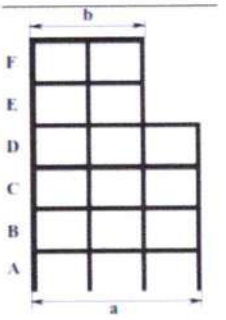
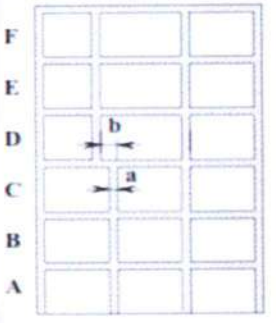
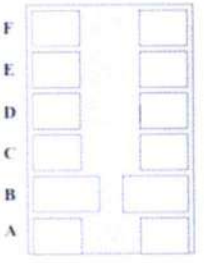
• GEOMETRIA	MEDIDAS (m)	
 a > 1.30 b	A:	20.3
	B:	20.3
	1.3B:	26.39
	NO HAY IRREGULARIDAD GEOMETRICA	
• DESPLAZAMIENTO DEL PLANO DE ACCIÓN	OBSERVACIONES	
	NO HAY DESPLAZAMIENTO DEL PLANO DE ACCIÓN	
• PISO DEBIL Y PISO DELBIL EXTREMO	OBSERVACIONES	
	NO HAY PISO DEBIL Y PISO DEBL EXTREMO	

5.1.3. AUSENCIA DE REDUNDANCIA

El coeficiente de redundancia es de 0.75

DESCRIPCIÓN	VALOR DE f	
DIscontinuidades del diafragma	f_P=	1.00
Ninguna irregularidad	f_a=	1.00
No Cumple A.3.3.8.	f_r=	0.75

Uniones Sodaldas	f=	0.90

R_0=	7.00
R=	4.725

Tabla 5. Coeficiente de disipación de energía

La irregularidad en planta Φp se estableció de acuerdo a la tabla A.3-6 mientras que la irregularidad en altura se estableció de acuerdo a la tabla A.3-7 de la NSR 10. El Ro fue calculado teniendo en cuenta la tabla A.3.-3, mientras que la ausencia de redundancia Φr se estableció de acuerdo a los parámetros A,3.3.8 de la NSR 10.

5.2. COMBINACIONES DE CARGA

El diseño se basará empleando el método de resistencia (B.2.4.2. NSR 10) Las combinaciones de carga y factores de carga dados en la sección B.2.4.2. deben ser usados en todos los materiales estructurales permitidos por el reglamento de diseño del material, con la excepción de aquellos casos en que el reglamento indique explícitamente que deba realizarse el diseño utilizando el método de los esfuerzos de trabajo.

El diseño de las estructuras, sus componentes y cimentaciones debe realizarse de manera que las resistencias de diseño igualen o superen los efectos producidos por las cargas mayoradas.

A) Combinaciones Generales para el Diseño de Elementos (según B.2.4)

R	4,725

Combo 1	1,4	D										
Combo 2	1,2	D	+	1,6	L							
Combo 3	1,2	D	+	1	L							
Combo 4	1.2D	+	1.0L	+		0,2116	SXMOD	+	0,0635	SYMOD		
Combo 5	1.2D	+	1.0L	+		0,2116	SXMOD	-	0,0635	SYMOD		
Combo 6	1.2D	+	1.0L	-		0,2116	SXMOD	+	0,0635	SYMOD		
Combo 7	1.2D	+	1.0L	-		0,2116	SXMOD	-	0,0635	SYMOD		
Combo 8	1.2D	+	1.0L	+		0,2116	SYMOD	+	0,0635	SXMOD		
Combo 9	1.2D	+	1.0L	+		0,2116	SYMOD	-	0,0635	SXMOD		
Combo 10	1.2D	+	1.0L	-		0,2116	SYMOD	+	0,0635	SXMOD		
Combo 11	1.2D	+	1.0L	-		0,2116	SYMOD	-	0,0635	SXMOD		
Combo 12	0.9D											
Combo 13	0.9D			+		0,063492063	SXMOD	+	0,2116	SYMOD		
Combo 14	0.9D			+		0,063492063	SXMOD	-	0,2116	SYMOD		
Combo 15	0.9D			-		0,063492063	SXMOD	+	0,2116	SYMOD		
Combo 16	0.9D			-		0,063492063	SXMOD	-	0,2116	SYMOD		
Combo 17	0.9D			+		0,063492063	SYMOD	+	0,2116	SXMOD		
Combo 18	0.9D			+		0,063492063	SYMOD	-	0,2116	SXMOD		
Combo 19	0.9D			-		0,063492063	SYMOD	+	0,2116	SXMOD		
Combo 20	0.9D			-		0,063492063	SYMOD	-	0,2116	SXMOD		

Tabla 6. Combinaciones de carga

6. DISEÑO DE CIMENTACIÓN

Basado en las cargas axiales del modelo estructural y las características del estudio de suelos, se diseña la cimentación de las estructuras.

6.1. CIMENTACIÓN

- **DISEÑO DE ZAPATA TIPO**

En función de las cargas axiales y los momentos transferidos desde la columna a la cimentación, se recomienda la construcción de zapatas centradas.

DISEÑO DE ZAPATAS CONCENTRICAS

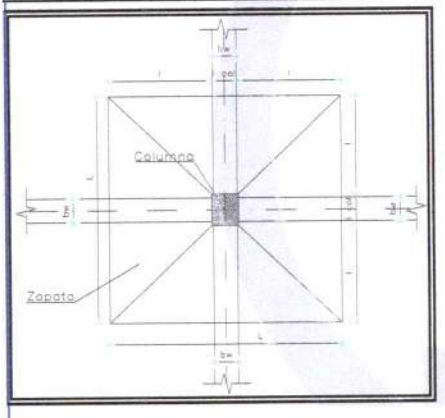
ZAPATA TIPO ZC1

Columna **b =** 50 cm **t =** 50 cm

f'c = 21,0 MPa **fy =** 420,0 MPa

σ = 0,112 MPa

PREDIMENSIONAMIENTO



L =	1,500	m
lcol =	0,500	m
l =	0,500	m

Cargas

Mu=	1	kN*m
PS =	131,3	kN
Pp (10%) =	13	kN
Σ P =	144	kN

Area necesaria $= \frac{\Sigma P S}{\sigma} = \frac{144,41}{0,112} =$ 1,29 m²

e =	0,01	m
L =	1,134	m

Aproximamos = **1,60 m**

Carga de diseño = $\frac{Pu}{A\ real} = \frac{131,3}{2,560} =$ 0,051 MPa

Esfuerzos

σmáx=	0,058	MPa	***OK***
σmin=	0,055	MPa	***OK***

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DISEÑO DE ZAPATA CONCENTRICA

FLEXIÓN

M borde de la columna = 7,38 kN*m

Mu = 1,7 * M borde de la columna = 12,55 kN*m

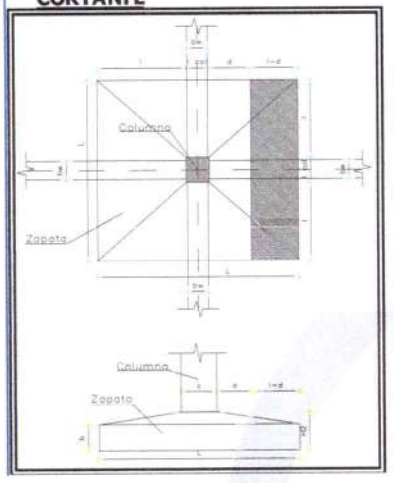
Con el criterio de calcular el refuerzo por metro linea utilizamos una altura efectiva igual a: **d= 0,33** m

Cuantia = 0,00200

As = 6,60 **cm²/m**

Armadura:

CORTANTE



a. En una dirección (d)

L =	1,50	m	**H =**	**0,40**	m
l =	0,50	m	**h =**	**0,40**	m
l - d =	0,17	m	**H-h =**	0,00	m

V (d) = 14,75 kN

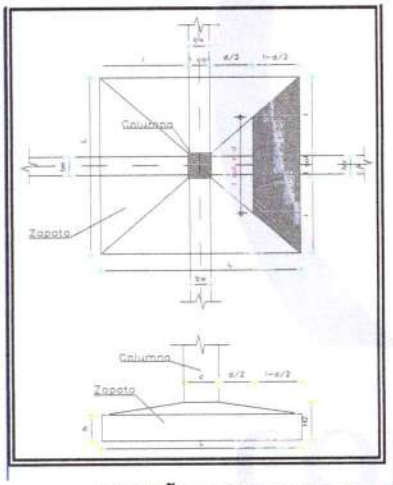
Vu (d)= 1.7*V(d)

Vu (d) = 25,07 kN

h´= 0,33 m

$\upsilon v = \frac{Vu}{L * h'} =$ 0,051 MPa

ϕvc = 0,57 MPa ***OK***



b. En dos direcciones (d/2)

ZAPATA TIPO ZC1

L =	1,500	m	**H =**	**0,40**	m
d/2 =	0,165	m	**h =**	**0,40**	m
l - d/2 =	0,335	m	**H-h =**	0,00	m

V (d/2) = 22,5 kN

Vu (d/2) = 1.5*V(d)

Vu (d/2) = 33,7 kN

d_1 = 0,33 m

$vu = \frac{Vu}{bo \times d_1} =$ 0,123 MPa

ϕvc= 1,15 MPa ***OK***

- **DISEÑO DE VIGA DE CIMENTACIÓN**

f'c = 21.1 MPa

fy = 420 MPa

b = 0.45 m

h = 0.45 m

Pmáx = 170 kN

CONSULTORIA PROYECTOS Y DISEÑOS

CALLE 15 # 29 – 18 Piso 2 Tel.: (8)7604662
CEL.: 310-3043066 - 320-4163185 - 310-5633286
E-mail: gerencia@cpdingenieria.com - disenos@cpdingenieria.com
Duitama - Boyacá

De acuerdo a el numeral A.3.6.4.2
de la NSR-10
tenemos:

