Company: PDelta Ingenieria Estructural S.A.S **Engineer: Ing. Osvaldo Guzman A**
Project: P046-2024 - PLAZA DOÑA CEIBA (LOCALES) **5:46:56 p. m. 26/06/2024**
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GENERAL INPUT DATA

Structure type: Three-Dimensional Frame Structure
Number of Floor Grids . . . . = 1
Building total length . . . . = 4.04 m
Building total width . . . . . = 2.39 m

STORY INFORMATION

Number of Stories . . . . = 1
Total Frame Height . . . . = 2.4 m

Floor	Story Height	Grid No
1	2.40	1
2	-	1

* Story Height in (m)

STRUCTURAL GRID INFORMATION

GRID No 1

Grid Point	X	Y
A-1	0.00	0.00
B-1	0.00	2.39
A-1'	2.02	0.00
B-1'	2.02	2.39
A-2	4.04	0.00
B-2	4.04	2.39

* Coordinates X & Y are in (m)

M A T E R I A L S

Number of materials = 1

REINFORCED CONCRETE

Mat	Name	f'c Kg/cm2	fy Kg/cm2	fys1 Kg/cm2	fys2 Kg/cm2	E Kg/cm2	G Kg/cm2	w Kg/m3
1	RConcrete1	210	4200	4200	4200	218540	87430	2400.0

f'c: Compressive strength of concrete
fy: Yield strength of longitudinal reinforcement
fys1: Yiel strength of shear reinforcement, bar sizes <= 3/8"
fys2: Yiel strength of shear reinforcement, bar sizes > 3/8"

M E M B E R D A T A

Total number of members..... = 11
Number of columns..... = 4
Number of beams ..... = 13
Number of braces ..... = 0

COLUMN SECTIONS

Number of prismatic sections = 1

Sec	Name	Shape	b (cm)	h (cm)	tw (cm)	tf (cm)	P1 (cm)	P2 (cm)	A (cm2)	I2 (cm4)	I3 (cm4)	J (cm4)
1	C-25X25	Rectang	25.00	25.00	-	-	-	-	625.0	32552	32552	48177

COLUMNS

Column	Story	L (m)	Lu (m)	a (m)	c (m)	Theta (o)	Sec -	Mat -	System -
B-2	1	2.40	2.18	0.00	0.23	90.0	1	1	G&L
A-2	1	2.40	2.18	0.00	0.23	90.0	1	1	G&L
B-1	1	2.40	2.18	0.00	0.23	90.0	1	1	G&L
A-1	1	2.40	2.18	0.00	0.23	90.0	1	1	G&L

BEAM SECTIONS

Number of prismatic sections = 3

Sec	Name	Shape	b (cm)	h (cm)	tw (cm)	tf (cm)	P1 (cm)	P2 (cm)	A (cm2)	I2 (cm4)	I3 (cm4)	J (cm4)
1	VG-25X30	Rectang	25.00	30.00	-	-	-	-	750.0	56250	39062	74219
2	VG-20X30	Rectang	20.00	30.00	-	-	-	-	600.0	45000	20000	46400
3	VC-25X25	Rectang	25.00	25.00	-	-	-	-	625.0	32552	32552	48177

BEAMS

Beam	Floor	L (m)	Lu (m)	a (m)	c (m)	Sec -	Mat -	System -
A(1-1')	1	2.02	1.90	0.13	0.00	3	1	G&L
A(1'-2)	1	2.02	1.90	0.00	0.13	3	1	G&L
B(1-1')	1	2.02	1.90	0.13	0.00	3	1	G&L
B(1'-2)	1	2.02	1.90	0.00	0.13	3	1	G&L
A(1-1')	2	2.02	1.90	0.13	0.00	1	1	G&L
A(1'-2)	2	2.02	1.90	0.00	0.13	1	1	G&L
B(1-1')	2	2.02	1.90	0.13	0.00	1	1	G&L
B(1'-2)	2	2.02	1.90	0.00	0.13	1	1	G&L
1(A-B)	1	2.39	2.14	0.13	0.13	3	1	G&L
2(A-B)	1	2.39	2.14	0.13	0.13	3	1	G&L
1(A-B)	2	2.39	2.14	0.13	0.13	1	1	G&L
1'(A-B)	2	2.39	2.14	0.13	0.13	2	1	G&L
2(A-B)	2	2.39	2.14	0.13	0.13	1	1	G&L

FOUNDATION SOIL PROPERTIES

Number of soil properties = 1

Soil	Name	Pressure Distribution	Allowable gross pres. Pa T/m2	Increase Pa Combinations incl.EQ & WL (%)	MODULUS OF SUBGRADE REACTION Gravity load Analysis, Kg T/m3	Lateral load Analysis, Ks T/m3
1	Soil1	Linear	15.2	33	300.0	300.0

* Values of subgrade reaction are used only on footings with rotations and/or vert-displac. permitted.

