 3.2013, Y = 5.8625, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	796-1	(Point and forces located at X = 2.3200, Y = 5.8625, Z = 3.2000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	797-1	(Point and forces located at X = 3.2013, Y = 6.7000, Z = 3.2000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	798-1	(Point and forces located at X = 4.0825, Y = 3.3500, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	799-1	(Point and forces located at X = 4.0825, Y = 4.1875, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	800-1	(Point and forces located at X = 4.0825, Y = 5.0250, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	801-1	(Point and forces located at X = 4.0825, Y = 5.8625, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	802-1	(Point and forces located at X = 4.0825, Y = 6.7000, Z = 3.2000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	803-1	(Point and forces located at X = 4.9638, Y = 3.3500, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	804-1	(Point and forces located at X = 4.9638, Y = 4.1875, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	805-1	(Point and forces located at X = 4.9638, Y = 5.0250, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	806-1	(Point and forces located at X = 4.9638, Y = 5.8625, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	807-1	(Point and forces located at X = 4.9638, Y = 6.7000, Z = 3.2000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	809-1	(Point and forces located at X = 5.8450, Y = 4.1875, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	810-1	(Point and forces located at X = 5.8450, Y = 5.0250, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	811-1	(Point and forces located at X = 5.8450, Y = 5.8625, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	812-1	(Point and forces located at X = 6.7263, Y = 3.3500, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	813-1	(Point and forces located at X = 6.7263, Y = 4.1875, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	814-1	(Point and forces located at X = 6.7263, Y = 5.0250, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	815-1	(Point and forces located at X = 6.7263, Y = 5.8625, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	816-1	(Point and forces located at X = 6.7263, Y = 6.7000, Z = 3.2000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	817-1	(Point and forces located at X = 7.6075, Y = 3.3500, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	818-1	(Point and forces located at X = 7.6075, Y = 4.1875, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	819-1	(Point and forces located at X = 7.6075, Y = 5.0250, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	820-1	(Point and forces located at X = 7.6075, Y = 5.8625, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	821-1	(Point and forces located at X = 7.6075, Y = 6.7000, Z = 3.2000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	822-1	(Point and forces located at X = 8.4888, Y = 3.3500, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	823-1	(Point and forces located at X = 8.4888, Y = 4.1875, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCO ANTONIO GONZALEZ SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO NO. 10000  
M.O.P. - V.M.N.D.U. EL SALVADOR, C.A.

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STORY2	824-1	(Point and forces located at X = 8.4888, Y = 5.0250, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	825-1	(Point and forces located at X = 8.4888, Y = 5.8625, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	826-1	(Point and forces located at X = 8.4888, Y = 6.7000, Z = 3.2000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	827-1	(Point and forces located at X = 3.2013, Y = 0.0000, Z = 3.2000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	828-1	(Point and forces located at X = 3.2013, Y = 0.8375, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	829-1	(Point and forces located at X = 2.3200, Y = 0.8375, Z = 3.2000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	830-1	(Point and forces located at X = 3.2013, Y = 1.6750, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	831-1	(Point and forces located at X = 2.3200, Y = 1.6750, Z = 3.2000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	832-1	(Point and forces located at X = 3.2013, Y = 2.5125, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	833-1	(Point and forces located at X = 2.3200, Y = 2.5125, Z = 3.2000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	834-1	(Point and forces located at X = 4.0825, Y = 0.0000, Z = 3.2000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	835-1	(Point and forces located at X = 4.0825, Y = 0.8375, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	836-1	(Point and forces located at X = 4.0825, Y = 1.6750, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	837-1	(Point and forces located at X = 4.0825, Y = 2.5125, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	838-1	(Point and forces located at X = 4.9638, Y = 0.0000, Z = 3.2000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	839-1	(Point and forces located at X = 4.9638, Y = 0.8375, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	840-1	(Point and forces located at X = 4.9638, Y = 1.6750, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	841-1	(Point and forces located at X = 4.9638, Y = 2.5125, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	842-1	(Point and forces located at X = 5.8450, Y = 0.8375, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	843-1	(Point and forces located at X = 5.8450, Y = 1.6750, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	844-1	(Point and forces located at X = 5.8450, Y = 2.5125, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	845-1	(Point and forces located at X = 6.7263, Y = 0.0000, Z = 3.2000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	846-1	(Point and forces located at X = 6.7263, Y = 0.8375, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	847-1	(Point and forces located at X = 6.7263, Y = 1.6750, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	848-1	(Point and forces located at X = 6.7263, Y = 2.5125, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	849-1	(Point and forces located at X = 7.6075, Y = 0.0000, Z = 3.2000)	0.00	0.03	0.00	0.000	0.000	0.000
STORY2	850-1	(Point and forces located at X = 7.6075, Y = 0.8375, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	851-1	(Point and forces located at X = 7.6075, Y = 1.6750, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000
STORY2	852-1	(Point and forces located at X = 7.6075, Y = 2.5125, Z = 3.2000)	0.00	0.06	0.00	0.000	0.000	0.000

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC - 1606  
M.D.P. - V. 11 JUN 2017

		kinder22qbri12m.txt					
		0.00	0.06	0.00	0.000	0.000	0.000
STORY2	853-1	(Point and forces located at X = 8.4888, Y = 0.0000, Z = 3.2000)					
		0.00	0.03	0.00	0.000	0.000	0.000
STORY2	854-1	(Point and forces located at X = 8.4888, Y = 0.8375, Z = 3.2000)					
		0.00	0.06	0.00	0.000	0.000	0.000
STORY2	855-1	(Point and forces located at X = 8.4888, Y = 1.6750, Z = 3.2000)					
		0.00	0.06	0.00	0.000	0.000	0.000
STORY2	856-1	(Point and forces located at X = 8.4888, Y = 2.5125, Z = 3.2000)					
		0.00	0.06	0.00	0.000	0.000	0.000

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AUTO SEISMIC UBC 94  
Case: SX

AUTO SEISMIC INPUT DATA

Direction: X  
Typical Eccentricity = 5%  
Eccentricity Overrides: No  
Period Calculation: Program Calculated  
Ct = 0.035 (in feet units)

Top Story: STORY4  
Bottom Story: STORY1

Rw = 10  
Z = 0.4  
S = 1.5  
I = 1.2  
hn = 7.270 (Building Height)



AUTO SEISMIC CALCULATION FORMULAS

$T_a = C_t (h_n^{3/4})$

If  $Z \geq 0.35$  (Zone 4) then: If  $T_{etabs} \leq 1.30 T_a$  then  $T = T_{etabs}$ , else  $T = T_a$   
If  $Z < 0.35$  (Zone 1, 2 or 3) then: If  $T_{etabs} \leq 1.40 T_a$  then  $T = T_{etabs}$ , else  $T = T_a$

$V = Z I C W / R_w$

$C = (1.25 S) / (T^{2/3})$   
 $C \leq 2.75$   
 $C \geq 0.075 R_w$ , that is,  $C \geq 0.7500$

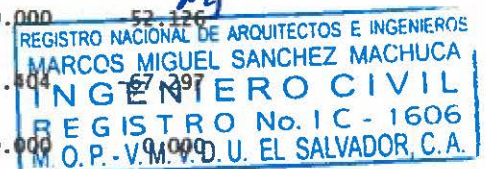
If  $T \leq 0.7$  sec, then  $F_t = 0$   
If  $T > 0.7$  sec, then  $F_t = 0.07 T V \leq 0.25 V$

AUTO SEISMIC CALCULATION RESULTS

$T_a = 0.3778$  sec  
 $T$  Used = 0.2910 sec  
 $C$  Used = 2.7500  
 $W$  Used = 204.52  
 $V$  Used = 0.1320W = 27.00  
 $F_t$  Used = 0.00

AUTO SEISMIC STORY FORCES

STORY	FX	FY	FZ	MX	MY	MZ
STORY4	(Forces reported at X = 0.0000, Y = 0.0000, Z = 10.2700)					
	1.15	0.00	0.00	0.000	-0.237	-4.793
STORY3	(Forces reported at X = 0.0000, Y = 0.0000, Z = 8.8000)					
	9.57	0.00	0.00	0.000	0.000	52.126
STORY2	(Forces reported at X = 0.0000, Y = 0.0000, Z = 6.0000)					
	16.28	0.00	0.00	0.000	-9.804	67.397
STORY1	(Forces reported at X = 0.0000, Y = 0.0000, Z = 3.0000)					
	0.00	0.00	0.00	0.000	0.000	0.000



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AUTO SEISMIC POINT FORCES

STORY	POINT	FX	FY	FZ	MX	MY	MZ
STORY4	594	(Point and forces located at X = 9.3700, Y = 9.1000, Z = 10.2700) 0.07	0.00	0.00	0.000	0.000	0.000
STORY4	67	(Point and forces located at X = 9.3700, Y = 0.0000, Z = 10.2700) 0.08	0.00	0.00	0.000	0.000	0.000
STORY4	64	(Point and forces located at X = 9.3700, Y = 6.7000, Z = 10.2700) 0.09	0.00	0.00	0.000	0.000	0.000
STORY4	625	(Point and forces located at X = 9.3700, Y = 0.8375, Z = 10.2700) 0.04	0.00	0.00	0.000	0.000	0.000
STORY4	624	(Point and forces located at X = 9.3700, Y = 1.6750, Z = 10.2700) 0.04	0.00	0.00	0.000	0.000	0.000
STORY4	623	(Point and forces located at X = 9.3700, Y = 2.5125, Z = 10.2700) 0.06	0.00	0.00	0.000	0.000	0.000
STORY4	622	(Point and forces located at X = 9.3700, Y = 4.1875, Z = 10.2700) 0.06	0.00	0.00	0.000	0.000	0.000
STORY4	621	(Point and forces located at X = 9.3700, Y = 5.0250, Z = 10.2700) 0.04	0.00	0.00	0.000	0.000	0.000
STORY4	620	(Point and forces located at X = 9.3700, Y = 5.8625, Z = 10.2700) 0.06	0.00	0.00	0.000	0.000	0.000
STORY4	277	(Point and forces located at X = 9.3700, Y = 7.3000, Z = 10.2700) 0.05	0.00	0.00	0.000	0.000	0.000
STORY4	617	(Point and forces located at X = 9.3700, Y = 7.9000, Z = 10.2700) 0.03	0.00	0.00	0.000	0.000	0.000
STORY4	616	(Point and forces located at X = 9.3700, Y = 8.5000, Z = 10.2700) 0.03	0.00	0.00	0.000	0.000	0.000
STORY4	65	(Point and forces located at X = 9.3700, Y = 3.3500, Z = 10.2700) 0.19	0.00	0.00	0.000	0.000	0.000
STORY4	628-1	(Point and forces located at X = 0.7733, Y = 3.3500, Z = 8.9213) 0.03	0.00	0.00	0.000	0.000	0.000
STORY4	629-1	(Point and forces located at X = 1.5467, Y = 3.3500, Z = 9.0426) 0.03	0.00	0.00	0.000	0.000	0.000
STORY4	59-1	(Point and forces located at X = 2.3200, Y = 3.3500, Z = 9.1640) 0.03	0.00	0.00	0.000	0.000	0.000
STORY4	630-1	(Point and forces located at X = 3.3271, Y = 3.3500, Z = 9.3220) 0.03	0.00	0.00	0.000	0.000	0.000
STORY4	631-1	(Point and forces located at X = 4.3343, Y = 3.3500, Z = 9.4800) 0.03	0.00	0.00	0.000	0.000	0.000
STORY4	632-1	(Point and forces located at X = 5.3414, Y = 3.3500, Z = 9.6380) 0.03	0.00	0.00	0.000	0.000	0.000
STORY4	633-1	(Point and forces located at X = 6.3486, Y = 3.3500, Z = 9.7960) 0.03	0.00	0.00	0.000	0.000	0.000
STORY4	634-1	(Point and forces located at X = 7.3557, Y = 3.3500, Z = 9.9540) 0.03	0.00	0.00	0.000	0.000	0.000
STORY4	635-1	(Point and forces located at X = 8.3629, Y = 3.3500, Z = 10.1120) 0.03	0.00	0.00	0.000	0.000	0.000
STORY3	66	(Point and forces located at X = 2.3200, Y = 0.0000, Z = 8.8000) 0.26	0.00	0.00	0.000	0.000	0.000
STORY3	67	(Point and forces located at X = 9.3700, Y = 0.0000, Z = 8.8000) 0.33	0.00	0.00	0.000	0.000	0.000
STORY3	73	(Point and forces located at X = 5.8450, Y = 0.0000, Z = 8.8000) 0.07	0.00	0.00	0.000	0.000	0.000
STORY3	65	(Point and forces located at X = 9.3700, Y = 0.0000, Z = 8.8000) 0.40	0.00	0.00	0.000	0.000	0.000
STORY3	63	(Point and forces located at X = 2.3200, Y = 0.0000, Z = 8.8000) 0.37	0.00	0.00	0.000	0.000	0.000

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
 MARCOS MIGUEL SANCHEZ MACHUCA  
 INGENIERO CIVIL  
 REGISTRO No. 10-1606  
 EL SALVADOR, C.A.

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STORY3	64	(Point and forces located at X = 9.3700, Y = 6.7000, Z = 8.8000)	0.78	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	81	(Point and forces located at X = 3.3271, Y = 0.0000, Z = 8.8000)	0.17	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	82	(Point and forces located at X = 4.3343, Y = 0.0000, Z = 8.8000)	0.18	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	83	(Point and forces located at X = 5.3414, Y = 0.0000, Z = 8.8000)	0.16	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	84	(Point and forces located at X = 6.3486, Y = 0.0000, Z = 8.8000)	0.17	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	85	(Point and forces located at X = 7.3557, Y = 0.0000, Z = 8.8000)	0.21	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	86	(Point and forces located at X = 8.3629, Y = 0.0000, Z = 8.8000)	0.21	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	80	(Point and forces located at X = 5.8450, Y = 6.7000, Z = 8.8000)	0.07	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	91	(Point and forces located at X = 3.3271, Y = 6.7000, Z = 8.8000)	0.18	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	92	(Point and forces located at X = 4.3343, Y = 6.7000, Z = 8.8000)	0.19	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	93	(Point and forces located at X = 5.3414, Y = 6.7000, Z = 8.8000)	0.16	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	94	(Point and forces located at X = 6.3486, Y = 6.7000, Z = 8.8000)	0.17	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	95	(Point and forces located at X = 7.3557, Y = 6.7000, Z = 8.8000)	0.20	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	96	(Point and forces located at X = 8.3629, Y = 6.7000, Z = 8.8000)	0.21	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	69	(Point and forces located at X = 0.0000, Y = 3.3500, Z = 8.8000)	0.15	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	68	(Point and forces located at X = 0.0000, Y = 6.7000, Z = 8.8000)	0.22	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	585	(Point and forces located at X = 2.3200, Y = 9.1000, Z = 8.8000)	0.34	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	594	(Point and forces located at X = 9.3700, Y = 9.1000, Z = 8.8000)	0.62	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	70	(Point and forces located at X = 0.0000, Y = 0.0000, Z = 8.8000)	0.20	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	586	(Point and forces located at X = 0.0000, Y = 9.1000, Z = 8.8000)	0.08	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	597	(Point and forces located at X = 0.7733, Y = 0.0000, Z = 8.8000)	0.09	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	598	(Point and forces located at X = 1.5467, Y = 0.0000, Z = 8.8000)	0.09	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	599	(Point and forces located at X = 0.7733, Y = 6.7000, Z = 8.8000)	0.04	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	600	(Point and forces located at X = 1.5467, Y = 6.7000, Z = 8.8000)	0.04	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	601	(Point and forces located at X = 5.8450, Y = 9.1000, Z = 8.8000)	0.07	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	602	(Point and forces located at X = 3.3271, Y = 9.1000, Z = 8.8000)	0.17	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	603	(Point and forces located at X = 4.3343, Y = 9.1000, Z = 8.8000)	0.18	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	604	(Point and forces located at X = 5.3414, Y = 9.1000, Z = 8.8000)	0.15	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	605	(Point and forces located at X = 6.3486, Y = 9.1000, Z = 8.8000)	0.16	0.00	0.00	0.000	0.000	0.000	0.000

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STORY3	606	(Point and forces located at X = 7.3557, Y = 9.1000, Z = 8.8000)	0.19	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	607	(Point and forces located at X = 8.3629, Y = 9.1000, Z = 8.8000)	0.20	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	608	(Point and forces located at X = 0.7733, Y = 9.1000, Z = 8.8000)	0.08	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	609	(Point and forces located at X = 1.5467, Y = 9.1000, Z = 8.8000)	0.09	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	610	(Point and forces located at X = 0.0000, Y = 5.8625, Z = 8.8000)	0.06	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	611	(Point and forces located at X = 0.0000, Y = 5.0250, Z = 8.8000)	0.05	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	612	(Point and forces located at X = 0.0000, Y = 4.1875, Z = 8.8000)	0.03	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	613	(Point and forces located at X = 0.0000, Y = 2.5125, Z = 8.8000)	0.05	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	614	(Point and forces located at X = 0.0000, Y = 1.6750, Z = 8.8000)	0.06	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	615	(Point and forces located at X = 0.0000, Y = 0.8375, Z = 8.8000)	0.06	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	616	(Point and forces located at X = 9.3700, Y = 8.5000, Z = 8.8000)	0.06	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	617	(Point and forces located at X = 9.3700, Y = 7.9000, Z = 8.8000)	0.06	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	277	(Point and forces located at X = 9.3700, Y = 7.3000, Z = 8.8000)	0.08	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	618	(Point and forces located at X = 0.0000, Y = 8.3000, Z = 8.8000)	0.05	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	619	(Point and forces located at X = 0.0000, Y = 7.5000, Z = 8.8000)	0.05	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	620	(Point and forces located at X = 9.3700, Y = 5.8625, Z = 8.8000)	0.09	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	621	(Point and forces located at X = 9.3700, Y = 5.0250, Z = 8.8000)	0.07	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	622	(Point and forces located at X = 9.3700, Y = 4.1875, Z = 8.8000)	0.07	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	623	(Point and forces located at X = 9.3700, Y = 2.5125, Z = 8.8000)	0.07	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	624	(Point and forces located at X = 9.3700, Y = 1.6750, Z = 8.8000)	0.07	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	625	(Point and forces located at X = 9.3700, Y = 0.8375, Z = 8.8000)	0.08	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	584	(Point and forces located at X = 6.8500, Y = 6.7000, Z = 8.8000)	0.35	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	596	(Point and forces located at X = 6.8500, Y = 9.1000, Z = 8.8000)	0.35	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	626	(Point and forces located at X = 6.8500, Y = 7.5000, Z = 8.8000)	0.06	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	627	(Point and forces located at X = 6.8500, Y = 8.3000, Z = 8.8000)	0.06	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	788	(Point and forces located at X = 9.3700, Y = 3.7688, Z = 8.8000)	0.02	0.00	0.00	0.000	0.000	0.000	0.000
STORY3	789	(Point and forces located at X = 9.3700, Y = 2.9345, Z = 8.8000)	0.02	0.00	0.00	0.000	0.000	0.000	0.000

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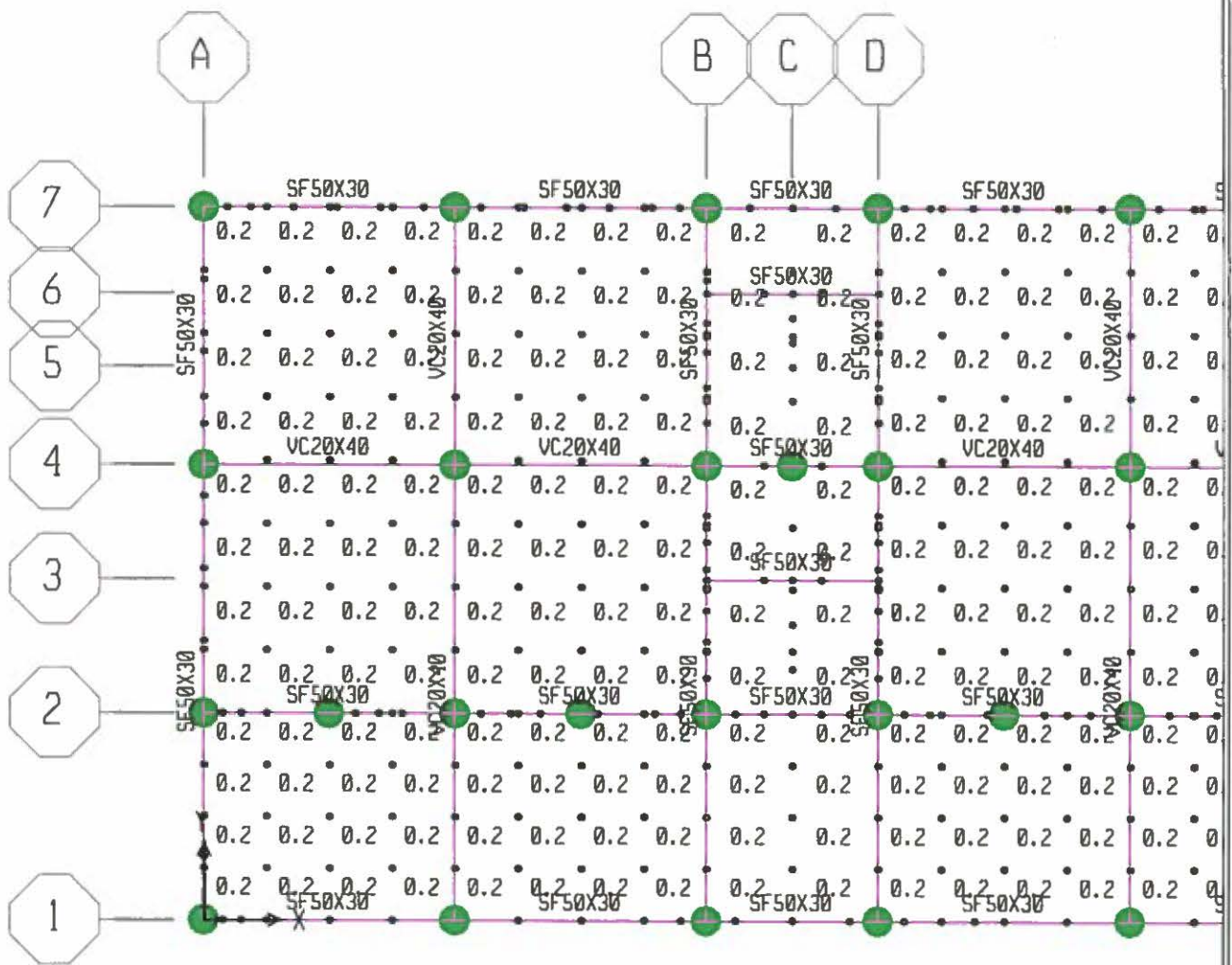
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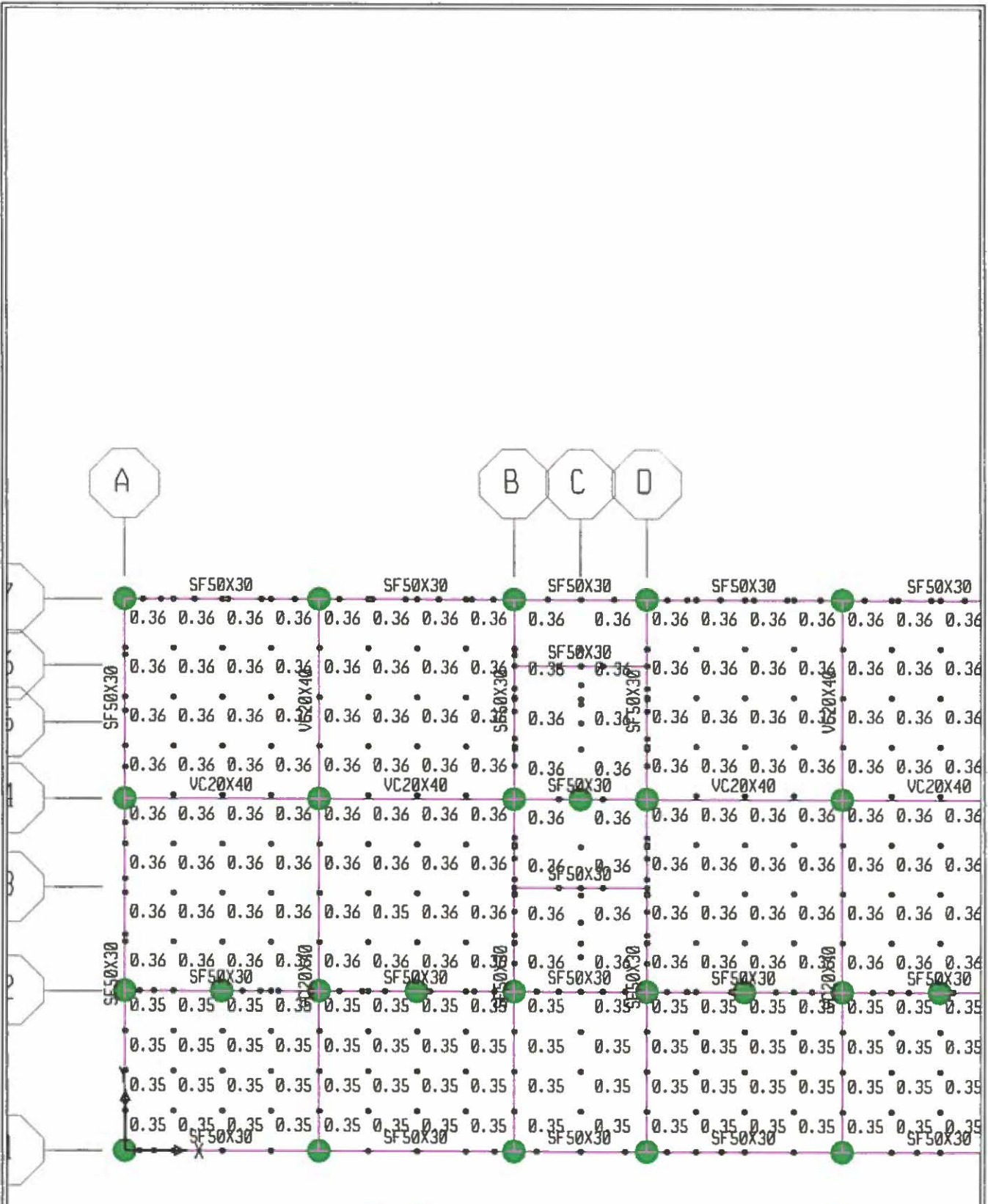
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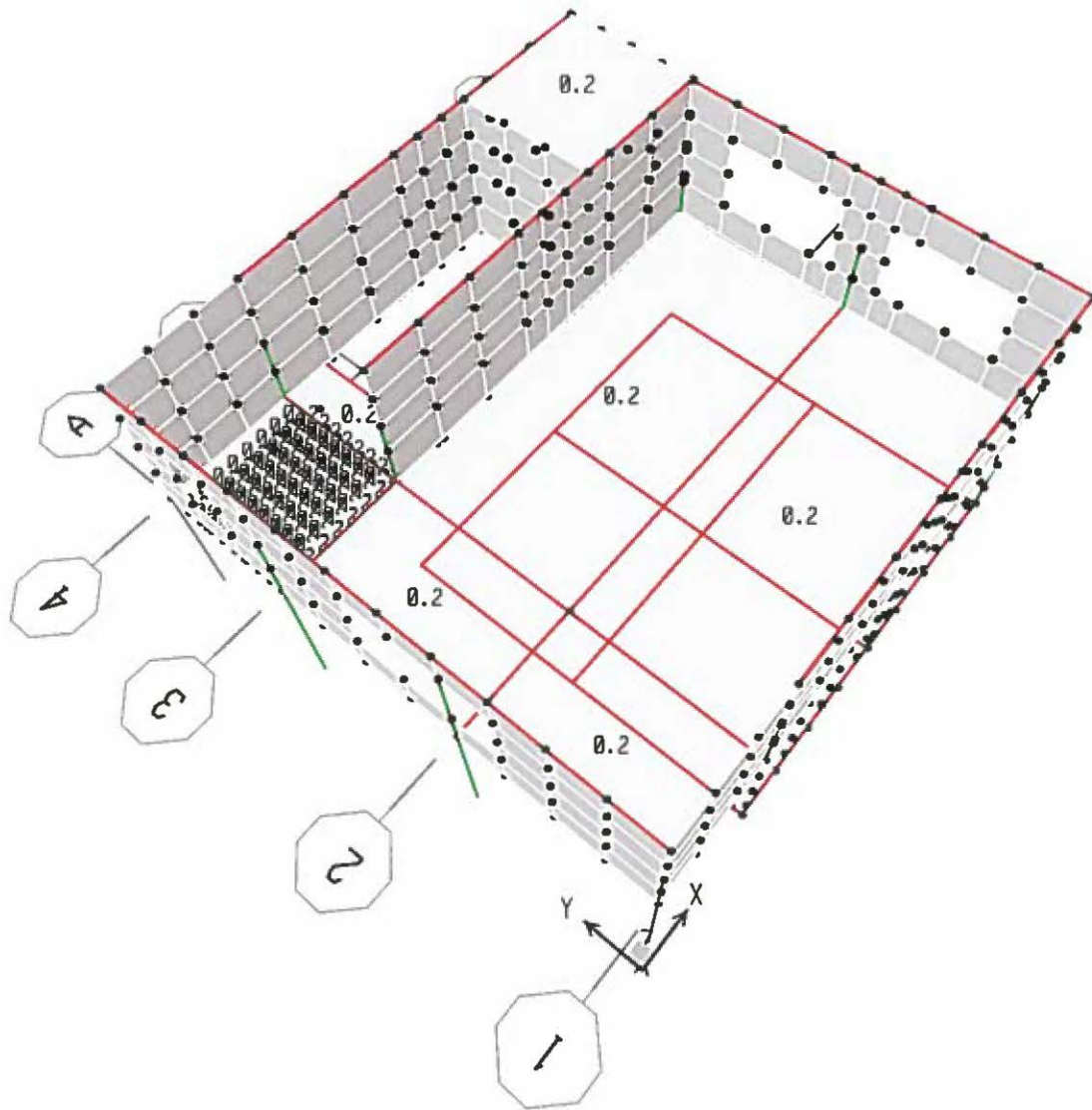
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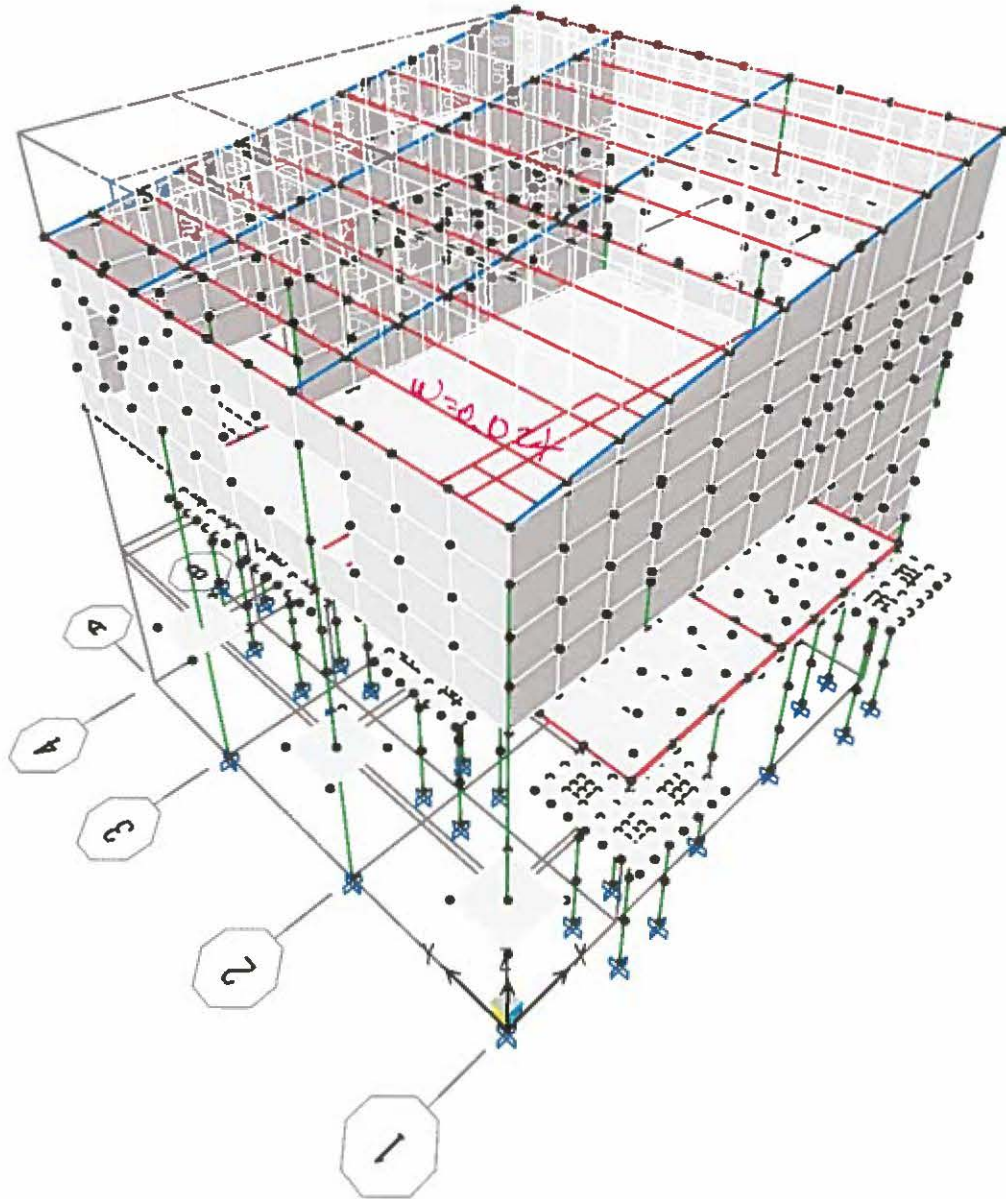
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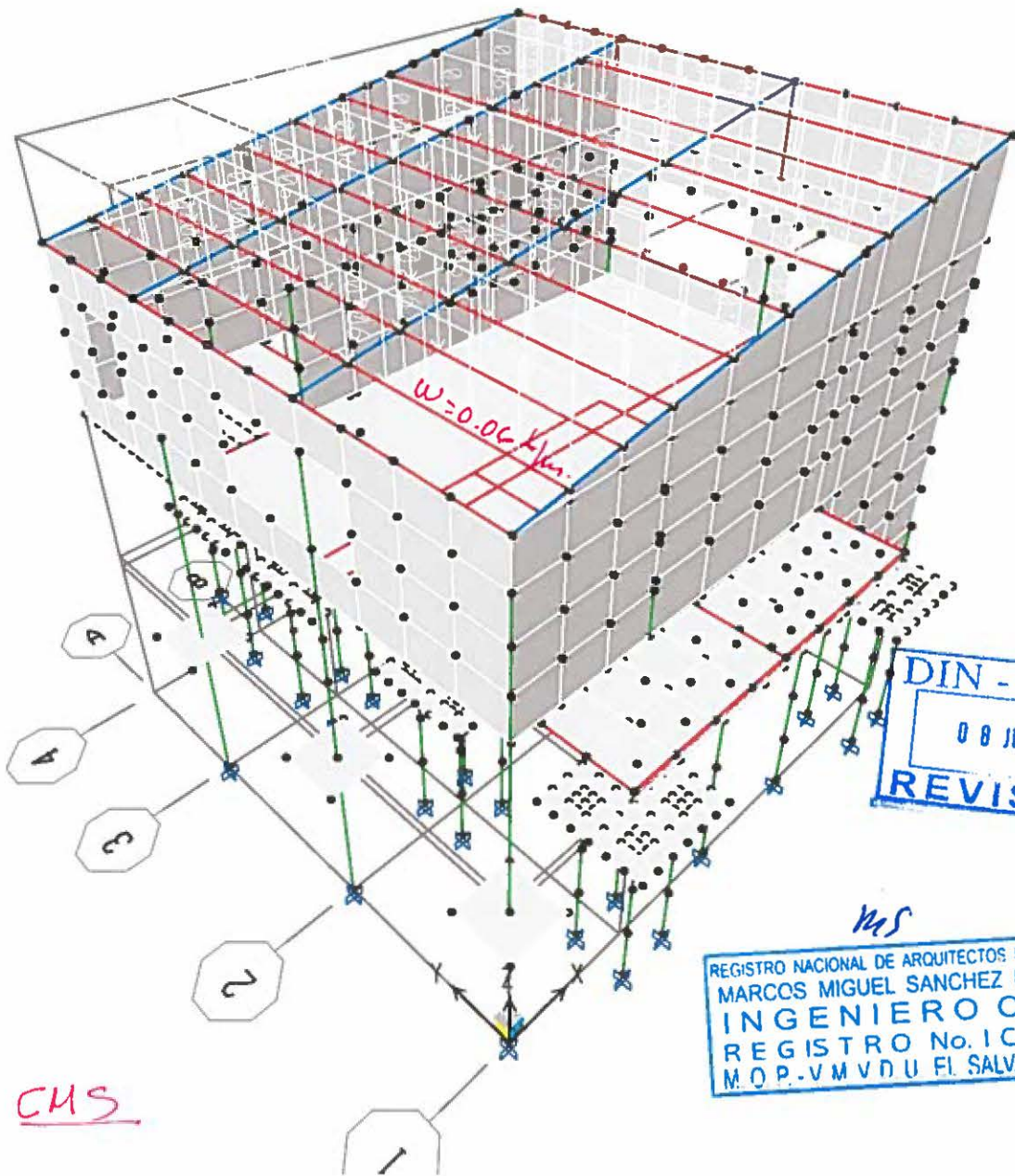
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REGISTRO No. IC - 1606  
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**Marcos Miguel Sánchez Machuca**

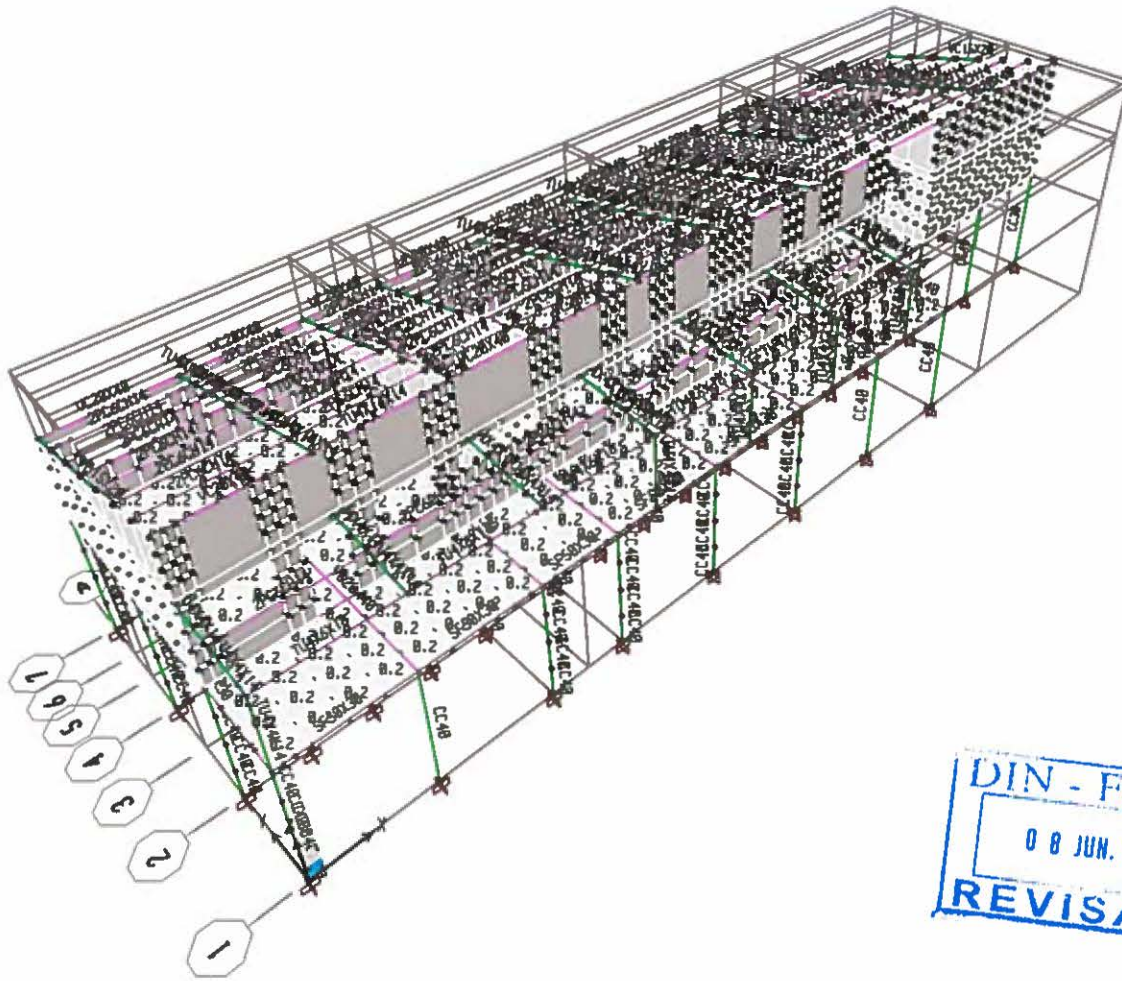
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## **FUERZAS EN MIEMBROS ESTRUCTURALES**