Aa = ***0.15***
Paxial = 0.25*Aa*Pmáx
Paxial = *6.4* kN

DISEÑO A TENSIÓN

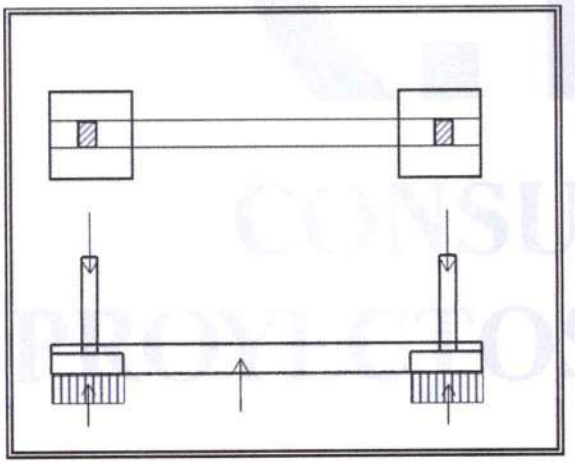
As = 1.7*6.359625/(0.90*420)
As = **0.29** cm^2

DISEÑO A COMPRESIÓN

P com = 1.7*6.359625
P com = *10.8* kN

Para esta carga la sección requiere
cuantía mínima:

As = 0.00333*0.45*0.45
As = **6.74** cm^2



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CEL.: 310-3043066 - 320-4163185 - 310-5633286
E-mail: gerencia@cpdingenieria.com - disenos@cpdingenieria.com
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7. DISEÑO DE ELEMENTOS ESTRUCTURALES

7.1. DISEÑO DE CUBIERTA

Barras	COMPROBACIONES (CTE DB SE-A)														Estado
	$\bar{\lambda}$	N_t	N_c	M_Y	M_Z	V_Z	V_Y	M_YV_Z	M_ZV_Y	NM_YM_Z	$NM_YM_ZV_YV_Z$	M_t	M_tV_Z	M_tV_Y	
N1/N130	N.P.[1]	N_{Ed} = 0.00 N.P.[2]	N_{Ed} = 0.00 N.P.[3]	M_{Ed} = 0.00 N.P.[4]	M_{Ed} = 0.00 N.P.[4]	x: 0 m η < 0.1	V_{Ed} = 0.00 N.P.[5]	N.P.[6]	N.P.[6]	N.P.[7]	N.P.[8]	M_{Ed} = 0.00 N.P.[9]	N.P.[10]	N.P.[10]	**CUMPLE η < 0.1**
N130/N2	N.P.[1]	N_{Ed} = 0.00 N.P.[2]	N_{Ed} = 0.00 N.P.[3]	x: 0 m η < 0.1	M_{Ed} = 0.00 N.P.[4]	x: 0 m η < 0.1	V_{Ed} = 0.00 N.P.[5]	x: 0 m η < 0.1	N.P.[6]	N.P.[7]	N.P.[8]	M_{Ed} = 0.00 N.P.[9]	N.P.[10]	N.P.[10]	**CUMPLE η < 0.1**
N2/N3	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.936 m η = 2.3	N_{Ed} = 0.00 N.P.[3]	x: 0 m η = 0.5	x: 0 m η = 6.7	x: 0 m η < 0.1	x: 0.702 m η = 0.3	η < 0.1	η < 0.1	x: 0 m η = 8.8	η < 0.1	x: 0.702 m η = 3.7	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 8.8**
N3/N4	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.[2]	x: 0 m η = 3.4	x: 0 m η = 0.4	x: 1.165 m η = 6.2	x: 0 m η = 0.1	η = 0.1	η < 0.1	η < 0.1	x: 1.165 m η = 8.9	η < 0.1	η = 2.4	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 8.9**
N4/N5	$\bar{\lambda} \leq 3.0$ Cumple	x: 1.127 m η = 1.1	N_{Ed} = 0.00 N.P.[3]	x: 0.564 m η = 0.1	x: 0 m η = 2.1	x: 1.127 m η < 0.1	η = 0.1	x: 0 m η < 0.1	η < 0.1	x: 0 m η = 2.8	η < 0.1	x: 1.127 m η = 2.2	x: 1.127 m η < 0.1	x: 1.127 m η < 0.1	**CUMPLE η = 2.8**
N5/N6	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.[2]	x: 0 m η = 1.8	x: 0 m η = 0.4	x: 0 m η = 1.8	x: 0 m η = 0.1	η < 0.1	η < 0.1	η < 0.1	x: 0 m η = 3.2	η < 0.1	x: 1.214 m η = 1.8	x: 0 m η = 0.1	x: 0 m η = 0.1	**CUMPLE η = 3.2**
N6/N7	$\bar{\lambda} < 2.0$ Cumple	x: 1.259 m η = 0.1	x: 0 m η = 0.3	x: 0 m η < 0.1	x: 0 m η = 1.7	η < 0.1	η < 0.1	N.P.[6]	η < 0.1	x: 0 m η = 1.8	η < 0.1	η = 1.2	N.P.[10]	N.P.[10]	**CUMPLE η = 1.8**
N8/N7	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.[2]	x: 0 m η = 0.9	x: 1.283 m η = 0.4	x: 1.283 m η = 0.3	x: 1.283 m η = 0.1	x: 0 m η < 0.1	x: 0 m η < 0.1	η < 0.1	x: 1.283 m η = 1.2	η < 0.1	x: 1.069 m η = 0.7	x: 1.283 m η = 0.1	x: 1.283 m η = 0.1	**CUMPLE η = 1.2**
N8/N9	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.[2]	x: 0 m η = 1.0	x: 1.312 m η = 0.1	x: 0 m η = 1.2	x: 1.312 m η < 0.1	η < 0.1	x: 0 m η < 0.1	η < 0.1	x: 0 m η = 1.9	η < 0.1	η = 0.3	x: 1.312 m η < 0.1	x: 1.312 m η < 0.1	**CUMPLE η = 1.9**
N10/N9	$\bar{\lambda} < 2.0$ Cumple	x: 1.277 m η = 0.2	x: 0 m η = 0.2	x: 0 m η = 0.4	x: 0 m η = 1.2	x: 0 m η = 0.1	η < 0.1	x: 0 m η < 0.1	η < 0.1	x: 0 m η = 1.5	η < 0.1	x: 1.277 m η = 0.5	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 1.5**
N10/N11	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.[2]	x: 0 m η = 1.7	x: 1.359 m η = 0.3	x: 0 m η = 0.2	x: 1.359 m η < 0.1	η < 0.1	η < 0.1	η < 0.1	x: 1.359 m η = 1.8	η < 0.1	x: 0.906 m η = 0.7	x: 1.359 m η < 0.1	x: 1.359 m η < 0.1	**CUMPLE η = 1.8**
N12/N11	$\bar{\lambda} \leq 3.0$ Cumple	x: 1.264 m η = 0.5	N_{Ed} = 0.00 N.P.[3]	x: 0 m η = 0.3	x: 0 m η = 1.1	x: 0 m η = 0.1	η < 0.1	η < 0.1	η < 0.1	x: 0 m η = 1.7	η < 0.1	x: 1.053 m η = 1.1	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 1.7**
N12/N13	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.[2]	x: 0 m η = 2.0	x: 1.132 m η = 0.4	x: 1.132 m η = 1.1	x: 1.132 m η < 0.1	η < 0.1	η < 0.1	η < 0.1	x: 1.132 m η = 2.7	η < 0.1	η = 1.3	x: 1.132 m η < 0.1	x: 1.132 m η < 0.1	**CUMPLE η = 2.7**
N14/N13	$\bar{\lambda} \leq 3.0$ Cumple	x: 1.254 m η = 1.2	N_{Ed} = 0.00 N.P.[3]	x: 0 m η = 0.3	x: 1.254 m η = 0.6	x: 0 m η < 0.1	η < 0.1	η < 0.1	η < 0.1	x: 1.254 m η = 1.6	η < 0.1	x: 0 m η = 1.3	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 1.6**
N14/N15	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.[2]	x: 0 m η = 1.6	x: 1.105 m η = 0.4	x: 1.105 m η = 1.4	x: 1.105 m η = 0.1	η < 0.1	η < 0.1	η < 0.1	x: 1.105 m η = 2.7	η < 0.1	η = 1.6	x: 1.105 m η < 0.1	x: 1.105 m η < 0.1	**CUMPLE η = 2.7**