FOUNDATION BEAM DATA

Number of foundation beams = 6

FOUNDATION BEAMS

Beam	Floor	L (m)	Lu (m)	a (m)	c (m)	TWidth (m)	Sec -	Mat -	Soil -	System -
A(1-1')	1	2.02	1.90	0.13	0.00	1.00	3	1	1	G&L
A(1'-2)	1	2.02	1.90	0.00	0.13	1.00	3	1	1	G&L
B(1-1')	1	2.02	1.90	0.13	0.00	1.00	3	1	1	G&L
B(1'-2)	1	2.02	1.90	0.00	0.13	1.00	3	1	1	G&L
1(A-B)	1	2.39	2.14	0.13	0.13	1.00	3	1	1	G&L
2(A-B)	1	2.39	2.14	0.13	0.13	1.00	3	1	1	G&L

FOOTING DATA

Total number of footings ..... = 4

Footing	Floor	Type	V-Disp	Rotatn	B m	L m	Area m 2	X-Cent m	Y-Cent m	Theta deg	Mat --	Soil --
B-2	1	Spread	Fixed	Fixed	1.00	1.00	1.00	4.04	2.39	90.0	1	1
A-2	1	Spread	Fixed	Fixed	1.00	1.00	1.00	4.04	0.00	90.0	1	1
B-1	1	Spread	Fixed	Fixed	1.00	1.00	1.00	0.00	2.39	90.0	1	1
A-1	1	Spread	Fixed	Fixed	1.00	1.00	1.00	0.00	0.00	90.0	1	1

SUMMARY OF TOTAL FLOOR LOADS

LOAD CASE 1 : SELFW (D0)

	Force (ton)			Moment (ton-m)		
Floor	Px	Py	Pz	Mx	My	Mz
2	0.00	0.00	4.19	0.0	0.0	0.0
1	0.00	0.00	1.93	0.0	0.0	0.0
Total	0.00	0.00	6.11	0.0	0.0	0.0

LOAD CASE 2 : DEAD (DL)

	Force (ton)			Moment (ton-m)		
Floor	Px	Py	Pz	Mx	My	Mz
2	0.00	0.00	6.37	0.0	0.0	0.0
1	0.00	0.00	0.00	0.0	0.0	0.0

Floor	Px	Py	Pz	Mx	My	Mz
Total	0.00	0.00	6.37	0.0	0.0	0.0

LOAD CASE 3 : LIVE (LL)

	Force (ton)			Moment (ton-m)		
Floor	Px	Py	Pz	Mx	My	Mz
2	0.00	0.00	1.93	0.0	0.0	0.0
1	0.00	0.00	0.00	0.0	0.0	0.0
Total	0.00	0.00	1.93	0.0	0.0	0.0

LOAD CASE 4 : EQUAKE X (EQX) - TYPE : SPECTRAL

	Force (ton)			Acc. Tors. Mom. (ton-m)		
Floor	Px	Py	Pz	Mx	My	Mz
2	6.60	0.00	0.00	0.0	0.0	0.8
1	0.00	0.00	0.00	0.0	0.0	0.0
Total	6.60	0.00	0.00	0.0	0.0	0.8

LOAD CASE 5 : EQUAKE Y (EQY) - TYPE : SPECTRAL

	Force (ton)			Acc. Tors. Mom. (ton-m)		
Floor	Px	Py	Pz	Mx	My	Mz
2	0.00	6.60	0.00	0.0	0.0	1.3
1	0.00	0.00	0.00	0.0	0.0	0.0
Total	0.00	6.60	0.00	0.0	0.0	1.3

LOAD CASE 6 : WIND X (WLX)

	Force (ton)			Moment (ton-m)		
Floor	Px	Py	Pz	Mx	My	Mz
2	0.29	0.00	0.00	0.0	0.0	0.0
1	0.29	0.00	0.00	0.0	0.0	0.0
Total	0.58	0.00	0.00	0.0	0.0	0.0

LOAD CASE 7 : WIND Y (WLY)

	Force (ton)			Moment (ton-m)		
Floor	Px	Py	Pz	Mx	My	Mz
2	0.00	0.54	0.00	0.0	0.0	0.1
1	0.00	0.54	0.00	0.0	0.0	0.0
Total	0.00	1.08	0.00	0.0	0.0	0.1

SUMMARY QUANTITY OF MATERIALS

COLUMNS

Item	Section	Material	Length	Weight/Len	Total Weight
-	-	-	m	ton/m	ton
1	C-25X25	RConcrete1	8.70	0.150	1.31
				TOTAL =	1.31

BEAMS

Item	Section	Material	Length	Weight/Len	Total Weight
-	-	-	m	ton/m	ton
1	VG-25X30	RConcrete1	12.36	0.180	2.22
2	VG-20X30	RConcrete1	2.27	0.144	0.33
				TOTAL =	2.55

FOUNDATION BEAMS

Item	Section	Material	Length	Weight/Len	Total Weight
-	-	-	m	ton/m	ton
1	VC-25X25	RConcrete1	12.36	0.150	1.85
				TOTAL =	1.85

SLABS

Item	Section	Material	Area	Weight/Area	Total Weight
-	-	-	m²	ton/m²	ton
1	Slab type 1	w =2.4	9.66	0.360	3.48
				TOTAL =	3.48