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## **DISEÑO DE ELEMENTOS ESTRUCTURALES**



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CONCRETE COLUMN DESIGN OUTPUT (ACI 318-99)

BIAXIAL P-M INTERACTION AND SHEAR DESIGN OF COLUMN-TYPE ELEMENTS

STORY ID	COLUMN LINE	SECTION ID	STATION ID	REQUIRED REINFORCING					
				LONGITUDINAL	COMBO	SHEAR22	COMBO	SHEAR33	COMBO
STORY1	C23	CC30	0.000	7.07	COMB10	0.000	COMB10	0.000	COMB10
STORY1	C23	CC30	180.000	7.07	COMB10	0.000	COMB10	0.000	COMB10
STORY1	C23	CC30	360.000	7.07	COMB10	0.038	COMB9	0.038	COMB9
STORY1	C5-4	CC40	0.000	12.57	COMB10	0.033	COMB10	0.033	COMB10
STORY1	C5-4	CC40	30.000	12.57	COMB10	0.033	COMB10	0.033	COMB10
STORY1	C5-4	CC40	60.000	12.57	COMB10	0.033	COMB10	0.033	COMB10
STORY1	C7-4	CC40	0.000	12.57	COMB10	0.052	COMB8	0.051	COMB8
STORY1	C7-4	CC40	30.000	12.57	COMB10	0.052	COMB8	0.051	COMB8
STORY1	C7-4	CC40	60.000	12.57	COMB10	0.052	COMB8	0.051	COMB8
STORY1	C10-4	CC40	0.000	12.57	COMB10	0.053	COMB8	0.052	COMB8
STORY1	C10-4	CC40	30.000	12.57	COMB10	0.053	COMB8	0.052	COMB8
STORY1	C10-4	CC40	60.000	12.57	COMB10	0.053	COMB8	0.052	COMB8
STORY1	C19-4	CC40	0.000	12.57	COMB10	0.033	COMB9	0.033	COMB10
STORY1	C19-4	CC40	50.000	12.57	COMB10	0.033	COMB9	0.033	COMB10
STORY1	C19-4	CC40	100.000	12.57	COMB10	0.033	COMB9	0.033	COMB10
STORY1	C25-4	CC40	0.000	12.57	COMB10	0.051	COMB4	0.033	COMB10
STORY1	C25-4	CC40	30.000	12.57	COMB10	0.051	COMB4	0.033	COMB10
STORY1	C25-4	CC40	60.000	12.57	COMB10	0.051	COMB4	0.033	COMB10
STORY1	C37-4	CC40	0.000	12.57	COMB10	0.052	COMB5	0.033	COMB10
STORY1	C37-4	CC40	30.000	12.57	COMB10	0.052	COMB5	0.033	COMB10
STORY1	C37-4	CC40	60.000	12.57	COMB10	0.052	COMB5	0.033	COMB10
STORY1	C39-4	CC40	0.000	12.57	COMB10	0.053	COMB5	0.052	COMB5
STORY1	C39-4	CC40	30.000	12.57	COMB10	0.053	COMB5	0.052	COMB5
STORY1	C39-4	CC40	60.000	12.57	COMB10	0.053	COMB5	0.052	COMB5
STORY1	C40-4	CC40	0.000	12.57	COMB10	0.052	COMB4	0.051	COMB4
STORY1	C40-4	CC40	30.000	12.57	COMB10	0.052	COMB4	0.051	COMB4
STORY1	C40-4	CC40	60.000	12.57	COMB10	0.052	COMB4	0.051	COMB4
STORY1	C42-4	CC40	0.000	12.57	COMB10	0.053	COMB5	0.052	COMB5
STORY1	C42-4	CC40	30.000	12.57	COMB10	0.053	COMB5	0.052	COMB5
STORY1	C42-4	CC40	60.000	12.57	COMB10	0.053	COMB5	0.052	COMB5

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CONCRETE COLUMN JOINT OUTPUT (ACI 318-99)

BEAM TO COLUMN CAPACITY RATIOS AND JOINT SHEAR CAPACITY CHECK

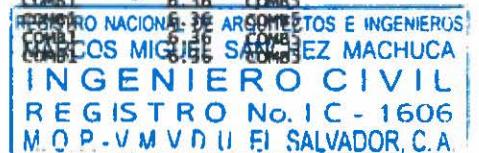
STORY ID	COLUMN LINE	SECTION ID	<-(6/5) BEAM-COLUMN CAPACITY RATIOS->				<--JOINT SHEAR CAPACITY RATIOS-->			
			MAJOR	COMBO	MINOR	COMBO	MAJOR	COMBO	MINOR	COMBO
STORY1	C23	CC30	0.739	COMB8			0.179	COMB2		
STORY1	C5-4	CC40	0.102	COMB6			0.037	COMB2		
STORY1	C7-4	CC40	0.400	COMB6	0.827	COMB6	0.139	COMB2	0.352	COMB2
STORY1	C10-4	CC40	0.409	COMB7	0.838	COMB7	0.141	COMB2	0.353	COMB2
STORY1	C19-4	CC40								
STORY1	C25-4	CC40	0.562	COMB6			0.210	COMB2		
STORY1	C37-4	CC40	0.584	COMB8			0.208	COMB2		
STORY1	C39-4	CC40	0.694	COMB8	0.712	COMB8	0.251	COMB2	0.254	COMB2
STORY1	C40-4	CC40	0.614	COMB7	0.689	COMB7	0.218	COMB2	0.242	COMB2
STORY1	C42-4	CC40	0.649	COMB8	0.854	COMB8	0.235	COMB2	0.308	COMB2

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CONCRETE BEAM DESIGN OUTPUT (ACI 318-99)

FLEXURAL AND TORSION DESIGN OF BEAM-TYPE ELEMENTS

STORY ID	BEAM BAY	SECTION ID	STATION ID	REQUIRED REINFORCING					
				TOP	COMBO	BOTTOM	COMBO	TORSION	COMBO
STORY1	B3	SF50X30	20.000	1.26	COMB1	0.68	COMB1	0.00	COMB10
STORY1	B3	SF50X30	40.000	0.62	COMB1	0.44	COMB1	0.00	COMB10
STORY1	B3	SF50X30	40.000	0.42	COMB3	0.44	COMB1	0.00	COMB10
STORY1	B3	SF50X30	80.000	0.41	COMB1	0.47	COMB1	0.00	COMB10
STORY1	B3	SF50X30	80.000	0.41	COMB1	0.70	COMB1	0.00	COMB10
STORY1	B3	SF50X30	120.000	0.41	COMB1	1.78	COMB1	0.00	COMB10
STORY1	B3	SF50X30	120.000	0.41	COMB1	1.78	COMB1	0.36	COMB5
STORY1	B3	SF50X30	160.000	0.41	COMB1	0.64	COMB1	0.36	COMB5
STORY1	B3	SF50X30	160.000	0.41	COMB1	0.44	COMB1	0.44	COMB5
STORY1	B3	SF50X30	200.000	0.61	COMB1	0.44	COMB1	0.44	COMB5
STORY1	B3	SF50X30	200.000	0.88	COMB1	0.44	COMB1	0.44	COMB5



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STORY1	B3	SF50x30	220.000	1.64	COMB1	0.89	COMB1	6.36	COMB5
STORY1	B9	SF50x30	20.000	1.18	COMB1	0.64	COMB1	0.00	COMB10
STORY1	B9	SF50x30	60.000	0.29	COMB1	0.32	COMB1	0.00	COMB10
STORY1	B9	SF50x30	60.000	0.29	COMB1	0.32	COMB1	0.00	COMB10
STORY1	B9	SF50x30	90.000	0.29	COMB1	0.52	COMB1	0.00	COMB10
STORY1	B9	SF50x30	120.000	0.29	COMB1	0.70	COMB1	0.00	COMB10
STORY1	B9	SF50x30	120.000	0.29	COMB1	0.71	COMB1	0.00	COMB10
STORY1	B9	SF50x30	150.000	0.29	COMB1	0.44	COMB1	0.00	COMB10
STORY1	B9	SF50x30	180.000	0.29	COMB1	0.32	COMB1	0.00	COMB10
STORY1	B9	SF50x30	180.000	0.29	COMB1	0.32	COMB1	0.00	COMB10
STORY1	B9	SF50x30	220.000	1.17	COMB1	0.63	COMB1	0.00	COMB10
STORY1	B13	SF50x30	0.000	1.38	COMB1	0.75	COMB1	0.00	COMB10
STORY1	B13	SF50x30	40.000	0.43	COMB1	0.47	COMB1	0.00	COMB10
STORY1	B13	SF50x30	80.000	0.43	COMB1	0.65	COMB4	0.00	COMB10
STORY1	B13	SF50x30	80.000	0.43	COMB1	0.47	COMB1	0.00	COMB10
STORY1	B13	SF50x30	120.000	0.43	COMB1	0.47	COMB1	0.00	COMB10
STORY1	B13	SF50x30	120.000	0.43	COMB1	0.47	COMB1	0.00	COMB10
STORY1	B13	SF50x30	160.000	0.43	COMB1	0.47	COMB1	0.00	COMB10
STORY1	B13	SF50x30	160.000	0.43	COMB1	0.68	COMB4	0.00	COMB10
STORY1	B13	SF50x30	200.000	0.71	COMB5	0.47	COMB1	0.00	COMB10
STORY1	B13	SF50x30	240.000	1.74	COMB1	0.94	COMB1	0.00	COMB10
STORY1	B14	SF50x30	0.000	0.95	COMB1	0.51	COMB1	0.00	COMB10
STORY1	B14	SF50x30	40.000	0.34	COMB1	0.28	COMB1	0.00	COMB10
STORY1	B14	SF50x30	80.000	0.26	COMB1	0.28	COMB1	0.00	COMB10
STORY1	B14	SF50x30	80.000	0.26	COMB1	0.28	COMB1	0.00	COMB10
STORY1	B14	SF50x30	120.000	0.26	COMB1	0.35	COMB1	0.00	COMB10
STORY1	B14	SF50x30	120.000	0.26	COMB1	0.33	COMB1	0.00	COMB10
STORY1	B14	SF50x30	160.000	0.26	COMB1	0.28	COMB1	0.00	COMB10
STORY1	B14	SF50x30	160.000	0.26	COMB1	0.28	COMB1	0.00	COMB10
STORY1	B14	SF50x30	200.000	0.43	COMB1	0.28	COMB1	0.00	COMB10
STORY1	B14	SF50x30	240.000	1.04	COMB1	0.56	COMB1	0.00	COMB10
STORY1	B15	SF50x30	20.000	2.45	COMB1	1.32	COMB1	0.00	COMB10
STORY1	B15	SF50x30	50.000	0.84	COMB1	0.68	COMB1	0.00	COMB10
STORY1	B15	SF50x30	80.000	0.62	COMB1	0.72	COMB1	0.00	COMB10
STORY1	B15	SF50x30	80.000	0.62	COMB1	1.16	COMB1	0.00	COMB10
STORY1	B15	SF50x30	120.000	0.62	COMB1	1.75	COMB1	0.00	COMB10
STORY1	B15	SF50x30	120.000	0.62	COMB1	1.82	COMB1	0.00	COMB10
STORY1	B15	SF50x30	160.000	0.62	COMB1	1.35	COMB1	0.00	COMB10
STORY1	B15	SF50x30	160.000	0.62	COMB1	0.90	COMB1	0.00	COMB10
STORY1	B15	SF50x30	190.000	0.79	COMB1	0.68	COMB1	0.00	COMB10
STORY1	B15	SF50x30	220.000	2.51	COMB1	1.36	COMB1	0.00	COMB10
STORY1	B21	SF50x30	0.000	3.02	COMB5	1.63	COMB5	0.00	COMB10
STORY1	B21	SF50x30	25.250	2.27	COMB5	0.81	COMB5	0.00	COMB10
STORY1	B21	SF50x30	50.500	1.56	COMB5	0.81	COMB5	0.00	COMB10
STORY1	B21	SF50x30	50.500	0.75	COMB5	0.83	COMB4	0.00	COMB10
STORY1	B21	SF50x30	88.375	0.75	COMB5	1.01	COMB1	0.00	COMB10
STORY1	B21	SF50x30	88.375	0.75	COMB5	0.98	COMB1	0.00	COMB10
STORY1	B21	SF50x30	119.938	0.75	COMB5	0.81	COMB5	0.00	COMB10
STORY1	B21	SF50x30	151.500	0.75	COMB5	0.81	COMB5	0.00	COMB10
STORY1	B21	SF50x30	151.500	0.75	COMB5	0.81	COMB5	0.00	COMB10
STORY1	B21	SF50x30	176.750	0.75	COMB5	0.81	COMB5	0.00	COMB10
STORY1	B21	SF50x30	176.750	0.75	COMB5	0.93	COMB1	0.00	COMB10
STORY1	B21	SF50x30	214.625	0.75	COMB5	0.97	COMB1	0.00	COMB10
STORY1	B21	SF50x30	252.500	0.75	COMB5	0.86	COMB1	0.00	COMB10
STORY1	B21	SF50x30	252.500	0.75	COMB5	1.11	COMB1	0.00	COMB10
STORY1	B21	SF50x30	265.125	0.75	COMB5	1.13	COMB1	0.00	COMB10
STORY1	B21	SF50x30	265.125	0.75	COMB5	1.19	COMB1	6.36	COMB1
STORY1	B21	SF50x30	299.313	0.75	COMB5	2.21	COMB5	6.36	COMB1
STORY1	B21	SF50x30	333.500	1.63	COMB8	3.24	COMB5	6.36	COMB1
STORY1	B22	SF50x30	20.000	0.12	COMB7	0.89	COMB2	0.00	COMB10
STORY1	B22	SF50x30	26.000	0.94	COMB1	1.01	COMB1	0.00	COMB10
STORY1	B22	SF50x30	26.000	0.94	COMB1	1.01	COMB1	0.00	COMB10
STORY1	B22	SF50x30	52.000	0.94	COMB1	1.01	COMB1	0.00	COMB10
STORY1	B22	SF50x30	52.000	0.94	COMB1	1.14	COMB1	0.00	COMB10
STORY1	B22	SF50x30	87.875	0.94	COMB1	1.56	COMB1	0.00	COMB10
STORY1	B22	SF50x30	87.875	0.94	COMB1	1.64	COMB1	6.36	COMB9
STORY1	B22	SF50x30	131.813	0.94	COMB1	1.81	COMB1	6.36	COMB9
STORY1	B22	SF50x30	175.750	0.94	COMB1	1.77	COMB1	6.36	COMB9
STORY1	B22	SF50x30	175.750	0.94	COMB1	1.57	COMB1	6.36	COMB51
STORY1	B22	SF50x30	212.000	0.94	COMB1	1.10	COMB1	6.36	COMB51
STORY1	B22	SF50x30	212.000	0.94	COMB1	1.01	COMB1	6.36	COMB52
STORY1	B22	SF50x30	244.500	0.94	COMB1	1.37	COMB1	6.36	COMB52
STORY1	B22	SF50x30	244.500	0.94	COMB1	1.42	COMB1	6.36	COMB52
STORY1	B22	SF50x30	263.625	0.94	COMB1	1.39	COMB1	6.36	COMB52
STORY1	B22	SF50x30	263.625	0.94	COMB1	1.41	COMB1	6.36	COMB52
STORY1	B22	SF50x30	277.000	0.94	COMB1	1.35	COMB1	6.36	COMB52
STORY1	B22	SF50x30	277.000	0.94	COMB1	1.01	COMB1	6.36	COMB52
STORY1	B22	SF50x30	304.250	1.39	COMB1	1.01	COMB1	6.36	COMB52
STORY1	B22	SF50x30	331.500	3.79	COMB1	2.04	COMB1	6.36	COMB52
STORY1	B23	SF50x30	20.000	2.84	COMB1	1.53	COMB1	0.00	COMB10
STORY1	B23	SF50x30	35.500	1.47	COMB1	0.76	COMB1	0.00	COMB10
STORY1	B23	SF50x30	35.500	0.70	COMB1	0.76	COMB1	0.00	COMB10
STORY1	B23	SF50x30	77.000	0.70	COMB1	1.48	COMB1	0.00	COMB10
STORY1	B23	SF50x30	77.000	0.70	COMB1	1.93	COMB1	0.00	COMB10

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STORY1	B23	SF50X30	87.875	0.70	COMB1	1.94	COMB1	0.00	COMB10
STORY1	B23	SF50X30	87.875	0.70	COMB1	1.54	COMB1	0.00	COMB10
STORY1	B23	SF50X30	118.500	0.70	COMB1	1.27	COMB1	0.00	COMB10
STORY1	B23	SF50X30	118.500	0.70	COMB1	1.15	COMB1	0.00	COMB10
STORY1	B23	SF50X30	147.125	0.70	COMB1	1.28	COMB1	0.00	COMB10
STORY1	B23	SF50X30	175.750	0.70	COMB1	1.32	COMB1	0.00	COMB10
STORY1	B23	SF50X30	175.750	0.70	COMB1	1.09	COMB1	0.00	COMB10
STORY1	B23	SF50X30	198.500	0.70	COMB1	0.88	COMB1	0.00	COMB10
STORY1	B23	SF50X30	198.500	0.70	COMB1	0.76	COMB1	0.00	COMB10
STORY1	B23	SF50X30	231.063	0.70	COMB1	0.77	COMB1	0.00	COMB10
STORY1	B23	SF50X30	263.625	0.70	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B23	SF50X30	263.625	0.70	COMB1	0.76	COMB1	0.00	COMB10
STORY1	B23	SF50X30	278.500	0.70	COMB1	0.76	COMB1	0.00	COMB10
STORY1	B23	SF50X30	278.500	0.70	COMB1	0.76	COMB1	0.00	COMB10
STORY1	B23	SF50X30	315.000	0.77	COMB1	0.76	COMB1	0.00	COMB10
STORY1	B23	SF50X30	315.000	1.08	COMB1	0.76	COMB1	0.00	COMB10
STORY1	B23	SF50X30	331.500	1.74	COMB1	0.94	COMB1	0.00	COMB10
STORY1	B24	SF50X30	20.000	1.40	COMB1	0.76	COMB1	6.36	COMB51
STORY1	B24	SF50X30	36.000	0.93	COMB1	1.00	COMB1	6.36	COMB51
STORY1	B24	SF50X30	36.000	0.93	COMB1	1.00	COMB1	6.36	COMB51
STORY1	B24	SF50X30	72.000	0.93	COMB1	1.00	COMB1	6.36	COMB51
STORY1	B24	SF50X30	72.000	0.93	COMB1	1.00	COMB1	6.36	COMB51
STORY1	B24	SF50X30	88.125	0.93	COMB1	1.00	COMB1	6.36	COMB51
STORY1	B24	SF50X30	88.125	0.93	COMB1	1.00	COMB1	6.36	COMB9
STORY1	B24	SF50X30	120.063	0.93	COMB1	1.00	COMB1	6.36	COMB9
STORY1	B24	SF50X30	152.000	0.93	COMB1	1.00	COMB1	6.36	COMB9
STORY1	B24	SF50X30	152.000	0.93	COMB1	1.00	COMB1	6.36	COMB7
STORY1	B24	SF50X30	176.250	0.93	COMB1	1.18	COMB1	6.36	COMB7
STORY1	B24	SF50X30	176.250	0.93	COMB1	1.47	COMB1	6.36	COMB5
STORY1	B24	SF50X30	204.125	0.93	COMB1	1.47	COMB1	6.36	COMB5
STORY1	B24	SF50X30	232.000	0.93	COMB1	1.38	COMB1	6.36	COMB5
STORY1	B24	SF50X30	232.000	0.93	COMB1	1.48	COMB1	6.36	COMB5
STORY1	B24	SF50X30	264.375	0.93	COMB1	1.79	COMB1	6.36	COMB5
STORY1	B24	SF50X30	264.375	0.93	COMB1	2.29	COMB1	0.00	COMB10
STORY1	B24	SF50X30	264.500	0.93	COMB1	2.29	COMB1	0.00	COMB10
STORY1	B24	SF50X30	264.500	0.93	COMB1	1.95	COMB1	0.00	COMB10
STORY1	B24	SF50X30	297.000	0.93	COMB1	1.00	COMB1	0.00	COMB10
STORY1	B24	SF50X30	297.000	0.93	COMB1	1.00	COMB1	0.00	COMB10
STORY1	B24	SF50X30	332.500	3.75	COMB1	2.02	COMB1	0.00	COMB10
STORY1	B25	SF50X30	20.000	3.56	COMB1	1.92	COMB1	0.00	COMB10
STORY1	B25	SF50X30	54.500	0.88	COMB1	0.95	COMB1	0.00	COMB10
STORY1	B25	SF50X30	54.500	0.88	COMB1	0.95	COMB1	0.00	COMB10
STORY1	B25	SF50X30	87.000	0.88	COMB1	2.01	COMB1	0.00	COMB10
STORY1	B25	SF50X30	87.000	0.88	COMB1	2.38	COMB1	0.00	COMB10
STORY1	B25	SF50X30	88.125	0.88	COMB1	2.38	COMB1	0.00	COMB10
STORY1	B25	SF50X30	88.125	0.88	COMB1	1.86	COMB1	0.00	COMB10
STORY1	B25	SF50X30	119.500	0.88	COMB1	1.54	COMB1	0.00	COMB10
STORY1	B25	SF50X30	119.500	0.88	COMB1	1.43	COMB1	0.00	COMB10
STORY1	B25	SF50X30	147.875	0.88	COMB1	1.52	COMB1	0.00	COMB10
STORY1	B25	SF50X30	176.250	0.88	COMB1	1.53	COMB1	0.00	COMB10
STORY1	B25	SF50X30	176.250	0.88	COMB1	1.27	COMB1	6.36	COMB1
STORY1	B25	SF50X30	199.500	0.88	COMB1	1.04	COMB1	6.36	COMB1
STORY1	B25	SF50X30	199.500	0.88	COMB1	0.95	COMB1	6.36	COMB1
STORY1	B25	SF50X30	231.938	0.88	COMB1	0.98	COMB1	6.36	COMB1
STORY1	B25	SF50X30	264.375	0.88	COMB1	1.06	COMB1	6.36	COMB1
STORY1	B25	SF50X30	264.375	0.88	COMB1	1.13	COMB1	6.36	COMB10
STORY1	B25	SF50X30	279.500	0.88	COMB1	1.05	COMB1	6.36	COMB10
STORY1	B25	SF50X30	279.500	0.88	COMB1	0.95	COMB1	6.36	COMB10
STORY1	B25	SF50X30	316.000	0.88	COMB1	0.95	COMB1	6.36	COMB10
STORY1	B25	SF50X30	316.000	1.32	COMB1	0.95	COMB1	6.36	COMB10
STORY1	B25	SF50X30	332.500	2.51	COMB1	1.36	COMB1	6.36	COMB10
STORY1	B26	SF50X30	20.000	2.51	COMB1	1.35	COMB1	6.36	COMB10
STORY1	B26	SF50X30	36.000	1.35	COMB1	0.94	COMB1	6.36	COMB10
STORY1	B26	SF50X30	36.000	0.87	COMB1	0.94	COMB1	6.36	COMB10
STORY1	B26	SF50X30	72.000	0.87	COMB1	0.94	COMB1	6.36	COMB10
STORY1	B26	SF50X30	72.000	0.87	COMB1	0.97	COMB1	6.36	COMB10
STORY1	B26	SF50X30	88.125	0.87	COMB1	1.05	COMB1	6.36	COMB10
STORY1	B26	SF50X30	88.125	0.87	COMB1	0.96	COMB1	6.36	COMB10
STORY1	B26	SF50X30	120.063	0.87	COMB1	0.94	COMB1	6.36	COMB10
STORY1	B26	SF50X30	152.000	0.87	COMB1	0.94	COMB1	6.36	COMB10
STORY1	B26	SF50X30	152.000	0.87	COMB1	0.95	COMB1	6.36	COMB10
STORY1	B26	SF50X30	176.250	0.87	COMB1	1.15	COMB1	6.36	COMB10
STORY1	B26	SF50X30	176.250	0.87	COMB1	1.37	COMB1	6.36	COMB52
STORY1	B26	SF50X30	204.125	0.87	COMB1	1.40	COMB1	6.36	COMB52
STORY1	B26	SF50X30	232.000	0.87	COMB1	1.34	COMB1	6.36	COMB52
STORY1	B26	SF50X30	232.000	0.87	COMB1	1.44	COMB1	6.36	COMB52
STORY1	B26	SF50X30	264.375	0.87	COMB1	1.66	COMB1	6.36	COMB52
STORY1	B26	SF50X30	264.375	0.87	COMB1	2.10	COMB1	6.36	COMB9
STORY1	B26	SF50X30	264.500	0.87	COMB1	2.10	COMB1	6.36	COMB9
STORY1	B26	SF50X30	264.500	0.87	COMB1	1.81	COMB1	6.36	COMB9
STORY1	B26	SF50X30	297.000	0.87	COMB1	0.94	COMB1	6.36	COMB9
STORY1	B26	SF50X30	297.000	0.87	COMB1	0.94	COMB1	6.36	COMB9
STORY1	B26	SF50X30	332.500	3.51	COMB1	1.89	COMB1	6.36	COMB9
STORY1	B28	SF50X30	20.000	2.77	COMB5	1.77	COMB8	0.00	COMB10
STORY1	B28	SF50X30	50.500	1.02	COMB5	1.57	COMB4	0.00	COMB10
STORY1	B28	SF50X30	50.500	1.02	COMB5	1.43	COMB5	0.00	COMB10
STORY1	B28	SF50X30	86.750	1.02	COMB5	1.25	COMB5	0.00	COMB10

REGISTRO NACIONAL DE INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC - 1606  
M. O. P. - V. M. V. D. U. EL SALVADOR. C.A.

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STORY1	B28	SF50X30	86.750	1.02	COMB5	1.33	COMB1	0.00	COMB10
STORY1	B28	SF50X30	88.375	1.02	COMB5	1.33	COMB1	0.00	COMB10
STORY1	B28	SF50X30	88.375	1.02	COMB5	1.28	COMB1	0.00	COMB10
STORY1	B28	SF50X30	101.000	1.02	COMB5	1.27	COMB1	0.00	COMB10
STORY1	B28	SF50X30	101.000	1.02	COMB5	1.11	COMB5	0.00	COMB10
STORY1	B28	SF50X30	126.250	1.02	COMB5	1.11	COMB5	0.00	COMB10
STORY1	B28	SF50X30	151.500	1.02	COMB5	1.11	COMB5	0.00	COMB10
STORY1	B28	SF50X30	151.500	1.02	COMB5	1.11	COMB5	0.00	COMB10
STORY1	B28	SF50X30	173.500	1.02	COMB5	1.11	COMB5	0.00	COMB10
STORY1	B28	SF50X30	173.500	1.02	COMB5	1.11	COMB5	0.00	COMB10
STORY1	B28	SF50X30	176.750	1.02	COMB5	1.11	COMB5	0.00	COMB10
STORY1	B28	SF50X30	176.750	1.02	COMB5	1.11	COMB5	0.00	COMB10
STORY1	B28	SF50X30	202.000	1.02	COMB5	1.11	COMB5	0.00	COMB10
STORY1	B28	SF50X30	202.000	1.02	COMB5	1.11	COMB5	0.00	COMB10
STORY1	B28	SF50X30	227.250	1.02	COMB5	1.11	COMB5	0.00	COMB10
STORY1	B28	SF50X30	252.500	1.02	COMB5	1.11	COMB5	0.00	COMB10
STORY1	B28	SF50X30	252.500	1.02	COMB5	1.11	COMB5	0.00	COMB10
STORY1	B28	SF50X30	260.250	1.02	COMB5	1.11	COMB5	0.00	COMB10
STORY1	B28	SF50X30	260.250	1.02	COMB5	1.11	COMB5	0.00	COMB10
STORY1	B28	SF50X30	265.125	1.02	COMB5	1.11	COMB5	0.00	COMB10
STORY1	B28	SF50X30	265.125	1.02	COMB5	1.11	COMB5	0.00	COMB10
STORY1	B28	SF50X30	303.000	1.02	COMB5	1.11	COMB5	0.00	COMB10
STORY1	B28	SF50X30	303.000	1.69	COMB4	1.11	COMB5	0.00	COMB10
STORY1	B28	SF50X30	347.000	4.32	COMB4	1.11	COMB5	0.00	COMB10
STORY1	B28	SF50X30	347.000	4.16	COMB5	1.11	COMB5	0.00	COMB10
STORY1	B28	SF50X30	353.500	4.14	COMB5	2.23	COMB5	0.00	COMB10
STORY1	B29	SF50X30	0.000	4.28	COMB5	2.30	COMB5	0.00	COMB10
STORY1	B29	SF50X30	25.250	2.49	COMB5	1.14	COMB5	0.00	COMB10
STORY1	B29	SF50X30	50.500	1.05	COMB5	1.14	COMB5	0.00	COMB10
STORY1	B29	SF50X30	50.500	1.05	COMB5	1.14	COMB5	0.00	COMB10
STORY1	B29	SF50X30	83.500	1.05	COMB5	1.14	COMB5	0.00	COMB10
STORY1	B29	SF50X30	83.500	1.05	COMB5	1.14	COMB5	0.00	COMB10
STORY1	B29	SF50X30	88.375	1.05	COMB5	1.14	COMB5	0.00	COMB10
STORY1	B29	SF50X30	88.375	1.05	COMB5	1.14	COMB5	0.00	COMB10
STORY1	B29	SF50X30	101.000	1.05	COMB5	1.14	COMB5	0.00	COMB10
STORY1	B29	SF50X30	101.000	1.05	COMB5	1.14	COMB5	0.00	COMB10
STORY1	B29	SF50X30	126.250	1.05	COMB5	1.14	COMB5	0.00	COMB10
STORY1	B29	SF50X30	151.500	1.05	COMB5	1.14	COMB5	0.00	COMB10
STORY1	B29	SF50X30	151.500	1.05	COMB5	1.14	COMB5	0.00	COMB10
STORY1	B29	SF50X30	173.500	1.05	COMB5	1.14	COMB5	0.00	COMB10
STORY1	B29	SF50X30	173.500	1.05	COMB5	1.14	COMB5	0.00	COMB10
STORY1	B29	SF50X30	176.750	1.05	COMB5	1.14	COMB5	0.00	COMB10
STORY1	B29	SF50X30	176.750	1.05	COMB5	1.14	COMB5	0.00	COMB10
STORY1	B29	SF50X30	202.000	1.05	COMB5	1.14	COMB5	0.00	COMB10
STORY1	B29	SF50X30	202.000	1.05	COMB5	1.14	COMB5	0.00	COMB10
STORY1	B29	SF50X30	227.250	1.05	COMB5	1.14	COMB5	0.00	COMB10
STORY1	B29	SF50X30	252.500	1.05	COMB5	1.14	COMB5	0.00	COMB10
STORY1	B29	SF50X30	252.500	1.05	COMB5	1.15	COMB1	0.00	COMB10
STORY1	B29	SF50X30	263.500	1.05	COMB5	1.16	COMB1	0.00	COMB10
STORY1	B29	SF50X30	263.500	1.05	COMB5	1.34	COMB1	0.00	COMB10
STORY1	B29	SF50X30	265.125	1.05	COMB5	1.34	COMB1	0.00	COMB10
STORY1	B29	SF50X30	265.125	1.05	COMB5	1.48	COMB5	0.00	COMB10
STORY1	B29	SF50X30	303.000	1.05	COMB5	2.14	COMB5	0.00	COMB10
STORY1	B29	SF50X30	303.000	1.05	COMB5	2.71	COMB5	0.00	COMB10
STORY1	B29	SF50X30	333.500	2.85	COMB8	4.06	COMB5	0.00	COMB10
STORY1	B30	SF50X30	20.000	1.47	COMB1	0.80	COMB1	0.00	COMB10
STORY1	B30	SF50X30	36.000	0.72	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B30	SF50X30	36.000	0.72	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B30	SF50X30	72.000	0.72	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B30	SF50X30	72.000	0.72	COMB1	0.85	COMB1	0.00	COMB10
STORY1	B30	SF50X30	88.125	0.72	COMB1	0.89	COMB1	0.00	COMB10
STORY1	B30	SF50X30	88.125	0.72	COMB1	0.81	COMB1	0.00	COMB10
STORY1	B30	SF50X30	132.000	0.72	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B30	SF50X30	132.000	0.72	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B30	SF50X30	176.250	0.72	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B30	SF50X30	176.250	0.72	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B30	SF50X30	192.000	0.72	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B30	SF50X30	192.000	0.72	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B30	SF50X30	222.000	0.72	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B30	SF50X30	252.000	0.72	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B30	SF50X30	252.000	0.72	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B30	SF50X30	264.375	0.72	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B30	SF50X30	264.375	0.72	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B30	SF50X30	312.000	0.72	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B30	SF50X30	312.000	0.72	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B30	SF50X30	352.000	2.35	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B30	SF50X30	352.000	2.93	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B30	SF50X30	352.200	2.93	COMB1	1.58	COMB1	0.00	COMB10
STORY1	B32	SF50X30	20.000	1.04	COMB1	0.56	COMB1	0.00	COMB10
STORY1	B32	SF50X30	36.000	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B32	SF50X30	36.000	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B32	SF50X30	72.000	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B32	SF50X30	72.000	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B32	SF50X30	88.125	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B32	SF50X30	88.125	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B32	SF50X30	132.000	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B32	SF50X30	132.000	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B32	SF50X30	176.250	0.68	COMB1	0.74	COMB1	0.00	COMB10

REGISTRO NACIONAL DE INGENIEROS E INGENIEROS  
**INGENIERO CIVIL**  
 MIGUEL SANCHEZ MACHUCA  
 REGISTRO No. IC-1606  
 M.O.P.-V.M.V.D.U EL SALVADOR, C.A.

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STORY1	B32	SF50X30	176.250	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B32	SF50X30	192.000	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B32	SF50X30	192.000	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B32	SF50X30	222.000	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B32	SF50X30	252.000	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B32	SF50X30	252.000	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B32	SF50X30	264.375	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B32	SF50X30	264.375	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B32	SF50X30	312.000	0.68	COMB1	0.74	COMB1	6.36	COMB4
STORY1	B32	SF50X30	312.000	0.68	COMB1	0.74	COMB1	6.36	COMB4
STORY1	B32	SF50X30	352.000	2.23	COMB1	0.74	COMB1	6.36	COMB4
STORY1	B32	SF50X30	352.000	2.75	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B32	SF50X30	352.200	2.75	COMB1	1.48	COMB1	0.00	COMB10
STORY1	B33	SF50X30	20.000	1.35	COMB1	0.73	COMB1	0.00	COMB10
STORY1	B33	SF50X30	39.500	0.55	COMB1	0.41	COMB1	0.00	COMB10
STORY1	B33	SF50X30	39.500	0.37	COMB1	0.41	COMB1	0.00	COMB10
STORY1	B33	SF50X30	88.125	0.37	COMB1	0.41	COMB1	0.00	COMB10
STORY1	B33	SF50X30	88.125	0.37	COMB1	0.61	COMB1	0.00	COMB10
STORY1	B33	SF50X30	99.500	0.37	COMB1	0.61	COMB1	0.00	COMB10
STORY1	B33	SF50X30	99.500	0.37	COMB1	0.41	COMB1	0.00	COMB10
STORY1	B33	SF50X30	129.500	0.37	COMB1	0.45	COMB1	0.00	COMB10
STORY1	B33	SF50X30	159.500	0.37	COMB1	0.46	COMB1	0.00	COMB10
STORY1	B33	SF50X30	159.500	0.37	COMB1	0.60	COMB1	0.00	COMB10
STORY1	B33	SF50X30	176.250	0.37	COMB1	0.65	COMB1	0.00	COMB10
STORY1	B33	SF50X30	176.250	0.37	COMB1	0.72	COMB1	0.00	COMB10
STORY1	B33	SF50X30	219.500	0.37	COMB1	0.58	COMB1	0.00	COMB10
STORY1	B33	SF50X30	219.500	0.37	COMB1	0.58	COMB1	0.00	COMB10
STORY1	B33	SF50X30	264.375	0.37	COMB1	0.79	COMB1	0.00	COMB10
STORY1	B33	SF50X30	264.375	0.37	COMB1	0.87	COMB1	0.00	COMB10
STORY1	B33	SF50X30	279.500	0.37	COMB1	0.84	COMB1	0.00	COMB10
STORY1	B33	SF50X30	279.500	0.37	COMB1	0.62	COMB1	0.00	COMB10
STORY1	B33	SF50X30	316.000	0.37	COMB1	0.41	COMB1	0.00	COMB10
STORY1	B33	SF50X30	316.000	0.57	COMB1	0.41	COMB1	0.00	COMB10
STORY1	B33	SF50X30	332.500	1.50	COMB1	0.81	COMB1	0.00	COMB10
STORY1	B34	SF50X30	20.000	0.09	COMB9	0.78	COMB2	6.36	COMB5
STORY1	B34	SF50X30	32.500	0.68	COMB1	0.97	COMB2	6.36	COMB5
STORY1	B34	SF50X30	32.500	0.68	COMB1	1.01	COMB1	6.36	COMB10
STORY1	B34	SF50X30	65.000	0.68	COMB1	1.04	COMB1	6.36	COMB10
STORY1	B34	SF50X30	65.000	0.68	COMB1	1.13	COMB1	6.36	COMB5
STORY1	B34	SF50X30	87.875	0.68	COMB1	1.13	COMB1	6.36	COMB5
STORY1	B34	SF50X30	87.875	0.68	COMB1	0.93	COMB1	6.36	COMB1
STORY1	B34	SF50X30	125.500	0.68	COMB1	0.74	COMB1	6.36	COMB1
STORY1	B34	SF50X30	125.500	0.68	COMB1	0.74	COMB1	6.36	COMB1
STORY1	B34	SF50X30	150.625	0.68	COMB1	0.74	COMB1	6.36	COMB1
STORY1	B34	SF50X30	175.750	0.68	COMB1	0.74	COMB1	6.36	COMB1
STORY1	B34	SF50X30	175.750	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B34	SF50X30	186.000	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B34	SF50X30	186.000	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B34	SF50X30	216.250	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B34	SF50X30	246.500	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B34	SF50X30	246.500	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B34	SF50X30	263.625	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B34	SF50X30	263.625	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B34	SF50X30	307.000	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B34	SF50X30	307.000	0.68	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B34	SF50X30	347.000	2.09	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B34	SF50X30	347.000	2.74	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B34	SF50X30	347.200	2.74	COMB1	1.48	COMB1	0.00	COMB10
STORY1	B35	SF50X30	20.000	1.40	COMB1	0.76	COMB1	0.00	COMB10
STORY1	B35	SF50X30	35.500	0.80	COMB1	0.38	COMB1	0.00	COMB10
STORY1	B35	SF50X30	35.500	0.53	COMB1	0.38	COMB1	0.00	COMB10
STORY1	B35	SF50X30	61.688	0.35	COMB1	0.38	COMB1	0.00	COMB10
STORY1	B35	SF50X30	87.875	0.35	COMB1	0.49	COMB1	0.00	COMB10
STORY1	B35	SF50X30	87.875	0.35	COMB1	0.71	COMB1	0.00	COMB10
STORY1	B35	SF50X30	95.250	0.35	COMB1	0.72	COMB1	0.00	COMB10
STORY1	B35	SF50X30	95.250	0.35	COMB1	0.40	COMB1	0.00	COMB10
STORY1	B35	SF50X30	125.125	0.35	COMB1	0.52	COMB1	0.00	COMB10
STORY1	B35	SF50X30	155.000	0.35	COMB1	0.53	COMB1	0.00	COMB10
STORY1	B35	SF50X30	155.000	0.35	COMB1	0.64	COMB1	0.00	COMB10
STORY1	B35	SF50X30	175.750	0.35	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B35	SF50X30	175.750	0.35	COMB1	0.82	COMB1	0.00	COMB10
STORY1	B35	SF50X30	214.750	0.35	COMB1	0.72	COMB1	0.00	COMB10
STORY1	B35	SF50X30	214.750	0.35	COMB1	0.66	COMB1	0.00	COMB10
STORY1	B35	SF50X30	263.625	0.35	COMB1	0.89	COMB1	0.00	COMB10
STORY1	B35	SF50X30	263.625	0.35	COMB1	0.98	COMB1	0.00	COMB10
STORY1	B35	SF50X30	274.500	0.35	COMB1	0.97	COMB1	0.00	COMB10
STORY1	B35	SF50X30	274.500	0.35	COMB1	0.81	COMB1	0.00	COMB10
STORY1	B35	SF50X30	313.000	0.35	COMB1	0.38	COMB1	0.00	COMB10
STORY1	B35	SF50X30	313.000	0.35	COMB1	0.38	COMB1	0.00	COMB10
STORY1	B35	SF50X30	331.500	1.11	COMB1	0.60	COMB1	0.00	COMB10
STORY1	B36	SF50X30	17.500	1.97	COMB8	3.10	COMB5	0.00	COMB10
STORY1	B36	SF50X30	36.000	1.47	COMB5	2.62	COMB5	0.00	COMB10
STORY1	B36	SF50X30	36.000	1.47	COMB5	2.19	COMB5	0.00	COMB10
STORY1	B36	SF50X30	72.000	1.47	COMB5	1.59	COMB5	0.00	COMB10
STORY1	B36	SF50X30	72.000	1.47	COMB5	1.59	COMB5	0.00	COMB10
STORY1	B36	SF50X30	90.000	1.47	COMB5	1.59	COMB5	0.00	COMB10
STORY1	B36	SF50X30	90.000	1.47	COMB5	1.59	COMB5	0.00	COMB10

REGISTRO NACIONAL DE INGENIEROS  
MARCO MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC - 1606  
M.O.P.-V.M.V.U. EL SALVADOR, C.A.