N16/N15	$\bar{\lambda} \leq 3.0$ Cumple	x: 1.252 m η = 1.0	N_{Ed} = 0.00 N.P.[3]	x: 0 m η = 0.2	x: 0 m η = 0.7	x: 0 m η < 0.1	η < 0.1	x: 0 m η < 0.1	η < 0.1	x: 0 m η = 1.5	η < 0.1	η = 1.5	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 1.5**
N16/N17	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.[2]	x: 0 m η = 1.3	x: 1.059 m η = 0.3	x: 0 m η = 1.7	x: 1.059 m η < 0.1	η < 0.1	η < 0.1	η < 0.1	x: 0 m η = 2.5	η < 0.1	η = 1.8	x: 1.059 m η < 0.1	x: 1.059 m η < 0.1	**CUMPLE η = 2.5**
N18/N17	$\bar{\lambda} \leq 3.0$ Cumple	x: 1.241 m η = 0.8	N_{Ed} = 0.00 N.P.[3]	x: 0 m η = 0.2	x: 1.241 m η = 0.6	x: 0 m η < 0.1	η < 0.1	x: 0 m η < 0.1	η < 0.1	x: 1.241 m η = 1.2	η < 0.1	x: 1.241 m η = 1.5	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 1.5**
N18/N19	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.[2]	x: 0 m η = 1.0	x: 1.006 m η = 0.3	x: 0 m η = 1.7	x: 1.006 m η < 0.1	η < 0.1	η < 0.1	η < 0.1	x: 0 m η = 2.3	η < 0.1	η = 1.6	x: 1.006 m η < 0.1	x: 1.006 m η < 0.1	**CUMPLE η = 2.3**
N20/N19	$\bar{\lambda} < 2.0$ Cumple	x: 1.222 m η = 0.7	x: 0 m η = 0.2	x: 1.222 m η = 0.2	x: 1.222 m η = 0.4	x: 1.222 m η < 0.1	η < 0.1	x: 0 m η < 0.1	η < 0.1	x: 1.222 m η = 0.9	η < 0.1	x: 0 m η = 1.2	x: 1.222 m η < 0.1	x: 1.222 m η < 0.1	**CUMPLE η = 1.2**
N20/N21	$\bar{\lambda} < 2.0$ Cumple	x: 0.946 m η = 0.2	x: 0 m η = 0.7	x: 0.946 m η = 0.2	x: 0.946 m η = 1.5	x: 0.946 m η < 0.1	η < 0.1	η < 0.1	η < 0.1	x: 0.946 m η = 1.9	η < 0.1	x: 0.946 m η = 1.4	x: 0.946 m η < 0.1	x: 0.946 m η < 0.1	**CUMPLE η = 1.9**
N22/N21	$\bar{\lambda} < 2.0$ Cumple	x: 1.194 m η = 0.6	x: 0 m η = 0.6	x: 1.194 m η = 0.2	x: 0 m η = 0.6	x: 1.194 m η < 0.1	η < 0.1	η < 0.1	η < 0.1	x: 0 m η = 0.7	η < 0.1	x: 1.194 m η = 0.9	x: 1.194 m η < 0.1	x: 1.194 m η < 0.1	**CUMPLE η = 0.9**
N22/N23	$\bar{\lambda} < 2.0$ Cumple	x: 0.881 m η = 0.4	x: 0 m η = 0.6	x: 0.881 m η = 0.2	x: 0 m η = 1.6	x: 0.881 m η < 0.1	η < 0.1	η < 0.1	η < 0.1	x: 0 m η = 1.6	η < 0.1	η = 1.0	x: 0.881 m η < 0.1	x: 0.881 m η < 0.1	**CUMPLE η = 1.6**
N24/N23	$\bar{\lambda} < 2.0$ Cumple	x: 1.156 m η = 0.5	x: 0 m η = 1.1	x: 1.156 m η = 0.2	x: 0 m η = 1.1	x: 1.156 m η < 0.1	η < 0.1	η < 0.1	η < 0.1	x: 0 m η = 1.3	η < 0.1	η = 0.5	x: 1.156 m η < 0.1	x: 1.156 m η < 0.1	**CUMPLE η = 1.3**
N24/N25	$\bar{\lambda} < 2.0$ Cumple	x: 0.814 m η = 0.6	x: 0 m η = 0.3	x: 0.203 m η = 0.1	x: 0 m η = 1.6	x: 0.814 m η < 0.1	η < 0.1	η < 0.1	η < 0.1	x: 0 m η = 1.7	η < 0.1	η = 0.4	x: 0.814 m η < 0.1	x: 0.814 m η < 0.1	**CUMPLE η = 1.7**
N26/N25	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.[2]	x: 0 m η = 0.9	x: 1.11 m η = 0.2	x: 0 m η = 2.0	x: 1.11 m η < 0.1	η < 0.1	η < 0.1	η < 0.1	x: 0 m η = 2.6	η < 0.1	η = 0.2	x: 1.11 m η < 0.1	x: 1.11 m η < 0.1	**CUMPLE η = 2.6**
N26/N27	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.745 m η = 0.7	N_{Ed} = 0.00 N.P.[3]	x: 0.745 m η = 0.2	x: 0 m η = 0.8	x: 0.745 m η < 0.1	η < 0.1	η < 0.1	η < 0.1	x: 0 m η = 1.2	η < 0.1	η = 0.5	x: 0.745 m η < 0.1	x: 0.745 m η < 0.1	**CUMPLE η = 1.2**
N28/N27	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.[2]	x: 0 m η = 1.5	x: 1.054 m η = 0.2	x: 0 m η = 3.2	x: 1.054 m η < 0.1	η < 0.1	η < 0.1	η < 0.1	x: 0 m η = 4.3	η < 0.1	η = 0.6	x: 1.054 m η < 0.1	x: 1.054 m η < 0.1	**CUMPLE η = 4.3**
N28/N29	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.679 m η = 1.1	N_{Ed} = 0.00 N.P.[3]	x: 0 m η = 0.2	x: 0.679 m η = 0.7	x: 0 m η < 0.1	η < 0.1	η < 0.1	η < 0.1	x: 0.679 m η = 1.3	η < 0.1	x: 0.17 m η = 1.5	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 1.5**
N30/N29	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.[2]	x: 0 m η = 2.5	x: 0.986 m η = 0.2	x: 0 m η = 4.5	x: 0.986 m η < 0.1	η < 0.1	η < 0.1	η < 0.1	x: 0 m η = 6.3	η < 0.1	η = 1.0	x: 0.986 m η < 0.1	x: 0.986 m η < 0.1	**CUMPLE η = 6.3**
N30/N31	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.626 m η = 1.9	N_{Ed} = 0.00 N.P.[3]	x: 0 m η = 0.3	x: 0.626 m η = 2.6	x: 0 m η < 0.1	η < 0.1	η < 0.1	η < 0.1	x: 0.626 m η = 3.8	η < 0.1	η = 2.4	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 3.8**
N32/N31	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.[2]	x: 0 m η = 3.4	x: 0 m η = 1.2	x: 0 m η = 9.8	x: 0 m η = 0.1	η = 0.3	η < 0.1	η < 0.1	x: 0 m η = 12.8	η < 0.1	η = 0.6	x: 0 m η = 0.1	x: 0 m η = 0.1	**CUMPLE η = 12.8**
N32/N33	N.P.[1]	N_{Ed} = 0.00 N.P.[2]	N_{Ed} = 0.00 N.P.[3]	x: 0 m η < 0.1	M_{Ed} = 0.00 N.P.[4]	x: 0 m η < 0.1	V_{Ed} = 0.00 N.P.[5]	x: 0 m η < 0.1	N.P.[6]	N.P.[7]	N.P.[8]	M_{Ed} = 0.00 N.P.[9]	N.P.[10]	N.P.[10]	**CUMPLE η < 0.1**

Barras	COMPROBACIONES (CTE DB SE-A)														Estado
	$\bar{\lambda}$	N_t	N_c	M_Y	M_Z	V_Z	V_Y	M_YV_Z	M_ZV_Y	NM_YM_Z	$NM_YM_ZV_YV_Z$	M_t	M_tV_Z	M_tV_Y	
N33/N64	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.523 m $\eta = 2.0$	N_{Ed} = 0.00 N.P.(3)	x: 0.523 m $\eta = 1.7$	x: 0.523 m $\eta = 8.5$	x: 0.523 m $\eta = 0.4$	x: 0 m $\eta = 1.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.523 m $\eta = 10.5$	$\eta < 0.1$	x: 0 m $\eta = 2.4$	x: 0.523 m $\eta = 0.2$	x: 0.523 m $\eta = 0.2$	**CUMPLE η = 10.5**
N64/N34	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.185 m $\eta = 2.0$	N_{Ed} = 0.00 N.P.(3)	x: 0 m $\eta = 1.8$	x: 0.185 m $\eta = 9.8$	x: 0 m $\eta = 0.4$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0.185 m $\eta = 11.3$	$\eta < 0.1$	$\eta = 1.0$	x: 0 m $\eta = 0.2$	x: 0 m $\eta = 0.2$	**CUMPLE η = 11.3**
N34/N31	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.683 m $\eta = 2.0$	N_{Ed} = 0.00 N.P.(3)	x: 0 m $\eta = 0.8$	x: 0.683 m $\eta = 11.7$	x: 0 m $\eta = 0.1$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0.683 m $\eta = 12.7$	$\eta < 0.1$	$\eta = 1.6$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE η = 12.7**
N31/N62	$\bar{\lambda} < 2.0$ Cumple	x: 0.542 m $\eta = 0.1$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 0.3$	x: 0 m $\eta = 11.7$	x: 0 m $\eta = 0.1$	$\eta = 0.3$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 12.2$	$\eta < 0.1$	$\eta = 1.2$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE η = 12.2**
N62/N29	$\bar{\lambda} < 2.0$ Cumple	x: 0.828 m $\eta = 0.1$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 0.4$	x: 0 m $\eta = 10.1$	x: 0 m $\eta = 0.1$	$\eta = 0.3$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 10.5$	$\eta < 0.1$	$\eta = 1.3$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE η = 10.5**
N29/N60	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 1.4$	x: 0 m $\eta = 0.2$	x: 0 m $\eta = 7.9$	x: 0 m $\eta = 0.1$	$\eta = 0.3$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 9.0$	$\eta < 0.1$	$\eta = 1.8$	x: 0 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	**CUMPLE η = 9.0**
N60/N27	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 1.4$	x: 0.629 m $\eta = 0.2$	x: 0 m $\eta = 6.4$	x: 0.839 m $\eta = 0.1$	$\eta = 0.3$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 7.6$	$\eta < 0.1$	$\eta = 1.9$	x: 0.839 m $\eta < 0.1$	x: 0.839 m $\eta < 0.1$	**CUMPLE η = 7.6**
N27/N58	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 1.9$	x: 0.573 m $\eta = 0.3$	x: 0 m $\eta = 4.4$	x: 0 m $\eta = 0.1$	x: 0.573 m $\eta = 0.3$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 5.9$	$\eta < 0.1$	$\eta = 2.1$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE η = 5.9**
N58/N25	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 1.9$	x: 0.778 m $\eta = 0.2$	x: 0 m $\eta = 3.0$	x: 0.778 m $\eta = 0.1$	x: 0.584 m $\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 4.6$	$\eta < 0.1$	$\eta = 2.2$	x: 0.778 m $\eta = 0.1$	x: 0.778 m $\eta = 0.1$	**CUMPLE η = 4.6**
N25/N56	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 2.5$	x: 0.57 m $\eta = 0.4$	x: 0 m $\eta = 1.4$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 3.0$	$\eta < 0.1$	$\eta = 2.3$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE η = 3.0**
N56/N23	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 2.6$	x: 0 m $\eta = 0.4$	x: 0.775 m $\eta = 2.2$	x: 0.775 m $\eta = 0.1$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0.775 m $\eta = 3.8$	$\eta < 0.1$	x: 0.387 m $\eta = 2.4$	x: 0.775 m $\eta = 0.1$	x: 0.775 m $\eta = 0.1$	**CUMPLE η = 3.8**
N23/N54	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 2.2$	x: 0.546 m $\eta = 0.3$	x: 0.546 m $\eta = 3.0$	x: 0 m $\eta = 0.1$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0.546 m $\eta = 4.8$	$\eta < 0.1$	x: 0 m $\eta = 2.4$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE η = 4.8**
N54/N21	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 2.3$	x: 0 m $\eta = 0.4$	x: 0.793 m $\eta = 4.7$	x: 0.793 m $\eta = 0.1$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0.793 m $\eta = 6.4$	$\eta < 0.1$	$\eta = 2.4$	x: 0.793 m $\eta = 0.1$	x: 0.793 m $\eta = 0.1$	**CUMPLE η = 6.4**
N21/N52	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 2.0$	x: 0.572 m $\eta = 0.3$	x: 0.572 m $\eta = 5.1$	x: 0 m $\eta = 0.1$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.572 m $\eta = 6.8$	$\eta < 0.1$	$\eta = 2.1$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE η = 6.8**
N52/N19	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 2.0$	x: 0 m $\eta = 0.3$	x: 0.761 m $\eta = 6.0$	x: 0.761 m $\eta = 0.1$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.761 m $\eta = 7.6$	$\eta < 0.1$	$\eta = 2.1$	x: 0.761 m $\eta = 0.1$	x: 0.761 m $\eta = 0.1$	**CUMPLE η = 7.6**
N19/N50	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 1.7$	x: 0.665 m $\eta = 0.3$	x: 0.665 m $\eta = 6.6$	x: 0 m $\eta = 0.1$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.665 m $\eta = 8.1$	$\eta < 0.1$	$\eta = 1.8$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE η = 8.1**
N50/N17	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 1.7$	x: 0 m $\eta = 0.3$	x: 0.665 m $\eta = 7.3$	x: 0.665 m $\eta = 0.1$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.665 m $\eta = 8.8$	$\eta < 0.1$	$\eta = 1.9$	x: 0.665 m $\eta = 0.1$	x: 0.665 m $\eta = 0.1$	**CUMPLE η = 8.8**
N17/N48	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 1.3$	x: 0.662 m $\eta = 0.2$	x: 0 m $\eta = 7.3$	x: 0 m $\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 8.4$	$\eta < 0.1$	$\eta = 1.6$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE η = 8.4**
N48/N15	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 1.3$	x: 0.664 m $\eta = 0.3$	x: 0 m $\eta = 7.2$	x: 0.664 m $\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 8.3$	$\eta < 0.1$	$\eta = 1.7$	x: 0.664 m $\eta = 0.1$	x: 0.664 m $\eta = 0.1$	**CUMPLE η = 8.3**
N15/N46	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 0.2$	x: 0 m $\eta = 6.9$	x: 0 m $\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 7.6$	$\eta < 0.1$	$\eta = 1.4$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE η = 7.6**
N46/N13	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 0.7$	x: 0.663 m $\eta = 0.3$	x: 0 m $\eta = 6.4$	x: 0.663 m $\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.663 m $\eta = 7.2$	$\eta < 0.1$	x: 0 m $\eta = 1.3$	x: 0.663 m $\eta = 0.1$	x: 0.663 m $\eta = 0.1$	**CUMPLE η = 7.2**
N11/N44	$\bar{\lambda} < 2.0$ Cumple	x: 0.863 m $\eta = 0.2$	x: 0 m $\eta = 0.3$	x: 0 m $\eta = 0.2$	x: 0.863 m $\eta = 5.3$	x: 0 m $\eta = 0.1$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.863 m $\eta = 5.4$	$\eta < 0.1$	$\eta = 0.2$	x: 0 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	**CUMPLE η = 5.4**
N44/N13	$\bar{\lambda} < 2.0$ Cumple	x: 0.655 m $\eta = 0.2$	x: 0 m $\eta = 0.3$	x: 0 m $\eta = 0.2$	x: 0.655 m $\eta = 6.5$	x: 0.655 m $\eta < 0.1$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.655 m $\eta = 6.6$	$\eta < 0.1$	$\eta = 0.2$	x: 0.655 m $\eta < 0.1$	x: 0.655 m $\eta < 0.1$	**CUMPLE η = 6.6**
N9/N42	$\bar{\lambda} < 2.0$ Cumple	x: 0.825 m $\eta = 0.5$	x: 0 m $\eta = 0.1$	x: 0.825 m $\eta = 0.2$	x: 0.825 m $\eta = 2.2$	x: 0.825 m $\eta < 0.1$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0.825 m $\eta = 2.6$	$\eta < 0.1$	$\eta = 0.9$	x: 0.825 m $\eta < 0.1$	x: 0.825 m $\eta < 0.1$	**CUMPLE η = 2.6**
N42/N11	$\bar{\lambda} < 2.0$ Cumple	x: 0.947 m $\eta = 0.5$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.2$	x: 0.947 m $\eta = 3.9$	x: 0 m $\eta = 0.1$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0.947 m $\eta = 4.2$	$\eta < 0.1$	$\eta = 1.0$	x: 0 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	**CUMPLE η = 4.2**
N7/N40	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.864 m $\eta = 0.6$	N_{Ed} = 0.00 N.P.(3)	x: 0.864 m $\eta = 0.2$	x: 0 m $\eta = 4.3$	x: 0.864 m $\eta < 0.1$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 4.7$	$\eta < 0.1$	$\eta = 1.1$	x: 0.864 m $\eta < 0.1$	x: 0.864 m $\eta < 0.1$	**CUMPLE η = 4.7**
N40/N9	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.907 m $\eta = 0.6$	N_{Ed} = 0.00 N.P.(3)	x: 0 m $\eta = 0.2$	x: 0 m $\eta = 2.0$	x: 0 m $\eta < 0.1$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 2.5$	$\eta < 0.1$	$\eta = 1.1$	x: 0 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	**CUMPLE η = 2.5**
N5/N38	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.854 m $\eta = 0.4$	N_{Ed} = 0.00 N.P.(3)	x: 0.854 m $\eta = 0.2$	x: 0 m $\eta = 8.8$	x: 0.854 m $\eta < 0.1$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 9.0$	$\eta < 0.1$	$\eta = 0.2$	x: 0.854 m $\eta < 0.1$	x: 0.854 m $\eta < 0.1$	**CUMPLE η = 9.0**
N38/N7	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.917 m $\eta = 0.4$	N_{Ed} = 0.00 N.P.(3)	x: 0.917 m $\eta = 0.2$	x: 0 m $\eta = 6.6$	x: 0.917 m $\eta < 0.1$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 6.9$	$\eta < 0.1$	$\eta = 0.2$	x: 0.917 m $\eta < 0.1$	x: 0.917 m $\eta < 0.1$	**CUMPLE η = 6.9**
N3/N37	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 0.5$	x: 0.91 m $\eta = 0.1$	x: 0 m $\eta = 12.0$	x: 0.91 m $\eta < 0.1$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 12.4$	$\eta < 0.1$	$\eta = 1.8$	x: 0.91 m $\eta < 0.1$	x: 0.91 m $\eta < 0.1$	**CUMPLE η = 12.4**
N37/N5	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 0.4$	x: 0.862 m $\eta = 0.3$	x: 0 m $\eta = 10.7$	x: 0.862 m $\eta < 0.1$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 11.1$	$\eta < 0.1$	$\eta = 2.3$	x: 0.862 m $\eta < 0.1$	x: 0.862 m $\eta < 0.1$	**CUMPLE η = 11.1**
N1/N3	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 2.2$	x: 0 m $\eta = 0.9$	x: 0.888 m $\eta = 12.2$	x: 0.888 m $\eta = 0.1$	$\eta = 0.4$	$\eta < 0.1$	$\eta < 0.1$	x: 0.888 m $\eta = 14.0$	$\eta < 0.1$	$\eta = 2.5$	x: 0.888 m $\eta = 0.1$	x: 0.888 m $\eta = 0.1$	**CUMPLE η = 14.0**
N2/N35	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 1.8$	x: 0 m $\eta = 20.5$	x: 0.588 m $\eta = 0.3$	$\eta = 0.8$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 22.3$	$\eta < 0.1$	$\eta = 0.9$	x: 0.588 m $\eta = 0.2$	x: 0.588 m $\eta = 0.2$	**CUMPLE η = 22.3**
N35/N4	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 0.3$	x: 0 m $\eta = 15.4$	x: 0 m $\eta < 0.1$	$\eta = 0.5$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 16.1$	$\eta < 0.1$	$\eta = 2.1$	x: 0 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	**CUMPLE η = 16.1**
N4/N36	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 1.9$	x: 0.749 m $\eta = 0.2$	x: 0 m $\eta = 11.3$	x: 0.749 m $\eta < 0.1$	$\eta = 0.3$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 12.7$	$\eta < 0.1$	$\eta = 0.5$	x: 0.749 m $\eta < 0.1$	x: 0.749 m $\eta < 0.1$	**CUMPLE η = 12.7**
N36/N6	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m $\eta = 1.8$	x: 0.749 m $\eta = 0.2$	x: 0 m $\eta = 8.7$	x: 0.749 m $\eta < 0.1$	$\eta = 0.3$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 10.1$	$\eta < 0.1$	$\eta = 0.6$	x: 0.749 m $\eta < 0.1$	x: 0.749 m $\eta < 0.1$	**CUMPLE η = 10.1**