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STORY1	B36	SF50X30	135.000	1.47	COMB5	1.59	COMB5	0.00	COMB10
STORY1	B36	SF50X30	180.000	1.47	COMB5	1.59	COMB5	0.00	COMB10
STORY1	B36	SF50X30	180.000	1.47	COMB5	1.59	COMB5	0.00	COMB10
STORY1	B36	SF50X30	206.000	1.47	COMB5	1.59	COMB5	0.00	COMB10
STORY1	B36	SF50X30	232.000	1.47	COMB5	1.59	COMB5	0.00	COMB10
STORY1	B36	SF50X30	232.000	1.47	COMB5	1.59	COMB5	0.00	COMB10
STORY1	B36	SF50X30	260.000	1.47	COMB5	1.59	COMB5	0.00	COMB10
STORY1	B36	SF50X30	260.000	1.47	COMB5	1.59	COMB5	0.00	COMB10
STORY1	B36	SF50X30	270.000	1.47	COMB5	1.59	COMB5	0.00	COMB10
STORY1	B36	SF50X30	270.000	1.47	COMB5	1.59	COMB5	0.00	COMB10
STORY1	B36	SF50X30	288.000	1.47	COMB5	1.59	COMB5	0.00	COMB10
STORY1	B36	SF50X30	288.000	1.47	COMB5	1.59	COMB5	0.00	COMB10
STORY1	B36	SF50X30	320.750	3.05	COMB5	1.59	COMB5	0.00	COMB10
STORY1	B36	SF50X30	353.500	5.99	COMB5	3.21	COMB5	0.00	COMB10
STORY1	B37	SF50X30	0.000	6.50	COMB5	3.52	COMB5	0.00	COMB10
STORY1	B37	SF50X30	6.500	6.50	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	6.500	6.28	COMB4	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	8.375	6.28	COMB4	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	8.375	5.49	COMB4	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	44.500	2.82	COMB4	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	44.500	1.72	COMB4	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	77.000	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	77.000	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	93.250	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	93.250	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	94.656	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	94.656	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	109.500	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	109.500	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	136.167	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	162.833	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	162.833	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	180.000	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	180.000	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	180.937	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	180.937	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	216.167	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	216.167	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	241.458	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	266.750	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	266.750	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	267.219	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	267.219	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	269.500	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	269.500	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	311.500	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	311.500	1.61	COMB5	1.75	COMB5	0.00	COMB10
STORY1	B37	SF50X30	338.500	1.04	COMB5	1.81	COMB4	0.00	COMB10
STORY1	B38	SF50X30	17.500	0.49	COMB4	0.26	COMB4	6.36	COMB1
STORY1	B38	SF50X30	52.813	0.32	COMB1	0.35	COMB1	6.36	COMB1
STORY1	B38	SF50X30	88.125	0.32	COMB1	0.96	COMB1	6.36	COMB1
STORY1	B38	SF50X30	88.125	0.32	COMB1	0.84	COMB1	6.36	COMB5
STORY1	B38	SF50X30	132.188	0.32	COMB1	0.68	COMB1	6.36	COMB5
STORY1	B38	SF50X30	176.250	0.32	COMB1	0.35	COMB1	6.36	COMB5
STORY1	B38	SF50X30	176.250	0.32	COMB1	0.35	COMB1	6.36	COMB5
STORY1	B38	SF50X30	220.313	0.32	COMB1	0.56	COMB1	6.36	COMB5
STORY1	B38	SF50X30	264.375	0.32	COMB1	0.59	COMB1	6.36	COMB5
STORY1	B38	SF50X30	264.375	0.32	COMB1	0.74	COMB1	6.36	COMB5
STORY1	B38	SF50X30	299.688	0.32	COMB1	0.35	COMB1	6.36	COMB5
STORY1	B38	SF50X30	335.000	1.28	COMB1	0.69	COMB1	6.36	COMB5
STORY1	B39	SF50X30	17.500	1.22	COMB1	0.66	COMB1	0.00	COMB10
STORY1	B39	SF50X30	52.812	0.30	COMB1	0.33	COMB1	0.00	COMB10
STORY1	B39	SF50X30	88.125	0.30	COMB1	0.74	COMB1	0.00	COMB10
STORY1	B39	SF50X30	88.125	0.30	COMB1	0.59	COMB1	6.36	COMB5
STORY1	B39	SF50X30	132.188	0.30	COMB1	0.54	COMB1	6.36	COMB5
STORY1	B39	SF50X30	176.250	0.30	COMB1	0.33	COMB1	6.36	COMB5
STORY1	B39	SF50X30	176.250	0.30	COMB1	0.33	COMB1	6.36	COMB5
STORY1	B39	SF50X30	220.313	0.30	COMB1	0.67	COMB1	6.36	COMB5
STORY1	B39	SF50X30	264.375	0.30	COMB1	0.89	COMB1	6.36	COMB5
STORY1	B39	SF50X30	264.375	0.30	COMB1	1.00	COMB1	6.36	COMB4
STORY1	B39	SF50X30	299.688	0.30	COMB1	0.85	COMB1	6.36	COMB4
STORY1	B39	SF50X30	335.000	0.00	COMB10	0.64	COMB3	6.36	COMB4
STORY1	B40	SF50X30	17.500	2.39	COMB8	3.75	COMB5	6.36	COMB10
STORY1	B40	SF50X30	36.000	1.38	COMB8	3.05	COMB5	6.36	COMB10
STORY1	B40	SF50X30	36.000	1.07	COMB8	2.68	COMB5	6.36	COMB10
STORY1	B40	SF50X30	72.000	0.85	COMB5	1.37	COMB5	6.36	COMB10
STORY1	B40	SF50X30	72.000	0.85	COMB5	1.17	COMB5	6.36	COMB10
STORY1	B40	SF50X30	90.000	0.85	COMB5	1.12	COMB5	6.36	COMB10
STORY1	B40	SF50X30	90.000	0.85	COMB5	0.97	COMB5	6.36	COMB10
STORY1	B40	SF50X30	121.000	0.85	COMB5	0.93	COMB5	6.36	COMB52
STORY1	B40	SF50X30	152.000	0.85	COMB5	0.93	COMB5	6.36	COMB52
STORY1	B40	SF50X30	152.000	0.85	COMB5	0.93	COMB5	6.36	COMB51
STORY1	B40	SF50X30	180.000	0.85	COMB5	0.93	COMB5	6.36	COMB51
STORY1	B40	SF50X30	180.000	0.85	COMB5	0.93	COMB5	6.36	COMB1
STORY1	B40	SF50X30	206.000	0.85	COMB5	0.93	COMB5	6.36	COMB1
STORY1	B40	SF50X30	232.000	0.85	COMB5	0.93	COMB5	6.36	COMB1
STORY1	B40	SF50X30	232.000	0.85	COMB5	0.93	COMB5	6.36	COMB1

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
**MARCCO MIGUEL SANCHEZ MACHUCA**  
**INGENIERO CIVIL**  
REGISTRO No. IC - 1606  
M.O.P.-V.M.V.D.U. EL SALVADOR C.A.



Arq1nivelkinder22abril vigas.txt

STORY1	B40	SF50X30	270.000	0.85	COMB5	0.93	COMB5	6.36	COMB1
STORY1	B40	SF50X30	270.000	0.85	COMB5	0.93	COMB5	0.00	COMB10
STORY1	B40	SF50X30	312.000	0.85	COMB5	0.93	COMB5	0.00	COMB10
STORY1	B40	SF50X30	312.000	0.85	COMB5	0.93	COMB5	0.00	COMB10
STORY1	B40	SF50X30	352.000	1.97	COMB5	0.93	COMB5	0.00	COMB10
STORY1	B40	SF50X30	352.000	2.32	COMB5	0.93	COMB5	0.00	COMB10
STORY1	B40	SF50X30	353.500	2.32	COMB5	1.25	COMB5	0.00	COMB10
STORY1	B41	SF50X30	0.000	2.30	COMB5	1.24	COMB5	0.00	COMB10
STORY1	B41	SF50X30	6.500	2.30	COMB5	0.62	COMB5	0.00	COMB10
STORY1	B41	SF50X30	6.500	1.89	COMB4	0.62	COMB5	0.00	COMB10
STORY1	B41	SF50X30	38.500	1.18	COMB4	0.62	COMB5	0.00	COMB10
STORY1	B41	SF50X30	38.500	0.64	COMB4	0.62	COMB5	0.00	COMB10
STORY1	B41	SF50X30	65.875	0.57	COMB5	0.62	COMB5	0.00	COMB10
STORY1	B41	SF50X30	93.250	0.57	COMB5	0.62	COMB5	0.00	COMB10
STORY1	B41	SF50X30	93.250	0.57	COMB5	0.62	COMB5	6.36	COMB1
STORY1	B41	SF50X30	118.500	0.57	COMB5	0.62	COMB5	6.36	COMB1
STORY1	B41	SF50X30	118.500	0.57	COMB5	0.62	COMB5	6.36	COMB1
STORY1	B41	SF50X30	149.250	0.57	COMB5	0.62	COMB5	6.36	COMB1
STORY1	B41	SF50X30	180.000	0.57	COMB5	0.62	COMB5	6.36	COMB1
STORY1	B41	SF50X30	180.000	0.57	COMB5	0.62	COMB5	6.36	COMB10
STORY1	B41	SF50X30	198.500	0.57	COMB5	0.62	COMB5	6.36	COMB10
STORY1	B41	SF50X30	198.500	0.57	COMB5	0.62	COMB5	6.36	COMB10
STORY1	B41	SF50X30	232.625	0.57	COMB5	0.62	COMB5	6.36	COMB10
STORY1	B41	SF50X30	266.750	0.57	COMB5	0.84	COMB4	6.36	COMB10
STORY1	B41	SF50X30	266.750	0.57	COMB5	0.94	COMB4	6.36	COMB10
STORY1	B41	SF50X30	278.500	0.57	COMB5	0.95	COMB4	6.36	COMB10
STORY1	B41	SF50X30	278.500	0.57	COMB5	1.00	COMB4	6.36	COMB10
STORY1	B41	SF50X30	316.000	0.57	COMB5	1.76	COMB4	6.36	COMB10
STORY1	B41	SF50X30	316.000	0.57	COMB5	1.97	COMB4	6.36	COMB10
STORY1	B41	SF50X30	338.500	1.12	COMB5	2.32	COMB4	6.36	COMB10
STORY1	B42	SF50X30	15.000	0.35	COMB5	0.19	COMB5	0.00	COMB10
STORY1	B42	SF50X30	50.744	0.76	COMB1	0.83	COMB1	0.00	COMB10
STORY1	B42	SF50X30	86.488	0.76	COMB1	1.02	COMB1	0.00	COMB10
STORY1	B42	SF50X30	86.488	0.76	COMB1	1.19	COMB1	0.00	COMB10
STORY1	B42	SF50X30	88.125	0.76	COMB1	1.19	COMB1	0.00	COMB10
STORY1	B42	SF50X30	88.125	0.76	COMB1	0.93	COMB1	6.36	COMB4
STORY1	B42	SF50X30	130.550	0.76	COMB1	0.83	COMB1	6.36	COMB4
STORY1	B42	SF50X30	172.976	0.76	COMB1	0.83	COMB1	6.36	COMB4
STORY1	B42	SF50X30	172.976	0.76	COMB1	0.83	COMB1	6.36	COMB4
STORY1	B42	SF50X30	176.250	0.76	COMB1	0.83	COMB1	6.36	COMB4
STORY1	B42	SF50X30	176.250	0.76	COMB1	0.83	COMB1	6.36	COMB4
STORY1	B42	SF50X30	217.857	0.76	COMB1	0.83	COMB1	6.36	COMB4
STORY1	B42	SF50X30	259.464	0.76	COMB1	0.90	COMB1	6.36	COMB4
STORY1	B42	SF50X30	259.464	0.76	COMB1	1.00	COMB1	6.36	COMB4
STORY1	B42	SF50X30	264.375	0.76	COMB1	1.00	COMB1	6.36	COMB4
STORY1	B42	SF50X30	264.375	0.76	COMB1	1.08	COMB1	6.36	COMB4
STORY1	B42	SF50X30	305.163	0.76	COMB1	0.83	COMB1	6.36	COMB4
STORY1	B42	SF50X30	345.952	2.54	COMB1	0.83	COMB1	6.36	COMB4
STORY1	B42	SF50X30	345.952	3.08	COMB1	0.83	COMB1	6.36	COMB8
STORY1	B42	SF50X30	346.152	3.08	COMB1	1.66	COMB1	6.36	COMB8
STORY1	B43	SF50X30	20.000	1.71	COMB1	0.93	COMB1	0.00	COMB10
STORY1	B43	SF50X30	54.062	0.43	COMB1	0.46	COMB1	0.00	COMB10
STORY1	B43	SF50X30	88.125	0.43	COMB1	1.11	COMB1	0.00	COMB10
STORY1	B43	SF50X30	88.125	0.43	COMB1	0.86	COMB1	0.00	COMB10
STORY1	B43	SF50X30	132.188	0.43	COMB1	0.73	COMB1	0.00	COMB10
STORY1	B43	SF50X30	176.250	0.43	COMB1	0.46	COMB1	0.00	COMB10
STORY1	B43	SF50X30	176.250	0.43	COMB1	0.46	COMB1	6.36	COMB10
STORY1	B43	SF50X30	220.313	0.43	COMB1	0.74	COMB1	6.36	COMB10
STORY1	B43	SF50X30	264.375	0.43	COMB1	0.95	COMB1	6.36	COMB10
STORY1	B43	SF50X30	264.375	0.43	COMB1	1.06	COMB1	6.36	COMB1
STORY1	B43	SF50X30	300.938	0.43	COMB1	0.95	COMB1	6.36	COMB1
STORY1	B43	SF50X30	337.500	0.00	COMB10	0.71	COMB3	6.36	COMB1
STORY1	B149	VC20X40	6.300	3.75	COMB1	2.44	COMB1	0.00	COMB10
STORY1	B149	VC20X40	6.500	3.75	COMB1	1.21	COMB1	0.00	COMB10
STORY1	B149	VC20X40	6.500	3.55	COMB5	1.21	COMB1	0.00	COMB10
STORY1	B149	VC20X40	50.688	2.11	COMB5	1.21	COMB1	0.00	COMB10
STORY1	B149	VC20X40	94.875	1.21	COMB1	1.23	COMB4	0.00	COMB10
STORY1	B149	VC20X40	94.875	1.21	COMB1	1.35	COMB4	0.00	COMB10
STORY1	B149	VC20X40	139.063	1.21	COMB1	2.40	COMB1	0.00	COMB10
STORY1	B149	VC20X40	183.250	1.21	COMB1	3.51	COMB1	0.00	COMB10
STORY1	B149	VC20X40	183.250	1.21	COMB1	3.54	COMB1	0.00	COMB10
STORY1	B149	VC20X40	227.438	1.21	COMB1	3.03	COMB1	0.00	COMB10
STORY1	B149	VC20X40	271.625	1.21	COMB1	2.66	COMB5	0.00	COMB10
STORY1	B149	VC20X40	271.625	1.21	COMB1	2.59	COMB5	0.00	COMB10
STORY1	B149	VC20X40	305.813	1.21	COMB1	1.86	COMB5	0.00	COMB10
STORY1	B149	VC20X40	340.000	1.70	COMB4	1.11	COMB5	0.00	COMB10
STORY1	B150	VC20X40	20.000	0.76	COMB3	0.38	COMB3	0.00	COMB10
STORY1	B150	VC20X40	53.938	0.87	COMB1	0.87	COMB1	0.00	COMB10
STORY1	B150	VC20X40	87.875	0.87	COMB1	1.86	COMB1	0.00	COMB10
STORY1	B150	VC20X40	87.875	0.87	COMB1	2.05	COMB1	0.00	COMB10
STORY1	B150	VC20X40	131.813	0.87	COMB1	2.56	COMB1	0.00	COMB10
STORY1	B150	VC20X40	175.750	0.87	COMB1	2.99	COMB1	0.00	COMB10
STORY1	B150	VC20X40	175.750	0.87	COMB1	2.97	COMB1	0.00	COMB10
STORY1	B150	VC20X40	219.688	0.87	COMB1	1.87	COMB1	0.00	COMB10
STORY1	B150	VC20X40	263.625	0.87	COMB1	0.87	COMB1	0.00	COMB10
STORY1	B150	VC20X40	263.625	0.87	COMB1	0.87	COMB1	0.00	COMB10

Arq1nivelkinder22abril vigas.txt									
STORY1	B150	VC20x40	297.563	1.48	COMB1	0.87	COMB1	0.00	COMB10
STORY1	B150	VC20x40	331.500	3.54	COMB1	1.74	COMB1	0.00	COMB10
STORY1	B151	VC20x40	20.000	3.33	COMB1	1.64	COMB1	0.00	COMB10
STORY1	B151	VC20x40	53.938	1.44	COMB1	0.81	COMB1	0.00	COMB10
STORY1	B151	VC20x40	87.875	0.81	COMB1	0.81	COMB1	0.00	COMB10
STORY1	B151	VC20x40	87.875	0.81	COMB1	0.81	COMB1	0.00	COMB10
STORY1	B151	VC20x40	131.813	0.81	COMB1	1.54	COMB1	0.00	COMB10
STORY1	B151	VC20x40	175.750	0.81	COMB1	2.45	COMB1	0.00	COMB10
STORY1	B151	VC20x40	175.750	0.81	COMB1	2.46	COMB1	0.00	COMB10
STORY1	B151	VC20x40	219.688	0.81	COMB1	1.84	COMB1	0.00	COMB10
STORY1	B151	VC20x40	263.625	0.81	COMB1	1.14	COMB1	0.00	COMB10
STORY1	B151	VC20x40	263.625	0.81	COMB1	0.96	COMB1	0.00	COMB10
STORY1	B151	VC20x40	297.563	0.81	COMB1	0.81	COMB1	0.00	COMB10
STORY1	B151	VC20x40	331.500	2.27	COMB1	1.12	COMB1	0.00	COMB10
STORY1	B153	VC20x40	6.300	3.55	COMB5	2.27	COMB5	0.00	COMB10
STORY1	B153	VC20x40	6.500	3.55	COMB5	1.12	COMB5	0.00	COMB10
STORY1	B153	VC20x40	6.500	3.55	COMB5	1.12	COMB5	0.00	COMB10
STORY1	B153	VC20x40	50.688	2.01	COMB5	1.12	COMB5	0.00	COMB10
STORY1	B153	VC20x40	94.875	1.12	COMB5	1.48	COMB4	0.00	COMB10
STORY1	B153	VC20x40	94.875	1.12	COMB5	1.58	COMB4	0.00	COMB10
STORY1	B153	VC20x40	139.063	1.12	COMB5	2.64	COMB1	0.00	COMB10
STORY1	B153	VC20x40	183.250	1.12	COMB5	3.55	COMB1	0.00	COMB10
STORY1	B153	VC20x40	183.250	1.12	COMB5	3.55	COMB1	0.00	COMB10
STORY1	B153	VC20x40	227.438	1.12	COMB5	3.25	COMB5	0.00	COMB10
STORY1	B153	VC20x40	271.625	1.12	COMB5	3.18	COMB5	0.00	COMB10
STORY1	B153	VC20x40	271.625	1.12	COMB5	3.12	COMB5	0.00	COMB10
STORY1	B153	VC20x40	305.813	1.23	COMB8	2.40	COMB5	0.00	COMB10
STORY1	B153	VC20x40	340.000	2.37	COMB4	1.64	COMB5	0.00	COMB10
STORY1	B154	VC20x40	20.000	2.27	COMB1	1.13	COMB1	0.00	COMB10
STORY1	B154	VC20x40	54.063	0.75	COMB1	0.75	COMB1	0.00	COMB10
STORY1	B154	VC20x40	88.125	0.75	COMB1	0.94	COMB1	0.00	COMB10
STORY1	B154	VC20x40	88.125	0.75	COMB1	1.12	COMB1	0.00	COMB10
STORY1	B154	VC20x40	132.188	0.75	COMB1	1.84	COMB1	0.00	COMB10
STORY1	B154	VC20x40	176.250	0.75	COMB1	2.49	COMB1	0.00	COMB10
STORY1	B154	VC20x40	176.250	0.75	COMB1	2.47	COMB1	0.00	COMB10
STORY1	B154	VC20x40	220.313	0.75	COMB1	1.61	COMB1	0.00	COMB10
STORY1	B154	VC20x40	264.375	0.75	COMB1	0.75	COMB1	0.00	COMB10
STORY1	B154	VC20x40	264.375	0.75	COMB1	0.75	COMB1	0.00	COMB10
STORY1	B154	VC20x40	298.438	1.26	COMB1	0.75	COMB1	0.00	COMB10
STORY1	B154	VC20x40	332.500	3.07	COMB1	1.52	COMB1	0.00	COMB10
STORY1	B155	VC20x40	20.000	2.87	COMB1	1.42	COMB1	4.22	COMB5
STORY1	B155	VC20x40	54.063	1.13	COMB1	0.71	COMB1	4.22	COMB5
STORY1	B155	VC20x40	88.125	0.71	COMB1	0.71	COMB1	4.22	COMB5
STORY1	B155	VC20x40	88.125	0.71	COMB1	0.73	COMB1	0.00	COMB10
STORY1	B155	VC20x40	132.188	0.71	COMB1	1.56	COMB1	0.00	COMB10
STORY1	B155	VC20x40	176.250	0.71	COMB1	2.33	COMB1	0.00	COMB10
STORY1	B155	VC20x40	176.250	0.71	COMB1	2.34	COMB1	0.00	COMB10
STORY1	B155	VC20x40	220.313	0.71	COMB1	1.58	COMB1	0.00	COMB10
STORY1	B155	VC20x40	264.375	0.71	COMB1	0.75	COMB1	0.00	COMB10
STORY1	B155	VC20x40	264.375	0.71	COMB1	0.71	COMB1	4.14	COMB5
STORY1	B155	VC20x40	298.438	1.13	COMB1	0.71	COMB1	4.14	COMB5
STORY1	B155	VC20x40	332.500	2.90	COMB1	1.43	COMB1	4.14	COMB5
STORY1	B156	VC20x40	20.000	2.97	COMB5	1.47	COMB5	0.00	COMB10
STORY1	B156	VC20x40	54.188	1.51	COMB5	0.94	COMB4	0.00	COMB10
STORY1	B156	VC20x40	88.375	0.94	COMB4	1.66	COMB4	0.00	COMB10
STORY1	B156	VC20x40	88.375	0.94	COMB4	1.73	COMB4	0.00	COMB10
STORY1	B156	VC20x40	132.563	0.94	COMB4	1.86	COMB4	0.00	COMB10
STORY1	B156	VC20x40	176.750	0.94	COMB4	2.37	COMB1	0.00	COMB10
STORY1	B156	VC20x40	176.750	0.94	COMB4	2.36	COMB1	0.00	COMB10
STORY1	B156	VC20x40	220.938	0.94	COMB4	1.40	COMB1	0.00	COMB10
STORY1	B156	VC20x40	265.125	0.94	COMB4	0.94	COMB4	0.00	COMB10
STORY1	B156	VC20x40	265.125	0.94	COMB4	0.94	COMB4	0.00	COMB10
STORY1	B156	VC20x40	296.063	2.21	COMB4	0.94	COMB4	0.00	COMB10
STORY1	B156	VC20x40	327.000	3.55	COMB4	1.90	COMB4	0.00	COMB10
STORY1	B157	VC20x40	6.300	4.32	COMB5	2.81	COMB5	0.00	COMB10
STORY1	B157	VC20x40	6.500	4.32	COMB5	1.39	COMB5	0.00	COMB10
STORY1	B157	VC20x40	6.500	4.26	COMB5	1.39	COMB5	0.00	COMB10
STORY1	B157	VC20x40	50.688	2.75	COMB5	1.39	COMB5	0.00	COMB10
STORY1	B157	VC20x40	94.875	1.39	COMB5	1.39	COMB5	0.00	COMB10
STORY1	B157	VC20x40	94.875	1.39	COMB5	1.39	COMB5	0.00	COMB10
STORY1	B157	VC20x40	139.063	1.39	COMB5	2.22	COMB1	0.00	COMB10
STORY1	B157	VC20x40	183.250	1.39	COMB5	3.36	COMB1	0.00	COMB10
STORY1	B157	VC20x40	183.250	1.39	COMB5	3.40	COMB1	0.00	COMB10
STORY1	B157	VC20x40	227.438	1.39	COMB5	3.14	COMB5	0.00	COMB10
STORY1	B157	VC20x40	271.625	1.39	COMB5	3.22	COMB5	0.00	COMB10
STORY1	B157	VC20x40	271.625	1.39	COMB5	3.17	COMB5	0.00	COMB10
STORY1	B157	VC20x40	305.813	1.48	COMB8	2.56	COMB5	0.00	COMB10
STORY1	B157	VC20x40	340.000	2.66	COMB4	1.92	COMB5	0.00	COMB10
STORY1	B158	VC20x40	20.000	2.81	COMB1	1.39	COMB1	0.00	COMB10
STORY1	B158	VC20x40	54.063	1.03	COMB1	0.79	COMB1	0.00	COMB10
STORY1	B158	VC20x40	88.125	0.79	COMB1	0.79	COMB1	0.00	COMB10
STORY1	B158	VC20x40	88.125	0.79	COMB1	0.87	COMB1	0.00	COMB10
STORY1	B158	VC20x40	132.188	0.79	COMB1	1.70	COMB1	0.00	COMB10
STORY1	B158	VC20x40	176.250	0.79	COMB1	2.45	COMB1	0.00	COMB10

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STORY1	B158	VC20X40	176.250	0.79	COMB1	2.46	COMB1	0.00	COMB10
STORY1	B158	VC20X40	220.313	0.79	COMB1	1.62	COMB1	0.00	COMB10
STORY1	B158	VC20X40	264.375	0.79	COMB1	0.79	COMB1	0.00	COMB10
STORY1	B158	VC20X40	264.375	0.79	COMB1	0.79	COMB1	4.13	COMB5
STORY1	B158	VC20X40	298.438	1.31	COMB1	0.79	COMB1	4.13	COMB5
STORY1	B158	VC20X40	332.500	3.23	COMB1	1.59	COMB1	4.13	COMB5
STORY1	B163	VC20X40	17.500	3.20	COMB4	1.58	COMB4	0.00	COMB10
STORY1	B163	VC20X40	53.750	2.11	COMB4	0.78	COMB4	0.00	COMB10
STORY1	B163	VC20X40	90.000	1.08	COMB4	1.02	COMB5	0.00	COMB10
STORY1	B163	VC20X40	90.000	0.98	COMB8	1.08	COMB5	0.00	COMB10
STORY1	B163	VC20X40	135.000	0.78	COMB4	1.48	COMB5	0.00	COMB10
STORY1	B163	VC20X40	180.000	0.78	COMB4	1.83	COMB5	0.00	COMB10
STORY1	B163	VC20X40	180.000	0.78	COMB4	1.85	COMB5	0.00	COMB10
STORY1	B163	VC20X40	225.000	0.78	COMB4	2.00	COMB1	0.00	COMB10
STORY1	B163	VC20X40	270.000	0.78	COMB4	2.24	COMB1	0.00	COMB10
STORY1	B163	VC20X40	270.000	0.78	COMB4	2.24	COMB1	0.00	COMB10
STORY1	B163	VC20X40	315.000	0.78	COMB4	2.26	COMB1	0.00	COMB10
STORY1	B163	VC20X40	360.000	0.78	COMB4	2.19	COMB1	0.00	COMB10
STORY1	B163	VC20X40	360.000	0.78	COMB4	2.42	COMB1	0.00	COMB10
STORY1	B163	VC20X40	403.375	0.78	COMB4	2.32	COMB1	0.00	COMB10
STORY1	B163	VC20X40	446.750	0.78	COMB4	2.13	COMB1	0.00	COMB10
STORY1	B163	VC20X40	446.750	0.78	COMB4	2.11	COMB1	0.00	COMB10
STORY1	B163	VC20X40	490.125	0.78	COMB4	1.68	COMB1	0.00	COMB10
STORY1	B163	VC20X40	533.500	0.78	COMB4	1.43	COMB4	0.00	COMB10
STORY1	B163	VC20X40	533.500	0.78	COMB4	1.42	COMB4	0.00	COMB10
STORY1	B163	VC20X40	576.875	0.78	COMB4	0.99	COMB4	0.00	COMB10
STORY1	B163	VC20X40	620.250	1.31	COMB5	0.78	COMB4	0.00	COMB10
STORY1	B163	VC20X40	620.250	1.36	COMB5	0.78	COMB4	0.00	COMB10
STORY1	B163	VC20X40	653.625	2.20	COMB5	0.78	COMB4	0.00	COMB10
STORY1	B163	VC20X40	687.000	3.09	COMB5	1.52	COMB5	0.00	COMB10
STORY1	B164	VC20X40	20.000	3.40	COMB1	1.68	COMB1	4.09	COMB5
STORY1	B164	VC20X40	54.063	2.28	COMB1	0.83	COMB1	4.09	COMB5
STORY1	B164	VC20X40	88.125	1.22	COMB1	0.83	COMB1	4.09	COMB5
STORY1	B164	VC20X40	88.125	1.16	COMB1	0.83	COMB1	0.00	COMB10
STORY1	B164	VC20X40	132.188	0.83	COMB1	0.83	COMB1	0.00	COMB10
STORY1	B164	VC20X40	176.250	0.83	COMB1	0.83	COMB1	0.00	COMB10
STORY1	B164	VC20X40	176.250	0.83	COMB1	0.84	COMB1	0.00	COMB10
STORY1	B164	VC20X40	220.313	0.83	COMB1	1.48	COMB1	0.00	COMB10
STORY1	B164	VC20X40	264.375	0.83	COMB1	2.05	COMB1	0.00	COMB10
STORY1	B164	VC20X40	264.375	0.83	COMB1	2.07	COMB1	0.00	COMB10
STORY1	B164	VC20X40	308.438	0.83	COMB1	2.39	COMB1	0.00	COMB10
STORY1	B164	VC20X40	352.500	0.83	COMB1	2.63	COMB1	0.00	COMB10
STORY1	B164	VC20X40	352.500	0.83	COMB1	2.34	COMB1	0.00	COMB10
STORY1	B164	VC20X40	396.563	0.83	COMB1	2.39	COMB1	0.00	COMB10
STORY1	B164	VC20X40	440.625	0.83	COMB1	2.36	COMB1	0.00	COMB10
STORY1	B164	VC20X40	440.625	0.83	COMB1	2.35	COMB1	0.00	COMB10
STORY1	B164	VC20X40	484.688	0.83	COMB1	2.12	COMB1	0.00	COMB10
STORY1	B164	VC20X40	528.750	0.83	COMB1	1.80	COMB1	0.00	COMB10
STORY1	B164	VC20X40	528.750	0.83	COMB1	1.75	COMB1	0.00	COMB10
STORY1	B164	VC20X40	572.813	0.83	COMB1	1.05	COMB1	0.00	COMB10
STORY1	B164	VC20X40	616.875	0.83	COMB1	0.83	COMB1	0.00	COMB10
STORY1	B164	VC20X40	616.875	0.83	COMB1	0.83	COMB1	0.00	COMB10
STORY1	B164	VC20X40	653.438	0.83	COMB1	0.83	COMB1	0.00	COMB10
STORY1	B164	VC20X40	690.000	1.80	COMB1	0.89	COMB1	0.00	COMB10
STORY1	B183	SF50X30	20.000	2.95	COMB4	2.72	COMB5	0.00	COMB10
STORY1	B183	SF50X30	54.188	1.85	COMB1	3.01	COMB5	0.00	COMB10
STORY1	B183	SF50X30	88.375	1.85	COMB1	4.16	COMB1	0.00	COMB10
STORY1	B183	SF50X30	88.375	1.85	COMB1	4.65	COMB1	0.00	COMB10
STORY1	B183	SF50X30	90.000	1.85	COMB1	4.65	COMB1	0.00	COMB10
STORY1	B183	SF50X30	90.000	1.85	COMB1	4.75	COMB1	0.00	COMB10
STORY1	B183	SF50X30	101.000	1.85	COMB1	4.76	COMB1	0.00	COMB10
STORY1	B183	SF50X30	101.000	1.85	COMB1	4.64	COMB1	0.00	COMB10
STORY1	B183	SF50X30	120.000	1.85	COMB1	4.97	COMB1	0.00	COMB10
STORY1	B183	SF50X30	120.000	1.85	COMB1	3.98	COMB1	0.00	COMB10
STORY1	B183	SF50X30	161.000	1.85	COMB1	2.64	COMB1	0.00	COMB10
STORY1	B183	SF50X30	161.000	1.85	COMB1	2.61	COMB1	0.00	COMB10
STORY1	B183	SF50X30	176.750	1.85	COMB1	2.59	COMB1	0.00	COMB10
STORY1	B183	SF50X30	176.750	1.85	COMB1	2.28	COMB1	0.00	COMB10
STORY1	B183	SF50X30	180.000	1.85	COMB1	2.28	COMB1	0.00	COMB10
STORY1	B183	SF50X30	180.000	1.85	COMB1	2.05	COMB1	0.00	COMB10
STORY1	B183	SF50X30	202.000	1.85	COMB1	2.00	COMB1	0.00	COMB10
STORY1	B183	SF50X30	202.000	1.85	COMB1	2.00	COMB1	0.00	COMB10
STORY1	B183	SF50X30	251.000	1.85	COMB1	2.08	COMB1	0.00	COMB10
STORY1	B183	SF50X30	251.000	1.85	COMB1	2.39	COMB1	0.00	COMB10
STORY1	B183	SF50X30	265.125	1.85	COMB1	2.33	COMB1	0.00	COMB10
STORY1	B183	SF50X30	265.125	1.85	COMB1	2.21	COMB1	0.00	COMB10
STORY1	B183	SF50X30	270.000	1.85	COMB1	2.20	COMB1	0.00	COMB10
STORY1	B183	SF50X30	270.000	1.85	COMB1	2.00	COMB1	0.00	COMB10
STORY1	B183	SF50X30	300.000	1.85	COMB1	2.00	COMB1	0.00	COMB10
STORY1	B183	SF50X30	300.000	1.85	COMB1	2.00	COMB1	0.00	COMB10
STORY1	B183	SF50X30	326.750	3.29	COMB1	2.00	COMB1	0.00	COMB10
STORY1	B183	SF50X30	353.500	6.50	COMB1	2.00	COMB1	0.00	COMB10
STORY1	B183	SF50X30	353.500	6.50	COMB5	2.00	COMB1	0.00	COMB10
STORY1	B183	SF50X30	353.700	6.50	COMB5	4.05	COMB1	0.00	COMB10
STORY1	B188	SF50X30	20.000	4.70	COMB5	2.52	COMB5	0.00	COMB10
STORY1	B188	SF50X30	46.125	3.64	COMB5	1.25	COMB5	0.00	COMB10
STORY1	B188	SF50X30	72.250	2.64	COMB5	1.25	COMB5	0.00	COMB10

**REGISTRO NACIONAL DE INGENIEROS**  
**MARCOS MIGUEL SANCHEZ MACHUCA**  
**INGENIERO CIVIL**  
**REGISTRO No. IC - 1606**  
**M.O.P.-V.M.V.D.U. EL SALVADOR, C.A.**

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STORY1	B188	SF50X30	72.250	2.49	COMB5	1.25	COMB5	6.36	COMB10
STORY1	B188	SF50X30	88.375	2.26	COMB5	1.25	COMB5	6.36	COMB10
STORY1	B188	SF50X30	88.375	2.04	COMB5	1.25	COMB5	6.36	COMB10
STORY1	B188	SF50X30	116.438	1.24	COMB5	1.25	COMB5	6.36	COMB10
STORY1	B188	SF50X30	144.500	1.16	COMB5	1.25	COMB5	6.36	COMB10
STORY1	B188	SF50X30	144.500	1.16	COMB5	1.25	COMB5	6.36	COMB10
STORY1	B188	SF50X30	180.625	1.16	COMB5	1.25	COMB5	6.36	COMB10
STORY1	B188	SF50X30	216.750	1.16	COMB5	1.25	COMB5	6.36	COMB10
STORY1	B188	SF50X30	216.750	1.16	COMB5	1.25	COMB5	6.36	COMB10
STORY1	B188	SF50X30	252.875	1.18	COMB4	1.74	COMB5	6.36	COMB10
STORY1	B188	SF50X30	289.000	1.82	COMB4	2.27	COMB5	6.36	COMB10
STORY1	B188	SF50X30	289.000	3.39	COMB5	1.25	COMB5	0.00	COMB10
STORY1	B188	SF50X30	333.188	1.28	COMB5	1.25	COMB5	0.00	COMB10
STORY1	B188	SF50X30	377.375	1.16	COMB5	1.25	COMB5	0.00	COMB10
STORY1	B188	SF50X30	377.375	1.16	COMB5	1.47	COMB1	0.00	COMB10
STORY1	B188	SF50X30	390.000	1.16	COMB5	1.52	COMB1	0.00	COMB10
STORY1	B188	SF50X30	390.000	1.16	COMB5	1.28	COMB1	0.00	COMB10
STORY1	B188	SF50X30	427.875	1.16	COMB5	1.27	COMB1	0.00	COMB10
STORY1	B188	SF50X30	465.750	1.16	COMB5	1.25	COMB5	0.00	COMB10
STORY1	B188	SF50X30	465.750	1.16	COMB5	1.25	COMB5	0.00	COMB10
STORY1	B188	SF50X30	491.000	1.16	COMB5	1.25	COMB5	0.00	COMB10
STORY1	B188	SF50X30	491.000	1.16	COMB5	1.25	COMB5	0.00	COMB10
STORY1	B188	SF50X30	522.563	1.16	COMB5	1.25	COMB5	0.00	COMB10
STORY1	B188	SF50X30	554.125	1.16	COMB5	1.25	COMB5	0.00	COMB10
STORY1	B188	SF50X30	554.125	1.16	COMB5	1.25	COMB5	0.00	COMB10
STORY1	B188	SF50X30	592.000	1.16	COMB5	1.25	COMB5	0.00	COMB10
STORY1	B188	SF50X30	592.000	1.58	COMB4	1.25	COMB5	0.00	COMB10
STORY1	B188	SF50X30	636.000	3.05	COMB4	1.25	COMB5	0.00	COMB10
STORY1	B188	SF50X30	636.000	3.96	COMB5	1.25	COMB5	0.00	COMB10
STORY1	B188	SF50X30	642.500	3.87	COMB5	2.08	COMB5	0.00	COMB10
STORY1	B189	VC20X40	20.000	0.00	COMB10	0.64	COMB4	3.61	COMB8
STORY1	B189	VC20X40	46.125	0.75	COMB4	0.75	COMB4	3.61	COMB8
STORY1	B189	VC20X40	72.250	0.75	COMB4	0.75	COMB4	3.61	COMB8
STORY1	B189	VC20X40	72.250	0.75	COMB4	0.75	COMB4	3.62	COMB8
STORY1	B189	VC20X40	108.375	1.47	COMB1	0.75	COMB4	3.62	COMB8
STORY1	B189	VC20X40	144.500	2.51	COMB1	0.75	COMB4	3.62	COMB8
STORY1	B189	VC20X40	144.500	2.69	COMB1	0.75	COMB4	3.84	COMB8
STORY1	B189	VC20X40	180.625	3.55	COMB1	0.75	COMB4	3.84	COMB8
STORY1	B189	VC20X40	216.750	4.20	COMB1	0.75	COMB4	3.84	COMB8
STORY1	B189	VC20X40	216.750	4.39	COMB1	0.75	COMB4	4.13	COMB8
STORY1	B189	VC20X40	252.875	5.87	COMB1	0.75	COMB4	4.13	COMB8
STORY1	B189	VC20X40	289.000	7.45	COMB1	0.75	COMB4	4.13	COMB8
STORY1	B189	VC20X40	289.000	5.70	COMB5	0.75	COMB4	0.00	COMB10
STORY1	B189	VC20X40	333.188	3.73	COMB5	0.75	COMB4	0.00	COMB10
STORY1	B189	VC20X40	377.375	2.54	COMB5	0.75	COMB4	0.00	COMB10
STORY1	B189	VC20X40	377.375	2.34	COMB5	0.75	COMB4	0.00	COMB10
STORY1	B189	VC20X40	421.563	1.00	COMB7	0.93	COMB4	0.00	COMB10
STORY1	B189	VC20X40	465.750	0.75	COMB4	1.33	COMB4	0.00	COMB10
STORY1	B189	VC20X40	465.750	0.75	COMB4	1.31	COMB4	0.00	COMB10
STORY1	B189	VC20X40	509.938	0.75	COMB4	0.78	COMB1	0.00	COMB10
STORY1	B189	VC20X40	554.125	0.75	COMB4	0.79	COMB5	0.00	COMB10
STORY1	B189	VC20X40	554.125	0.75	COMB4	0.82	COMB5	0.00	COMB10
STORY1	B189	VC20X40	595.063	2.28	COMB4	0.75	COMB4	0.00	COMB10
STORY1	B189	VC20X40	636.000	3.55	COMB4	0.75	COMB4	0.00	COMB10
STORY1	B189	VC20X40	636.000	3.93	COMB5	0.75	COMB4	0.00	COMB10
STORY1	B189	VC20X40	642.500	3.92	COMB5	0.75	COMB4	0.00	COMB10
STORY1	B189	VC20X40	642.500	3.95	COMB5	0.75	COMB4	0.00	COMB10
STORY1	B189	VC20X40	686.688	2.37	COMB5	0.75	COMB4	0.00	COMB10
STORY1	B189	VC20X40	730.875	0.75	COMB4	1.35	COMB4	0.00	COMB10
STORY1	B189	VC20X40	730.875	0.75	COMB4	1.44	COMB4	0.00	COMB10
STORY1	B189	VC20X40	775.063	0.75	COMB4	2.47	COMB1	0.00	COMB10
STORY1	B189	VC20X40	819.250	0.75	COMB4	3.55	COMB1	0.00	COMB10
STORY1	B189	VC20X40	819.250	0.75	COMB4	3.55	COMB1	0.00	COMB10
STORY1	B189	VC20X40	863.438	0.75	COMB4	3.55	COMB5	0.00	COMB10
STORY1	B189	VC20X40	907.625	0.78	COMB8	3.55	COMB5	0.00	COMB10
STORY1	B189	VC20X40	907.625	0.88	COMB8	3.55	COMB5	0.00	COMB10
STORY1	B189	VC20X40	941.813	1.82	COMB8	2.94	COMB5	0.00	COMB10
STORY1	B189	VC20X40	976.000	3.05	COMB4	2.26	COMB5	0.00	COMB10
STORY1	B190	VC20X40	20.000	0.00	COMB10	0.41	COMB4	3.49	COMB8
STORY1	B190	VC20X40	46.125	0.69	COMB4	0.69	COMB4	3.49	COMB8
STORY1	B190	VC20X40	72.250	0.69	COMB4	0.69	COMB4	3.49	COMB8
STORY1	B190	VC20X40	72.250	0.73	COMB1	0.69	COMB4	3.55	COMB8
STORY1	B190	VC20X40	108.375	1.67	COMB1	0.69	COMB4	3.55	COMB8
STORY1	B190	VC20X40	144.500	2.67	COMB1	0.69	COMB4	3.55	COMB8
STORY1	B190	VC20X40	144.500	2.85	COMB1	0.69	COMB4	3.89	COMB8
STORY1	B190	VC20X40	180.625	3.55	COMB1	0.69	COMB4	3.89	COMB8
STORY1	B190	VC20X40	216.750	4.22	COMB1	0.69	COMB4	3.89	COMB8
STORY1	B190	VC20X40	216.750	4.40	COMB1	0.69	COMB4	4.35	COMB6
STORY1	B190	VC20X40	252.875	5.84	COMB1	0.69	COMB4	4.35	COMB6
STORY1	B190	VC20X40	289.000	7.38	COMB1	0.69	COMB4	4.35	COMB6
STORY1	B190	VC20X40	289.000	5.07	COMB1	0.69	COMB4	0.00	COMB10
STORY1	B190	VC20X40	333.188	3.55	COMB5	0.69	COMB4	0.00	COMB10
STORY1	B190	VC20X40	377.375	1.61	COMB5	0.69	COMB4	0.00	COMB10
STORY1	B190	VC20X40	377.375	1.43	COMB5	0.69	COMB4	0.00	COMB10
STORY1	B190	VC20X40	421.563	0.69	COMB4	0.69	COMB4	0.00	COMB10
STORY1	B190	VC20X40	465.750	0.69	COMB4	0.69	COMB4	0.00	COMB10
STORY1	B190	VC20X40	465.750	0.69	COMB4	0.69	COMB4	0.00	COMB10
STORY1	B190	VC20X40	509.938	0.69	COMB4	0.69	COMB4	0.00	COMB10
STORY1	B190	VC20X40	554.125	0.69	COMB4	0.69	COMB4	0.00	COMB10

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**INSTITUCIONAL DE INGENIEROS**  
**MARCO MIGUEL A. CACHUCA**  
**CONDOMINIO CIVIL**  
**REGISTRO No. IC-1606**  
**MOP-VMVDU EL SALVADOR, C.A.**

DIN - FISDL  
08 JUN. 2017  
REVISADO

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STORY1	B190	VC20X40	554.125	0.69	COMB4	0.89	COMB5	0.00	COMB10
STORY1	B190	VC20X40	585.063	1.51	COMB4	0.69	COMB4	0.00	COMB10
STORY1	B190	VC20X40	616.000	2.80	COMB4	1.38	COMB4	0.00	COMB10
STORY1	B191	VC20X40	20.000	0.00	COMB10	0.75	COMB1	4.32	COMB1
STORY1	B191	VC20X40	46.125	0.67	COMB4	0.67	COMB4	4.32	COMB1
STORY1	B191	VC20X40	72.250	0.93	COMB1	0.67	COMB4	4.32	COMB1
STORY1	B191	VC20X40	72.250	1.13	COMB1	0.67	COMB4	0.00	COMB10
STORY1	B191	VC20X40	108.375	2.71	COMB1	0.67	COMB4	0.00	COMB10
STORY1	B191	VC20X40	144.500	3.55	COMB1	0.67	COMB4	0.00	COMB10
STORY1	B191	VC20X40	144.500	3.55	COMB5	0.67	COMB4	0.00	COMB10
STORY1	B191	VC20X40	180.625	5.11	COMB1	0.67	COMB4	0.00	COMB10
STORY1	B191	VC20X40	216.750	6.84	COMB1	0.67	COMB4	0.00	COMB10
STORY1	B191	VC20X40	216.750	7.12	COMB1	0.67	COMB4	0.00	COMB10
STORY1	B191	VC20X40	252.875	9.37	COMB1	0.67	COMB4	0.00	COMB10
STORY1	B191	VC20X40	289.000	11.83	COMB1	0.67	COMB4	0.00	COMB10
STORY1	B191	VC20X40	289.000	7.09	COMB5	0.67	COMB4	0.00	COMB10
STORY1	B191	VC20X40	333.188	4.78	COMB5	0.67	COMB4	0.00	COMB10
STORY1	B191	VC20X40	377.375	3.52	COMB5	0.67	COMB4	0.00	COMB10
STORY1	B191	VC20X40	377.375	3.29	COMB5	0.67	COMB4	0.00	COMB10
STORY1	B191	VC20X40	421.563	1.61	COMB5	0.67	COMB4	0.00	COMB10
STORY1	B191	VC20X40	465.750	0.67	COMB4	0.81	COMB4	0.00	COMB10
STORY1	B191	VC20X40	465.750	0.67	COMB4	0.82	COMB4	0.00	COMB10
STORY1	B191	VC20X40	509.938	0.67	COMB4	0.67	COMB4	0.00	COMB10
STORY1	B191	VC20X40	554.125	0.67	COMB4	0.89	COMB5	0.00	COMB10
STORY1	B191	VC20X40	554.125	0.67	COMB4	0.95	COMB5	0.00	COMB10
STORY1	B191	VC20X40	585.063	1.54	COMB4	0.67	COMB4	0.00	COMB10
STORY1	B191	VC20X40	616.000	2.73	COMB4	1.35	COMB4	0.00	COMB10
STORY1	B192	SF50X30	20.000	4.82	COMB4	2.59	COMB4	0.00	COMB10
STORY1	B192	SF50X30	70.000	1.18	COMB4	1.28	COMB4	0.00	COMB10
STORY1	B192	SF50X30	70.000	1.18	COMB4	1.53	COMB1	0.00	COMB10
STORY1	B192	SF50X30	81.875	1.18	COMB4	1.59	COMB1	0.00	COMB10
STORY1	B192	SF50X30	81.875	1.18	COMB4	2.12	COMB1	0.00	COMB10
STORY1	B192	SF50X30	86.750	1.18	COMB4	2.13	COMB1	0.00	COMB10
STORY1	B192	SF50X30	86.750	1.18	COMB4	2.13	COMB1	0.00	COMB10
STORY1	B192	SF50X30	107.500	1.18	COMB4	2.26	COMB1	0.00	COMB10
STORY1	B192	SF50X30	107.500	1.18	COMB4	2.27	COMB1	0.00	COMB10
STORY1	B192	SF50X30	145.000	1.18	COMB4	2.50	COMB1	0.00	COMB10
STORY1	B192	SF50X30	145.000	1.18	COMB4	1.28	COMB4	0.00	COMB10
STORY1	B192	SF50X30	160.000	1.18	COMB4	1.28	COMB4	0.00	COMB10
STORY1	B192	SF50X30	160.000	1.18	COMB4	2.49	COMB1	0.00	COMB10
STORY1	B192	SF50X30	170.250	1.18	COMB4	2.48	COMB1	0.00	COMB10
STORY1	B192	SF50X30	170.250	1.18	COMB4	2.24	COMB1	0.00	COMB10
STORY1	B192	SF50X30	173.500	1.18	COMB4	2.24	COMB1	0.00	COMB10
STORY1	B192	SF50X30	173.500	1.18	COMB4	2.12	COMB1	0.00	COMB10
STORY1	B192	SF50X30	203.000	1.18	COMB4	1.78	COMB1	0.00	COMB10
STORY1	B192	SF50X30	203.000	1.18	COMB4	1.54	COMB1	0.00	COMB10
STORY1	B192	SF50X30	246.000	1.18	COMB4	1.28	COMB4	0.00	COMB10
STORY1	B192	SF50X30	246.000	1.18	COMB4	1.28	COMB4	0.00	COMB10
STORY1	B192	SF50X30	258.625	1.18	COMB4	1.28	COMB4	0.00	COMB10
STORY1	B192	SF50X30	258.625	1.18	COMB4	1.28	COMB4	0.00	COMB10
STORY1	B192	SF50X30	260.250	1.18	COMB4	1.28	COMB4	0.00	COMB10
STORY1	B192	SF50X30	260.250	1.18	COMB4	1.28	COMB4	0.00	COMB10
STORY1	B192	SF50X30	296.500	2.99	COMB1	1.28	COMB4	0.00	COMB10
STORY1	B192	SF50X30	296.500	4.99	COMB1	1.28	COMB4	0.00	COMB10
STORY1	B192	SF50X30	321.750	7.61	COMB1	1.28	COMB4	0.00	COMB10
STORY1	B192	SF50X30	347.000	11.75	COMB1	1.28	COMB4	0.00	COMB10
STORY1	B192	SF50X30	347.000	17.80	COMB1	1.28	COMB4	0.00	COMB10
STORY1	B192	SF50X30	383.125	14.35	COMB1	1.28	COMB4	0.00	COMB10
STORY1	B192	SF50X30	419.250	11.19	COMB1	1.28	COMB4	0.00	COMB10
STORY1	B192	SF50X30	419.250	10.94	COMB1	1.28	COMB4	0.00	COMB10
STORY1	B192	SF50X30	455.375	8.30	COMB1	1.28	COMB4	0.00	COMB10
STORY1	B192	SF50X30	491.500	6.50	COMB1	1.28	COMB4	0.00	COMB10
STORY1	B192	SF50X30	491.500	6.50	COMB1	1.28	COMB4	6.36	COMB5
STORY1	B192	SF50X30	527.625	4.94	COMB1	1.28	COMB4	6.36	COMB5
STORY1	B192	SF50X30	563.750	2.52	COMB1	1.28	COMB4	6.36	COMB5
STORY1	B192	SF50X30	563.750	2.34	COMB1	1.28	COMB4	6.36	COMB5
STORY1	B192	SF50X30	589.875	1.18	COMB4	1.28	COMB4	6.36	COMB5
STORY1	B192	SF50X30	616.000	0.00	COMB10	0.34	COMB1	6.36	COMB5
STORY1	B193	SF50X30	20.000	4.84	COMB4	2.60	COMB4	0.00	COMB10
STORY1	B193	SF50X30	70.000	1.19	COMB4	1.29	COMB4	0.00	COMB10
STORY1	B193	SF50X30	70.000	1.19	COMB4	1.63	COMB4	0.00	COMB10
STORY1	B193	SF50X30	81.875	1.19	COMB4	1.68	COMB4	0.00	COMB10
STORY1	B193	SF50X30	81.875	1.19	COMB4	2.30	COMB4	0.00	COMB10
STORY1	B193	SF50X30	86.750	1.19	COMB4	2.30	COMB4	0.00	COMB10
STORY1	B193	SF50X30	86.750	1.19	COMB4	2.23	COMB4	0.00	COMB10
STORY1	B193	SF50X30	107.500	1.19	COMB4	2.38	COMB4	0.00	COMB10
STORY1	B193	SF50X30	107.500	1.19	COMB4	2.29	COMB4	0.00	COMB10
STORY1	B193	SF50X30	145.000	1.19	COMB4	1.86	COMB4	0.00	COMB10
STORY1	B193	SF50X30	145.000	1.19	COMB4	1.80	COMB1	0.00	COMB10
STORY1	B193	SF50X30	160.000	1.19	COMB4	1.80	COMB1	0.00	COMB10
STORY1	B193	SF50X30	160.000	1.19	COMB4	1.99	COMB1	0.00	COMB10
STORY1	B193	SF50X30	170.250	1.19	COMB4	1.99	COMB1	0.00	COMB10
STORY1	B193	SF50X30	170.250	1.19	COMB4	1.88	COMB1	0.00	COMB10
STORY1	B193	SF50X30	173.500	1.19	COMB4	1.88	COMB1	0.00	COMB10
STORY1	B193	SF50X30	173.500	1.19	COMB4	1.71	COMB1	0.00	COMB10
STORY1	B193	SF50X30	203.000	1.19	COMB4	1.47	COMB1	0.00	COMB10
STORY1	B193	SF50X30	203.000	1.19	COMB4	1.36	COMB1	0.00	COMB10
STORY1	B193	SF50X30	246.000	1.19	COMB4	1.29	COMB1	0.00	COMB10

REGISTRO NACIONAL DE INGENIEROS E INGENIERAS  
INGENIERO CIVIL  
REGISTRO No. IC-1606  
M.O.P.-V.M.V.D.U. EL SALVADOR C.A.

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STORY1	B193	SF50X30	246.000	1.19	COMB4	1.29	COMB4	0.00	COMB10
STORY1	B193	SF50X30	258.625	1.19	COMB4	1.29	COMB4	0.00	COMB10
STORY1	B193	SF50X30	258.625	1.19	COMB4	1.29	COMB4	0.00	COMB10
STORY1	B193	SF50X30	260.250	1.19	COMB4	1.29	COMB4	0.00	COMB10
STORY1	B193	SF50X30	260.250	1.19	COMB4	1.29	COMB4	0.00	COMB10
STORY1	B193	SF50X30	296.500	3.23	COMB1	1.29	COMB4	0.00	COMB10
STORY1	B193	SF50X30	296.500	5.35	COMB1	1.29	COMB4	0.00	COMB10
STORY1	B193	SF50X30	321.750	8.18	COMB1	1.29	COMB4	0.00	COMB10
STORY1	B193	SF50X30	347.000	12.66	COMB1	1.29	COMB4	0.00	COMB10
STORY1	B193	SF50X30	347.000	19.19	COMB1	1.29	COMB4	0.00	COMB10
STORY1	B193	SF50X30	383.125	15.46	COMB1	1.29	COMB4	0.00	COMB10
STORY1	B193	SF50X30	419.250	12.04	COMB1	1.29	COMB4	0.00	COMB10
STORY1	B193	SF50X30	419.250	11.77	COMB1	1.29	COMB4	0.00	COMB10
STORY1	B193	SF50X30	455.375	8.92	COMB1	1.29	COMB4	0.00	COMB10
STORY1	B193	SF50X30	491.500	6.50	COMB1	1.29	COMB4	0.00	COMB10
STORY1	B193	SF50X30	491.500	6.50	COMB1	1.29	COMB4	0.00	COMB10
STORY1	B193	SF50X30	527.625	5.29	COMB1	1.29	COMB4	0.00	COMB10
STORY1	B193	SF50X30	563.750	2.68	COMB1	1.29	COMB4	0.00	COMB10
STORY1	B193	SF50X30	563.750	2.48	COMB1	1.29	COMB4	0.00	COMB10
STORY1	B193	SF50X30	589.875	1.19	COMB4	1.29	COMB4	0.00	COMB10
STORY1	B193	SF50X30	616.000	0.00	COMB10	0.39	COMB1	0.00	COMB10
STORY1	B194	SF50X30	20.000	3.34	COMB1	1.80	COMB1	6.36	COMB5
STORY1	B194	SF50X30	54.500	0.82	COMB1	0.89	COMB1	6.36	COMB5
STORY1	B194	SF50X30	54.500	0.82	COMB1	0.89	COMB1	6.36	COMB5
STORY1	B194	SF50X30	87.000	0.82	COMB1	1.68	COMB1	6.36	COMB5
STORY1	B194	SF50X30	87.000	0.82	COMB1	1.97	COMB1	6.36	COMB5
STORY1	B194	SF50X30	88.125	0.82	COMB1	1.97	COMB1	6.36	COMB5
STORY1	B194	SF50X30	88.125	0.82	COMB1	1.56	COMB1	0.00	COMB10
STORY1	B194	SF50X30	119.500	0.82	COMB1	1.38	COMB1	0.00	COMB10
STORY1	B194	SF50X30	119.500	0.82	COMB1	1.27	COMB1	0.00	COMB10
STORY1	B194	SF50X30	147.875	0.82	COMB1	1.32	COMB1	0.00	COMB10
STORY1	B194	SF50X30	176.250	0.82	COMB1	1.28	COMB1	0.00	COMB10
STORY1	B194	SF50X30	176.250	0.82	COMB1	1.07	COMB1	0.00	COMB10
STORY1	B194	SF50X30	199.500	0.82	COMB1	0.90	COMB1	0.00	COMB10
STORY1	B194	SF50X30	199.500	0.82	COMB1	0.89	COMB1	0.00	COMB10
STORY1	B194	SF50X30	231.938	0.82	COMB1	0.97	COMB1	0.00	COMB10
STORY1	B194	SF50X30	264.375	0.82	COMB1	1.12	COMB1	0.00	COMB10
STORY1	B194	SF50X30	264.375	0.82	COMB1	1.25	COMB1	0.00	COMB10
STORY1	B194	SF50X30	279.500	0.82	COMB1	1.21	COMB1	0.00	COMB10
STORY1	B194	SF50X30	279.500	0.82	COMB1	0.95	COMB1	0.00	COMB10
STORY1	B194	SF50X30	316.000	0.82	COMB1	0.89	COMB1	0.00	COMB10
STORY1	B194	SF50X30	316.000	0.82	COMB1	0.89	COMB1	0.00	COMB10
STORY1	B194	SF50X30	352.500	1.87	COMB1	0.89	COMB1	0.00	COMB10
STORY1	B194	SF50X30	352.500	1.93	COMB1	0.89	COMB1	0.00	COMB10
STORY1	B194	SF50X30	399.333	1.05	COMB1	0.89	COMB1	0.00	COMB10
STORY1	B194	SF50X30	446.167	0.82	COMB1	0.89	COMB1	0.00	COMB10
STORY1	B194	SF50X30	493.000	0.82	COMB1	0.89	COMB1	0.00	COMB10
STORY1	B194	SF50X30	493.000	0.82	COMB1	0.89	COMB1	0.00	COMB10
STORY1	B194	SF50X30	534.833	0.82	COMB1	0.89	COMB1	0.00	COMB10
STORY1	B194	SF50X30	576.667	0.82	COMB1	0.89	COMB1	0.00	COMB10
STORY1	B194	SF50X30	618.500	0.78	COMB1	0.42	COMB1	0.00	COMB10
STORY1	B195	SF50X30	20.000	1.44	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B195	SF50X30	39.500	0.57	COMB1	0.39	COMB1	0.00	COMB10
STORY1	B195	SF50X30	39.500	0.38	COMB1	0.39	COMB1	0.00	COMB10
STORY1	B195	SF50X30	88.125	0.36	COMB1	0.46	COMB1	0.00	COMB10
STORY1	B195	SF50X30	88.125	0.36	COMB1	0.68	COMB1	0.00	COMB10
STORY1	B195	SF50X30	99.500	0.36	COMB1	0.69	COMB1	0.00	COMB10
STORY1	B195	SF50X30	99.500	0.36	COMB1	0.39	COMB1	0.00	COMB10
STORY1	B195	SF50X30	129.500	0.36	COMB1	0.50	COMB1	0.00	COMB10
STORY1	B195	SF50X30	159.500	0.36	COMB1	0.51	COMB1	0.00	COMB10
STORY1	B195	SF50X30	159.500	0.36	COMB1	0.63	COMB1	0.00	COMB10
STORY1	B195	SF50X30	176.250	0.36	COMB1	0.68	COMB1	0.00	COMB10
STORY1	B195	SF50X30	176.250	0.36	COMB1	0.75	COMB1	6.36	COMB5
STORY1	B195	SF50X30	219.500	0.36	COMB1	0.61	COMB1	6.36	COMB5
STORY1	B195	SF50X30	219.500	0.36	COMB1	0.61	COMB1	6.36	COMB5
STORY1	B195	SF50X30	264.375	0.36	COMB1	0.98	COMB1	6.36	COMB5
STORY1	B195	SF50X30	264.375	0.36	COMB1	1.15	COMB1	6.36	COMB5
STORY1	B195	SF50X30	279.500	0.36	COMB1	1.14	COMB1	6.36	COMB5
STORY1	B195	SF50X30	279.500	0.36	COMB1	0.99	COMB1	6.36	COMB4
STORY1	B195	SF50X30	316.000	0.36	COMB1	0.60	COMB1	6.36	COMB4
STORY1	B195	SF50X30	316.000	0.36	COMB1	0.47	COMB3	6.36	COMB4
STORY1	B195	SF50X30	352.500	1.20	COMB1	0.39	COMB1	6.36	COMB4
STORY1	B195	SF50X30	352.500	1.56	COMB1	0.39	COMB1	0.00	COMB10
STORY1	B195	SF50X30	399.333	0.79	COMB1	0.39	COMB1	0.00	COMB10
STORY1	B195	SF50X30	446.167	0.36	COMB1	0.39	COMB1	0.00	COMB10
STORY1	B195	SF50X30	493.000	0.36	COMB1	0.39	COMB1	0.00	COMB10
STORY1	B195	SF50X30	493.000	0.36	COMB1	0.39	COMB1	0.00	COMB10
STORY1	B195	SF50X30	534.000	0.36	COMB1	0.39	COMB1	0.00	COMB10
STORY1	B195	SF50X30	575.000	0.39	COMB1	0.39	COMB1	0.00	COMB10
STORY1	B195	SF50X30	616.000	0.87	COMB1	0.47	COMB1	0.00	COMB10
STORY1	B196	VC20X40	20.000	3.26	COMB1	1.61	COMB1	0.00	COMB10
STORY1	B196	VC20X40	54.062	1.26	COMB1	0.80	COMB1	0.00	COMB10
STORY1	B196	VC20X40	88.125	0.80	COMB1	0.80	COMB1	0.00	COMB10
STORY1	B196	VC20X40	88.125	0.80	COMB1	0.86	COMB1	0.00	COMB10
STORY1	B196	VC20X40	132.188	0.80	COMB1	1.88	COMB1	0.00	COMB10
STORY1	B196	VC20X40	176.250	0.80	COMB1	2.83	COMB1	0.00	COMB10
STORY1	B196	VC20X40	176.250	0.80	COMB1	2.82	COMB1	0.00	COMB10
STORY1	B196	VC20X40	220.313	0.80	COMB1	2.21	COMB1	0.00	COMB10

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STORY1	B196	VC20X40	264.375	0.80	COMB1	1.53	COMB1	0.00	COMB10
STORY1	B196	VC20X40	264.375	0.80	COMB1	1.31	COMB1	0.00	COMB10
STORY1	B196	VC20X40	308.438	0.80	COMB1	0.80	COMB1	0.00	COMB10
STORY1	B196	VC20X40	352.500	2.43	COMB1	0.80	COMB1	0.00	COMB10
STORY1	B196	VC20X40	352.500	1.50	COMB1	0.80	COMB1	0.00	COMB10
STORY1	B196	VC20X40	399.333	0.97	COMB1	0.80	COMB1	0.00	COMB10
STORY1	B196	VC20X40	446.167	0.80	COMB1	0.80	COMB1	0.00	COMB10
STORY1	B196	VC20X40	493.000	0.80	COMB1	0.80	COMB1	0.00	COMB10
STORY1	B196	VC20X40	493.000	0.80	COMB1	0.80	COMB1	0.00	COMB10
STORY1	B196	VC20X40	533.167	0.80	COMB1	0.80	COMB1	0.00	COMB10
STORY1	B196	VC20X40	573.333	1.26	COMB1	0.80	COMB1	0.00	COMB10
STORY1	B196	VC20X40	613.500	1.89	COMB1	0.94	COMB1	0.00	COMB10
STORY1	B197	SF50X30	20.000	0.00	COMB10	3.14	COMB1	9.18	COMB1
STORY1	B197	SF50X30	54.063	0.72	COMB1	2.52	COMB5	9.18	COMB1
STORY1	B197	SF50X30	88.125	0.72	COMB1	1.88	COMB5	9.18	COMB1
STORY1	B197	SF50X30	88.125	0.72	COMB1	1.85	COMB5	9.24	COMB1
STORY1	B197	SF50X30	134.500	0.72	COMB1	0.93	COMB5	9.24	COMB1
STORY1	B197	SF50X30	134.500	0.72	COMB1	1.39	COMB5	9.22	COMB1
STORY1	B197	SF50X30	176.250	0.72	COMB1	0.78	COMB1	9.22	COMB1
STORY1	B197	SF50X30	176.250	0.72	COMB1	0.78	COMB1	8.52	COMB1
STORY1	B197	SF50X30	220.313	2.72	COMB1	0.78	COMB1	8.52	COMB1
STORY1	B197	SF50X30	264.375	5.23	COMB1	0.78	COMB1	8.52	COMB1
STORY1	B197	SF50X30	264.375	5.28	COMB1	0.78	COMB1	7.22	COMB1
STORY1	B197	SF50X30	308.438	6.58	COMB1	0.78	COMB1	7.22	COMB1
STORY1	B197	SF50X30	352.500	9.45	COMB1	0.78	COMB1	7.22	COMB1
STORY1	B197	SF50X30	352.500	6.50	COMB5	0.78	COMB1	0.00	COMB10
STORY1	B197	SF50X30	396.563	4.92	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B197	SF50X30	440.625	2.71	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B197	SF50X30	440.625	2.61	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B197	SF50X30	487.000	1.11	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B197	SF50X30	487.000	0.87	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B197	SF50X30	528.750	0.72	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B197	SF50X30	528.750	0.72	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B197	SF50X30	572.813	0.72	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B197	SF50X30	616.875	0.72	COMB1	0.82	COMB5	0.00	COMB10
STORY1	B197	SF50X30	616.875	0.72	COMB1	0.82	COMB5	0.00	COMB10
STORY1	B197	SF50X30	650.938	0.72	COMB1	0.78	COMB1	0.00	COMB10
STORY1	B197	SF50X30	685.000	0.25	COMB8	0.56	COMB5	0.00	COMB10
STORY1	B198	VC20X40	20.000	2.43	COMB4	1.20	COMB4	4.37	COMB5
STORY1	B198	VC20X40	46.125	1.78	COMB4	1.04	COMB5	4.37	COMB5
STORY1	B198	VC20X40	72.250	1.15	COMB4	1.01	COMB5	4.37	COMB5
STORY1	B198	VC20X40	72.250	1.05	COMB4	0.98	COMB5	4.38	COMB3
STORY1	B198	VC20X40	108.375	0.64	COMB5	0.66	COMB5	4.38	COMB3
STORY1	B198	VC20X40	144.500	0.64	COMB5	0.64	COMB5	4.38	COMB3
STORY1	B198	VC20X40	144.500	0.64	COMB5	0.64	COMB5	4.29	COMB3
STORY1	B198	VC20X40	180.625	0.64	COMB5	0.64	COMB5	4.29	COMB3
STORY1	B198	VC20X40	216.750	1.03	COMB5	0.65	COMB8	4.29	COMB3
STORY1	B198	VC20X40	216.750	1.15	COMB5	0.66	COMB8	0.00	COMB10
STORY1	B198	VC20X40	242.875	1.87	COMB5	0.69	COMB8	0.00	COMB10
STORY1	B198	VC20X40	269.000	2.61	COMB5	1.29	COMB5	0.00	COMB10
STORY1	B199	VC20X40	20.000	1.92	COMB4	0.95	COMB4	0.00	COMB10
STORY1	B199	VC20X40	46.125	1.40	COMB4	0.80	COMB5	0.00	COMB10
STORY1	B199	VC20X40	72.250	0.91	COMB4	0.68	COMB5	0.00	COMB10
STORY1	B199	VC20X40	72.250	0.86	COMB4	0.67	COMB5	0.00	COMB10
STORY1	B199	VC20X40	108.375	0.47	COMB4	0.47	COMB4	0.00	COMB10
STORY1	B199	VC20X40	144.500	0.47	COMB4	0.47	COMB4	0.00	COMB10
STORY1	B199	VC20X40	144.500	0.47	COMB4	0.47	COMB4	0.00	COMB10
STORY1	B199	VC20X40	180.625	0.47	COMB4	0.65	COMB8	0.00	COMB10
STORY1	B199	VC20X40	216.750	0.88	COMB5	1.00	COMB8	0.00	COMB10
STORY1	B199	VC20X40	216.750	0.92	COMB5	1.02	COMB8	0.00	COMB10
STORY1	B199	VC20X40	242.875	1.35	COMB5	1.22	COMB8	0.00	COMB10
STORY1	B199	VC20X40	269.000	1.80	COMB5	1.41	COMB8	0.00	COMB10
STORY1	B200	SF50X30	20.000	6.68	COMB1	4.74	COMB1	6.56	COMB1
STORY1	B200	SF50X30	26.000	6.50	COMB5	2.34	COMB1	6.56	COMB1
STORY1	B200	SF50X30	26.000	6.50	COMB5	2.34	COMB1	6.56	COMB1
STORY1	B200	SF50X30	52.000	6.50	COMB1	2.34	COMB1	6.56	COMB1
STORY1	B200	SF50X30	52.000	6.16	COMB1	2.34	COMB1	6.56	COMB1
STORY1	B200	SF50X30	87.875	4.19	COMB1	2.34	COMB1	6.56	COMB1
STORY1	B200	SF50X30	87.875	4.00	COMB1	2.34	COMB1	6.08	COMB1
STORY1	B200	SF50X30	131.813	2.16	COMB1	2.34	COMB1	6.08	COMB1
STORY1	B200	SF50X30	175.750	2.16	COMB1	2.34	COMB1	6.08	COMB1
STORY1	B200	SF50X30	175.750	2.16	COMB1	2.34	COMB1	8.89	COMB1
STORY1	B200	SF50X30	219.688	2.16	COMB1	2.34	COMB1	8.89	COMB1
STORY1	B200	SF50X30	263.625	2.16	COMB1	2.34	COMB1	8.89	COMB1
STORY1	B200	SF50X30	263.625	2.16	COMB1	2.34	COMB1	8.83	COMB1
STORY1	B200	SF50X30	297.563	2.16	COMB1	2.61	COMB1	8.83	COMB1
STORY1	B200	SF50X30	331.500	0.00	COMB10	3.21	COMB1	8.83	COMB1
STORY1	B201	SF50X30	20.000	0.00	COMB10	2.48	COMB1	6.52	COMB1
STORY1	B201	SF50X30	53.938	0.57	COMB1	2.70	COMB1	6.52	COMB1
STORY1	B201	SF50X30	87.875	0.57	COMB1	2.78	COMB1	6.52	COMB1
STORY1	B201	SF50X30	87.875	0.57	COMB1	2.79	COMB1	6.36	COMB8
STORY1	B201	SF50X30	131.813	0.57	COMB1	2.90	COMB1	6.36	COMB8
STORY1	B201	SF50X30	175.750	0.57	COMB1	2.80	COMB1	6.36	COMB8
STORY1	B201	SF50X30	175.750	0.57	COMB1	2.79	COMB1	6.36	COMB8
STORY1	B201	SF50X30	219.688	0.57	COMB1	2.64	COMB1	6.36	COMB8
STORY1	B201	SF50X30	263.625	0.57	COMB1	2.26	COMB1	6.36	COMB8

REGISTRO NACIONAL DE PROYECTOS E INGENIEROS  
MIGUEL ANGEL MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC - 1606  
M.O.P.V.M.V.D.U. EL SALVADOR, C.A.