CALLE 15 # 29 – 18 Piso 2 Tel.: (8)7604662
CEL.: 310-3043066 - 320-4163185 - 310-5633286
E-mail: gerencia@cpdingenieria.com - disenos@cpdingenieria.com
Duitama - Boyacá

Barras	COMPROBACIONES (CTE DB SE-A)														Estado
	$\bar{\lambda}$	N_t	N_c	M_y	M_z	V_z	V_y	M_yV_z	M_zV_y	NM_yM_z	$NM_yM_zV_yV_z$	M_t	M_tV_z	M_tV_y	
N6/N39	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 2.2	x: 0 m η = 0.3	x: 0 m η = 6.2	x: 0 m η = 0.1	η = 0.2	η < 0.1	η < 0.1	x: 0 m η = 8.0	η < 0.1	η = 1.0	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 8.0**
N39/N8	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 2.1	x: 0.766 m η = 0.2	x: 0 m η = 4.1	x: 0.766 m η < 0.1	x: 0.574 m η = 0.2	η < 0.1	η < 0.1	x: 0 m η = 5.7	η < 0.1	η = 1.0	x: 0.766 m η < 0.1	x: 0.766 m η < 0.1	**CUMPLE η = 5.7**
N8/N41	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 2.0	x: 0 m η = 0.3	x: 0 m η = 1.6	x: 0 m η = 0.1	x: 0.366 m η = 0.2	η < 0.1	η < 0.1	x: 0 m η = 3.3	η < 0.1	x: 0.366 m η = 1.4	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 3.3**
N41/N10	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 2.0	x: 0.733 m η = 0.2	x: 0.733 m η = 2.3	x: 0.733 m η < 0.1	η = 0.2	η < 0.1	η < 0.1	x: 0.733 m η = 3.9	η < 0.1	η = 1.3	x: 0.733 m η < 0.1	x: 0.733 m η < 0.1	**CUMPLE η = 3.9**
N10/N43	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 1.8	x: 0 m η = 0.3	x: 0.842 m η = 3.8	x: 0 m η = 0.1	η = 0.1	η < 0.1	η < 0.1	x: 0.842 m η = 5.1	η < 0.1	η = 0.8	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 5.1**
N43/N12	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 1.7	x: 0.678 m η = 0.2	x: 0.678 m η = 4.9	x: 0 m η < 0.1	η = 0.1	η < 0.1	η < 0.1	x: 0.678 m η = 6.1	η < 0.1	η = 0.8	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 6.1**
N14/N45	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 1.2	x: 0.649 m η = 0.2	x: 0 m η = 6.5	x: 0.649 m η = 0.1	η = 0.1	η < 0.1	η < 0.1	x: 0 m η = 7.4	η < 0.1	η = 1.1	x: 0.649 m η = 0.1	x: 0.649 m η = 0.1	**CUMPLE η = 7.4**
N45/N12	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 1.2	x: 0.649 m η = 0.3	x: 0 m η = 5.8	x: 0.649 m η < 0.1	η = 0.1	η < 0.1	η < 0.1	x: 0 m η = 6.6	η < 0.1	η = 1.0	x: 0.649 m η < 0.1	x: 0.649 m η < 0.1	**CUMPLE η = 6.6**
N16/N47	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 0.6	x: 0.198 m η = 0.2	x: 0 m η = 7.5	x: 0.792 m η = 0.1	η = 0.1	η < 0.1	η < 0.1	x: 0 m η = 8.0	η < 0.1	η = 1.4	x: 0.792 m η = 0.1	x: 0.792 m η = 0.1	**CUMPLE η = 8.0**
N47/N14	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 0.6	x: 0 m η = 0.1	x: 0 m η = 6.8	x: 0 m η < 0.1	η = 0.1	η < 0.1	η < 0.1	x: 0 m η = 7.2	η < 0.1	η = 1.4	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 7.2**
N18/N49	$\bar{\lambda} < 2.0$ Cumple	x: 0.714 m η = 0.2	x: 0 m η = 0.1	x: 0 m η = 0.2	x: 0.714 m η = 7.0	x: 0.714 m η = 0.1	η < 0.1	η < 0.1	η < 0.1	x: 0.714 m η = 7.1	η < 0.1	x: 0.714 m η = 1.7	x: 0.714 m η = 0.1	x: 0.714 m η = 0.1	**CUMPLE η = 7.1**
N49/N16	$\bar{\lambda} < 2.0$ Cumple	x: 0.607 m η = 0.2	x: 0 m η = 0.1	x: 0 m η = 0.1	x: 0.607 m η = 7.2	x: 0 m η = 0.1	η < 0.1	η < 0.1	η < 0.1	x: 0.607 m η = 7.3	η < 0.1	x: 0.607 m η = 1.7	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 7.3**
N20/N51	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.782 m η = 0.4	N_{Ed} = 0.00 N.P.(3)	x: 0 m η = 0.3	x: 0.782 m η = 6.0	x: 0.782 m η = 0.1	η = 0.1	η < 0.1	η < 0.1	x: 0.782 m η = 6.3	η < 0.1	η = 1.8	x: 0.782 m η = 0.1	x: 0.782 m η = 0.1	**CUMPLE η = 6.3**
N51/N18	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.539 m η = 0.4	N_{Ed} = 0.00 N.P.(3)	x: 0.539 m η = 0.2	x: 0.539 m η = 6.7	x: 0 m η = 0.1	η = 0.1	η < 0.1	η < 0.1	x: 0.539 m η = 7.1	η < 0.1	η = 1.8	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 7.1**
N22/N53	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.751 m η = 0.7	N_{Ed} = 0.00 N.P.(3)	x: 0 m η = 0.4	x: 0.751 m η = 4.1	x: 0.751 m η = 0.1	η = 0.1	η < 0.1	η < 0.1	x: 0.751 m η = 4.6	η < 0.1	η = 2.2	x: 0.751 m η = 0.1	x: 0.751 m η = 0.1	**CUMPLE η = 4.6**
N53/N20	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.57 m η = 0.7	N_{Ed} = 0.00 N.P.(3)	x: 0.57 m η = 0.2	x: 0.57 m η = 4.8	x: 0 m η = 0.1	η = 0.1	η < 0.1	η < 0.1	x: 0.57 m η = 5.4	η < 0.1	η = 2.1	x: 0 m η = 0.1	x: 0 m η = 0.1	**CUMPLE η = 5.4**
N24/N55	$\bar{\lambda} < 2.0$ Cumple	x: 0.797 m η = 1.0	x: 0 m η = 0.1	x: 0 m η = 0.4	x: 0.797 m η = 1.9	x: 0.797 m η = 0.1	η = 0.1	η < 0.1	η < 0.1	x: 0.797 m η = 2.4	η < 0.1	x: 0 m η = 2.4	x: 0.797 m η = 0.1	x: 0.797 m η = 0.1	**CUMPLE η = 2.4**
N55/N22	$\bar{\lambda} < 2.0$ Cumple	x: 0.525 m η = 1.0	x: 0 m η = 0.1	x: 0.525 m η = 0.3	x: 0.525 m η = 2.7	x: 0 m η = 0.1	η = 0.1	η < 0.1	η < 0.1	x: 0.525 m η = 3.3	η < 0.1	x: 0 m η = 2.4	x: 0 m η = 0.1	x: 0 m η = 0.1	**CUMPLE η = 3.3**
N26/N57	$\bar{\lambda} < 2.0$ Cumple	x: 0.808 m η = 1.2	x: 0 m η = 0.6	x: 0.606 m η = 0.2	x: 0 m η = 2.5	x: 0.808 m η = 0.1	η = 0.1	η < 0.1	η < 0.1	x: 0 m η = 2.9	η < 0.1	x: 0.808 m η = 2.3	x: 0.808 m η < 0.1	x: 0.808 m η < 0.1	**CUMPLE η = 2.9**
N57/N24	$\bar{\lambda} < 2.0$ Cumple	x: 0.514 m η = 1.2	x: 0 m η = 0.5	x: 0.514 m η = 0.4	x: 0 m η = 1.1	x: 0 m η = 0.1	η = 0.2	η < 0.1	η < 0.1	x: 0.514 m η = 1.6	η < 0.1	η = 2.4	x: 0 m η = 0.1	x: 0 m η = 0.1	**CUMPLE η = 2.4**
N28/N59	$\bar{\lambda} < 2.0$ Cumple	x: 0.774 m η = 0.8	x: 0 m η = 0.7	x: 0.774 m η = 0.2	x: 0 m η = 5.7	x: 0.774 m η = 0.1	η = 0.2	η < 0.1	η < 0.1	x: 0 m η = 5.8	η < 0.1	η = 2.4	x: 0.774 m η < 0.1	x: 0.774 m η < 0.1	**CUMPLE η = 5.8**
N59/N26	$\bar{\lambda} < 2.0$ Cumple	x: 0.548 m η = 0.8	x: 0 m η = 0.6	x: 0.548 m η = 0.2	x: 0 m η = 4.0	x: 0 m η = 0.1	η = 0.1	η < 0.1	η < 0.1	x: 0 m η = 4.1	η < 0.1	η = 2.3	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 4.1**
N30/N61	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 0.9	x: 0 m η = 0.5	x: 0 m η = 9.0	x: 0 m η = 0.1	η = 0.2	η < 0.1	η < 0.1	x: 0 m η = 9.7	η < 0.1	η = 2.3	x: 0 m η = 0.1	x: 0 m η = 0.1	**CUMPLE η = 9.7**
N61/N28	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 0.9	x: 0 m η = 0.2	x: 0 m η = 7.3	x: 0 m η = 0.1	η = 0.2	η < 0.1	η < 0.1	x: 0 m η = 7.8	η < 0.1	η = 2.3	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 7.8**
N32/N63	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 2.2	x: 0 m η = 2.8	x: 0 m η = 16.1	x: 0 m η = 0.4	η = 0.5	η < 0.1	η < 0.1	x: 0 m η = 19.3	η < 0.1	η = 3.6	x: 0 m η = 0.2	x: 0 m η = 0.2	**CUMPLE η = 19.3**
N63/N30	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 2.0	x: 0 m η = 0.3	x: 0 m η = 10.7	x: 0.532 m η = 0.1	η = 0.2	η < 0.1	η < 0.1	x: 0 m η = 12.2	η < 0.1	η = 2.4	x: 0.532 m η < 0.1	x: 0.532 m η < 0.1	**CUMPLE η = 12.2**
N35/N3	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.728 m η = 0.3	N_{Ed} = 0.00 N.P.(3)	x: 0.728 m η = 0.8	x: 0.728 m η = 5.0	x: 0.728 m η = 0.1	η = 0.5	η < 0.1	η < 0.1	x: 0.728 m η = 5.8	η < 0.1	x: 0.364 m η = 0.8	x: 0.728 m η = 0.1	x: 0.728 m η = 0.1	**CUMPLE η = 5.8**
N36/N5	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.9 m η = 0.1	N_{Ed} = 0.00 N.P.(3)	x: 0.9 m η = 0.3	x: 0.9 m η = 0.8	x: 0.9 m η = 0.1	x: 0.225 m η = 0.1	η < 0.1	η < 0.1	x: 0.9 m η = 1.1	η < 0.1	η = 0.6	x: 0.9 m η < 0.1	x: 0.9 m η < 0.1	**CUMPLE η = 1.1**
N4/N37	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η < 0.1	x: 0.727 m η = 0.6	x: 0 m η = 2.2	x: 0.727 m η = 0.1	x: 0.363 m η = 0.2	η < 0.1	η < 0.1	x: 0.727 m η = 2.5	η < 0.1	η = 1.4	x: 0.727 m η = 0.1	x: 0.727 m η = 0.1	**CUMPLE η = 2.5**
N6/N38	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 0.1	x: 0.862 m η = 0.2	x: 0.862 m η = 0.4	x: 0.862 m η < 0.1	x: 0 m η < 0.1	η < 0.1	η < 0.1	x: 0.862 m η = 0.6	η < 0.1	η = 0.1	x: 0.862 m η < 0.1	x: 0.862 m η < 0.1	**CUMPLE η = 0.6**
N39/N7	$\bar{\lambda} \leq 3.0$ Cumple	x: 1.015 m η = 0.1	N_{Ed} = 0.00 N.P.(3)	x: 1.015 m η = 0.2	x: 1.015 m η = 0.3	x: 1.015 m η < 0.1	η < 0.1	η < 0.1	η < 0.1	x: 1.015 m η = 0.4	η < 0.1	η = 0.4	x: 1.015 m η < 0.1	x: 1.015 m η < 0.1	**CUMPLE η = 0.4**
N8/N40	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 0.1	x: 0 m η = 0.1	x: 0.948 m η = 0.2	x: 0 m η < 0.1	η < 0.1	η < 0.1	η < 0.1	x: 0.948 m η = 0.3	η < 0.1	η = 0.6	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 0.6**
N41/N9	$\bar{\lambda} \leq 3.0$ Cumple	x: 1.067 m η = 0.1	N_{Ed} = 0.00 N.P.(3)	x: 0 m η = 0.2	x: 0 m η = 0.2	x: 0 m η < 0.1	η < 0.1	x: 0 m η < 0.1	η < 0.1	x: 0 m η = 0.4	η < 0.1	η = 0.5	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 0.5**
N10/N42	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 0.2	x: 0 m η = 0.2	x: 0.974 m η = 0.4	x: 0 m η < 0.1	x: 0 m η < 0.1	x: 0 m η < 0.1	η < 0.1	x: 0.974 m η = 0.4	η < 0.1	x: 0 m η = 0.5	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 0.5**
N43/N11	$\bar{\lambda} \leq 3.0$ Cumple	x: 1.066 m η = 0.1	N_{Ed} = 0.00 N.P.(3)	x: 0 m η = 0.2	x: 1.066 m η = 0.3	x: 0 m η < 0.1	η < 0.1	x: 0 m η < 0.1	η < 0.1	x: 1.066 m η = 0.4	η < 0.1	η = 0.4	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 0.4**
N12/N44	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 0.1	x: 0 m η = 0.2	x: 0 m η = 0.3	x: 0 m η < 0.1	η < 0.1	η < 0.1	η < 0.1	x: 0 m η = 0.5	η < 0.1	η = 0.1	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 0.5**

CALLE 15 # 29 – 18 Piso 2 Tel.: (8)7604662
CEL.: 310-3043066 - 320-4163185 - 310-5633286
E-mail: gerencia@cpdingenieria.com - disenos@cpdingenieria.com
Duitama - Boyacá

Barras	COMPROBACIONES (CTE DB SE-A)														Estado
	$\bar{\lambda}$	N_t	N_c	M_y	M_z	V_z	V_y	M_yV_z	M_zV_y	NM_yM_z	$NM_yM_zV_yV_z$	M_t	M_tV_z	M_tV_y	
N45/N13	$\bar{\lambda} \leq 3.0$ Cumple	x: 1.003 m $\eta = 0.1$	$N_{Ed} = 0.00$ N.P.[3]	x: 0 m $\eta = 0.3$	x: 0 m $\eta = 0.5$	x: 0 m $\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 0.8$	$\eta < 0.1$	x: 0.836 m $\eta = 0.2$	x: 0 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	**CUMPLE $\eta = 0.8$**
N14/N46	x: 0 m $\bar{\lambda} < 2.0$ Cumple	x: 0.979 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	x: 0 m $\eta = 0.4$	x: 0.979 m $\eta = 0.3$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 0.6$	$\eta < 0.1$	$\eta = 0.3$	x: 0 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	**CUMPLE $\eta = 0.6$**
N47/N15	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.97 m $\eta = 0.1$	$N_{Ed} = 0.00$ N.P.[3]	x: 0.97 m $\eta = 0.3$	x: 0 m $\eta = 0.1$	x: 0.97 m $\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.97 m $\eta = 0.4$	$\eta < 0.1$	x: 0.97 m $\eta = 0.7$	x: 0.97 m $\eta < 0.1$	x: 0.97 m $\eta < 0.1$	**CUMPLE $\eta = 0.7$**
N16/N48	x: 0 m $\bar{\lambda} < 2.0$ Cumple	x: 0.951 m $\eta = 0.1$	x: 0 m $\eta < 0.1$	x: 0.951 m $\eta = 0.4$	x: 0.951 m $\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.951 m $\eta = 0.6$	$\eta < 0.1$	x: 0 m $\eta = 0.3$	x: 0.951 m $\eta < 0.1$	x: 0.951 m $\eta < 0.1$	**CUMPLE $\eta = 0.6$**
N49/N17	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.938 m $\eta = 0.1$	$N_{Ed} = 0.00$ N.P.[3]	x: 0.938 m $\eta = 0.2$	x: 0.938 m $\eta = 0.3$	x: 0.938 m $\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.938 m $\eta = 0.6$	$\eta < 0.1$	x: 0 m $\eta = 0.4$	x: 0.938 m $\eta < 0.1$	x: 0.938 m $\eta < 0.1$	**CUMPLE $\eta = 0.6$**
N18/N50	x: 0 m $\bar{\lambda} < 2.0$ Cumple	x: 0.913 m $\eta = 0.1$	x: 0 m $\eta < 0.1$	x: 0.913 m $\eta = 0.2$	x: 0.913 m $\eta = 0.4$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.913 m $\eta = 0.6$	$\eta < 0.1$	x: 0 m $\eta = 0.3$	$\eta < 0.1$	$\eta < 0.1$	**CUMPLE $\eta = 0.6$**
N51/N19	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.887 m $\eta = 0.1$	$N_{Ed} = 0.00$ N.P.[3]	x: 0.887 m $\eta = 0.2$	x: 0.887 m $\eta = 0.3$	x: 0.887 m $\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.887 m $\eta = 0.5$	$\eta < 0.1$	x: 0.222 m $\eta = 0.7$	x: 0.887 m $\eta < 0.1$	x: 0.887 m $\eta < 0.1$	**CUMPLE $\eta = 0.7$**
N20/N52	$\bar{\lambda} < 2.0$ Cumple	x: 0.847 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	x: 0.847 m $\eta = 0.2$	x: 0 m $\eta = 0.3$	x: 0.847 m $\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 0.4$	$\eta < 0.1$	$\eta = 0.6$	x: 0.847 m $\eta < 0.1$	x: 0.847 m $\eta < 0.1$	**CUMPLE $\eta = 0.6$**
N53/N21	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.835 m $\eta = 0.1$	$N_{Ed} = 0.00$ N.P.[3]	x: 0.835 m $\eta = 0.2$	x: 0 m $\eta = 0.5$	x: 0.835 m $\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 0.6$	$\eta < 0.1$	$\eta = 0.7$	x: 0.835 m $\eta < 0.1$	x: 0.835 m $\eta < 0.1$	**CUMPLE $\eta = 0.7$**
N22/N54	$\bar{\lambda} < 2.0$ Cumple	x: 0.78 m $\eta = 0.1$	x: 0 m $\eta < 0.1$	x: 0.78 m $\eta = 0.1$	x: 0 m $\eta = 0.2$	x: 0.78 m $\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 0.2$	$\eta < 0.1$	x: 0 m $\eta = 1.0$	x: 0.78 m $\eta < 0.1$	x: 0.78 m $\eta < 0.1$	**CUMPLE $\eta = 1.0$**
N55/N23	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.762 m $\eta = 0.1$	$N_{Ed} = 0.00$ N.P.[3]	x: 0.762 m $\eta = 0.2$	x: 0.762 m $\eta = 0.3$	x: 0.762 m $\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.762 m $\eta = 0.4$	$\eta < 0.1$	x: 0 m $\eta = 1.1$	x: 0.762 m $\eta < 0.1$	x: 0.762 m $\eta < 0.1$	**CUMPLE $\eta = 1.1$**
N24/N56	$\bar{\lambda} < 2.0$ Cumple	x: 0.712 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	x: 0 m $\eta = 0.2$	x: 0.712 m $\eta = 0.7$	x: 0 m $\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.712 m $\eta = 0.7$	$\eta < 0.1$	x: 0.178 m $\eta = 1.1$	x: 0 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	**CUMPLE $\eta = 1.1$**
N57/N25	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.685 m $\eta = 0.1$	$N_{Ed} = 0.00$ N.P.[3]	x: 0 m $\eta = 0.1$	x: 0.685 m $\eta = 0.4$	x: 0 m $\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta < 0.1$	$\eta < 0.1$	x: 0.685 m $\eta = 0.5$	$\eta < 0.1$	x: 0.171 m $\eta = 1.1$	x: 0 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	**CUMPLE $\eta = 1.1$**
N26/N58	$\bar{\lambda} < 2.0$ Cumple	x: 0.63 m $\eta < 0.1$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.2$	x: 0.63 m $\eta = 0.5$	x: 0 m $\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.63 m $\eta = 0.6$	$\eta < 0.1$	$\eta = 1.2$	x: 0 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	**CUMPLE $\eta = 1.2$**
N59/N27	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.601 m $\eta = 0.1$	$N_{Ed} = 0.00$ N.P.[3]	x: 0 m $\eta = 0.3$	x: 0 m $\eta = 0.5$	x: 0 m $\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 0.8$	$\eta < 0.1$	x: 0.601 m $\eta = 1.3$	x: 0 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	**CUMPLE $\eta = 1.3$**
N28/N60	$\bar{\lambda} < 2.0$ Cumple	x: 0.521 m $\eta < 0.1$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.4$	x: 0.521 m $\eta = 0.4$	x: 0 m $\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.521 m $\eta = 0.6$	$\eta < 0.1$	x: 0 m $\eta = 1.3$	x: 0 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	**CUMPLE $\eta = 1.3$**
N61/N29	$\bar{\lambda} < 2.0$ Cumple	x: 0.493 m $\eta = 0.1$	x: 0 m $\eta < 0.1$	x: 0 m $\eta = 0.7$	x: 0.493 m $\eta = 0.2$	x: 0 m $\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 0.7$	$\eta < 0.1$	x: 0.493 m $\eta = 1.3$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE $\eta = 1.3$**