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STORY1	B201	SF50X30	263.625	0.57	COMB1	2.25	COMB1	6.36	COMB10
STORY1	B201	SF50X30	289.313	0.57	COMB1	2.15	COMB1	6.36	COMB10
STORY1	B201	SF50X30	315.000	0.57	COMB1	1.99	COMB1	6.36	COMB10
STORY1	B201	SF50X30	315.000	0.57	COMB1	1.95	COMB1	6.36	COMB10
STORY1	B201	SF50X30	331.500	0.00	COMB10	1.83	COMB1	6.36	COMB10
STORY1	B202	SF50X30	20.000	0.00	COMB10	0.46	COMB4	6.36	COMB5
STORY1	B202	SF50X30	40.000	0.11	COMB4	0.51	COMB4	6.36	COMB5
STORY1	B202	SF50X30	40.000	0.11	COMB4	0.52	COMB4	6.36	COMB5
STORY1	B202	SF50X30	80.000	0.11	COMB4	0.60	COMB1	6.36	COMB5
STORY1	B202	SF50X30	120.000	0.11	COMB4	0.51	COMB1	6.36	COMB5
STORY1	B202	SF50X30	120.000	0.11	COMB4	0.50	COMB1	0.00	COMB10
STORY1	B202	SF50X30	160.000	0.11	COMB4	0.55	COMB1	0.00	COMB10
STORY1	B202	SF50X30	200.000	0.11	COMB4	0.42	COMB1	0.00	COMB10
STORY1	B202	SF50X30	200.000	0.11	COMB4	0.40	COMB1	0.00	COMB10
STORY1	B202	SF50X30	220.000	0.00	COMB10	0.30	COMB1	0.00	COMB10
STORY1	B203	SF50X30	20.000	0.08	COMB5	0.36	COMB4	6.36	COMB8
STORY1	B203	SF50X30	36.000	0.35	COMB1	0.48	COMB4	6.36	COMB8
STORY1	B203	SF50X30	36.000	0.35	COMB1	0.53	COMB4	6.36	COMB8
STORY1	B203	SF50X30	62.063	0.35	COMB1	0.78	COMB1	6.36	COMB8
STORY1	B203	SF50X30	88.125	0.35	COMB1	1.03	COMB1	6.36	COMB8
STORY1	B203	SF50X30	88.125	0.35	COMB1	1.09	COMB1	0.00	COMB10
STORY1	B203	SF50X30	134.500	0.35	COMB1	1.71	COMB1	0.00	COMB10
STORY1	B203	SF50X30	134.500	0.35	COMB1	1.88	COMB1	0.00	COMB10
STORY1	B203	SF50X30	176.250	0.35	COMB1	1.90	COMB1	0.00	COMB10
STORY1	B203	SF50X30	176.250	0.35	COMB1	1.87	COMB1	0.00	COMB10
STORY1	B203	SF50X30	220.313	0.35	COMB1	1.91	COMB1	0.00	COMB10
STORY1	B203	SF50X30	264.375	0.35	COMB1	1.74	COMB1	0.00	COMB10
STORY1	B203	SF50X30	264.375	0.35	COMB1	1.73	COMB1	0.00	COMB10
STORY1	B203	SF50X30	298.438	0.35	COMB1	1.69	COMB1	0.00	COMB10
STORY1	B203	SF50X30	332.500	0.00	COMB10	1.53	COMB1	0.00	COMB10
STORY1	B204	SF50X30	20.000	0.00	COMB10	1.99	COMB1	6.36	COMB51
STORY1	B204	SF50X30	54.063	0.57	COMB5	2.25	COMB1	6.36	COMB51
STORY1	B204	SF50X30	88.125	0.57	COMB5	2.37	COMB1	6.36	COMB51
STORY1	B204	SF50X30	88.125	0.57	COMB5	2.40	COMB1	6.36	COMB10
STORY1	B204	SF50X30	134.500	0.57	COMB5	2.78	COMB5	6.36	COMB10
STORY1	B204	SF50X30	134.500	0.57	COMB5	3.06	COMB1	6.36	COMB10
STORY1	B204	SF50X30	176.250	0.57	COMB5	3.10	COMB1	6.36	COMB10
STORY1	B204	SF50X30	176.250	0.57	COMB5	3.08	COMB1	6.36	COMB10
STORY1	B204	SF50X30	220.313	0.57	COMB5	3.09	COMB1	6.36	COMB10
STORY1	B204	SF50X30	264.375	0.57	COMB5	2.88	COMB1	6.36	COMB10
STORY1	B204	SF50X30	264.375	0.57	COMB5	2.87	COMB1	6.36	COMB10
STORY1	B204	SF50X30	290.188	0.57	COMB5	2.77	COMB1	6.36	COMB10
STORY1	B204	SF50X30	316.000	0.57	COMB5	2.61	COMB1	6.36	COMB10
STORY1	B204	SF50X30	316.000	0.57	COMB5	2.57	COMB5	6.36	COMB10
STORY1	B204	SF50X30	332.500	0.00	COMB10	2.47	COMB5	6.36	COMB10

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CONCRETE BEAM DESIGN OUTPUT (ACI 318-99)

TORSION AND SHEAR DESIGN OF BEAM-TYPE ELEMENTS

STORY ID	BEAM BAY	SECTION ID	STATION ID	←-----REQUIRED REINFORCING-----→			
				TORSION	COMBO	SHEAR	COMBO
STORY1	B3	SF50X30	20.000	0.00	COMB10	0.03	COMB9
STORY1	B3	SF50X30	40.000	0.00	COMB10	0.03	COMB9
STORY1	B3	SF50X30	40.000	0.00	COMB10	0.03	COMB9
STORY1	B3	SF50X30	80.000	0.00	COMB10	0.03	COMB9
STORY1	B3	SF50X30	80.000	0.00	COMB10	0.03	COMB9
STORY1	B3	SF50X30	120.000	0.00	COMB10	0.03	COMB9
STORY1	B3	SF50X30	120.000	0.02	COMB5	0.03	COMB9
STORY1	B3	SF50X30	160.000	0.02	COMB5	0.03	COMB9
STORY1	B3	SF50X30	160.000	0.02	COMB5	0.03	COMB9
STORY1	B3	SF50X30	200.000	0.02	COMB5	0.03	COMB9
STORY1	B3	SF50X30	200.000	0.02	COMB5	0.03	COMB9
STORY1	B3	SF50X30	220.000	0.02	COMB5	0.03	COMB9
STORY1	B9	SF50X30	20.000	0.00	COMB10	0.00	COMB10
STORY1	B9	SF50X30	60.000	0.00	COMB10	0.00	COMB10
STORY1	B9	SF50X30	60.000	0.00	COMB10	0.00	COMB10
STORY1	B9	SF50X30	90.000	0.00	COMB10	0.00	COMB10
STORY1	B9	SF50X30	120.000	0.00	COMB10	0.00	COMB10
STORY1	B9	SF50X30	120.000	0.00	COMB10	0.00	COMB10
STORY1	B9	SF50X30	150.000	0.00	COMB10	0.00	COMB10
STORY1	B9	SF50X30	180.000	0.00	COMB10	0.00	COMB10
STORY1	B9	SF50X30	180.000	0.00	COMB10	0.00	COMB10
STORY1	B9	SF50X30	220.000	0.00	COMB10	0.00	COMB10
STORY1	B13	SF50X30	0.000	0.00	COMB10	0.06	COMB9
STORY1	B13	SF50X30	40.000	0.00	COMB10	0.06	COMB9
STORY1	B13	SF50X30	80.000	0.00	COMB10	0.06	COMB9
STORY1	B13	SF50X30	80.000	0.00	COMB10	0.06	COMB9
STORY1	B13	SF50X30	120.000	0.00	COMB10	0.06	COMB9
STORY1	B13	SF50X30	120.000	0.00	COMB10	0.06	COMB9
STORY1	B13	SF50X30	160.000	0.00	COMB10	0.06	COMB9
STORY1	B13	SF50X30	160.000	0.00	COMB10	0.06	COMB9





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STORY1	B13	SF50X30	200.000	0.00	COMB10	0.06	COMB9
STORY1	B13	SF50X30	240.000	0.00	COMB10	0.06	COMB9
STORY1	B14	SF50X30	0.000	0.00	COMB10	0.06	COMB10
STORY1	B14	SF50X30	40.000	0.00	COMB10	0.06	COMB10
STORY1	B14	SF50X30	80.000	0.00	COMB10	0.06	COMB10
STORY1	B14	SF50X30	80.000	0.00	COMB10	0.06	COMB10
STORY1	B14	SF50X30	120.000	0.00	COMB10	0.06	COMB10
STORY1	B14	SF50X30	120.000	0.00	COMB10	0.06	COMB10
STORY1	B14	SF50X30	160.000	0.00	COMB10	0.06	COMB10
STORY1	B14	SF50X30	160.000	0.00	COMB10	0.06	COMB10
STORY1	B14	SF50X30	200.000	0.00	COMB10	0.06	COMB10
STORY1	B14	SF50X30	240.000	0.00	COMB10	0.06	COMB10
STORY1	B15	SF50X30	20.000	0.00	COMB10	0.06	COMB9
STORY1	B15	SF50X30	50.000	0.00	COMB10	0.06	COMB9
STORY1	B15	SF50X30	80.000	0.00	COMB10	0.06	COMB9
STORY1	B15	SF50X30	80.000	0.00	COMB10	0.06	COMB9
STORY1	B15	SF50X30	120.000	0.00	COMB10	0.06	COMB9
STORY1	B15	SF50X30	120.000	0.00	COMB10	0.06	COMB9
STORY1	B15	SF50X30	160.000	0.00	COMB10	0.06	COMB9
STORY1	B15	SF50X30	160.000	0.00	COMB10	0.06	COMB9
STORY1	B15	SF50X30	190.000	0.00	COMB10	0.06	COMB9
STORY1	B15	SF50X30	220.000	0.00	COMB10	0.06	COMB9
STORY1	B21	SF50X30	0.000	0.00	COMB10	0.00	COMB10
STORY1	B21	SF50X30	25.250	0.00	COMB10	0.00	COMB10
STORY1	B21	SF50X30	50.500	0.00	COMB10	0.00	COMB10
STORY1	B21	SF50X30	50.500	0.00	COMB10	0.00	COMB10
STORY1	B21	SF50X30	88.375	0.00	COMB10	0.00	COMB10
STORY1	B21	SF50X30	88.375	0.00	COMB10	0.00	COMB10
STORY1	B21	SF50X30	119.938	0.00	COMB10	0.00	COMB10
STORY1	B21	SF50X30	151.500	0.00	COMB10	0.00	COMB10
STORY1	B21	SF50X30	151.500	0.00	COMB10	0.00	COMB10
STORY1	B21	SF50X30	176.750	0.00	COMB10	0.00	COMB10
STORY1	B21	SF50X30	176.750	0.00	COMB10	0.00	COMB10
STORY1	B21	SF50X30	214.625	0.00	COMB10	0.00	COMB10
STORY1	B21	SF50X30	252.500	0.00	COMB10	0.00	COMB10
STORY1	B21	SF50X30	252.500	0.00	COMB10	0.00	COMB10
STORY1	B21	SF50X30	265.125	0.00	COMB10	0.00	COMB10
STORY1	B21	SF50X30	265.125	0.02	COMB1	0.03	COMB1
STORY1	B21	SF50X30	299.313	0.02	COMB1	0.03	COMB1
STORY1	B21	SF50X30	333.500	0.02	COMB1	0.03	COMB1
STORY1	B22	SF50X30	20.000	0.00	COMB10	0.00	COMB10
STORY1	B22	SF50X30	26.000	0.00	COMB10	0.00	COMB10
STORY1	B22	SF50X30	26.000	0.00	COMB10	0.00	COMB10
STORY1	B22	SF50X30	52.000	0.00	COMB10	0.00	COMB10
STORY1	B22	SF50X30	52.000	0.00	COMB10	0.00	COMB10
STORY1	B22	SF50X30	87.875	0.00	COMB10	0.00	COMB10
STORY1	B22	SF50X30	87.875	0.02	COMB1	0.01	COMB9
STORY1	B22	SF50X30	131.813	0.02	COMB1	0.01	COMB9
STORY1	B22	SF50X30	175.750	0.02	COMB1	0.01	COMB9
STORY1	B22	SF50X30	175.750	0.02	COMB1	0.01	COMB51
STORY1	B22	SF50X30	212.000	0.02	COMB1	0.01	COMB51
STORY1	B22	SF50X30	212.000	0.02	COMB1	0.01	COMB52
STORY1	B22	SF50X30	244.500	0.02	COMB1	0.01	COMB52
STORY1	B22	SF50X30	244.500	0.02	COMB1	0.01	COMB52
STORY1	B22	SF50X30	263.625	0.02	COMB1	0.01	COMB52
STORY1	B22	SF50X30	263.625	0.02	COMB5	0.01	COMB52
STORY1	B22	SF50X30	277.000	0.02	COMB5	0.01	COMB52
STORY1	B22	SF50X30	277.000	0.02	COMB5	0.01	COMB10
STORY1	B22	SF50X30	304.250	0.02	COMB5	0.01	COMB10
STORY1	B22	SF50X30	331.500	0.02	COMB5	0.01	COMB10
STORY1	B23	SF50X30	20.000	0.00	COMB10	0.06	COMB10
STORY1	B23	SF50X30	35.500	0.00	COMB10	0.06	COMB10
STORY1	B23	SF50X30	35.500	0.00	COMB10	0.00	COMB10
STORY1	B23	SF50X30	77.000	0.00	COMB10	0.00	COMB10
STORY1	B23	SF50X30	77.000	0.00	COMB10	0.00	COMB10
STORY1	B23	SF50X30	87.875	0.00	COMB10	0.00	COMB10
STORY1	B23	SF50X30	87.875	0.00	COMB10	0.00	COMB10
STORY1	B23	SF50X30	118.500	0.00	COMB10	0.00	COMB10
STORY1	B23	SF50X30	118.500	0.00	COMB10	0.00	COMB10
STORY1	B23	SF50X30	147.125	0.00	COMB10	0.00	COMB10
STORY1	B23	SF50X30	175.750	0.00	COMB10	0.00	COMB10
STORY1	B23	SF50X30	175.750	0.00	COMB10	0.00	COMB10
STORY1	B23	SF50X30	198.500	0.00	COMB10	0.00	COMB10
STORY1	B23	SF50X30	198.500	0.00	COMB10	0.00	COMB10
STORY1	B23	SF50X30	231.063	0.00	COMB10	0.00	COMB10
STORY1	B23	SF50X30	263.625	0.00	COMB10	0.00	COMB10
STORY1	B23	SF50X30	263.625	0.00	COMB10	0.00	COMB10
STORY1	B23	SF50X30	278.500	0.00	COMB10	0.00	COMB10
STORY1	B23	SF50X30	278.500	0.00	COMB10	0.00	COMB10
STORY1	B23	SF50X30	315.000	0.00	COMB10	0.00	COMB10
STORY1	B23	SF50X30	315.000	0.00	COMB10	0.00	COMB10
STORY1	B23	SF50X30	331.500	0.00	COMB10	0.00	COMB10
STORY1	B24	SF50X30	20.000	0.02	COMB1	0.03	COMB1
STORY1	B24	SF50X30	36.000	0.02	COMB1	0.03	COMB1
STORY1	B24	SF50X30	36.000	0.02	COMB1	0.03	COMB1



*ms*



Arg1nivelkinder22abril vigas.txt

STORY1	B24	SF50X30	72.000	0.02	COMB1	0.03	COMB51
STORY1	B24	SF50X30	72.000	0.02	COMB1	0.03	COMB51
STORY1	B24	SF50X30	88.125	0.02	COMB1	0.03	COMB51
STORY1	B24	SF50X30	88.125	0.02	COMB5	0.03	COMB9
STORY1	B24	SF50X30	120.063	0.02	COMB5	0.03	COMB9
STORY1	B24	SF50X30	152.000	0.02	COMB5	0.03	COMB9
STORY1	B24	SF50X30	152.000	0.02	COMB5	0.03	COMB7
STORY1	B24	SF50X30	176.250	0.02	COMB5	0.03	COMB7
STORY1	B24	SF50X30	176.250	0.01	COMB5	0.03	COMB5
STORY1	B24	SF50X30	204.125	0.01	COMB5	0.03	COMB5
STORY1	B24	SF50X30	232.000	0.01	COMB5	0.03	COMB5
STORY1	B24	SF50X30	232.000	0.01	COMB5	0.03	COMB5
STORY1	B24	SF50X30	264.375	0.01	COMB5	0.03	COMB5
STORY1	B24	SF50X30	264.375	0.00	COMB10	0.00	COMB10
STORY1	B24	SF50X30	264.500	0.00	COMB10	0.00	COMB10
STORY1	B24	SF50X30	264.500	0.00	COMB10	0.00	COMB10
STORY1	B24	SF50X30	297.000	0.00	COMB10	0.00	COMB10
STORY1	B24	SF50X30	297.000	0.00	COMB10	0.03	COMB10
STORY1	B24	SF50X30	332.500	0.00	COMB10	0.03	COMB10
STORY1	B25	SF50X30	20.000	0.00	COMB10	0.02	COMB10
STORY1	B25	SF50X30	54.500	0.00	COMB10	0.02	COMB10
STORY1	B25	SF50X30	54.500	0.00	COMB10	0.00	COMB10
STORY1	B25	SF50X30	87.000	0.00	COMB10	0.00	COMB10
STORY1	B25	SF50X30	87.000	0.00	COMB10	0.00	COMB10
STORY1	B25	SF50X30	88.125	0.00	COMB10	0.00	COMB10
STORY1	B25	SF50X30	88.125	0.00	COMB10	0.00	COMB10
STORY1	B25	SF50X30	119.500	0.00	COMB10	0.00	COMB10
STORY1	B25	SF50X30	119.500	0.00	COMB10	0.00	COMB10
STORY1	B25	SF50X30	147.875	0.00	COMB10	0.00	COMB10
STORY1	B25	SF50X30	176.250	0.00	COMB10	0.00	COMB10
STORY1	B25	SF50X30	176.250	0.01	COMB1	0.02	COMB1
STORY1	B25	SF50X30	199.500	0.01	COMB1	0.02	COMB1
STORY1	B25	SF50X30	199.500	0.01	COMB1	0.02	COMB1
STORY1	B25	SF50X30	231.938	0.01	COMB1	0.02	COMB1
STORY1	B25	SF50X30	264.375	0.01	COMB1	0.02	COMB1
STORY1	B25	SF50X30	264.375	0.02	COMB1	0.02	COMB10
STORY1	B25	SF50X30	279.500	0.02	COMB1	0.02	COMB10
STORY1	B25	SF50X30	279.500	0.02	COMB1	0.02	COMB10
STORY1	B25	SF50X30	316.000	0.02	COMB1	0.02	COMB10
STORY1	B25	SF50X30	316.000	0.02	COMB1	0.02	COMB10
STORY1	B25	SF50X30	332.500	0.02	COMB1	0.02	COMB10
STORY1	B26	SF50X30	20.000	0.03	COMB1	0.01	COMB10
STORY1	B26	SF50X30	36.000	0.03	COMB1	0.01	COMB10
STORY1	B26	SF50X30	36.000	0.03	COMB1	0.01	COMB10
STORY1	B26	SF50X30	72.000	0.03	COMB1	0.01	COMB10
STORY1	B26	SF50X30	72.000	0.03	COMB1	0.01	COMB10
STORY1	B26	SF50X30	88.125	0.03	COMB1	0.01	COMB10
STORY1	B26	SF50X30	88.125	0.02	COMB1	0.01	COMB10
STORY1	B26	SF50X30	120.063	0.02	COMB1	0.01	COMB10
STORY1	B26	SF50X30	152.000	0.02	COMB1	0.01	COMB10
STORY1	B26	SF50X30	152.000	0.02	COMB1	0.01	COMB10
STORY1	B26	SF50X30	176.250	0.02	COMB1	0.01	COMB10
STORY1	B26	SF50X30	176.250	0.02	COMB1	0.01	COMB52
STORY1	B26	SF50X30	204.125	0.02	COMB1	0.01	COMB52
STORY1	B26	SF50X30	232.000	0.02	COMB1	0.01	COMB52
STORY1	B26	SF50X30	232.000	0.02	COMB1	0.01	COMB52
STORY1	B26	SF50X30	264.375	0.02	COMB5	0.01	COMB9
STORY1	B26	SF50X30	264.375	0.02	COMB5	0.01	COMB9
STORY1	B26	SF50X30	264.500	0.02	COMB5	0.01	COMB9
STORY1	B26	SF50X30	264.500	0.02	COMB5	0.01	COMB9
STORY1	B26	SF50X30	297.000	0.02	COMB5	0.01	COMB10
STORY1	B26	SF50X30	297.000	0.02	COMB5	0.01	COMB10
STORY1	B26	SF50X30	332.500	0.02	COMB5	0.01	COMB10
STORY1	B28	SF50X30	20.000	0.00	COMB10	0.07	COMB4
STORY1	B28	SF50X30	50.500	0.00	COMB10	0.07	COMB4
STORY1	B28	SF50X30	50.500	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	86.750	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	86.750	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	88.375	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	88.375	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	101.000	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	101.000	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	126.250	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	151.500	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	151.500	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	173.500	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	173.500	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	176.750	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	176.750	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	202.000	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	202.000	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	227.250	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	227.250	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	252.500	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	252.500	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	260.250	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	260.250	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	265.125	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50X30	265.125	0.00	COMB10	0.06	COMB10

DIN - FISDL  
08 JUN. 2017  
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*MIS*  
INSTITUTO NACIONAL DE ARQUITECTOS E INGENIEROS  
MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC - 1606  
M O P - V M V D U. EL SALVADOR, C.A.

Arq1nivelkinder22abril vigas.txt

STORY1	B28	SF50x30	303.000	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50x30	303.000	0.00	COMB10	0.07	COMB5
STORY1	B28	SF50x30	347.000	0.00	COMB10	0.07	COMB5
STORY1	B28	SF50x30	347.000	0.00	COMB10	0.06	COMB10
STORY1	B28	SF50x30	353.500	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	0.000	0.00	COMB10	0.07	COMB4
STORY1	B29	SF50x30	25.250	0.00	COMB10	0.07	COMB4
STORY1	B29	SF50x30	50.500	0.00	COMB10	0.07	COMB4
STORY1	B29	SF50x30	50.500	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	83.500	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	83.500	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	88.375	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	88.375	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	101.000	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	101.000	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	126.250	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	151.500	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	151.500	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	173.500	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	173.500	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	176.750	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	176.750	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	202.000	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	202.000	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	227.250	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	252.500	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	252.500	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	263.500	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	263.500	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	265.125	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	265.125	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	303.000	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	303.000	0.00	COMB10	0.06	COMB10
STORY1	B29	SF50x30	333.500	0.00	COMB10	0.06	COMB10
STORY1	B30	SF50x30	20.000	0.00	COMB10	0.00	COMB10
STORY1	B30	SF50x30	36.000	0.00	COMB10	0.00	COMB10
STORY1	B30	SF50x30	36.000	0.00	COMB10	0.00	COMB10
STORY1	B30	SF50x30	72.000	0.00	COMB10	0.00	COMB10
STORY1	B30	SF50x30	72.000	0.00	COMB10	0.00	COMB10
STORY1	B30	SF50x30	88.125	0.00	COMB10	0.00	COMB10
STORY1	B30	SF50x30	88.125	0.00	COMB10	0.00	COMB10
STORY1	B30	SF50x30	132.000	0.00	COMB10	0.00	COMB10
STORY1	B30	SF50x30	132.000	0.00	COMB10	0.00	COMB10
STORY1	B30	SF50x30	176.250	0.00	COMB10	0.00	COMB10
STORY1	B30	SF50x30	176.250	0.00	COMB10	0.00	COMB10
STORY1	B30	SF50x30	192.000	0.00	COMB10	0.00	COMB10
STORY1	B30	SF50x30	192.000	0.00	COMB10	0.00	COMB10
STORY1	B30	SF50x30	222.000	0.00	COMB10	0.00	COMB10
STORY1	B30	SF50x30	252.000	0.00	COMB10	0.00	COMB10
STORY1	B30	SF50x30	252.000	0.00	COMB10	0.00	COMB10
STORY1	B30	SF50x30	264.375	0.00	COMB10	0.00	COMB10
STORY1	B30	SF50x30	264.375	0.00	COMB10	0.00	COMB10
STORY1	B30	SF50x30	312.000	0.00	COMB10	0.00	COMB10
STORY1	B30	SF50x30	312.000	0.00	COMB10	0.00	COMB10
STORY1	B30	SF50x30	352.000	0.00	COMB10	0.00	COMB10
STORY1	B30	SF50x30	352.000	0.00	COMB10	0.00	COMB10
STORY1	B30	SF50x30	352.200	0.00	COMB10	0.00	COMB10
STORY1	B32	SF50x30	20.000	0.00	COMB10	0.00	COMB10
STORY1	B32	SF50x30	36.000	0.00	COMB10	0.00	COMB10
STORY1	B32	SF50x30	36.000	0.00	COMB10	0.00	COMB10
STORY1	B32	SF50x30	72.000	0.00	COMB10	0.00	COMB10
STORY1	B32	SF50x30	72.000	0.00	COMB10	0.00	COMB10
STORY1	B32	SF50x30	88.125	0.00	COMB10	0.00	COMB10
STORY1	B32	SF50x30	88.125	0.00	COMB10	0.00	COMB10
STORY1	B32	SF50x30	132.000	0.00	COMB10	0.00	COMB10
STORY1	B32	SF50x30	132.000	0.00	COMB10	0.00	COMB10
STORY1	B32	SF50x30	176.250	0.00	COMB10	0.00	COMB10
STORY1	B32	SF50x30	176.250	0.00	COMB10	0.00	COMB10
STORY1	B32	SF50x30	192.000	0.00	COMB10	0.00	COMB10
STORY1	B32	SF50x30	192.000	0.00	COMB10	0.00	COMB10
STORY1	B32	SF50x30	222.000	0.00	COMB10	0.00	COMB10
STORY1	B32	SF50x30	252.000	0.00	COMB10	0.00	COMB10
STORY1	B32	SF50x30	252.000	0.00	COMB10	0.00	COMB10
STORY1	B32	SF50x30	264.375	0.00	COMB10	0.00	COMB10
STORY1	B32	SF50x30	264.375	0.01	COMB4	0.03	COMB4
STORY1	B32	SF50x30	312.000	0.01	COMB4	0.03	COMB4
STORY1	B32	SF50x30	312.000	0.01	COMB4	0.03	COMB4
STORY1	B32	SF50x30	352.000	0.01	COMB4	0.03	COMB4
STORY1	B32	SF50x30	352.000	0.00	COMB10	0.00	COMB10
STORY1	B32	SF50x30	352.200	0.00	COMB10	0.00	COMB10
STORY1	B33	SF50x30	20.000	0.00	COMB10	0.00	COMB10
STORY1	B33	SF50x30	39.500	0.00	COMB10	0.00	COMB10
STORY1	B33	SF50x30	39.500	0.00	COMB10	0.00	COMB10
STORY1	B33	SF50x30	88.125	0.00	COMB10	0.00	COMB10
STORY1	B33	SF50x30	88.125	0.00	COMB10	0.00	COMB10
STORY1	B33	SF50x30	99.500	0.00	COMB10	0.00	COMB10
STORY1	B33	SF50x30	99.500	0.00	COMB10	0.00	COMB10

DIN - FISDL  
08 JUN. 2017  
REVISADO

MS

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC - 1604  
M.O.P.-V.M.V.D.U. EL SALVADOR, C.A.

ArqInivelkinder22abril vigas.txt

STORY1	B33	SF50x30	129.500	0.00	COMB10	0.00	COMB10
STORY1	B33	SF50x30	159.500	0.00	COMB10	0.00	COMB10
STORY1	B33	SF50x30	159.500	0.00	COMB10	0.00	COMB10
STORY1	B33	SF50x30	176.250	0.00	COMB10	0.00	COMB10
STORY1	B33	SF50x30	176.250	0.00	COMB10	0.00	COMB10
STORY1	B33	SF50x30	219.500	0.00	COMB10	0.00	COMB10
STORY1	B33	SF50x30	219.500	0.00	COMB10	0.00	COMB10
STORY1	B33	SF50x30	264.375	0.00	COMB10	0.00	COMB10
STORY1	B33	SF50x30	264.375	0.00	COMB10	0.00	COMB10
STORY1	B33	SF50x30	279.500	0.00	COMB10	0.00	COMB10
STORY1	B33	SF50x30	279.500	0.00	COMB10	0.00	COMB10
STORY1	B33	SF50x30	316.000	0.00	COMB10	0.00	COMB10
STORY1	B33	SF50x30	316.000	0.00	COMB10	0.00	COMB10
STORY1	B33	SF50x30	332.500	0.00	COMB10	0.00	COMB10
STORY1	B34	SF50x30	20.000	0.02	COMB1	0.02	COMB5
STORY1	B34	SF50x30	32.500	0.02	COMB1	0.02	COMB5
STORY1	B34	SF50x30	32.500	0.02	COMB1	0.02	COMB10
STORY1	B34	SF50x30	65.000	0.02	COMB1	0.02	COMB10
STORY1	B34	SF50x30	65.000	0.02	COMB1	0.02	COMB5
STORY1	B34	SF50x30	87.875	0.02	COMB1	0.02	COMB5
STORY1	B34	SF50x30	87.875	0.02	COMB1	0.02	COMB1
STORY1	B34	SF50x30	125.500	0.02	COMB1	0.02	COMB1
STORY1	B34	SF50x30	125.500	0.01	COMB1	0.02	COMB1
STORY1	B34	SF50x30	150.625	0.01	COMB1	0.02	COMB1
STORY1	B34	SF50x30	175.750	0.01	COMB1	0.02	COMB1
STORY1	B34	SF50x30	175.750	0.00	COMB10	0.00	COMB10
STORY1	B34	SF50x30	186.000	0.00	COMB10	0.00	COMB10
STORY1	B34	SF50x30	186.000	0.00	COMB10	0.00	COMB10
STORY1	B34	SF50x30	216.250	0.00	COMB10	0.00	COMB10
STORY1	B34	SF50x30	246.500	0.00	COMB10	0.00	COMB10
STORY1	B34	SF50x30	246.500	0.00	COMB10	0.00	COMB10
STORY1	B34	SF50x30	263.625	0.00	COMB10	0.00	COMB10
STORY1	B34	SF50x30	263.625	0.00	COMB10	0.00	COMB10
STORY1	B34	SF50x30	307.000	0.00	COMB10	0.00	COMB10
STORY1	B34	SF50x30	307.000	0.00	COMB10	0.00	COMB10
STORY1	B34	SF50x30	347.000	0.00	COMB10	0.00	COMB10
STORY1	B34	SF50x30	347.000	0.00	COMB10	0.00	COMB10
STORY1	B34	SF50x30	347.200	0.00	COMB10	0.00	COMB10
STORY1	B35	SF50x30	20.000	0.00	COMB10	0.00	COMB10
STORY1	B35	SF50x30	35.500	0.00	COMB10	0.00	COMB10
STORY1	B35	SF50x30	35.500	0.00	COMB10	0.00	COMB10
STORY1	B35	SF50x30	61.688	0.00	COMB10	0.00	COMB10
STORY1	B35	SF50x30	87.875	0.00	COMB10	0.00	COMB10
STORY1	B35	SF50x30	87.875	0.00	COMB10	0.00	COMB10
STORY1	B35	SF50x30	95.250	0.00	COMB10	0.00	COMB10
STORY1	B35	SF50x30	95.250	0.00	COMB10	0.00	COMB10
STORY1	B35	SF50x30	125.125	0.00	COMB10	0.00	COMB10
STORY1	B35	SF50x30	155.000	0.00	COMB10	0.00	COMB10
STORY1	B35	SF50x30	155.000	0.00	COMB10	0.00	COMB10
STORY1	B35	SF50x30	175.750	0.00	COMB10	0.00	COMB10
STORY1	B35	SF50x30	175.750	0.00	COMB10	0.00	COMB10
STORY1	B35	SF50x30	214.750	0.00	COMB10	0.00	COMB10
STORY1	B35	SF50x30	214.750	0.00	COMB10	0.00	COMB10
STORY1	B35	SF50x30	263.625	0.00	COMB10	0.00	COMB10
STORY1	B35	SF50x30	263.625	0.00	COMB10	0.00	COMB10
STORY1	B35	SF50x30	274.500	0.00	COMB10	0.00	COMB10
STORY1	B35	SF50x30	274.500	0.00	COMB10	0.00	COMB10
STORY1	B35	SF50x30	313.000	0.00	COMB10	0.00	COMB10
STORY1	B35	SF50x30	313.000	0.00	COMB10	0.00	COMB10
STORY1	B35	SF50x30	331.500	0.00	COMB10	0.00	COMB10
STORY1	B36	SF50x30	17.500	0.00	COMB10	0.00	COMB10
STORY1	B36	SF50x30	36.000	0.00	COMB10	0.00	COMB10
STORY1	B36	SF50x30	36.000	0.00	COMB10	0.00	COMB10
STORY1	B36	SF50x30	72.000	0.00	COMB10	0.00	COMB10
STORY1	B36	SF50x30	72.000	0.00	COMB10	0.00	COMB10
STORY1	B36	SF50x30	90.000	0.00	COMB10	0.00	COMB10
STORY1	B36	SF50x30	90.000	0.00	COMB10	0.00	COMB10
STORY1	B36	SF50x30	135.000	0.00	COMB10	0.00	COMB10
STORY1	B36	SF50x30	180.000	0.00	COMB10	0.00	COMB10
STORY1	B36	SF50x30	180.000	0.00	COMB10	0.00	COMB10
STORY1	B36	SF50x30	206.000	0.00	COMB10	0.00	COMB10
STORY1	B36	SF50x30	232.000	0.00	COMB10	0.00	COMB10
STORY1	B36	SF50x30	232.000	0.00	COMB10	0.00	COMB10
STORY1	B36	SF50x30	260.000	0.00	COMB10	0.00	COMB10
STORY1	B36	SF50x30	260.000	0.00	COMB10	0.00	COMB10
STORY1	B36	SF50x30	270.000	0.00	COMB10	0.00	COMB10
STORY1	B36	SF50x30	270.000	0.00	COMB10	0.00	COMB10
STORY1	B36	SF50x30	288.000	0.00	COMB10	0.00	COMB10
STORY1	B36	SF50x30	288.000	0.00	COMB10	0.06	COMB5
STORY1	B36	SF50x30	320.750	0.00	COMB10	0.06	COMB10
STORY1	B36	SF50x30	353.500	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	0.000	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	6.500	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	6.500	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	8.375	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	8.375	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	44.500	0.00	COMB10	0.06	COMB10

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REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC - 1606  
M.O.P.-V.M.V.D.U. EL SALVADOR, C.A.

Arq1nivelkinder22abril vigas.txt

STORY1	B37	SF50x30	44.500	0.00	COMB10	0.08	COMB5
STORY1	B37	SF50x30	77.000	0.00	COMB10	0.08	COMB5
STORY1	B37	SF50x30	77.000	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	93.250	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	93.250	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	94.656	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	94.656	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	109.500	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	109.500	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	136.167	0.00	COMB10	0.06	COMB5
STORY1	B37	SF50x30	162.833	0.00	COMB10	0.06	COMB5
STORY1	B37	SF50x30	162.833	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	180.000	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	180.000	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	180.937	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	180.937	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	216.167	0.00	COMB10	0.06	COMB5
STORY1	B37	SF50x30	216.167	0.00	COMB10	0.06	COMB5
STORY1	B37	SF50x30	241.458	0.00	COMB10	0.06	COMB5
STORY1	B37	SF50x30	266.750	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	266.750	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	267.219	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	267.219	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	269.500	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	269.500	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	311.500	0.00	COMB10	0.06	COMB10
STORY1	B37	SF50x30	311.500	0.00	COMB10	0.07	COMB4
STORY1	B37	SF50x30	338.500	0.00	COMB10	0.07	COMB4
STORY1	B38	SF50x30	17.500	0.01	COMB1	0.03	COMB1
STORY1	B38	SF50x30	52.813	0.01	COMB1	0.03	COMB1
STORY1	B38	SF50x30	88.125	0.01	COMB1	0.03	COMB1
STORY1	B38	SF50x30	88.125	0.02	COMB5	0.03	COMB5
STORY1	B38	SF50x30	132.188	0.02	COMB5	0.03	COMB5
STORY1	B38	SF50x30	176.250	0.02	COMB5	0.03	COMB5
STORY1	B38	SF50x30	176.250	0.02	COMB5	0.03	COMB5
STORY1	B38	SF50x30	220.313	0.02	COMB5	0.03	COMB5
STORY1	B38	SF50x30	264.375	0.02	COMB5	0.03	COMB5
STORY1	B38	SF50x30	264.375	0.01	COMB5	0.03	COMB5
STORY1	B38	SF50x30	299.688	0.01	COMB5	0.03	COMB5
STORY1	B38	SF50x30	335.000	0.01	COMB5	0.03	COMB5
STORY1	B39	SF50x30	17.500	0.00	COMB10	0.00	COMB10
STORY1	B39	SF50x30	52.812	0.00	COMB10	0.00	COMB10
STORY1	B39	SF50x30	88.125	0.00	COMB10	0.00	COMB10
STORY1	B39	SF50x30	88.125	0.02	COMB5	0.03	COMB5
STORY1	B39	SF50x30	132.188	0.02	COMB5	0.03	COMB5
STORY1	B39	SF50x30	176.250	0.02	COMB5	0.03	COMB5
STORY1	B39	SF50x30	176.250	0.02	COMB5	0.03	COMB5
STORY1	B39	SF50x30	220.313	0.02	COMB5	0.03	COMB5
STORY1	B39	SF50x30	264.375	0.02	COMB5	0.03	COMB5
STORY1	B39	SF50x30	264.375	0.02	COMB1	0.03	COMB4
STORY1	B39	SF50x30	299.688	0.02	COMB1	0.03	COMB4
STORY1	B39	SF50x30	335.000	0.02	COMB1	0.03	COMB4
STORY1	B40	SF50x30	17.500	0.02	COMB1	0.02	COMB10
STORY1	B40	SF50x30	36.000	0.02	COMB1	0.02	COMB10
STORY1	B40	SF50x30	36.000	0.02	COMB1	0.02	COMB10
STORY1	B40	SF50x30	72.000	0.02	COMB1	0.02	COMB10
STORY1	B40	SF50x30	72.000	0.02	COMB1	0.02	COMB10
STORY1	B40	SF50x30	90.000	0.02	COMB1	0.02	COMB10
STORY1	B40	SF50x30	90.000	0.02	COMB1	0.02	COMB52
STORY1	B40	SF50x30	121.000	0.02	COMB1	0.02	COMB52
STORY1	B40	SF50x30	152.000	0.02	COMB1	0.02	COMB52
STORY1	B40	SF50x30	152.000	0.02	COMB1	0.02	COMB51
STORY1	B40	SF50x30	180.000	0.02	COMB1	0.02	COMB51
STORY1	B40	SF50x30	180.000	0.01	COMB1	0.02	COMB1
STORY1	B40	SF50x30	206.000	0.01	COMB1	0.02	COMB1
STORY1	B40	SF50x30	232.000	0.01	COMB1	0.02	COMB1
STORY1	B40	SF50x30	232.000	0.01	COMB1	0.02	COMB1
STORY1	B40	SF50x30	270.000	0.01	COMB1	0.02	COMB1
STORY1	B40	SF50x30	270.000	0.00	COMB10	0.00	COMB10
STORY1	B40	SF50x30	312.000	0.00	COMB10	0.00	COMB10
STORY1	B40	SF50x30	312.000	0.00	COMB10	0.00	COMB10
STORY1	B40	SF50x30	352.000	0.00	COMB10	0.00	COMB10
STORY1	B40	SF50x30	352.000	0.00	COMB10	0.00	COMB10
STORY1	B40	SF50x30	353.500	0.00	COMB10	0.00	COMB10
STORY1	B41	SF50x30	0.000	0.00	COMB10	0.02	COMB10
STORY1	B41	SF50x30	6.500	0.00	COMB10	0.02	COMB10
STORY1	B41	SF50x30	6.500	0.00	COMB10	0.04	COMB5
STORY1	B41	SF50x30	38.500	0.00	COMB10	0.04	COMB5
STORY1	B41	SF50x30	38.500	0.00	COMB10	0.03	COMB5
STORY1	B41	SF50x30	65.875	0.00	COMB10	0.03	COMB5
STORY1	B41	SF50x30	93.250	0.00	COMB10	0.03	COMB5
STORY1	B41	SF50x30	93.250	0.01	COMB1	0.02	COMB5
STORY1	B41	SF50x30	118.500	0.01	COMB1	0.02	COMB10
STORY1	B41	SF50x30	118.500	0.02	COMB1	0.02	COMB5
STORY1	B41	SF50x30	149.250	0.02	COMB1	0.02	COMB10
STORY1	B41	SF50x30	180.000	0.02	COMB1	0.02	COMB10
STORY1	B41	SF50x30	180.000	0.02	COMB1	0.02	COMB10

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REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC - 1606  
M. O. P. - V. M. V. D. U. EL SALVADOR, C. A.

Arq1nivelkinder22abril vigas.txt

STORY1	B41	SF50x30	198.500	0.02	COMB1	0.02	COMB5
STORY1	B41	SF50x30	198.500	0.02	COMB1	0.03	COMB5
STORY1	B41	SF50x30	232.625	0.02	COMB1	0.03	COMB5
STORY1	B41	SF50x30	266.750	0.02	COMB1	0.02	COMB5
STORY1	B41	SF50x30	266.750	0.02	COMB1	0.02	COMB10
STORY1	B41	SF50x30	278.500	0.02	COMB1	0.02	COMB10
STORY1	B41	SF50x30	278.500	0.02	COMB1	0.03	COMB5
STORY1	B41	SF50x30	316.000	0.02	COMB1	0.02	COMB4
STORY1	B41	SF50x30	316.000	0.02	COMB1	0.03	COMB4
STORY1	B41	SF50x30	338.500	0.02	COMB1	0.03	COMB4
STORY1	B42	SF50x30	15.000	0.00	COMB10	0.00	COMB10
STORY1	B42	SF50x30	50.744	0.00	COMB10	0.00	COMB10
STORY1	B42	SF50x30	86.488	0.00	COMB10	0.00	COMB10
STORY1	B42	SF50x30	86.488	0.00	COMB10	0.00	COMB10
STORY1	B42	SF50x30	88.125	0.00	COMB10	0.00	COMB10
STORY1	B42	SF50x30	88.125	0.01	COMB4	0.03	COMB4
STORY1	B42	SF50x30	130.550	0.01	COMB4	0.03	COMB4
STORY1	B42	SF50x30	172.976	0.01	COMB4	0.03	COMB4
STORY1	B42	SF50x30	172.976	0.01	COMB4	0.03	COMB4
STORY1	B42	SF50x30	176.250	0.01	COMB4	0.03	COMB4
STORY1	B42	SF50x30	176.250	0.01	COMB4	0.03	COMB4
STORY1	B42	SF50x30	217.857	0.01	COMB4	0.03	COMB4
STORY1	B42	SF50x30	259.464	0.01	COMB4	0.03	COMB4
STORY1	B42	SF50x30	259.464	0.01	COMB4	0.03	COMB4
STORY1	B42	SF50x30	264.375	0.01	COMB4	0.03	COMB4
STORY1	B42	SF50x30	264.375	0.01	COMB4	0.03	COMB4
STORY1	B42	SF50x30	305.163	0.01	COMB4	0.03	COMB4
STORY1	B42	SF50x30	345.952	0.01	COMB4	0.03	COMB4
STORY1	B42	SF50x30	345.952	0.01	COMB4	0.03	COMB8
STORY1	B42	SF50x30	346.152	0.01	COMB4	0.03	COMB8
STORY1	B43	SF50x30	20.000	0.00	COMB10	0.00	COMB10
STORY1	B43	SF50x30	54.062	0.00	COMB10	0.00	COMB10
STORY1	B43	SF50x30	88.125	0.00	COMB10	0.00	COMB10
STORY1	B43	SF50x30	88.125	0.00	COMB10	0.00	COMB10
STORY1	B43	SF50x30	132.188	0.00	COMB10	0.00	COMB10
STORY1	B43	SF50x30	176.250	0.00	COMB10	0.00	COMB10
STORY1	B43	SF50x30	176.250	0.01	COMB4	0.03	COMB10
STORY1	B43	SF50x30	220.313	0.01	COMB4	0.03	COMB10
STORY1	B43	SF50x30	264.375	0.01	COMB4	0.03	COMB10
STORY1	B43	SF50x30	264.375	0.01	COMB1	0.03	COMB1
STORY1	B43	SF50x30	300.938	0.01	COMB1	0.03	COMB1
STORY1	B43	SF50x30	337.500	0.01	COMB1	0.03	COMB1
STORY1	B149	VC20x40	6.300	0.00	COMB10	0.03	COMB9
STORY1	B149	VC20x40	6.500	0.00	COMB10	0.03	COMB9
STORY1	B149	VC20x40	6.500	0.00	COMB10	0.04	COMB9
STORY1	B149	VC20x40	50.688	0.00	COMB10	0.04	COMB9
STORY1	B149	VC20x40	94.875	0.00	COMB10	0.04	COMB9
STORY1	B149	VC20x40	94.875	0.00	COMB10	0.03	COMB9
STORY1	B149	VC20x40	139.063	0.00	COMB10	0.03	COMB9
STORY1	B149	VC20x40	183.250	0.00	COMB10	0.03	COMB9
STORY1	B149	VC20x40	183.250	0.00	COMB10	0.03	COMB9
STORY1	B149	VC20x40	227.438	0.00	COMB10	0.03	COMB9
STORY1	B149	VC20x40	271.625	0.00	COMB10	0.03	COMB10
STORY1	B149	VC20x40	271.625	0.00	COMB10	0.03	COMB9
STORY1	B149	VC20x40	305.813	0.00	COMB10	0.03	COMB9
STORY1	B149	VC20x40	340.000	0.00	COMB10	0.03	COMB9
STORY1	B150	VC20x40	20.000	0.00	COMB10	0.03	COMB9
STORY1	B150	VC20x40	53.938	0.00	COMB10	0.03	COMB9
STORY1	B150	VC20x40	87.875	0.00	COMB10	0.03	COMB9
STORY1	B150	VC20x40	87.875	0.00	COMB10	0.03	COMB9
STORY1	B150	VC20x40	131.813	0.00	COMB10	0.03	COMB9
STORY1	B150	VC20x40	175.750	0.00	COMB10	0.03	COMB9
STORY1	B150	VC20x40	175.750	0.00	COMB10	0.03	COMB10
STORY1	B150	VC20x40	219.688	0.00	COMB10	0.03	COMB9
STORY1	B150	VC20x40	263.625	0.00	COMB10	0.03	COMB9
STORY1	B150	VC20x40	263.625	0.00	COMB10	0.03	COMB9
STORY1	B150	VC20x40	297.563	0.00	COMB10	0.03	COMB9
STORY1	B150	VC20x40	331.500	0.00	COMB10	0.04	COMB9
STORY1	B151	VC20x40	20.000	0.00	COMB10	0.04	COMB9
STORY1	B151	VC20x40	53.938	0.00	COMB10	0.04	COMB9
STORY1	B151	VC20x40	87.875	0.00	COMB10	0.03	COMB9
STORY1	B151	VC20x40	87.875	0.00	COMB10	0.03	COMB9
STORY1	B151	VC20x40	131.813	0.00	COMB10	0.03	COMB9
STORY1	B151	VC20x40	175.750	0.00	COMB10	0.03	COMB9
STORY1	B151	VC20x40	175.750	0.00	COMB10	0.03	COMB9
STORY1	B151	VC20x40	219.688	0.00	COMB10	0.03	COMB10
STORY1	B151	VC20x40	263.625	0.00	COMB10	0.03	COMB9
STORY1	B151	VC20x40	263.625	0.00	COMB10	0.03	COMB9
STORY1	B151	VC20x40	297.563	0.00	COMB10	0.03	COMB9
STORY1	B151	VC20x40	331.500	0.00	COMB10	0.04	COMB9
STORY1	B153	VC20x40	6.300	0.00	COMB10	0.03	COMB9
STORY1	B153	VC20x40	6.500	0.00	COMB10	0.03	COMB9
STORY1	B153	VC20x40	6.500	0.00	COMB10	0.04	COMB9
STORY1	B153	VC20x40	50.688	0.00	COMB10	0.04	COMB9
STORY1	B153	VC20x40	94.875	0.00	COMB10	0.04	COMB9

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REGISTRO No. IC - 1606  
M O P - V M V D U. EL SALVADOR, C.A.