N30/N62	$\bar{\lambda} < 2.0$ Cumple	x: 0.415 m $\eta < 0.1$	x: 0 m $\eta = 0.1$	x: 0.415 m $\eta = 1.0$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 1.2$	$\eta < 0.1$	x: 0.415 m $\eta = 1.2$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE $\eta = 1.2$**
N63/N31	$\bar{\lambda} < 2.0$ Cumple	x: 0.383 m $\eta < 0.1$	x: 0 m $\eta = 0.3$	x: 0 m $\eta = 1.7$	x: 0 m $\eta = 4.7$	x: 0 m $\eta = 0.3$	$\eta = 0.8$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 6.0$	$\eta < 0.1$	$\eta = 0.7$	x: 0 m $\eta = 0.2$	x: 0 m $\eta = 0.2$	**CUMPLE $\eta = 6.0$**
N32/N64	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 0.6$	x: 0.311 m $\eta = 0.4$	x: 0 m $\eta = 9.5$	x: 0 m $\eta < 0.1$	x: 0.311 m $\eta = 1.9$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 10.0$	$\eta < 0.1$	x: 0.311 m $\eta = 3.7$	x: 0 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	**CUMPLE $\eta = 10.0$**
N65/N129	N.P.[1]	$N_{Ed} = 0.00$ N.P.[2]	$N_{Ed} = 0.00$ N.P.[3]	$M_{Ed} = 0.00$ N.P.[4]	$M_{Ed} = 0.00$ N.P.[4]	x: 0 m $\eta < 0.1$	$V_{Ed} = 0.00$ N.P.[5]	N.P.[6]	N.P.[6]	N.P.[7]	N.P.[8]	$M_{Ed} = 0.00$ N.P.[9]	N.P.[10]	N.P.[10]	**CUMPLE $\eta < 0.1$**
N129/N66	N.P.[1]	$N_{Ed} = 0.00$ N.P.[2]	$N_{Ed} = 0.00$ N.P.[3]	x: 0 m $\eta < 0.1$	$M_{Ed} = 0.00$ N.P.[4]	x: 0 m $\eta < 0.1$	$V_{Ed} = 0.00$ N.P.[5]	x: 0 m $\eta < 0.1$	N.P.[6]	N.P.[7]	N.P.[8]	$M_{Ed} = 0.00$ N.P.[9]	N.P.[10]	N.P.[10]	**CUMPLE $\eta < 0.1$**
N66/N67	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.936 m $\eta = 24.1$	$N_{Ed} = 0.00$ N.P.[3]	x: 0 m $\eta = 3.6$	x: 0 m $\eta = 21.9$	x: 0 m $\eta = 0.2$	x: 0.702 m $\eta = 1.6$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 40.5$	$\eta < 0.1$	x: 0.702 m $\eta = 7.4$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE $\eta = 40.5$**
N67/N68	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 34.9$	x: 0 m $\eta = 1.5$	x: 1.165 m $\eta = 12.9$	x: 0 m $\eta = 0.1$	$\eta = 0.3$	$\eta < 0.1$	$\eta < 0.1$	x: 1.165 m $\eta = 40.7$	$\eta < 0.1$	$\eta = 3.7$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE $\eta = 40.7$**
N68/N69	$\bar{\lambda} < 2.0$ Cumple	x: 1.127 m $\eta = 12.3$	x: 0 m $\eta = 0.5$	x: 0 m $\eta = 0.8$	x: 1.127 m $\eta = 14.1$	x: 1.127 m $\eta = 0.1$	x: 0.564 m $\eta = 0.5$	$\eta < 0.1$	$\eta < 0.1$	x: 1.127 m $\eta = 20.6$	$\eta < 0.1$	$\eta = 0.7$	x: 1.127 m $\eta < 0.1$	x: 1.127 m $\eta < 0.1$	**CUMPLE $\eta = 20.6$**
N69/N70	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0.809 m $\eta = 20.1$	x: 0 m $\eta = 1.4$	x: 0 m $\eta = 4.8$	x: 0 m $\eta = 0.1$	x: 1.214 m $\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 22.2$	$\eta < 0.1$	$\eta = 2.8$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE $\eta = 22.2$**
N70/N71	$\bar{\lambda} < 2.0$ Cumple	x: 1.049 m $\eta = 0.7$	x: 0 m $\eta = 2.0$	x: 0 m $\eta = 0.6$	x: 1.259 m $\eta = 12.0$	x: 1.259 m $\eta < 0.1$	x: 0 m $\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 1.259 m $\eta = 14.3$	$\eta < 0.1$	x: 0 m $\eta = 0.7$	x: 0 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	**CUMPLE $\eta = 14.3$**
N72/N71	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 7.3$	x: 1.283 m $\eta = 0.8$	x: 1.283 m $\eta = 3.7$	x: 1.283 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 1.283 m $\eta = 10.0$	$\eta < 0.1$	x: 0.214 m $\eta = 2.2$	x: 1.283 m $\eta = 0.1$	x: 1.283 m $\eta = 0.1$	**CUMPLE $\eta = 10.0$**
N72/N73	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 1.312 m $\eta = 8.7$	x: 1.312 m $\eta = 0.6$	x: 1.312 m $\eta = 10.8$	x: 1.312 m $\eta < 0.1$	x: 0 m $\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 1.312 m $\eta = 19.9$	$\eta < 0.1$	x: 0 m $\eta = 1.3$	x: 1.312 m $\eta < 0.1$	x: 1.312 m $\eta < 0.1$	**CUMPLE $\eta = 19.9$**
N74/N73	$\bar{\lambda} < 2.0$ Cumple	x: 1.064 m $\eta = 1.5$	x: 0 m $\eta = 1.2$	x: 0 m $\eta = 0.8$	x: 1.277 m $\eta = 3.6$	x: 0 m $\eta = 0.1$	x: 1.064 m $\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 1.277 m $\eta = 4.8$	$\eta < 0.1$	x: 1.064 m $\eta = 1.8$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE $\eta = 4.8$**
N74/N75	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 14.3$	x: 1.359 m $\eta = 0.9$	x: 1.359 m $\eta = 10.1$	x: 1.359 m $\eta = 0.1$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 1.359 m $\eta = 23.8$	$\eta < 0.1$	x: 0 m $\eta = 1.1$	x: 1.359 m $\eta < 0.1$	x: 1.359 m $\eta < 0.1$	**CUMPLE $\eta = 23.8$**
N76/N75	$\bar{\lambda} \leq 3.0$ Cumple	x: 1.264 m $\eta = 4.5$	$N_{Ed} = 0.00$ N.P.[3]	x: 0 m $\eta = 0.9$	x: 1.264 m $\eta = 3.9$	x: 0 m $\eta = 0.1$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 1.264 m $\eta = 8.4$	$\eta < 0.1$	x: 0 m $\eta = 0.4$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE $\eta = 8.4$**
N76/N77	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 17.6$	x: 1.132 m $\eta = 1.9$	x: 0 m $\eta = 8.9$	x: 1.132 m $\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 1.132 m $\eta = 24.1$	$\eta < 0.1$	$\eta = 1.5$	x: 1.132 m $\eta = 0.1$	x: 1.132 m $\eta = 0.1$	**CUMPLE $\eta = 24.1$**
N78/N77	$\bar{\lambda} \leq 3.0$ Cumple	x: 1.254 m $\eta = 10.6$	$N_{Ed} = 0.00$ N.P.[3]	x: 0 m $\eta = 1.1$	x: 1.254 m $\eta = 4.1$	x: 0 m $\eta = 0.1$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 1.254 m $\eta = 13.7$	$\eta < 0.1$	$\eta = 0.5$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE $\eta = 13.7$**
N78/N79	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 15.5$	x: 1.105 m $\eta = 2.1$	x: 0 m $\eta = 6.9$	x: 1.105 m $\eta = 0.2$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 20.7$	$\eta < 0.1$	$\eta = 1.2$	x: 1.105 m $\eta = 0.1$	x: 1.105 m $\eta = 0.1$	**CUMPLE $\eta = 20.7$**