Arq1nivelkinder22abril vigas.txt

STORY1	B153	VC20x40	94.875	0.00	COMB10	0.03	COMB9
STORY1	B153	VC20x40	139.063	0.00	COMB10	0.03	COMB9
STORY1	B153	VC20x40	183.250	0.00	COMB10	0.03	COMB9
STORY1	B153	VC20x40	183.250	0.00	COMB10	0.03	COMB10
STORY1	B153	VC20x40	227.438	0.00	COMB10	0.03	COMB9
STORY1	B153	VC20x40	271.625	0.00	COMB10	0.03	COMB9
STORY1	B153	VC20x40	271.625	0.00	COMB10	0.03	COMB9
STORY1	B153	VC20x40	305.813	0.00	COMB10	0.03	COMB9
STORY1	B153	VC20x40	340.000	0.00	COMB10	0.03	COMB9
STORY1	B154	VC20x40	20.000	0.00	COMB10	0.03	COMB9
STORY1	B154	VC20x40	54.063	0.00	COMB10	0.03	COMB9
STORY1	B154	VC20x40	88.125	0.00	COMB10	0.03	COMB9
STORY1	B154	VC20x40	88.125	0.00	COMB10	0.03	COMB10
STORY1	B154	VC20x40	132.188	0.00	COMB10	0.03	COMB9
STORY1	B154	VC20x40	176.250	0.00	COMB10	0.03	COMB9
STORY1	B154	VC20x40	176.250	0.00	COMB10	0.03	COMB10
STORY1	B154	VC20x40	220.313	0.00	COMB10	0.03	COMB10
STORY1	B154	VC20x40	264.375	0.00	COMB10	0.03	COMB9
STORY1	B154	VC20x40	264.375	0.00	COMB10	0.03	COMB9
STORY1	B154	VC20x40	298.438	0.00	COMB10	0.03	COMB9
STORY1	B154	VC20x40	332.500	0.00	COMB10	0.03	COMB9
STORY1	B155	VC20x40	20.000	0.01	COMB5	0.03	COMB9
STORY1	B155	VC20x40	54.063	0.01	COMB5	0.03	COMB9
STORY1	B155	VC20x40	88.125	0.01	COMB5	0.03	COMB9
STORY1	B155	VC20x40	88.125	0.00	COMB10	0.03	COMB9
STORY1	B155	VC20x40	132.188	0.00	COMB10	0.02	COMB9
STORY1	B155	VC20x40	176.250	0.00	COMB10	0.02	COMB9
STORY1	B155	VC20x40	176.250	0.00	COMB10	0.02	COMB9
STORY1	B155	VC20x40	220.313	0.00	COMB10	0.02	COMB9
STORY1	B155	VC20x40	264.375	0.00	COMB10	0.03	COMB9
STORY1	B155	VC20x40	264.375	0.02	COMB5	0.03	COMB9
STORY1	B155	VC20x40	298.438	0.02	COMB5	0.03	COMB9
STORY1	B155	VC20x40	332.500	0.02	COMB5	0.03	COMB9
STORY1	B156	VC20x40	20.000	0.00	COMB10	0.04	COMB9
STORY1	B156	VC20x40	54.188	0.00	COMB10	0.04	COMB9
STORY1	B156	VC20x40	88.375	0.00	COMB10	0.04	COMB9
STORY1	B156	VC20x40	88.375	0.00	COMB10	0.03	COMB9
STORY1	B156	VC20x40	132.563	0.00	COMB10	0.03	COMB9
STORY1	B156	VC20x40	176.750	0.00	COMB10	0.03	COMB9
STORY1	B156	VC20x40	176.750	0.00	COMB10	0.03	COMB9
STORY1	B156	VC20x40	220.938	0.00	COMB10	0.03	COMB9
STORY1	B156	VC20x40	265.125	0.00	COMB10	0.03	COMB9
STORY1	B156	VC20x40	265.125	0.00	COMB10	0.04	COMB9
STORY1	B156	VC20x40	296.063	0.00	COMB10	0.04	COMB9
STORY1	B156	VC20x40	327.000	0.00	COMB10	0.04	COMB9
STORY1	B157	VC20x40	6.300	0.00	COMB10	0.03	COMB9
STORY1	B157	VC20x40	6.500	0.00	COMB10	0.03	COMB9
STORY1	B157	VC20x40	6.500	0.00	COMB10	0.05	COMB9
STORY1	B157	VC20x40	50.688	0.00	COMB10	0.04	COMB9
STORY1	B157	VC20x40	94.875	0.00	COMB10	0.04	COMB9
STORY1	B157	VC20x40	94.875	0.00	COMB10	0.03	COMB9
STORY1	B157	VC20x40	139.063	0.00	COMB10	0.03	COMB9
STORY1	B157	VC20x40	183.250	0.00	COMB10	0.03	COMB9
STORY1	B157	VC20x40	183.250	0.00	COMB10	0.03	COMB9
STORY1	B157	VC20x40	227.438	0.00	COMB10	0.03	COMB9
STORY1	B157	VC20x40	271.625	0.00	COMB10	0.03	COMB9
STORY1	B157	VC20x40	271.625	0.00	COMB10	0.04	COMB9
STORY1	B157	VC20x40	305.813	0.00	COMB10	0.04	COMB9
STORY1	B157	VC20x40	340.000	0.00	COMB10	0.04	COMB9
STORY1	B158	VC20x40	20.000	0.00	COMB10	0.04	COMB9
STORY1	B158	VC20x40	54.063	0.00	COMB10	0.03	COMB9
STORY1	B158	VC20x40	88.125	0.00	COMB10	0.03	COMB9
STORY1	B158	VC20x40	88.125	0.00	COMB10	0.03	COMB9
STORY1	B158	VC20x40	132.188	0.00	COMB10	0.03	COMB9
STORY1	B158	VC20x40	176.250	0.00	COMB10	0.02	COMB9
STORY1	B158	VC20x40	176.250	0.00	COMB10	0.03	COMB9
STORY1	B158	VC20x40	220.313	0.00	COMB10	0.03	COMB9
STORY1	B158	VC20x40	264.375	0.00	COMB10	0.03	COMB9
STORY1	B158	VC20x40	264.375	0.02	COMB5	0.04	COMB9
STORY1	B158	VC20x40	298.438	0.02	COMB5	0.04	COMB9
STORY1	B158	VC20x40	332.500	0.02	COMB5	0.04	COMB9



CONCRETE COLUMN DESIGN OUTPUT (ACI 318-99)

BIAXIAL P-M INTERACTION AND SHEAR DESIGN OF COLUMN-TYPE ELEMENTS

REINFORCING	STORY	COLUMN	SECTION	STATION	-----REQUIRED			
	ID	LINE	ID	ID	LONGITUDINAL	COMBO	SHEAR22	COMBO
SHEAR33	COMBO							
0.054	STORY2 COMB3S	C25	C35X55	0.000	19.25	COMB3S	0.075	COMB3S
0.054	STORY2 COMB3S	C25	C35X55	20.000	19.25	COMB3S	0.075	COMB3S
0.054	STORY2 COMB3S	C25	C35X55	20.000	19.25	COMB3S	0.075	COMB3S
0.054	STORY2 COMB3S	C25	C35X55	120.000	19.25	COMB3S	0.075	COMB3S
0.054	STORY2 COMB3S	C25	C35X55	240.000	19.25	COMB3S	0.075	COMB3S
0.046	STORY3 COMB3S	C26	C35X55	0.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C26	C35X55	85.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C26	C35X55	85.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C26	C35X55	120.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C26	C35X55	150.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C26	C35X55	150.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C26	C35X55	215.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C26	C35X55	215.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C26	C35X55	240.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C27	C35X55	0.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C27	C35X55	70.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C27	C35X55	70.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C27	C35X55	85.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C27	C35X55	85.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C27	C35X55	120.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C27	C35X55	140.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C27	C35X55	140.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C27	C35X55	150.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C27	C35X55	150.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C27	C35X55	210.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C27	C35X55	210.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C27	C35X55	215.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C27	C35X55	215.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C27	C35X55	240.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C27	C35X55	0.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C27	C35X55	20.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C27	C35X55	20.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C27	C35X55	75.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C27	C35X55	75.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C27	C35X55	120.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C27	C35X55	150.000	19.25	COMB3S	0.029	COMB3S

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REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARGOS MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC - 1606  
D. U. EL SALVADOR, C. A.



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0.046	COMB3S STORY2	C27	C35X55	150.000	19.25	COMB3S	0.029	COMB3S
0.046	COMB3S STORY2	C27	C35X55	225.000	19.25	COMB3S	0.029	COMB3S
0.046	COMB3S STORY2	C27	C35X55	225.000	19.25	COMB3S	0.029	COMB3S
0.046	COMB3S STORY2	C27	C35X55	240.000	19.25	COMB3S	0.029	COMB3S
0.046	COMB3S STORY4	C28	C35X55	0.000	19.25	COMB3S	0.029	COMB7
0.046	COMB3S STORY4	C28	C35X55	63.500	19.25	COMB3S	0.029	COMB7
0.046	COMB3S STORY4	C28	C35X55	127.000	19.25	COMB3S	0.029	COMB7
0.046	COMB3S STORY3	C28	C35X55	0.000	19.25	COMB3S	0.029	COMB9
0.046	COMB3S STORY3	C28	C35X55	70.000	19.25	COMB3S	0.029	COMB9
0.046	COMB3S STORY3	C28	C35X55	70.000	19.25	COMB3S	0.029	COMB9
0.046	COMB3S STORY3	C28	C35X55	120.000	19.25	COMB3S	0.029	COMB9
0.046	COMB3S STORY3	C28	C35X55	140.000	19.25	COMB3S	0.029	COMB9
0.046	COMB3S STORY3	C28	C35X55	140.000	19.25	COMB3S	0.029	COMB9
0.046	COMB3S STORY3	C28	C35X55	210.000	19.25	COMB3S	0.029	COMB9
0.046	COMB3S STORY3	C28	C35X55	210.000	19.25	COMB3S	0.029	COMB9
0.046	COMB3S STORY3	C28	C35X55	240.000	19.25	COMB3S	0.029	COMB9
0.046	COMB3S STORY2	C28	C35X55	0.000	19.25	COMB3S	0.031	COMB3S
0.046	COMB3S STORY2	C28	C35X55	20.000	19.25	COMB3S	0.031	COMB3S
0.046	COMB3S STORY2	C28	C35X55	20.000	19.25	COMB3S	0.031	COMB3S
0.046	COMB3S STORY2	C28	C35X55	120.000	19.25	COMB3S	0.031	COMB3S
0.046	COMB3S STORY2	C28	C35X55	240.000	19.25	COMB3S	0.031	COMB3S
0.046	COMB9 STORY3	C29	C35X55	0.000	19.25	COMB3S	0.029	COMB3S
0.046	COMB9 STORY3	C29	C35X55	70.000	19.25	COMB3S	0.029	COMB3S
0.046	COMB9 STORY3	C29	C35X55	70.000	19.25	COMB3S	0.029	COMB3S
0.046	COMB3S STORY3	C29	C35X55	85.000	19.25	COMB3S	0.029	COMB3S
0.046	COMB3S STORY3	C29	C35X55	85.000	19.25	COMB3S	0.029	COMB3S
0.046	COMB3S STORY3	C29	C35X55	120.000	19.25	COMB3S	0.029	COMB3S
0.046	COMB3S STORY3	C29	C35X55	140.000	19.25	COMB3S	0.029	COMB3S
0.046	COMB3S STORY3	C29	C35X55	140.000	19.25	COMB3S	0.029	COMB3S
0.046	COMB3S STORY3	C29	C35X55	150.000	19.25	COMB3S	0.029	COMB3S
0.046	COMB3S STORY3	C29	C35X55	150.000	19.25	COMB3S	0.029	COMB3S
0.046	COMB3S STORY3	C29	C35X55	210.000	19.25	COMB3S	0.029	COMB3S
0.046	COMB3S STORY3	C29	C35X55	210.000	19.25	COMB3S	0.029	COMB3S
0.046	COMB3S STORY3	C29	C35X55	215.000	19.25	COMB3S	0.029	COMB3S
0.046	COMB3S STORY3	C29	C35X55	215.000	19.25	COMB3S	0.029	COMB3S
0.046	COMB3S STORY3	C29	C35X55	240.000	19.25	COMB3S	0.029	COMB3S
0.046	COMB3S STORY2	C29	C35X55	0.000	19.25	COMB3S	0.029	COMB3S
0.046	COMB3S STORY2	C29	C35X55	20.000	19.25	COMB3S	0.029	COMB3S
0.046	COMB3S STORY2	C29	C35X55	20.000	19.25	COMB3S	0.029	COMB3S
0.046	COMB3S STORY2	C29	C35X55	75.000	19.25	COMB3S	0.029	COMB3S

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08 JUN. 2017  
REVISAR

MCS  
INSTRUMENTAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
C. P. R. E. C. O. No. IC - 1606  
M. O. P. V. M. V. D. U. EL SALVADOR, C. A.

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0.046	STORY2 COMB3S	C29	C35X55	75.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C29	C35X55	120.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C29	C35X55	150.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C29	C35X55	150.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C29	C35X55	225.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C29	C35X55	225.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C29	C35X55	240.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C30	C35X55	0.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C30	C35X55	70.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C30	C35X55	70.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C30	C35X55	85.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C30	C35X55	85.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C30	C35X55	120.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C30	C35X55	140.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C30	C35X55	140.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C30	C35X55	150.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C30	C35X55	150.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C30	C35X55	210.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C30	C35X55	210.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C30	C35X55	215.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C30	C35X55	215.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY3 COMB3S	C30	C35X55	240.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C30	C35X55	0.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C30	C35X55	20.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C30	C35X55	20.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C30	C35X55	75.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C30	C35X55	75.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C30	C35X55	120.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C30	C35X55	150.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C30	C35X55	150.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C30	C35X55	225.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C30	C35X55	225.000	19.25	COMB3S	0.029	COMB3S
0.046	STORY2 COMB3S	C30	C35X55	240.000	19.25	COMB3S	0.029	COMB3S
0.038	STORY1 COMB8	C35-2	CC30	0.000	7.07	COMB3S	0.038	COMB8
0.038	STORY1 COMB8	C35-2	CC30	50.000	7.07	COMB3S	0.038	COMB8
0.038	STORY1 COMB8	C35-2	CC30	100.000	7.07	COMB3S	0.038	COMB8
0.000	STORY1 COMB3S	C36-2	CC30	0.000	7.07	COMB3S	0.000	COMB3S
0.000	STORY1 COMB3S	C36-2	CC30	50.000	7.07	COMB3S	0.000	COMB3S
0.000	STORY1 COMB3S	C36-2	CC30	100.000	7.07	COMB3S	0.000	COMB3S
0.044	STORY3 COMB3S	C37	C35X35	0.000	12.25	COMB3S	0.044	COMB2S
0.044	STORY3 COMB3S	C37	C35X35	70.000	12.25	COMB3S	0.044	COMB2S

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ms  
REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MACHUCA SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC-1606  
M.O.P.-V.M.V.D.U. EL SALVADOR, C.A.

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0.044	COMB35								
	STORY3	C37	C35X35	70.000	12.25	COMB35	0.044	COMB9	
0.044	COMB35								
	STORY3	C37	C35X35	130.000	12.25	COMB35	0.044	COMB9	
0.044	COMB35								
	STORY3	C37	C35X35	140.000	12.25	COMB35	0.044	COMB9	
0.044	COMB35								
	STORY3	C37	C35X35	140.000	12.25	COMB35	0.044	COMB2S	
0.044	COMB35								
	STORY3	C37	C35X35	210.000	12.25	COMB35	0.044	COMB2S	
0.044	COMB35								
	STORY3	C37	C35X35	210.000	12.25	COMB35	0.044	COMB3S	
0.044	COMB35								
	STORY3	C37	C35X35	260.000	12.25	COMB35	0.044	COMB3S	
0.044	COMB35								
	STORY2	C37	C35X35	0.000	12.25	COMB35	0.044	COMB3S	
0.044	COMB35								
	STORY2	C37	C35X35	130.000	12.25	COMB35	0.044	COMB3S	
0.044	COMB35								
	STORY2	C37	C35X35	260.000	12.25	COMB35	0.044	COMB3S	
0.044	COMB35								
	STORY1	C37	CC30	0.000	7.07	COMB35	0.038	COMB3S	
0.038	COMB35								
	STORY1	C37	CC30	150.000	7.07	COMB35	0.038	COMB3S	
0.038	COMB35								
	STORY1	C37	CC30	300.000	7.07	COMB35	0.038	COMB3S	
0.038	COMB35								
	STORY3	C38	C35X35	0.000	12.25	COMB35	0.044	COMB3S	
0.044	COMB35								
	STORY3	C38	C35X35	70.000	12.25	COMB35	0.044	COMB3S	
0.044	COMB35								
	STORY3	C38	C35X35	70.000	12.25	COMB35	0.044	COMB3S	
0.044	COMB35								
	STORY3	C38	C35X35	130.000	12.25	COMB35	0.044	COMB3S	
0.044	COMB35								
	STORY3	C38	C35X35	140.000	12.25	COMB35	0.044	COMB3S	
0.044	COMB35								
	STORY3	C38	C35X35	140.000	12.25	COMB35	0.044	COMB9	
0.044	COMB35								
	STORY3	C38	C35X35	210.000	12.25	COMB35	0.044	COMB9	
0.044	COMB35								
	STORY3	C38	C35X35	210.000	12.25	COMB35	0.044	COMB9	
0.044	COMB35								
	STORY3	C38	C35X35	260.000	12.25	COMB35	0.044	COMB9	
0.044	COMB35								
	STORY2	C38	C35X35	0.000	12.25	COMB35	0.044	COMB3S	
0.044	COMB35								
	STORY2	C38	C35X35	130.000	12.25	COMB35	0.044	COMB3S	
0.044	COMB35								
	STORY2	C38	C35X35	260.000	12.25	COMB35	0.044	COMB3S	
0.044	COMB35								
	STORY1	C38	CC30	0.000	7.07	COMB35	0.038	COMB8	
0.038	COMB8								
	STORY1	C38	CC30	150.000	7.07	COMB35	0.038	COMB8	
0.038	COMB8								
	STORY1	C38	CC30	300.000	7.07	COMB35	0.038	COMB8	
0.038	COMB8								
	STORY3	C39	C35X35	0.000	12.25	COMB35	0.044	COMB2S	
0.044	COMB35								
	STORY3	C39	C35X35	70.000	12.25	COMB35	0.044	COMB2S	
0.044	COMB35								
	STORY3	C39	C35X35	70.000	12.25	COMB35	0.044	COMB2S	
0.044	COMB35								
	STORY3	C39	C35X35	140.000	12.25	COMB35	0.044	COMB2S	
0.044	COMB35								
	STORY3	C39	C35X35	210.000	12.25	COMB35	0.044	COMB2S	
0.044	COMB35								
	STORY3	C39	C35X35	210.000	12.25	COMB35	0.044	COMB2S	
0.044	COMB35								
	STORY3	C39	C35X35	280.000	12.25	COMB35	0.044	COMB2S	
0.044	COMB35								
	STORY2	C39	C35X35	0.000	12.25	COMB35	0.044	COMB3S	
0.044	COMB35								
	STORY2	C39	C35X35	130.000	12.25	COMB35	0.044	COMB3S	
0.044	COMB35								
	STORY2	C39	C35X35	260.000	12.25	COMB35	0.044	COMB3S	
0.044	COMB35								
	STORY1	C39	CC30	0.000	7.07	COMB35	0.038	COMB9	

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INGENIERO CIVIL  
REGISTRO No. IC - 1606  
M.O.P.-V.M.V.U.II EL SALVADOR, C.A.

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0.038	COMB9								
0.038	STORY1	C39	CC30	150.000	7.07	COMB3S	0.038	COMB9	
0.038	COMB9								
0.038	STORY1	C39	CC30	300.000	7.07	COMB3S	0.038	COMB9	
0.038	COMB9								
0.044	STORY3	C42	C35X35	0.000	12.25	COMB3S	0.044	COMB3S	
0.044	COMB2S								
0.044	STORY3	C42	C35X35	70.000	12.25	COMB3S	0.044	COMB3S	
0.044	COMB2S								
0.044	STORY3	C42	C35X35	70.000	12.25	COMB3S	0.044	COMB3S	
0.044	COMB3S								
0.044	STORY3	C42	C35X35	120.000	12.25	COMB3S	0.044	COMB3S	
0.044	COMB3S								
0.044	STORY3	C42	C35X35	140.000	12.25	COMB3S	0.044	COMB3S	
0.044	COMB3S								
0.044	STORY3	C42	C35X35	140.000	12.25	COMB3S	0.044	COMB3S	
0.044	COMB3S								
0.044	STORY3	C42	C35X35	210.000	12.25	COMB3S	0.044	COMB3S	
0.044	COMB3S								
0.044	STORY3	C42	C35X35	210.000	12.25	COMB3S	0.044	COMB3S	
0.044	COMB3S								
0.044	STORY3	C42	C35X35	240.000	12.25	COMB3S	0.044	COMB3S	
0.044	COMB3S								
0.046	STORY2	C42	C35X55	0.000	19.25	COMB3S	0.029	COMB3S	
0.046	COMB3S								
0.046	STORY2	C42	C35X55	120.000	19.25	COMB3S	0.029	COMB3S	
0.046	COMB3S								
0.046	STORY2	C42	C35X55	240.000	19.25	COMB3S	0.029	COMB3S	
0.046	COMB3S								
0.044	STORY3	C43	C35X35	0.000	12.25	COMB3S	0.044	COMB3S	
0.044	COMB3S								
0.044	STORY3	C43	C35X35	70.000	12.25	COMB3S	0.044	COMB3S	
0.044	COMB3S								
0.044	STORY3	C43	C35X35	70.000	12.25	COMB3S	0.044	COMB3S	
0.044	COMB3S								
0.044	STORY3	C43	C35X35	120.000	12.25	COMB3S	0.044	COMB3S	
0.044	COMB3S								
0.044	STORY3	C43	C35X35	140.000	12.25	COMB3S	0.044	COMB3S	
0.044	COMB3S								
0.044	STORY3	C43	C35X35	140.000	12.25	COMB3S	0.044	COMB3S	
0.044	COMB3S								
0.044	STORY3	C43	C35X35	210.000	12.25	COMB3S	0.044	COMB3S	
0.044	COMB3S								
0.044	STORY3	C43	C35X35	210.000	12.25	COMB3S	0.044	COMB3S	
0.044	COMB3S								
0.044	STORY3	C43	C35X35	240.000	12.25	COMB3S	0.044	COMB3S	
0.044	COMB3S								
0.046	STORY2	C43	C35X55	0.000	19.25	COMB3S	0.029	COMB3S	
0.046	COMB3S								
0.046	STORY2	C43	C35X55	120.000	19.25	COMB3S	0.029	COMB3S	
0.046	COMB3S								
0.046	STORY2	C43	C35X55	240.000	19.25	COMB3S	0.029	COMB3S	
0.046	COMB3S								
0.038	STORY1	C148-3	CC30	0.000	7.07	COMB3S	0.038	COMB3S	
0.038	COMB3S								
0.038	STORY1	C148-3	CC30	50.000	7.07	COMB3S	0.038	COMB3S	
0.038	COMB3S								
0.038	STORY1	C148-3	CC30	100.000	7.07	COMB3S	0.038	COMB3S	
0.038	COMB3S								
0.038	STORY1	C152-3	CC30	0.000	7.07	COMB3S	0.038	COMB3S	
0.038	COMB3S								
0.038	STORY1	C152-3	CC30	50.000	7.07	COMB3S	0.038	COMB3S	
0.038	COMB3S								
0.038	STORY1	C152-3	CC30	100.000	7.07	COMB3S	0.038	COMB3S	
0.038	COMB3S								
0.050	STORY1	C44	CC40	0.000	12.57	COMB3S	0.050	COMB9	
0.050	COMB9								
0.050	STORY1	C44	CC40	150.000	12.57	COMB3S	0.050	COMB9	
0.050	COMB9								
0.050	STORY1	C44	CC40	300.000	12.57	COMB3S	0.050	COMB9	
0.050	COMB9								

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INGENIERO CIVIL  
REGISTRO No. IC - 1606  
M.O.P.-V.M.V.D.U. EL SALVADOR, C.A.

RATIOS----->		STORY	COLUMN	SECTION	<--(6/5)BEAM-COLUMN CAPACITY RATIOS-->				<--JOINT SHEAR CAPACITY	
MINOR	ID COMBO	LINE	ID	MAJOR	COMBO	MINOR	COMBO	MAJOR	COMBO	
0.311	STORY2	C25	C35X55	0.893	COMB7	0.647	COMB7	0.406	COMB2	
	COMB2	C26	C35X55	0.015	COMB6			0.010	COMB2	
0.020	STORY3	C27	C35X55	0.006	COMB7	0.047	COMB7	0.004	COMB2	
	COMB2	C27	C35X55	0.016	COMB7	0.191	COMB7	0.024	COMB2	
0.154	STORY2	C28	C35X55			0.003	COMB4			
	COMB2	C28	C35X55			0.015	COMB4			
0.028	STORY3	C28	C35X55	0.383	COMB8	0.228	COMB8	0.305	COMB2	
	COMB2	C29	C35X55	0.006	COMB7			0.004	COMB2	
0.177	STORY2	C29	C35X55	0.027	COMB8	0.233	COMB8	0.024	COMB2	
	COMB2	C30	C35X55	0.004	COMB9	0.021	COMB9	0.003	COMB2	
0.008	STORY3	C30	C35X55	0.014	COMB8	0.178	COMB8	0.011	COMB2	
	COMB2	C35-2	CC30							
0.140	STORY2	C36-2	CC30							
	COMB2	C37	C35X35			0.004	COMB6			
0.002	STORY3	C37	C35X35	0.085	COMB6	0.167	COMB6	0.049	COMB2	
	COMB2	C37	CC30							
0.095	STORY2	C38	C35X35			0.007	COMB6			
	COMB2	C38	C35X35	0.147	COMB6	0.214	COMB6	0.069	COMB2	
0.004	STORY3	C38	CC30							
	COMB2	C39	C35X35							
0.101	STORY2	C39	C35X35	0.285	COMB6	0.195	COMB6	0.135	COMB2	
	COMB2	C39	CC30							
0.091	STORY3	C42	C35X35	0.083	COMB9			0.026	COMB2	
	COMB2	C42	C35X55	0.271	COMB9	0.323	COMB9	0.138	COMB2	
0.187	STORY2	C43	C35X35	0.069	COMB6			0.021	COMB2	
	COMB2	C43	C35X55	0.205	COMB9	0.156	COMB9	0.094	COMB2	
0.082	STORY3	C148-3	CC30							
	COMB2	C152-3	CC30							
	STORY1	C44	CC40							

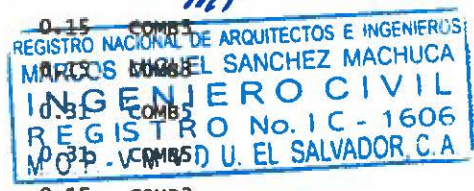
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CONCRETE BEAM DESIGN OUTPUT (ACI 318-99)

FLEXURAL AND TORSION DESIGN OF BEAM-TYPE ELEMENTS



REINFORCING	STORY	BEAM	SECTION	STATION	-----REQUIRED				
	ID				BAY	ID	ID	TOP	COMBO
TORSION	COMBO								
9.44	STORY2	B7	VC30X60	27.500	0.60	COMB3	0.30	COMB3	
	COMB9	B7	VC30X60	57.250	0.25	COMB3	0.15	COMB3	
9.44	STORY2	B7	VC30X60	87.000	0.25	COMB4	0.15	COMB4	
	COMB9	B7	VC30X60	87.000	0.15	COMB3	0.15	COMB3	
9.63	STORY2	B7	VC30X60	100.714	0.15	COMB3	0.15	COMB3	
	COMB9	B7	VC30X60	100.714	0.22	COMB3	0.15	COMB3	



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0.00	COMB3S							
	STORY2	B7	VC30X60	134.286	0.15	COMB3	0.20	COMB1
0.00	COMB3S							
	STORY2	B7	VC30X60	167.857	0.15	COMB3	0.18	COMB1
0.00	COMB3S							
	STORY2	B7	VC30X60	201.429	0.19	COMB2	0.15	COMB3
0.00	COMB3S							
	STORY2	B7	VC30X60	201.429	0.24	COMB3	0.15	COMB3
0.00	COMB3S							
	STORY2	B7	VC30X60	235.000	0.15	COMB3	0.15	COMB3
0.00	COMB3S							
	STORY2	B7	VC30X60	268.571	0.15	COMB3	0.15	COMB3
0.00	COMB3S							
	STORY2	B7	VC30X60	302.143	0.29	COMB2	0.15	COMB3
0.00	COMB3S							
	STORY2	B7	VC30X60	302.143	0.25	COMB5	0.15	COMB3
0.00	COMB3S							
	STORY2	B7	VC30X60	327.321	0.18	COMB5	0.15	COMB3
0.00	COMB3S							
	STORY2	B7	VC30X60	352.500	0.28	COMB2	0.15	COMB3
0.00	COMB3S							
	STORY2	B7	VC30X60	352.500	0.28	COMB1	0.15	COMB3
0.00	COMB3S							
	STORY2	B7	VC30X60	377.679	0.18	COMB2	0.15	COMB3
0.00	COMB3S							
	STORY2	B7	VC30X60	402.857	0.28	COMB2	0.15	COMB3
0.00	COMB3S							
	STORY2	B7	VC30X60	402.857	0.15	COMB3	0.33	COMB5
0.00	COMB3S							
	STORY2	B7	VC30X60	453.000	0.15	COMB3	0.70	COMB5
0.00	COMB3S							
	STORY2	B7	VC30X60	453.000	0.15	COMB3	0.70	COMB5
0.00	COMB3S							
	STORY2	B7	VC30X60	478.286	0.15	COMB3	0.61	COMB5
0.00	COMB3S							
	STORY2	B7	VC30X60	503.571	0.15	COMB3	0.33	COMB5
0.00	COMB3S							
	STORY2	B7	VC30X60	503.571	0.30	COMB1	0.15	COMB3
0.00	COMB3S							
	STORY2	B7	VC30X60	537.143	0.15	COMB3	0.21	COMB3
0.00	COMB3S							
	STORY2	B7	VC30X60	570.714	0.15	COMB3	0.27	COMB3
0.00	COMB3S							
	STORY2	B7	VC30X60	604.286	0.27	COMB2	0.15	COMB3
0.00	COMB3S							
	STORY2	B7	VC30X60	604.286	0.22	COMB2	0.15	COMB3
0.00	COMB3S							
	STORY2	B7	VC30X60	640.893	0.15	COMB3	0.35	COMB3
0.00	COMB3S							
	STORY2	B7	VC30X60	677.500	0.00	COMB3S	0.40	COMB3
0.00	COMB3S							
	STORY2	B8	VC30X40	17.500	0.66	COMB3	0.90	COMB6
0.00	COMB3S							
	STORY2	B8	VC30X40	29.000	0.48	COMB7	0.95	COMB2
0.00	COMB3S							
	STORY2	B8	VC30X40	29.000	0.46	COMB7	0.96	COMB2
0.00	COMB3S							
	STORY2	B8	VC30X40	58.000	0.36	COMB2	1.07	COMB2
0.00	COMB3S							
	STORY2	B8	VC30X40	58.000	0.36	COMB2	1.07	COMB2
0.00	COMB3S							
	STORY2	B8	VC30X40	87.000	0.36	COMB2	1.02	COMB1
0.00	COMB3S							
	STORY2	B8	VC30X40	87.000	0.36	COMB2	1.02	COMB1
0.00	COMB3S							
	STORY2	B8	VC30X40	116.000	0.36	COMB2	0.95	COMB1
0.00	COMB3S							
	STORY2	B8	VC30X40	116.000	0.36	COMB2	0.94	COMB1
0.00	COMB3S							
	STORY2	B8	VC30X40	145.000	0.36	COMB2	0.63	COMB1
0.00	COMB3S							
	STORY2	B8	VC30X40	145.000	0.36	COMB2	0.61	COMB1
0.00	COMB3S							
	STORY2	B8	VC30X40	174.000	0.45	COMB6	0.36	COMB2
0.00	COMB3S							
	STORY2	B8	VC30X40	174.000	0.48	COMB2	0.36	COMB2
4.16	COMB9							
	STORY2	B8	VC30X40	203.000	1.34	COMB2		
4.16	COMB9							
	STORY2	B8	VC30X40	203.000	1.39	COMB2		
4.16	COMB8							
	STORY2	B8	VC30X40	204.500	1.44	COMB2		
4.16	COMB8							
	STORY2	R9	VC30X60	27.500	9.80	COMB1		

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0.00	COMB35							
	STORY2	B9	VC30X60	77.500	5.74	COMB1	3.18	COMB1
0.00	COMB35							
	STORY2	B9	VC30X60	127.500	3.15	COMB1	3.54	COMB1
0.00	COMB35							
	STORY2	B9	VC30X60	177.500	3.15	COMB1	7.91	COMB1
0.00	COMB35							
	STORY2	B9	VC30X60	227.500	3.15	COMB1	8.48	COMB1
0.00	COMB35							
	STORY2	B9	VC30X60	277.500	3.15	COMB1	10.23	COMB1
0.00	COMB35							
	STORY2	B9	VC30X60	327.500	3.15	COMB1	11.14	COMB1
0.00	COMB35							
	STORY2	B9	VC30X60	377.500	3.15	COMB1	11.19	COMB1
0.00	COMB35							
	STORY2	B9	VC30X60	427.500	3.15	COMB1	10.37	COMB1
0.00	COMB35							
	STORY2	B9	VC30X60	477.500	3.15	COMB1	8.71	COMB1
0.00	COMB35							
	STORY2	B9	VC30X60	527.500	3.15	COMB1	8.06	COMB1
0.00	COMB35							
	STORY2	B9	VC30X60	577.500	3.15	COMB1	4.07	COMB1
0.00	COMB35							
	STORY2	B9	VC30X60	627.500	5.13	COMB1	3.18	COMB1
0.00	COMB35							
	STORY2	B9	VC30X60	677.500	9.23	COMB1	6.07	COMB1
0.00	COMB35							
	STORY2	B10	VC30X40	17.500	1.74	COMB3	1.19	COMB6
0.00	COMB35							
	STORY2	B10	VC30X40	64.250	0.95	COMB1	0.99	COMB2
0.00	COMB35							
	STORY2	B10	VC30X40	111.000	0.95	COMB1	0.95	COMB1
0.00	COMB35							
	STORY2	B10	VC30X40	157.750	1.44	COMB1	0.95	COMB1
0.00	COMB35							
	STORY2	B10	VC30X40	204.500	3.50	COMB1	1.91	COMB1
0.00	COMB35							
	STORY2	B13	VC30X40	17.500	3.50	COMB9	2.84	COMB8
4.16	COMB1							
	STORY2	B13	VC30X40	67.500	2.33	COMB5	2.37	COMB8
4.16	COMB1							
	STORY2	B13	VC30X40	117.500	0.99	COMB5	1.67	COMB8
4.16	COMB1							
	STORY2	B13	VC30X40	167.500	0.99	COMB5	0.99	COMB5
4.16	COMB1							
	STORY2	B13	VC30X40	217.500	0.99	COMB5	1.11	COMB5
4.16	COMB1							
	STORY2	B13	VC30X40	267.500	1.65	COMB8	1.76	COMB5
4.16	COMB1							
	STORY2	B13	VC30X40	317.500	3.23	COMB8	2.17	COMB5
4.16	COMB1							
	STORY2	B14	VC30X40	17.500	2.77	COMB9	1.92	COMB4
4.16	COMB1							
	STORY2	B14	VC30X40	67.500	1.50	COMB9	1.68	COMB4
4.16	COMB1							
	STORY2	B14	VC30X40	117.500	0.81	COMB4	1.19	COMB4
4.16	COMB1							
	STORY2	B14	VC30X40	167.500	0.81	COMB4	0.81	COMB4
4.16	COMB1							
	STORY2	B14	VC30X40	217.500	0.81	COMB4	0.95	COMB9
4.16	COMB1							
	STORY2	B14	VC30X40	267.500	1.77	COMB4	1.34	COMB9
4.16	COMB1							
	STORY2	B14	VC30X40	317.500	3.31	COMB4	1.63	COMB4
4.16	COMB1							
	STORY2	B16	VC30X40	17.500	2.63	COMB5	1.76	COMB8
4.16	COMB3							
	STORY2	B16	VC30X40	50.625	1.62	COMB5	1.26	COMB8
4.16	COMB3							
	STORY2	B16	VC30X40	83.750	0.74	COMB5	0.68	COMB8
4.16	COMB3							
	STORY2	B16	VC30X40	83.750	0.90	COMB5	0.74	COMB8
4.16	COMB3							
	STORY2	B16	VC30X40	125.625	0.65	COMB5	0.65	COMB5
4.16	COMB3							
	STORY2	B16	VC30X40	167.500	0.65	COMB5	0.65	COMB5
4.16	COMB3							
	STORY2	B16	VC30X40	167.500	0.65	COMB5	0.65	COMB5
4.16	COMB3							
	STORY2	B16	VC30X40	209.375	0.65	COMB5	0.65	COMB5
4.16	COMB3							
	STORY2	B16	VC30X40	251.250	0.65	COMB5	0.65	COMB5

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INGENIERO CIVIL  
REGISTRO No. IC-1600  
M.O.P.-V.M.V.U. EL SALVADOR

kinder22qbril2mvigascolumnas.txt

4.16	COMB3							
	STORY2	B16	VC30X40	251.250	0.65	COMB5	0.77	COMB5
4.16	COMB3							
	STORY2	B16	VC30X40	293.125	1.03	COMB8	1.31	COMB5
4.16	COMB3							
	STORY2	B16	VC30X40	293.125	1.05	COMB8	1.33	COMB5
4.16	COMB3							
	STORY2	B16	VC30X40	317.500	1.59	COMB8	1.78	COMB5
4.16	COMB3							
	STORY2	B17	VC30X40	17.500	1.54	COMB9	1.64	COMB4
4.16	COMB3							
	STORY2	B17	VC30X40	41.875	0.96	COMB9	1.29	COMB4
4.16	COMB3							
	STORY2	B17	VC30X40	41.875	0.92	COMB9	1.28	COMB4
4.16	COMB3							
	STORY2	B17	VC30X40	83.750	0.53	COMB4	0.83	COMB4
4.16	COMB3							
	STORY2	B17	VC30X40	83.750	0.53	COMB4	0.90	COMB4
4.16	COMB3							
	STORY2	B17	VC30X40	125.625	0.53	COMB4	0.53	COMB4
4.16	COMB3							
	STORY2	B17	VC30X40	167.500	0.53	COMB4	0.53	COMB4
4.16	COMB3							
	STORY2	B17	VC30X40	167.500	0.53	COMB4	0.53	COMB4
4.16	COMB3							
	STORY2	B17	VC30X40	209.375	0.53	COMB4	0.53	COMB4
4.16	COMB3							
	STORY2	B17	VC30X40	251.250	0.87	COMB4	0.53	COMB4
4.16	COMB3							
	STORY2	B17	VC30X40	251.250	0.71	COMB4	0.53	COMB4
4.16	COMB1							
	STORY2	B17	VC30X40	284.375	1.36	COMB4	0.81	COMB9
4.16	COMB1							
	STORY2	B17	VC30X40	317.500	2.13	COMB4	1.09	COMB9
4.16	COMB1							
	STORY2	B18	VC30X40	17.500	0.99	COMB5	0.84	COMB8
0.00	COMB3S							
	STORY2	B18	VC30X40	50.625	0.46	COMB5	0.54	COMB8
0.00	COMB3S							
	STORY2	B18	VC30X40	83.750	0.24	COMB5	0.24	COMB5
0.00	COMB3S							
	STORY2	B18	VC30X40	83.750	0.24	COMB5	0.24	COMB5
0.00	COMB3S							
	STORY2	B18	VC30X40	125.625	0.24	COMB5	0.24	COMB5
0.00	COMB3S							
	STORY2	B18	VC30X40	167.500	0.24	COMB5	0.24	COMB5
0.00	COMB3S							
	STORY2	B18	VC30X40	167.500	0.24	COMB5	0.24	COMB5
0.00	COMB3S							
	STORY2	B18	VC30X40	209.375	0.24	COMB5	0.24	COMB5
0.00	COMB3S							
	STORY2	B18	VC30X40	251.250	0.24	COMB5	0.24	COMB5
0.00	COMB3S							
	STORY2	B18	VC30X40	251.250	0.24	COMB5	0.24	COMB5
0.00	COMB3S							
	STORY2	B18	VC30X40	284.375	0.30	COMB8	0.25	COMB5
0.00	COMB3S							
	STORY2	B18	VC30X40	317.500	0.73	COMB4	0.36	COMB4
0.00	COMB3S							
	STORY2	B19	VC30X40	17.500	0.81	COMB5	0.42	COMB8
0.00	COMB3S							
	STORY2	B19	VC30X40	50.625	0.39	COMB9	0.32	COMB4
0.00	COMB3S							
	STORY2	B19	VC30X40	83.750	0.20	COMB5	0.20	COMB5
0.00	COMB3S							
	STORY2	B19	VC30X40	83.750	0.20	COMB5	0.20	COMB5
0.00	COMB3S							
	STORY2	B19	VC30X40	125.625	0.20	COMB5	0.20	COMB5
0.00	COMB3S							
	STORY2	B19	VC30X40	167.500	0.20	COMB5	0.20	COMB5
0.00	COMB3S							
	STORY2	B19	VC30X40	167.500	0.20	COMB5	0.20	COMB5
0.00	COMB3S							
	STORY2	B19	VC30X40	209.375	0.20	COMB5	0.20	COMB5
0.00	COMB3S							
	STORY2	B19	VC30X40	251.250	0.20	COMB5	0.20	COMB5
0.00	COMB3S							
	STORY2	B19	VC30X40	251.250	0.20	COMB5	0.20	COMB5
0.00	COMB3S							
	STORY2	B19	VC30X40	284.375	0.37	COMB4	0.37	COMB9
0.00	COMB3S							
	STORY2	B19	VC30X40	317.500	0.78	COMB4	0.39	COMB4
0.00	COMB3S							

DIN - FISDI  
08 JUN. 2017  
REVISADO

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC-1606  
MOP-VMDU EL SALVADOR, C.A.



kinder22qbri12mvigascolumnas.txt

0.00	STORY2	B77	VC30X40	17.500	3.39	COMB5	2.63	COMB8
0.00	COMB3S	B77	VC30X40	25.000	3.06	COMB5	2.45	COMB8
0.00	STORY2	B77	VC30X40	25.000	2.97	COMB5	2.40	COMB8
0.00	COMB3S	B77	VC30X40	50.000	2.01	COMB9	1.84	COMB4
0.00	STORY2	B77	VC30X40	50.000	1.93	COMB9	1.79	COMB4
0.00	COMB3S	B77	VC30X40	75.000	1.08	COMB9	1.23	COMB4
0.00	STORY2	B77	VC30X40	75.000	1.01	COMB9	1.18	COMB4
0.00	COMB3S	B77	VC30X40	100.000	0.96	COMB4	0.96	COMB4
0.00	STORY2	B77	VC30X40	100.000	0.96	COMB4	0.96	COMB4
0.00	COMB3S	B77	VC30X40	125.000	0.96	COMB4	0.96	COMB4
0.00	STORY2	B77	VC30X40	125.000	0.96	COMB4	0.96	COMB4
0.00	COMB3S	B77	VC30X40	150.000	1.09	COMB8	1.49	COMB5
0.00	STORY2	B77	VC30X40	150.000	1.15	COMB8	1.55	COMB5
0.00	COMB3S	B77	VC30X40	175.000	1.94	COMB8	2.20	COMB5
0.00	STORY2	B77	VC30X40	175.000	2.01	COMB8	2.25	COMB5
4.16	COMB2	B77	VC30X40	200.000	2.89	COMB4	2.89	COMB9
4.16	STORY2	B77	VC30X40	200.000	2.96	COMB4	2.94	COMB9
4.16	COMB3S	B77	VC30X40	222.500	3.50	COMB8	3.50	COMB9
4.16	STORY2	B77	VC30X40	222.500	3.50	COMB8	3.50	COMB9
0.00	COMB3S	B78	VC20X40	17.500	2.09	COMB5	1.15	COMB8
0.00	STORY2	B78	VC20X40	60.000	0.57	COMB4	0.57	COMB4
0.00	COMB3S	B78	VC20X40	60.000	0.57	COMB4	0.57	COMB4
0.00	STORY2	B78	VC20X40	90.000	0.57	COMB4	0.57	COMB4
0.00	COMB3S	B78	VC20X40	120.000	0.57	COMB4	0.57	COMB4
0.00	STORY2	B78	VC20X40	120.000	0.57	COMB4	0.57	COMB4
0.00	COMB3S	B78	VC20X40	150.000	0.57	COMB4	0.57	COMB4
0.00	STORY2	B78	VC20X40	150.000	0.57	COMB4	0.57	COMB4
0.00	COMB3S	B78	VC20X40	180.000	0.57	COMB4	0.79	COMB5
0.00	STORY2	B78	VC20X40	180.000	0.57	COMB4	0.72	COMB5
0.00	COMB3S	B78	VC20X40	222.500	2.32	COMB4	2.17	COMB9
0.00	STORY2	B78	VC20X40	222.500	2.32	COMB4	2.17	COMB9
0.00	COMB3S	B81	VC30X40	17.500	0.91	COMB5	0.45	COMB5
0.00	STORY2	B81	VC30X40	25.000	0.89	COMB5	0.38	COMB8
0.00	COMB3S	B81	VC30X40	25.000	0.63	COMB5	0.34	COMB8
0.00	STORY2	B81	VC30X40	50.000	0.45	COMB9	0.32	COMB4
0.00	COMB3S	B81	VC30X40	50.000	0.23	COMB9	0.30	COMB4
0.00	STORY2	B81	VC30X40	75.000	0.23	COMB5	0.28	COMB4
0.00	COMB3S	B81	VC30X40	75.000	0.23	COMB5	0.28	COMB4
0.00	STORY2	B81	VC30X40	80.000	0.23	COMB5	0.28	COMB4
0.00	COMB3S	B81	VC30X40	80.000	0.23	COMB5	0.26	COMB4
0.00	STORY2	B81	VC30X40	100.000	0.23	COMB5	0.23	COMB5
0.00	COMB3S	B81	VC30X40	100.000	0.23	COMB5	0.23	COMB5
0.00	STORY2	B81	VC30X40	125.000	0.23	COMB5	0.23	COMB5
0.00	COMB3S	B81	VC30X40	125.000	0.23	COMB5	0.23	COMB5
0.00	STORY2	B81	VC30X40	150.000	0.23	COMB5	0.23	COMB5
0.00	COMB3S	B81	VC30X40	150.000	0.23	COMB5	0.23	COMB5

DIN - FISDL  
08 JUN. 2017  
REVISADO

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REG. No. IC - 1606  
M.O.P.-V.M.V.D.U. EL SALVADOR, C.A.



kinder22qbril2mvigascolumnas.txt

0.00	STORY2 COMB3S	B134	VC20X40	264.375	1.05	COMB1	1.63	COMB1
0.00	STORY2 COMB3S	B134	VC20X40	298.438	1.83	COMB2	1.05	COMB1
0.00	STORY2 COMB3S	B134	VC20X40	332.500	3.57	COMB2	1.79	COMB2
0.00	STORY2 COMB3S	B135	VC20X40	20.000	3.37	COMB1	1.66	COMB1
0.00	STORY2 COMB3S	B135	VC20X40	54.063	1.66	COMB3	1.28	COMB1
0.00	STORY2 COMB3S	B135	VC20X40	88.125	1.28	COMB1	1.56	COMB1
0.00	STORY2 COMB3S	B135	VC20X40	88.125	1.28	COMB1	1.73	COMB1
0.00	STORY2 COMB3S	B135	VC20X40	132.188	1.28	COMB1	2.60	COMB1
0.00	STORY2 COMB3S	B135	VC20X40	176.250	1.28	COMB1	3.40	COMB1
0.00	STORY2 COMB3S	B135	VC20X40	176.250	1.28	COMB1	3.40	COMB1
0.00	STORY2 COMB3S	B135	VC20X40	220.313	1.28	COMB1	2.70	COMB1
0.00	STORY2 COMB3S	B135	VC20X40	264.375	1.28	COMB1	1.92	COMB1
4.43	STORY2 COMB3S	B135	VC20X40	264.375	1.28	COMB1	1.76	COMB1
4.43	STORY2 COMB3S	B135	VC20X40	308.438	2.36	COMB1	1.28	COMB1
4.43	STORY2 COMB3S	B135	VC20X40	352.500	3.97	COMB1	2.59	COMB1
8.54	STORY1 COMB2S	B76	SF60X40	0.000	2.37	COMB7	6.11	COMB2
8.54	STORY1 COMB2S	B76	SF60X40	30.000	1.38	COMB2	4.17	COMB2
0.00	STORY1 COMB3S	B76	SF60X40	30.000	1.38	COMB2	3.51	COMB2
0.00	STORY1 COMB3S	B76	SF60X40	60.000	1.38	COMB2	2.90	COMB2
0.00	STORY1 COMB3S	B76	SF60X40	60.000	1.38	COMB2	2.76	COMB2
0.00	STORY1 COMB3S	B76	SF60X40	90.000	1.38	COMB2	3.17	COMB2
0.00	STORY1 COMB3S	B76	SF60X40	90.000	1.38	COMB2	3.65	COMB2
0.00	STORY1 COMB3S	B76	SF60X40	100.714	1.38	COMB2	3.11	COMB2
0.00	STORY1 COMB3S	B76	SF60X40	100.714	1.38	COMB2	3.11	COMB2
0.00	STORY1 COMB3S	B76	SF60X40	134.286	1.38	COMB2	1.50	COMB2
0.00	STORY1 COMB3S	B76	SF60X40	167.857	1.38	COMB2	1.50	COMB2
0.00	STORY1 COMB3S	B76	SF60X40	201.429	2.07	COMB2	1.50	COMB2
0.00	STORY1 COMB3S	B76	SF60X40	201.429	1.38	COMB2	1.50	COMB2
0.00	STORY1 COMB3S	B76	SF60X40	235.000	1.38	COMB2	1.50	COMB2
0.00	STORY1 COMB3S	B76	SF60X40	268.571	1.38	COMB2	1.50	COMB2
0.00	STORY1 COMB3S	B76	SF60X40	302.143	1.38	COMB2	1.50	COMB2
0.00	STORY1 COMB3S	B76	SF60X40	302.143	1.38	COMB2	1.50	COMB2
0.00	STORY1 COMB3S	B76	SF60X40	327.321	1.38	COMB2	1.50	COMB2
0.00	STORY1 COMB3S	B76	SF60X40	352.500	1.38	COMB2	1.50	COMB2
0.00	STORY1 COMB3S	B76	SF60X40	352.500	1.38	COMB2	1.50	COMB2
0.00	STORY1 COMB3S	B76	SF60X40	377.679	1.38	COMB2	1.50	COMB2
0.00	STORY1 COMB3S	B76	SF60X40	402.857	1.38	COMB2	1.50	COMB2
8.54	STORY1 COMB8	B76	SF60X40	402.857	1.38	COMB2	1.50	COMB2
8.54	STORY1 COMB8	B76	SF60X40	436.429	1.38	COMB2	1.50	COMB2
8.54	STORY1 COMB8	B76	SF60X40	470.000	2.05	COMB2	1.50	COMB2
8.54	STORY1 COMB8	B76	SF60X40	503.571	3.60	COMB2	1.50	COMB2
8.54	STORY1 COMB8	B76	SF60X40	503.571	3.60	COMB2	1.50	COMB2

DIN - FISDL  
08 JUN. 2017  
REVISADO

REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC-1606  
O.P.V. M. D. U. DE SALVADOR, C.A.

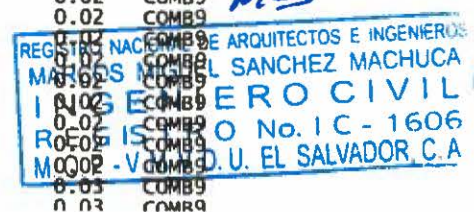
8.54	STORY1	B76	SF60X40	525.000	4.63	COMB2	1.50	COMB2
	COMB8							
0.00	STORY1	B76	SF60X40	525.000	4.08	COMB2	1.50	COMB2
	COMB3S							
0.00	STORY1	B76	SF60X40	555.000	3.57	COMB2	1.50	COMB2
	COMB3S							
0.00	STORY1	B76	SF60X40	555.000	3.39	COMB2	1.50	COMB2
	COMB3S							
0.00	STORY1	B76	SF60X40	585.000	3.25	COMB2	1.50	COMB2
	COMB3S							
8.54	STORY1	B76	SF60X40	585.000	3.22	COMB2	1.50	COMB2
	COMB2S							
8.54	STORY1	B76	SF60X40	604.286	3.22	COMB2	1.50	COMB2
	COMB2S							
8.54	STORY1	B76	SF60X40	604.286	3.24	COMB2	1.50	COMB2
	COMB2S							
8.54	STORY1	B76	SF60X40	615.000	3.24	COMB2	1.50	COMB2
	COMB2S							
8.54	STORY1	B76	SF60X40	615.000	3.26	COMB2	1.50	COMB2
	COMB9							
8.54	STORY1	B76	SF60X40	645.000	3.29	COMB2	1.50	COMB2
	COMB9							
8.54	STORY1	B76	SF60X40	645.000	3.04	COMB2	1.50	COMB2
	COMB9							
8.54	STORY1	B76	SF60X40	675.000	2.43	COMB2	2.06	COMB7
	COMB9							
8.54	STORY1	B76	SF60X40	675.000	1.95	COMB6	2.82	COMB3
	COMB2S							
8.54	STORY1	B76	SF60X40	705.000	0.90	COMB6	5.24	COMB3
	COMB2S							

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CONCRETE BEAM DESIGN OUTPUT (ACI 318-99)

TORSION AND SHEAR DESIGN OF BEAM-TYPE ELEMENTS

STORY ID	BEAM BAY	SECTION ID	STATION ID	-----REQUIRED REINFORCING-----			
				TORSION	COMBO	SHEAR	COMBO
STORY2	B7	VC30X60	27.500	0.02	COMB5	0.00	COMB3S
STORY2	B7	VC30X60	57.250	0.02	COMB5	0.00	COMB3S
STORY2	B7	VC30X60	87.000	0.02	COMB5	0.00	COMB3S
STORY2	B7	VC30X60	87.000	0.02	COMB5	0.00	COMB3S
STORY2	B7	VC30X60	100.714	0.02	COMB5	0.00	COMB3S
STORY2	B7	VC30X60	100.714	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	134.286	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	167.857	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	201.429	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	201.429	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	235.000	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	268.571	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	302.143	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	302.143	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	327.321	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	352.500	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	352.500	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	377.679	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	402.857	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	402.857	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	453.000	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	453.000	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	478.286	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	503.571	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	503.571	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	537.143	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	570.714	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	604.286	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	604.286	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	640.893	0.00	COMB3S	0.00	COMB3S
STORY2	B7	VC30X60	677.500	0.00	COMB3S	0.00	COMB3S
STORY2	B8	VC30X40	17.500	0.00	COMB3S	0.02	COMB9
STORY2	B8	VC30X40	29.000	0.00	COMB3S	0.02	COMB9
STORY2	B8	VC30X40	29.000	0.00	COMB3S	0.02	COMB9
STORY2	B8	VC30X40	58.000	0.00	COMB3S	0.02	COMB9
STORY2	B8	VC30X40	58.000	0.00	COMB3S	0.02	COMB9
STORY2	B8	VC30X40	87.000	0.00	COMB3S	0.02	COMB9
STORY2	B8	VC30X40	87.000	0.00	COMB3S	0.02	COMB9
STORY2	B8	VC30X40	116.000	0.00	COMB3S	0.02	COMB9
STORY2	B8	VC30X40	116.000	0.00	COMB3S	0.02	COMB9
STORY2	B8	VC30X40	145.000	0.00	COMB3S	0.02	COMB9
STORY2	B8	VC30X40	145.000	0.00	COMB3S	0.02	COMB9
STORY2	B8	VC30X40	174.000	0.00	COMB3S	0.02	COMB9
STORY2	B8	VC30X40	174.000	0.00	COMB3S	0.02	COMB9
STORY2	RR	VC30X40	174.000	0.00	COMB3S	0.02	COMB9



kinder22qbri12mvi gascolumnas.txt

STORY2	B8	VC30x40	203.000	0.01	COMB5	0.03	COMB9
STORY2	B8	VC30x40	203.000	0.02	COMB5	0.03	COMB9
STORY2	B8	VC30x40	204.500	0.02	COMB5	0.03	COMB9
STORY2	B9	VC30x60	27.500	0.00	COMB3S	0.04	COMB5
STORY2	B9	VC30x60	77.500	0.00	COMB3S	0.04	COMB3S
STORY2	B9	VC30x60	127.500	0.00	COMB3S	0.04	COMB3S
STORY2	B9	VC30x60	177.500	0.00	COMB3S	0.04	COMB3S
STORY2	B9	VC30x60	227.500	0.00	COMB3S	0.04	COMB3S
STORY2	B9	VC30x60	277.500	0.00	COMB3S	0.04	COMB3S
STORY2	B9	VC30x60	327.500	0.00	COMB3S	0.04	COMB5
STORY2	B9	VC30x60	377.500	0.00	COMB3S	0.00	COMB3S
STORY2	B9	VC30x60	427.500	0.00	COMB3S	0.04	COMB3S
STORY2	B9	VC30x60	477.500	0.00	COMB3S	0.04	COMB3S
STORY2	B9	VC30x60	527.500	0.00	COMB3S	0.04	COMB3S
STORY2	B9	VC30x60	577.500	0.00	COMB3S	0.04	COMB3S
STORY2	B9	VC30x60	627.500	0.00	COMB3S	0.04	COMB3S
STORY2	B9	VC30x60	677.500	0.00	COMB3S	0.04	COMB5
STORY2	B10	VC30x40	17.500	0.00	COMB3S	0.05	COMB3S
STORY2	B10	VC30x40	64.250	0.00	COMB3S	0.04	COMB3S
STORY2	B10	VC30x40	111.000	0.00	COMB3S	0.04	COMB3S
STORY2	B10	VC30x40	157.750	0.00	COMB3S	0.06	COMB3S
STORY2	B10	VC30x40	204.500	0.00	COMB3S	0.07	COMB3S
STORY2	B13	VC30x40	17.500	9.495E-03	COMB1	0.04	COMB5
STORY2	B13	VC30x40	67.500	9.495E-03	COMB1	0.04	COMB5
STORY2	B13	VC30x40	117.500	9.495E-03	COMB1	0.03	COMB5
STORY2	B13	VC30x40	167.500	9.495E-03	COMB1	0.03	COMB5
STORY2	B13	VC30x40	217.500	9.495E-03	COMB1	0.03	COMB9
STORY2	B13	VC30x40	267.500	9.495E-03	COMB1	0.04	COMB5
STORY2	B13	VC30x40	317.500	9.495E-03	COMB1	0.04	COMB5
STORY2	B14	VC30x40	17.500	9.257E-03	COMB1	0.03	COMB5
STORY2	B14	VC30x40	67.500	9.257E-03	COMB1	0.03	COMB5
STORY2	B14	VC30x40	117.500	9.257E-03	COMB1	0.03	COMB9
STORY2	B14	VC30x40	167.500	9.257E-03	COMB1	0.03	COMB5
STORY2	B14	VC30x40	217.500	9.257E-03	COMB1	0.03	COMB5
STORY2	B14	VC30x40	267.500	9.257E-03	COMB1	0.03	COMB5
STORY2	B14	VC30x40	317.500	9.257E-03	COMB1	0.04	COMB5
STORY2	B16	VC30x40	17.500	8.916E-03	COMB1	0.03	COMB5
STORY2	B16	VC30x40	50.625	8.916E-03	COMB1	0.03	COMB5
STORY2	B16	VC30x40	83.750	8.916E-03	COMB1	0.02	COMB5
STORY2	B16	VC30x40	83.750	9.190E-03	COMB1	0.03	COMB5
STORY2	B16	VC30x40	125.625	9.190E-03	COMB1	0.02	COMB5
STORY2	B16	VC30x40	167.500	9.190E-03	COMB1	0.02	COMB9
STORY2	B16	VC30x40	167.500	9.400E-03	COMB1	0.03	COMB5
STORY2	B16	VC30x40	209.375	9.400E-03	COMB1	0.02	COMB5
STORY2	B16	VC30x40	251.250	9.400E-03	COMB1	0.02	COMB9
STORY2	B16	VC30x40	251.250	9.624E-03	COMB1	0.02	COMB5
STORY2	B16	VC30x40	293.125	9.624E-03	COMB1	0.02	COMB9
STORY2	B16	VC30x40	293.125	9.940E-03	COMB1	0.02	COMB9
STORY2	B16	VC30x40	317.500	9.940E-03	COMB1	0.02	COMB9
STORY2	B17	VC30x40	17.500	0.01	COMB1	0.02	COMB9
STORY2	B17	VC30x40	41.875	0.01	COMB1	0.02	COMB9
STORY2	B17	VC30x40	41.875	0.01	COMB1	0.02	COMB9
STORY2	B17	VC30x40	83.750	0.01	COMB1	0.02	COMB5
STORY2	B17	VC30x40	83.750	9.791E-03	COMB1	0.02	COMB9
STORY2	B17	VC30x40	125.625	9.791E-03	COMB1	0.02	COMB5
STORY2	B17	VC30x40	167.500	9.791E-03	COMB1	0.02	COMB5
STORY2	B17	VC30x40	167.500	9.508E-03	COMB1	0.02	COMB9
STORY2	B17	VC30x40	209.375	9.508E-03	COMB1	0.02	COMB5
STORY2	B17	VC30x40	251.250	9.508E-03	COMB1	0.02	COMB5
STORY2	B17	VC30x40	251.250	9.108E-03	COMB1	0.02	COMB5
STORY2	B17	VC30x40	284.375	9.108E-03	COMB1	0.02	COMB5
STORY2	B17	VC30x40	317.500	9.108E-03	COMB1	0.03	COMB5
STORY2	B18	VC30x40	17.500	0.00	COMB3S	0.02	COMB3S
STORY2	B18	VC30x40	50.625	0.00	COMB3S	0.02	COMB3S
STORY2	B18	VC30x40	83.750	0.00	COMB3S	0.02	COMB3S
STORY2	B18	VC30x40	83.750	0.00	COMB3S	0.02	COMB3S
STORY2	B18	VC30x40	125.625	0.00	COMB3S	0.02	COMB3S
STORY2	B18	VC30x40	167.500	0.00	COMB3S	0.02	COMB3S
STORY2	B18	VC30x40	167.500	0.00	COMB3S	0.02	COMB3S
STORY2	B18	VC30x40	209.375	0.00	COMB3S	0.02	COMB3S
STORY2	B18	VC30x40	251.250	0.00	COMB3S	0.02	COMB3S
STORY2	B18	VC30x40	251.250	0.00	COMB3S	0.02	COMB3S
STORY2	B18	VC30x40	284.375	0.00	COMB3S	0.02	COMB3S
STORY2	B18	VC30x40	317.500	0.00	COMB3S	0.02	COMB3S
STORY2	B19	VC30x40	17.500	0.00	COMB3S	0.02	COMB9
STORY2	B19	VC30x40	50.625	0.00	COMB3S	0.02	COMB9
STORY2	B19	VC30x40	83.750	0.00	COMB3S	0.02	COMB9
STORY2	B19	VC30x40	83.750	0.00	COMB3S	0.02	COMB9

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08 JUN. 2017  
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REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARIO MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC - 1606  
D. U. EL SALVADOR, C. A.

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STORY2	B19	VC30x40	125.625	0.00	COMB3S	0.02	COMB9
STORY2	B19	VC30x40	167.500	0.00	COMB3S	0.02	COMB9
STORY2	B19	VC30x40	167.500	0.00	COMB3S	0.02	COMB9
STORY2	B19	VC30x40	209.375	0.00	COMB3S	0.02	COMB9
STORY2	B19	VC30x40	251.250	0.00	COMB3S	0.02	COMB9
STORY2	B19	VC30x40	251.250	0.00	COMB3S	0.02	COMB9
STORY2	B19	VC30x40	284.375	0.00	COMB3S	0.02	COMB9
STORY2	B19	VC30x40	317.500	0.00	COMB3S	0.02	COMB9
STORY2	B77	VC30x40	17.500	0.00	COMB3S	0.06	COMB5
STORY2	B77	VC30x40	25.000	0.00	COMB3S	0.06	COMB5
STORY2	B77	VC30x40	25.000	0.00	COMB3S	0.05	COMB5
STORY2	B77	VC30x40	50.000	0.00	COMB3S	0.05	COMB5
STORY2	B77	VC30x40	50.000	0.00	COMB3S	0.05	COMB5
STORY2	B77	VC30x40	75.000	0.00	COMB3S	0.05	COMB5
STORY2	B77	VC30x40	75.000	0.00	COMB3S	0.05	COMB5
STORY2	B77	VC30x40	100.000	0.00	COMB3S	0.05	COMB5
STORY2	B77	VC30x40	100.000	0.00	COMB3S	0.05	COMB5
STORY2	B77	VC30x40	125.000	0.00	COMB3S	0.05	COMB5
STORY2	B77	VC30x40	125.000	0.00	COMB3S	0.05	COMB5
STORY2	B77	VC30x40	150.000	0.00	COMB3S	0.05	COMB5
STORY2	B77	VC30x40	150.000	0.00	COMB3S	0.05	COMB5
STORY2	B77	VC30x40	175.000	0.00	COMB3S	0.05	COMB5
STORY2	B77	VC30x40	175.000	9.624E-03	COMB2	0.05	COMB5
STORY2	B77	VC30x40	200.000	9.624E-03	COMB2	0.05	COMB5
STORY2	B77	VC30x40	200.000	0.01	COMB2	0.05	COMB5
STORY2	B77	VC30x40	222.500	0.01	COMB2	0.05	COMB5
STORY2	B78	VC20x40	17.500	0.00	COMB3S	0.04	COMB5
STORY2	B78	VC20x40	60.000	0.00	COMB3S	0.04	COMB5
STORY2	B78	VC20x40	60.000	0.00	COMB3S	0.03	COMB5
STORY2	B78	VC20x40	90.000	0.00	COMB3S	0.03	COMB5
STORY2	B78	VC20x40	120.000	0.00	COMB3S	0.03	COMB5
STORY2	B78	VC20x40	120.000	0.00	COMB3S	0.03	COMB5
STORY2	B78	VC20x40	150.000	0.00	COMB3S	0.03	COMB5
STORY2	B78	VC20x40	180.000	0.00	COMB3S	0.03	COMB5
STORY2	B78	VC20x40	180.000	0.00	COMB3S	0.03	COMB5
STORY2	B78	VC20x40	222.500	0.00	COMB3S	0.03	COMB5
STORY2	B81	VC30x40	17.500	0.00	COMB3S	0.02	COMB3S
STORY2	B81	VC30x40	25.000	0.00	COMB3S	0.02	COMB3S
STORY2	B81	VC30x40	25.000	0.00	COMB3S	0.02	COMB3S
STORY2	B81	VC30x40	50.000	0.00	COMB3S	0.02	COMB3S
STORY2	B81	VC30x40	50.000	0.00	COMB3S	0.02	COMB3S
STORY2	B81	VC30x40	75.000	0.00	COMB3S	0.02	COMB3S
STORY2	B81	VC30x40	75.000	0.00	COMB3S	0.02	COMB3S
STORY2	B81	VC30x40	80.000	0.00	COMB3S	0.02	COMB3S
STORY2	B81	VC30x40	80.000	0.00	COMB3S	0.02	COMB3S
STORY2	B81	VC30x40	100.000	0.00	COMB3S	0.02	COMB3S
STORY2	B81	VC30x40	100.000	0.00	COMB3S	0.02	COMB3S
STORY2	B81	VC30x40	125.000	0.00	COMB3S	0.02	COMB3S
STORY2	B81	VC30x40	125.000	0.00	COMB3S	0.02	COMB3S
STORY2	B81	VC30x40	150.000	0.00	COMB3S	0.02	COMB3S
STORY2	B81	VC30x40	150.000	0.00	COMB3S	0.02	COMB3S
STORY2	B81	VC30x40	160.000	0.00	COMB3S	0.02	COMB3S
STORY2	B81	VC30x40	160.000	0.00	COMB3S	0.02	COMB3S
STORY2	B81	VC30x40	175.000	0.00	COMB3S	0.02	COMB3S
STORY2	B81	VC30x40	175.000	0.00	COMB3S	0.02	COMB3S
STORY2	B81	VC30x40	200.000	0.00	COMB3S	0.02	COMB3S
STORY2	B81	VC30x40	200.000	0.00	COMB3S	0.02	COMB3S
STORY2	B81	VC30x40	240.000	0.00	COMB3S	0.02	COMB3S
STORY2	B128	VC20x40	0.000	0.03	COMB1	0.04	COMB5
STORY2	B128	VC20x40	41.875	0.03	COMB1	0.04	COMB5
STORY2	B128	VC20x40	83.750	0.03	COMB1	0.04	COMB5
STORY2	B128	VC20x40	83.750	0.00	COMB3S	0.03	COMB5
STORY2	B128	VC20x40	125.625	0.00	COMB3S	0.03	COMB5
STORY2	B128	VC20x40	167.500	0.00	COMB3S	0.03	COMB5
STORY2	B128	VC20x40	167.500	0.00	COMB3S	0.03	COMB5
STORY2	B128	VC20x40	209.375	0.00	COMB3S	0.03	COMB5
STORY2	B128	VC20x40	209.375	0.00	COMB3S	0.03	COMB5
STORY2	B128	VC20x40	251.250	0.00	COMB3S	0.03	COMB5
STORY2	B128	VC20x40	251.250	0.02	COMB1	0.04	COMB5
STORY2	B128	VC20x40	293.125	0.02	COMB1	0.04	COMB5
STORY2	B128	VC20x40	335.000	0.02	COMB1	0.04	COMB5
STORY2	B129	VC20x40	0.000	0.03	COMB1	0.04	COMB5
STORY2	B129	VC20x40	41.875	0.03	COMB1	0.04	COMB5
STORY2	B129	VC20x40	83.750	0.03	COMB1	0.04	COMB5
STORY2	B129	VC20x40	83.750	0.00	COMB3S	0.04	COMB5
STORY2	B129	VC20x40	125.625	0.00	COMB3S	0.04	COMB5
STORY2	B129	VC20x40	167.500	0.00	COMB3S	0.04	COMB5
STORY2	B129	VC20x40	167.500	0.00	COMB3S	0.04	COMB5
STORY2	B129	VC20x40	209.375	0.00	COMB3S	0.04	COMB5
STORY2	B129	VC20x40	209.375	0.00	COMB3S	0.04	COMB5
STORY2	B129	VC20x40	251.250	0.00	COMB3S	0.04	COMB5
STORY2	B129	VC20x40	251.250	0.02	COMB1	0.04	COMB5
STORY2	B129	VC20x40	293.125	0.02	COMB1	0.04	COMB5

DIN - FISDL  
08 JUN. 2017  
REVISADO

M/S  
REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
R. 03-10-1980 No. IC - 1606  
M. 04-11-2004 U. EL SALVADOR, C.A.

kinder22qbril2mvigascolumnas.txt							
STORY2	B129	VC20x40	335.000	0.02	COMB1	0.04	COMB5
STORY2	B134	VC20x40	0.000	0.02	COMB5	0.04	COMB9
STORY2	B134	VC20x40	44.063	0.02	COMB5	0.04	COMB9
STORY2	B134	VC20x40	88.125	0.02	COMB5	0.04	COMB9
STORY2	B134	VC20x40	88.125	0.00	COMB3S	0.03	COMB9
STORY2	B134	VC20x40	132.188	0.00	COMB3S	0.03	COMB9
STORY2	B134	VC20x40	176.250	0.00	COMB3S	0.03	COMB9
STORY2	B134	VC20x40	176.250	0.00	COMB3S	0.03	COMB9
STORY2	B134	VC20x40	220.313	0.00	COMB3S	0.03	COMB9
STORY2	B134	VC20x40	264.375	0.00	COMB3S	0.03	COMB9
STORY2	B134	VC20x40	264.375	0.00	COMB3S	0.04	COMB9
STORY2	B134	VC20x40	298.438	0.00	COMB3S	0.04	COMB9
STORY2	B134	VC20x40	332.500	0.00	COMB3S	0.04	COMB9
STORY2	B135	VC20x40	20.000	0.00	COMB3S	0.04	COMB9
STORY2	B135	VC20x40	54.063	0.00	COMB3S	0.04	COMB9
STORY2	B135	VC20x40	88.125	0.00	COMB3S	0.04	COMB9
STORY2	B135	VC20x40	88.125	0.00	COMB3S	0.03	COMB9
STORY2	B135	VC20x40	132.188	0.00	COMB3S	0.03	COMB9
STORY2	B135	VC20x40	176.250	0.00	COMB3S	0.03	COMB9
STORY2	B135	VC20x40	176.250	0.00	COMB3S	0.03	COMB9
STORY2	B135	VC20x40	220.313	0.00	COMB3S	0.03	COMB9
STORY2	B135	VC20x40	264.375	0.00	COMB3S	0.03	COMB9
STORY2	B135	VC20x40	264.375	0.02	COMB5	0.04	COMB9
STORY2	B135	VC20x40	308.438	0.02	COMB5	0.04	COMB9
STORY2	B135	VC20x40	352.500	0.02	COMB5	0.04	COMB9
STORY1	B76	SF60x40	0.000	0.03	COMB4	0.07	COMB5
STORY1	B76	SF60x40	30.000	0.03	COMB4	0.07	COMB5
STORY1	B76	SF60x40	30.000	0.00	COMB3S	0.06	COMB5
STORY1	B76	SF60x40	60.000	0.00	COMB3S	0.06	COMB5
STORY1	B76	SF60x40	60.000	0.00	COMB3S	0.07	COMB5
STORY1	B76	SF60x40	90.000	0.00	COMB3S	0.06	COMB5
STORY1	B76	SF60x40	90.000	0.00	COMB3S	0.08	COMB5
STORY1	B76	SF60x40	100.714	0.00	COMB3S	0.08	COMB5
STORY1	B76	SF60x40	100.714	0.00	COMB3S	0.08	COMB5
STORY1	B76	SF60x40	134.286	0.00	COMB3S	0.08	COMB5
STORY1	B76	SF60x40	167.857	0.00	COMB3S	0.07	COMB5
STORY1	B76	SF60x40	201.429	0.00	COMB3S	0.08	COMB7
STORY1	B76	SF60x40	201.429	0.00	COMB3S	0.06	COMB5
STORY1	B76	SF60x40	235.000	0.00	COMB3S	0.06	COMB5
STORY1	B76	SF60x40	268.571	0.00	COMB3S	0.06	COMB5
STORY1	B76	SF60x40	302.143	0.00	COMB3S	0.06	COMB5
STORY1	B76	SF60x40	302.143	0.00	COMB3S	0.06	COMB5
STORY1	B76	SF60x40	327.321	0.00	COMB3S	0.06	COMB8
STORY1	B76	SF60x40	352.500	0.00	COMB3S	0.06	COMB4
STORY1	B76	SF60x40	352.500	0.00	COMB3S	0.06	COMB4
STORY1	B76	SF60x40	377.679	0.00	COMB3S	0.06	COMB8
STORY1	B76	SF60x40	402.857	0.00	COMB3S	0.06	COMB7
STORY1	B76	SF60x40	402.857	0.01	COMB4	0.07	COMB4
STORY1	B76	SF60x40	436.429	0.01	COMB4	0.07	COMB5
STORY1	B76	SF60x40	470.000	0.01	COMB4	0.07	COMB5
STORY1	B76	SF60x40	503.571	0.01	COMB4	0.07	COMB5
STORY1	B76	SF60x40	503.571	0.01	COMB4	0.07	COMB5
STORY1	B76	SF60x40	525.000	0.01	COMB4	0.07	COMB5
STORY1	B76	SF60x40	525.000	0.00	COMB3S	0.06	COMB5
STORY1	B76	SF60x40	555.000	0.00	COMB3S	0.06	COMB5
STORY1	B76	SF60x40	555.000	0.00	COMB3S	0.06	COMB5
STORY1	B76	SF60x40	585.000	0.00	COMB3S	0.05	COMB5
STORY1	B76	SF60x40	585.000	0.01	COMB5	0.05	COMB5
STORY1	B76	SF60x40	604.286	0.01	COMB5	0.05	COMB5
STORY1	B76	SF60x40	604.286	0.01	COMB5	0.06	COMB7
STORY1	B76	SF60x40	615.000	0.01	COMB5	0.06	COMB7
STORY1	B76	SF60x40	615.000	0.02	COMB5	0.06	COMB7
STORY1	B76	SF60x40	645.000	0.02	COMB5	0.06	COMB3
STORY1	B76	SF60x40	645.000	0.02	COMB5	0.08	COMB5
STORY1	B76	SF60x40	675.000	0.02	COMB5	0.08	COMB5
STORY1	B76	SF60x40	675.000	0.04	COMB4	0.11	COMB5
STORY1	B76	SF60x40	705.000	0.04	COMB4	0.11	COMB5

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MS  
REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
INGENIERO CIVIL  
REGISTRO No. IC 1506  
M.O.P.-VMVDU EL SALVADOR C.A.

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08 JUN. 2017  
REVISADO

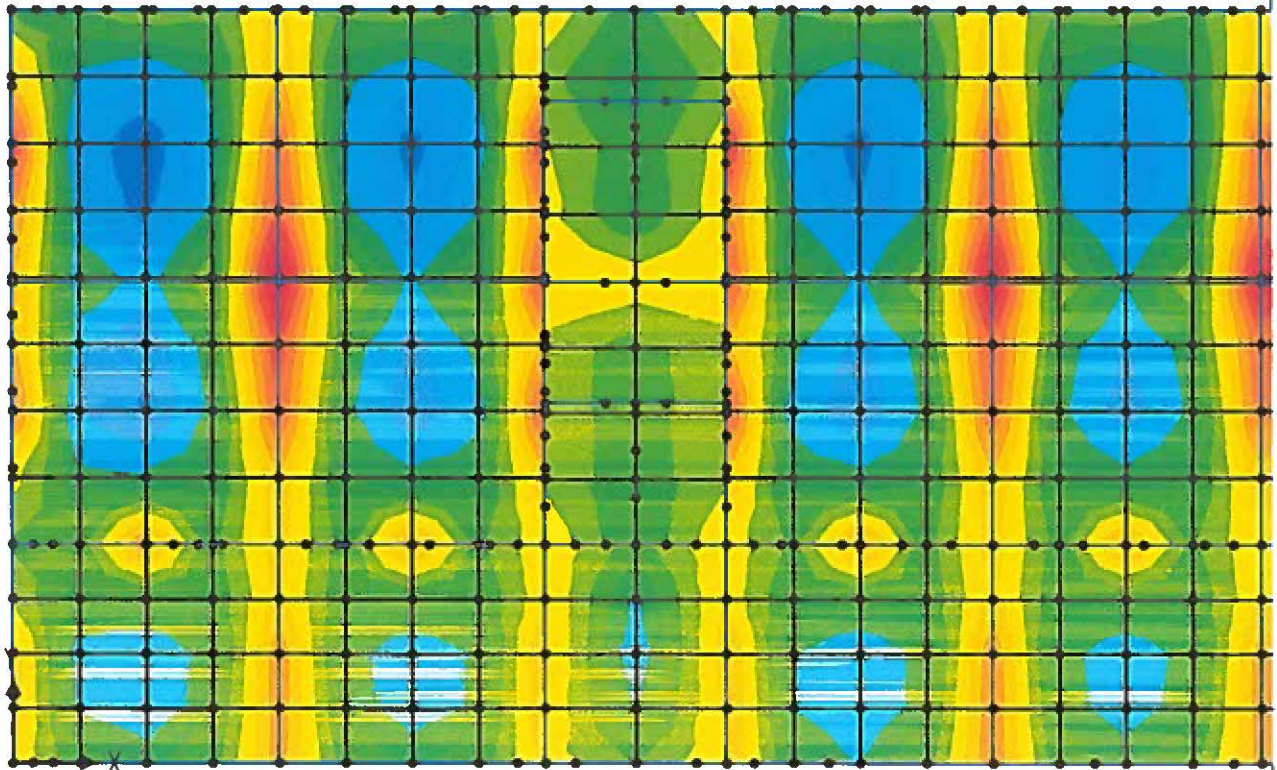
A

B

C

D

E



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-880. -770. -660. -550. -440. -330. -220. -110. 0. 110. 220. 330. 440. 550. E-3



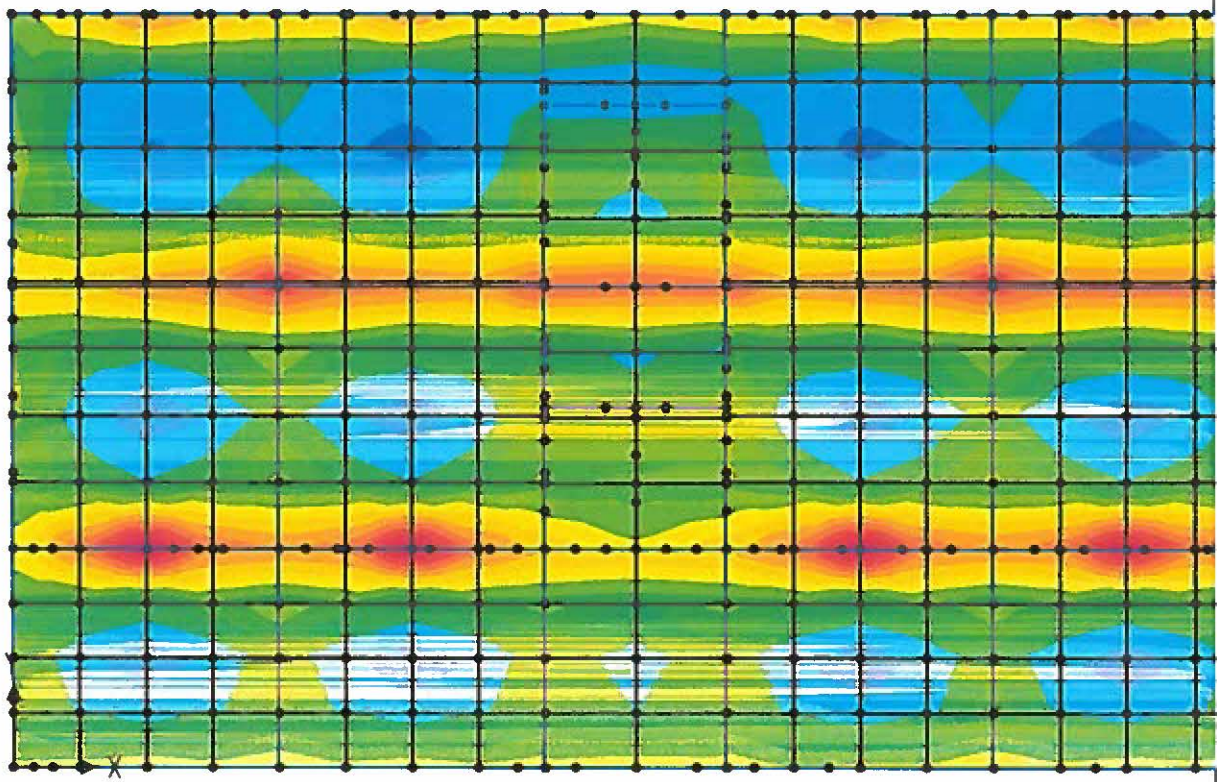
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A

B

C

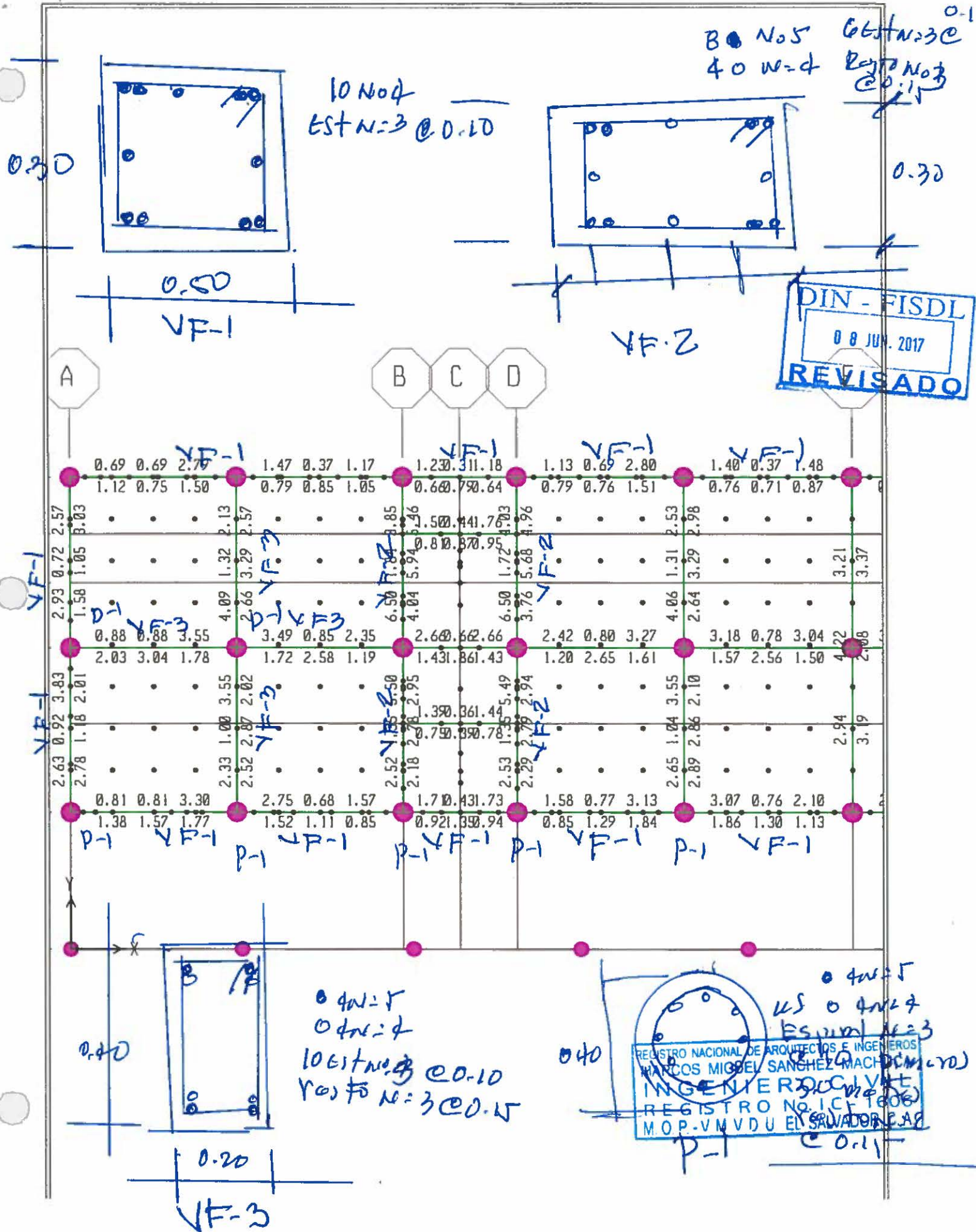
D



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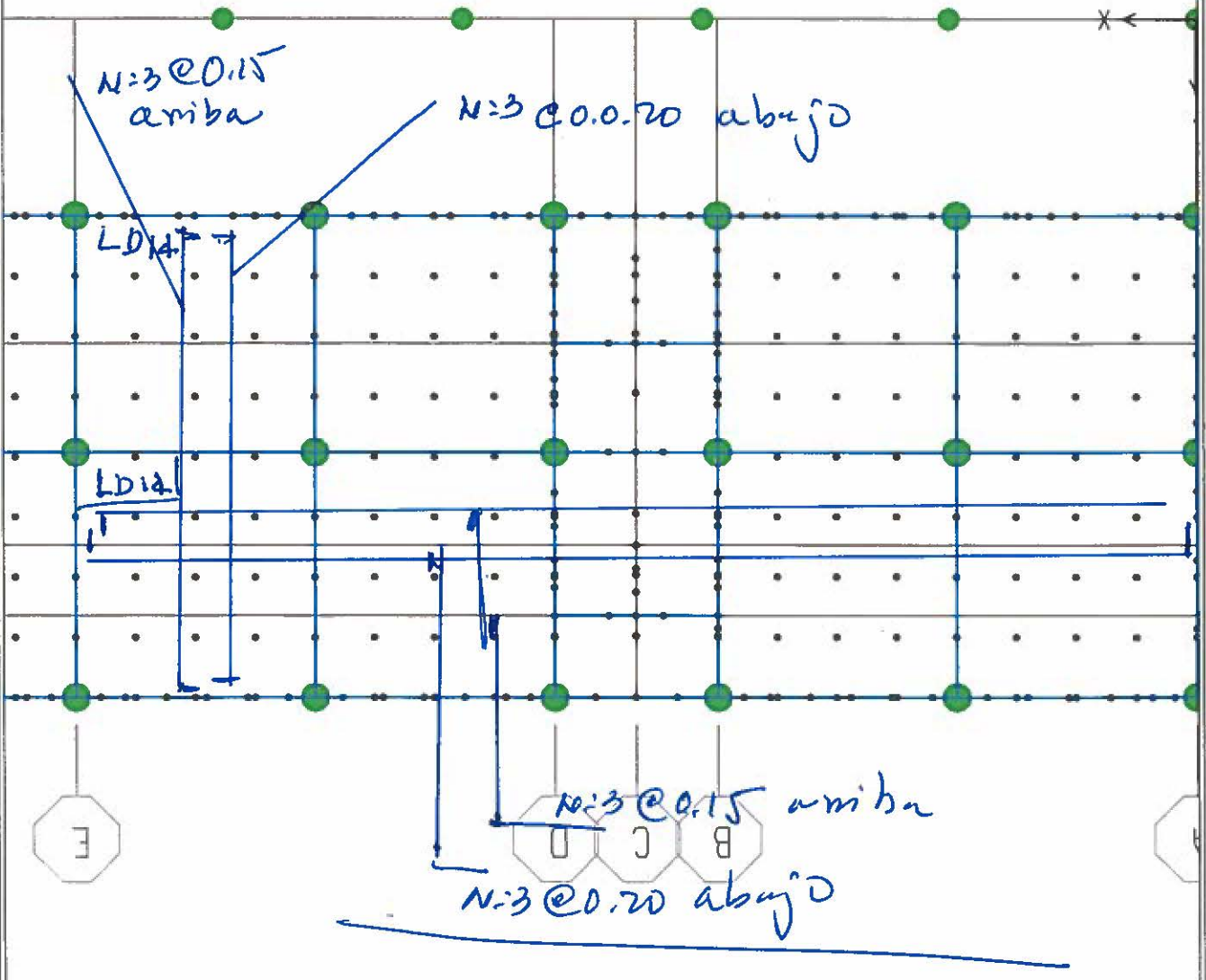
-1.04 -0.91 -0.78 -0.65 -0.52 -0.39 -0.26 -0.13 0.00 0.13 0.26 0.39 0.52 0.65



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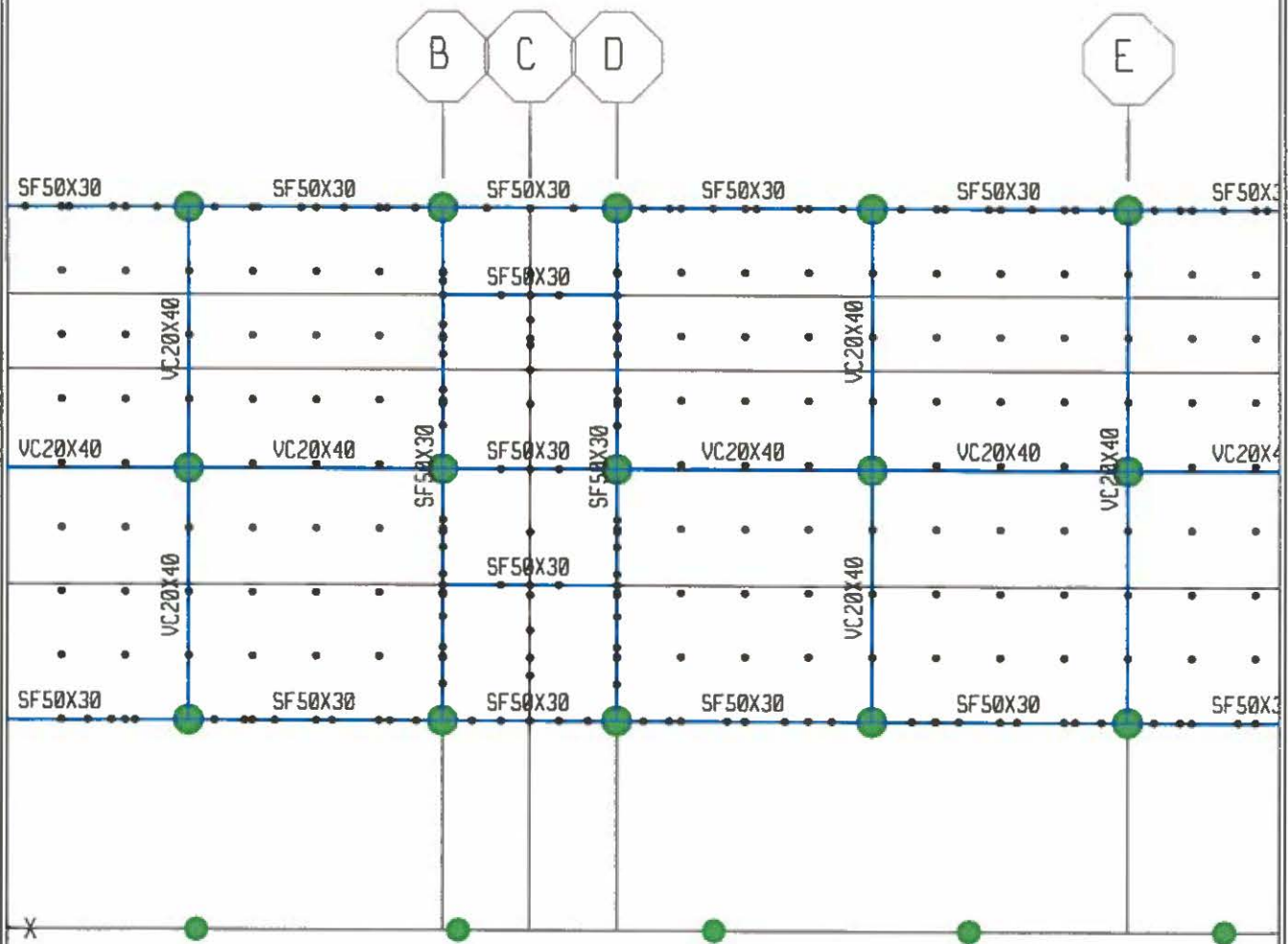
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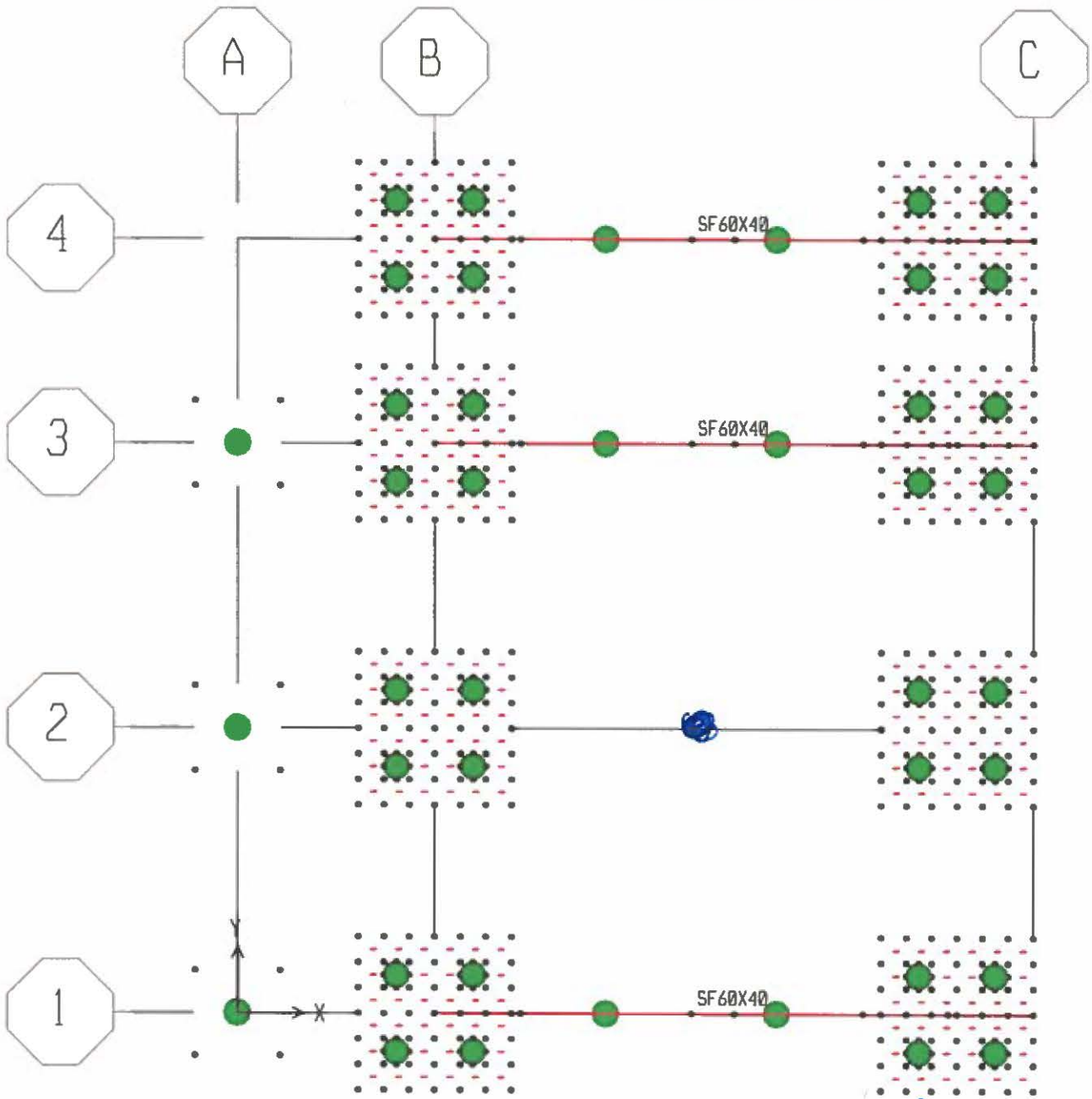
REGISTRO NACIONAL DE ARQUITECTOS E INGENIEROS  
MARCOS MIGUEL SANCHEZ MACHUCA  
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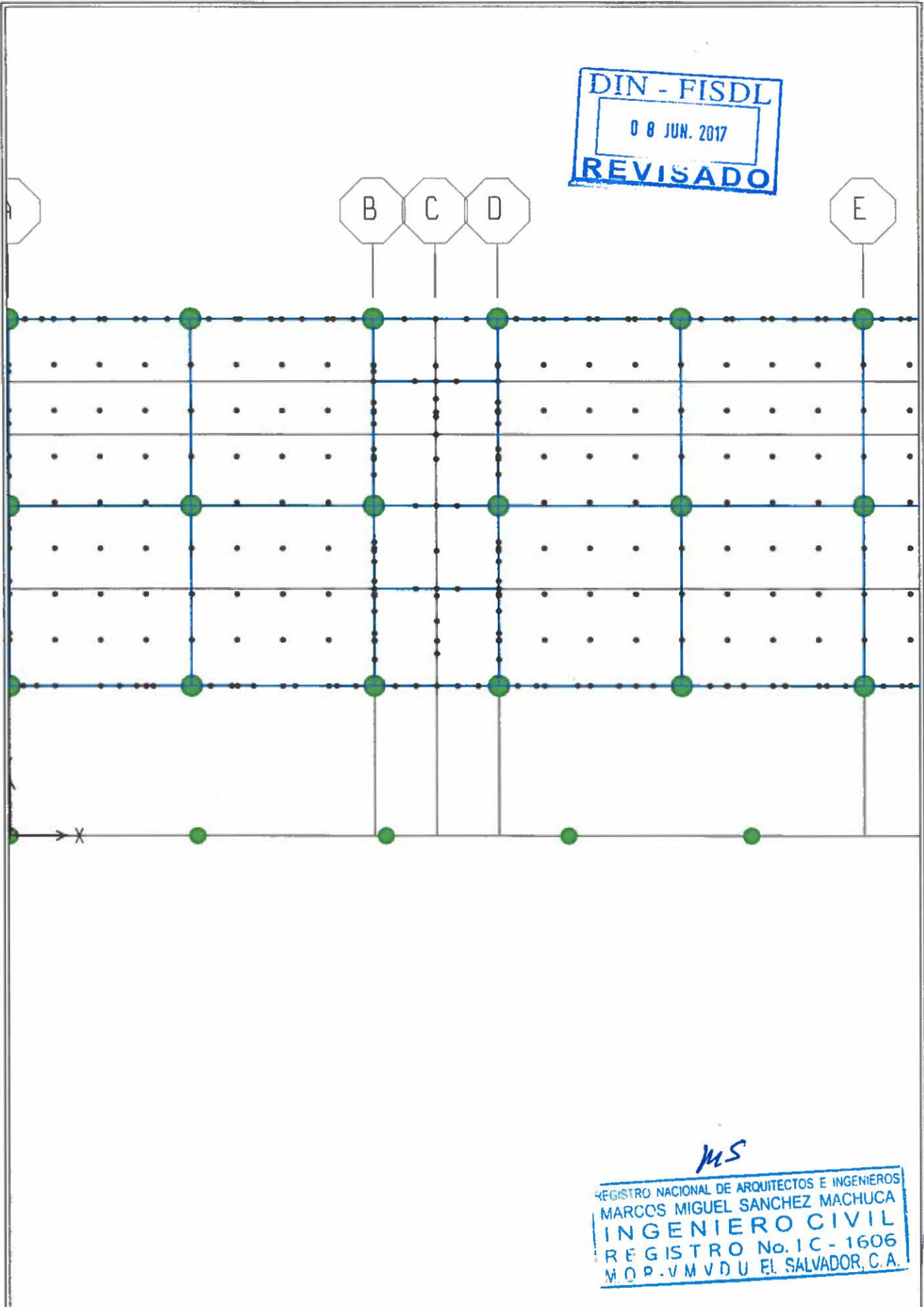


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MIGUEL SANCHEZ MACHUCA  
REGISTRO No. IC - 160  
C. P. V. M. V. D. U. EL SALVADOR, C.

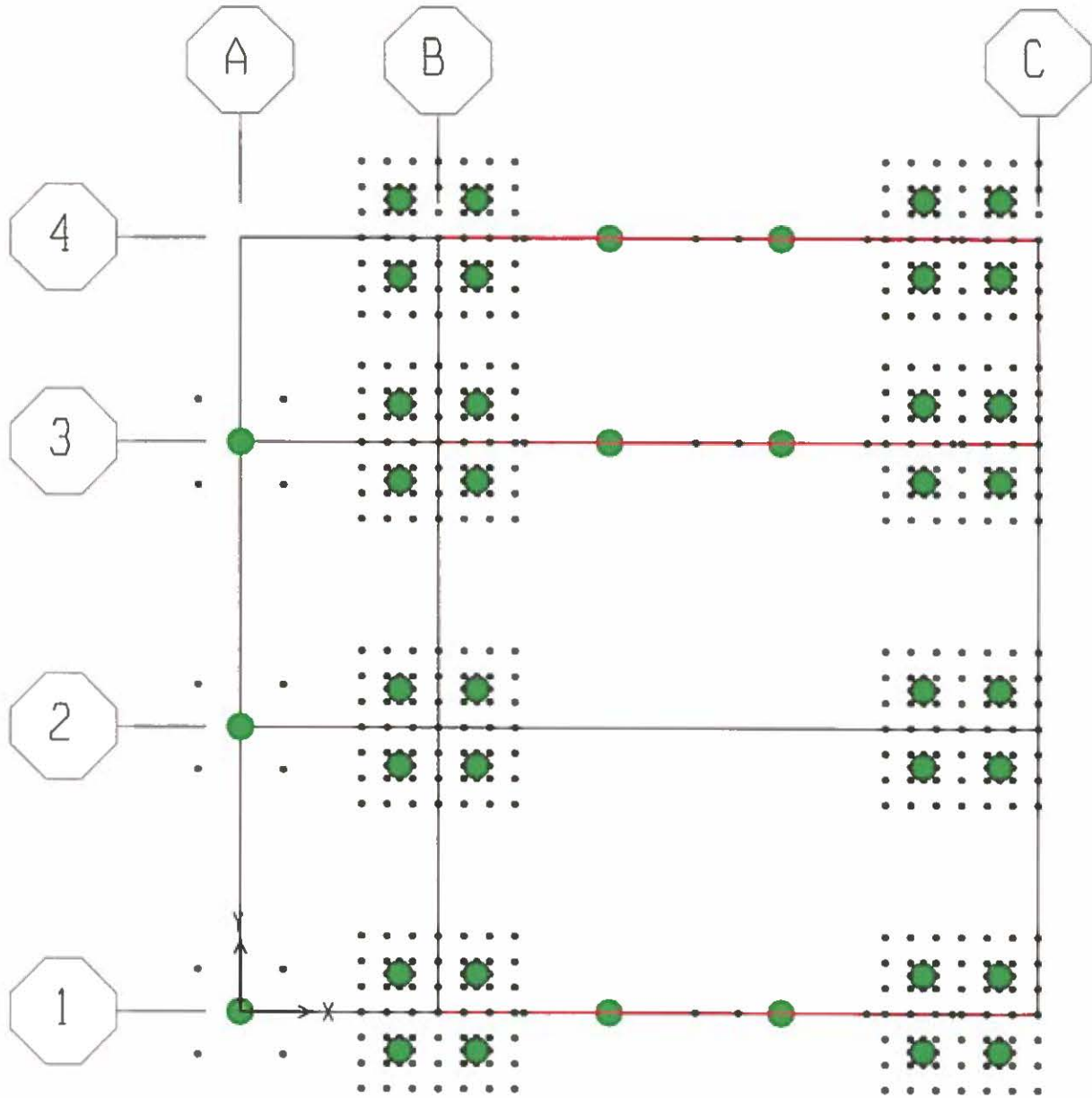
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M.O.P.-V.M.V.D.U. EL SALVADOR, C.A.

**Marcos Miguel Sánchez Machuca**

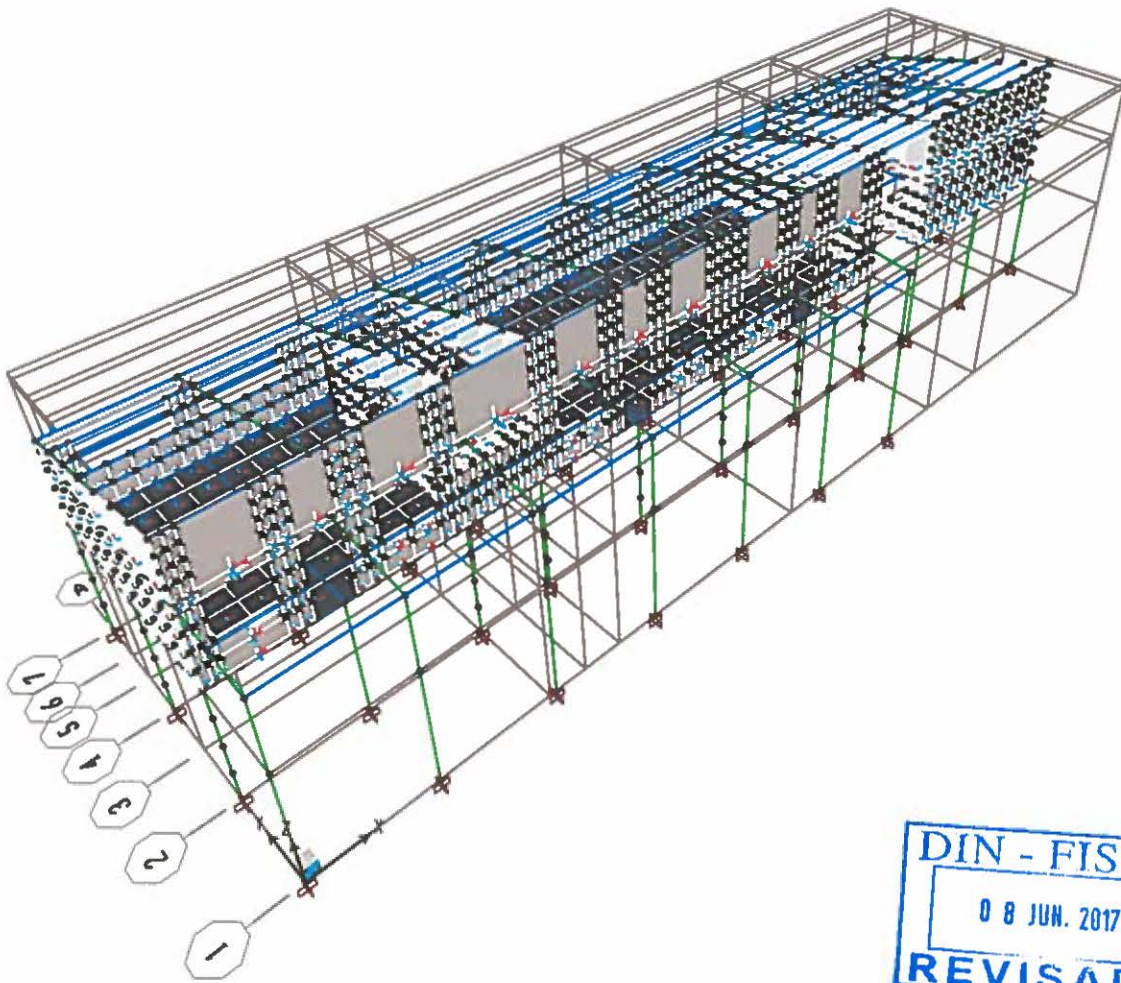
**Ingeniero Civil**

**Consultoría y Construcción**

# **DISEÑO DE ELEMENTOS DE TECHO**



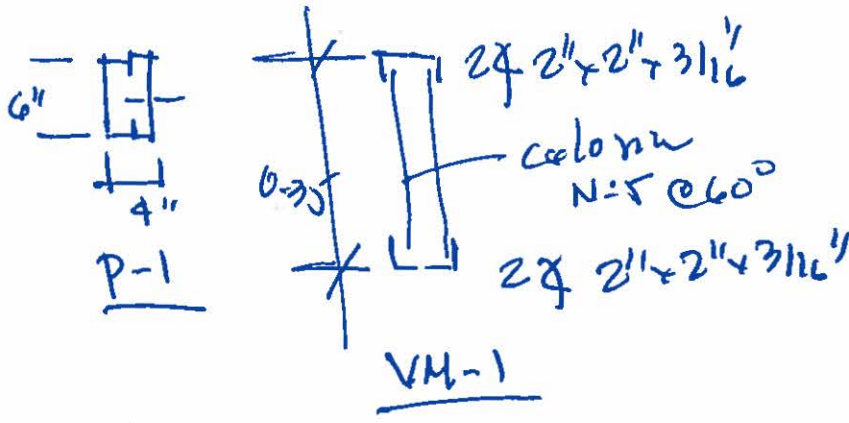




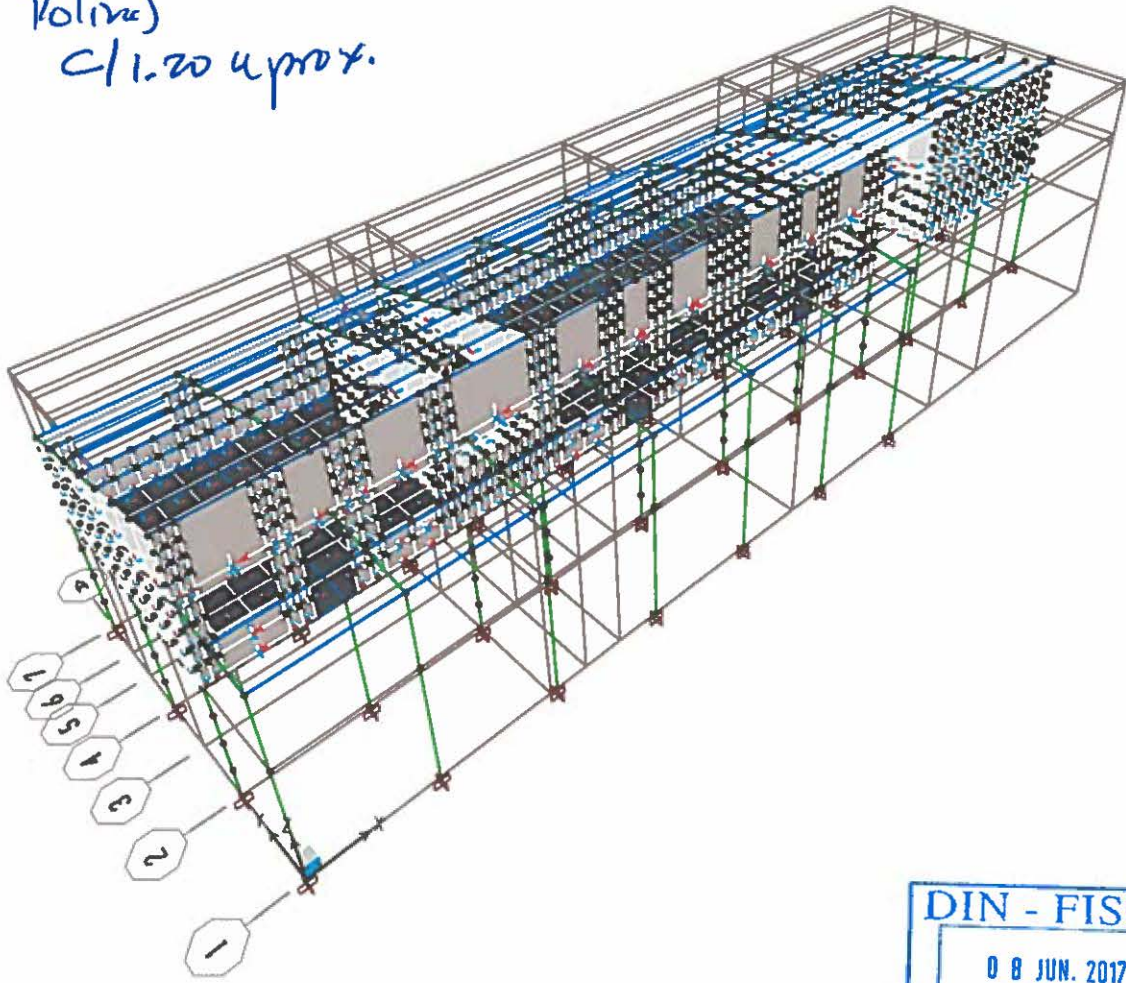
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Polinco  
C/1.20 u prox.



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M =

M: 2.43 t-m. ✓

V = 1.73 fm' ✓

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P. V M V D U. EL SALVADOR, C. A.

**DISEÑO DE VIGAS METÁLICAS**

PROYECTO: **Laboratorio y Admon Fundasal**  
 VIGA: **VM-3**  
 FECHA: **dic-16**

M= **3000.00** kg-m  
 V= **1730.00** kg  
 FY= **2536.37** kg/cm<sup>2</sup>  
 E= **2039000.00** kg/cm<sup>2</sup>  
 d= **0.35** m

Cc= **125.97**  
 T= **9345.79** kg  
 Asl= **6.14** cm<sup>2</sup>

Probando: **2< 2.0 x 2.0 x 3/16"** cel a: **60** grados

seccion ( / cajon): **C**

**PROPIEDADES DEL ANGULO**

Longitud= **5.08** cms      x= **1.45** cms  
 Area= **4.61** cm<sup>2</sup>      r min= **1.02** cm  
 Inercia= **11.45** cm<sup>4</sup>

**PROPIEDADES DE LA SECCION**

Iy= **144.39** cm<sup>4</sup>      Ix = **4795.99** cm<sup>4</sup>  
 ry= **3.96** cm      rx = **16.13** cm  
 fa= **1013.64** kg/cm<sup>2</sup>

**PANDEO LOCAL**

L pandeo= **40.41** cm  
 K= **1.00**  
 kl/r= **39.62**  
 Fa= **1353.89** kg/cm<sup>2</sup>      ok  
 Fa/sismo= **1800.67**      ok

**PANDEO TOTAL**

L pandeo= **100.00** cm  
 K= **1.00**  
 kl/rx= **25.27**  
 Fa= **1427.63** kg/cm<sup>2</sup>      ok  
 Fa/sismo= **1898.75** kg/cm<sup>2</sup>      ok

**CORTANTE : Varilla Corrugada**

No.= **5**  
 Av= **1.98** cm<sup>2</sup>  
 diametro= **1.59** cm  
 Cc= **119.89**  
 fv= **504.62** kg/cm<sup>2</sup>

fy= **2800.00** kg/cm<sup>2</sup>  
 L pandeo= **40.41** cm  
 r= **0.40** cm  
 L/r= **101.83**  
 Fa= **1012.53** kg/cm<sup>2</sup>      ok

NOTA: **DOBLE CELOSIA**



**CORTANTE : Angulares.**

Tipo = **3/4 X 1/8"**  
 Aa= **1.11** cm<sup>2</sup>  
 r= **0.37** cm  
 Cc= **125.97**  
 fv= **899.83** kg/cm<sup>2</sup>

fy= **2536.37** kg/cm<sup>2</sup>  
 L pandeo= **40.41** cm  
 L/r= **109.25**  
 Fa= **828.58** kg/cm<sup>2</sup>

NOTA: **DOBLE CELOSIA**