Barras	COMPROBACIONES (CTE DB SE-A)													Estado
	$\bar{\lambda}$	N_t	N_c	M_y	M_z	V_z	V_y	M_yV_z	M_zV_y	NM_yM_z	$NM_yM_zV_yV_z$	M_t	M_tV_z	M_tV_y	
N80/N79	$\bar{\lambda} \leq 3.0$ Cumple	x: 1.252 m η = 9.8	N_{Ed} = 0.00 N.P.(3)	x: 1.252 m η = 0.4	x: 1.252 m η = 3.2	x: 0 m η = 0.1	η < 0.1	η < 0.1	η < 0.1	x: 1.252 m η = 11.2	η < 0.1	η = 1.0	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 11.2**
N80/N81	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 13.3	x: 1.059 m η = 1.8	x: 0 m η = 4.6	x: 1.059 m η = 0.2	η = 0.1	η < 0.1	η < 0.1	x: 0 m η = 16.6	η < 0.1	x: 1.059 m η = 0.8	x: 1.059 m η = 0.1	x: 1.059 m η = 0.1	**CUMPLE η = 16.6**
N82/N81	$\bar{\lambda} < 2.0$ Cumple	x: 1.241 m η = 9.0	x: 0 m η = 1.0	x: 1.241 m η = 0.5	x: 1.241 m η = 3.7	x: 0 m η < 0.1	η = 0.1	η < 0.1	η < 0.1	x: 1.241 m η = 10.8	η < 0.1	η = 1.3	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 10.8**
N82/N83	$\bar{\lambda} < 2.0$ Cumple	x: 1.006 m η = 1.2	x: 0 m η = 11.2	x: 0 m η = 1.8	x: 0 m η = 3.3	x: 1.006 m η = 0.2	x: 0.67 m η = 0.1	η < 0.1	η < 0.1	x: 0 m η = 13.7	η < 0.1	x: 1.006 m η = 0.9	x: 1.006 m η = 0.2	x: 1.006 m η = 0.2	**CUMPLE η = 13.7**
N84/N83	$\bar{\lambda} \leq 3.0$ Cumple	x: 1.222 m η = 5.5	N_{Ed} = 0.00 N.P.(3)	x: 0.407 m η = 0.5	x: 1.222 m η = 4.0	x: 1.222 m η < 0.1	η = 0.1	η < 0.1	η < 0.1	x: 1.222 m η = 7.2	η < 0.1	η = 1.3	x: 1.222 m η < 0.1	x: 1.222 m η < 0.1	**CUMPLE η = 7.2**
N84/N85	$\bar{\lambda} < 2.0$ Cumple	x: 0.946 m η = 0.3	x: 0 m η = 5.4	x: 0 m η = 1.2	x: 0 m η = 2.0	x: 0.946 m η = 0.1	x: 0.946 m η = 0.1	η < 0.1	η < 0.1	x: 0 m η = 7.0	η < 0.1	η = 0.5	x: 0.71 m η = 0.1	x: 0.71 m η = 0.1	**CUMPLE η = 7.0**
N86/N85	$\bar{\lambda} < 2.0$ Cumple	x: 0.398 m η = 4.2	x: 0.398 m η = 3.3	x: 0 m η = 0.7	x: 1.194 m η = 5.3	x: 1.194 m η = 0.1	η = 0.1	η < 0.1	η < 0.1	x: 1.194 m η = 6.2	η < 0.1	η = 1.2	x: 1.194 m η < 0.1	x: 1.194 m η < 0.1	**CUMPLE η = 6.2**
N86/N87	$\bar{\lambda} < 2.0$ Cumple	x: 0.881 m η = 1.4	x: 0 m η = 2.9	x: 0 m η = 1.4	x: 0.881 m η = 1.6	x: 0.881 m η = 0.1	x: 0.881 m η = 0.1	η < 0.1	η < 0.1	x: 0 m η = 4.4	η < 0.1	x: 0.661 m η = 0.8	x: 0.881 m η = 0.1	x: 0.881 m η = 0.1	**CUMPLE η = 4.4**
N88/N87	$\bar{\lambda} < 2.0$ Cumple	x: 1.156 m η = 0.2	x: 0 m η = 3.0	x: 0 m η = 1.0	x: 1.156 m η = 5.8	x: 1.156 m η = 0.1	η = 0.1	η < 0.1	η < 0.1	x: 1.156 m η = 8.3	η < 0.1	x: 0.193 m η = 1.3	x: 1.156 m η = 0.1	x: 1.156 m η = 0.1	**CUMPLE η = 8.3**
N88/N89	$\bar{\lambda} < 2.0$ Cumple	x: 0.814 m η = 3.8	x: 0 m η = 1.6	x: 0 m η = 1.1	x: 0.814 m η = 2.1	x: 0.814 m η = 0.1	x: 0.61 m η = 0.1	η < 0.1	η < 0.1	x: 0.814 m η = 5.1	η < 0.1	x: 0.61 m η = 1.6	x: 0.814 m η = 0.1	x: 0.814 m η = 0.1	**CUMPLE η = 5.1**
N90/N89	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 7.9	x: 0 m η = 1.0	x: 1.11 m η = 7.6	x: 1.11 m η = 0.1	x: 0 m η = 0.2	η < 0.1	η < 0.1	x: 1.11 m η = 13.7	η < 0.1	x: 0.37 m η = 1.6	x: 1.11 m η = 0.1	x: 1.11 m η = 0.1	**CUMPLE η = 13.7**
N90/N91	$\bar{\lambda} < 2.0$ Cumple	x: 0.745 m η = 6.5	x: 0 m η = 0.1	x: 0.745 m η = 1.2	x: 0.745 m η = 2.6	x: 0.745 m η = 0.1	x: 0.373 m η = 0.2	η < 0.1	η < 0.1	x: 0.745 m η = 8.2	η < 0.1	x: 0.373 m η = 2.6	x: 0.745 m η < 0.1	x: 0.745 m η < 0.1	**CUMPLE η = 8.2**
N92/N91	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 14.0	x: 0 m η = 1.0	x: 1.054 m η = 8.4	x: 1.054 m η = 0.1	x: 0.527 m η = 0.3	η < 0.1	η < 0.1	x: 1.054 m η = 19.0	η < 0.1	η = 3.0	x: 1.054 m η = 0.1	x: 1.054 m η = 0.1	**CUMPLE η = 19.0**
N92/N93	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.679 m η = 10.5	N_{Ed} = 0.00 N.P.(3)	x: 0.679 m η = 2.1	x: 0.679 m η = 3.8	x: 0 m η = 0.2	η = 0.2	η < 0.1	η < 0.1	x: 0.679 m η = 12.8	η < 0.1	x: 0 m η = 4.4	x: 0.17 m η < 0.1	x: 0.17 m η < 0.1	**CUMPLE η = 12.8**
N94/N93	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 23.9	x: 0.986 m η = 1.0	x: 0 m η = 12.6	x: 0.986 m η = 0.1	x: 0.74 m η = 0.5	η < 0.1	η < 0.1	x: 0 m η = 32.0	η < 0.1	η = 6.3	x: 0.986 m η < 0.1	x: 0.986 m η < 0.1	**CUMPLE η = 32.0**
N94/N95	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.47 m η = 18.7	N_{Ed} = 0.00 N.P.(3)	x: 0 m η = 2.1	x: 0 m η = 11.3	x: 0 m η = 0.3	η = 0.5	η < 0.1	η < 0.1	x: 0 m η = 26.4	η < 0.1	η = 6.9	x: 0 m η = 0.1	x: 0 m η = 0.1	**CUMPLE η = 26.4**
N96/N95	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 32.4	x: 0 m η = 11.3	x: 0 m η = 32.7	x: 0 m η = 0.7	x: 0.91 m η = 2.2	η < 0.1	η < 0.1	x: 0 m η = 63.3	η < 0.1	η = 11.3	x: 0.228 m η = 0.4	x: 0.228 m η = 0.4	**CUMPLE η = 63.3**
N96/N97	N.P.(1)	N_{Ed} = 0.00 N.P.(2)	N_{Ed} = 0.00 N.P.(3)	x: 0 m η < 0.1	M_{Ed} = 0.00 N.P.(4)	x: 0 m η < 0.1	V_{Ed} = 0.00 N.P.(5)	x: 0 m η < 0.1	N.P.(6)	N.P.(7)	N.P.(8)	M_{Ed} = 0.00 N.P.(9)	N.P.(10)	N.P.(10)	**CUMPLE η < 0.1**
N97/N128	$\bar{\lambda} < 2.0$ Cumple	x: 0.523 m η = 19.5	x: 0 m η = 1.3	x: 0.523 m η = 16.2	x: 0.523 m η = 21.3	x: 0.523 m η = 3.6	x: 0 m η = 2.5	η < 0.1	η < 0.1	x: 0.523 m η = 40.3	η < 0.1	η = 17.9	x: 0 m η = 2.3	x: 0 m η = 2.3	**CUMPLE η = 40.3**
N128/N98	$\bar{\lambda} < 2.0$ Cumple	x: 0.185 m η = 19.8	x: 0 m η = 1.1	x: 0 m η = 17.3	x: 0 m η = 27.8	x: 0 m η = 4.1	η = 2.0	η < 0.1	η < 0.1	x: 0 m η = 45.8	η < 0.1	η = 14.7	x: 0 m η = 2.3	x: 0 m η = 2.3	**CUMPLE η = 45.8**
N98/N95	$\bar{\lambda} < 2.0$ Cumple	x: 0.512 m η = 19.8	x: 0.512 m η = 1.1	x: 0 m η = 8.2	x: 0 m η = 23.9	x: 0 m η = 1.3	η = 2.1	η < 0.1	η < 0.1	x: 0 m η = 38.4	η < 0.1	η = 14.5	x: 0 m η = 0.8	x: 0 m η = 0.8	**CUMPLE η = 38.4**
N95/N126	$\bar{\lambda} < 2.0$ Cumple	x: 0.542 m η = 1.5	x: 0 m η = 6.0	x: 0 m η = 2.1	x: 0 m η = 26.0	x: 0 m η = 0.6	η = 4.4	η < 0.1	η < 0.1	x: 0 m η = 30.8	η < 0.1	η = 15.1	x: 0 m η = 0.3	x: 0 m η = 0.3	**CUMPLE η = 30.8**
N126/N93	$\bar{\lambda} < 2.0$ Cumple	x: 0.828 m η = 1.3	x: 0 m η = 6.1	x: 0.828 m η = 3.7	x: 0 m η = 29.3	x: 0 m η = 0.8	x: 0.621 m η = 4.9	η < 0.1	η < 0.1	x: 0 m η = 33.2	η < 0.1	η = 9.9	x: 0.621 m η = 0.3	x: 0.621 m η = 0.3	**CUMPLE η = 33.2**
N93/N124	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 11.9	x: 0.523 m η = 2.1	x: 0 m η = 16.0	x: 0 m η = 0.6	x: 0.523 m η = 4.7	η < 0.1	η < 0.1	x: 0 m η = 25.9	η < 0.1	η = 8.1	x: 0 m η = 0.3	x: 0 m η = 0.3	**CUMPLE η = 25.9**
N124/N91	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 12.3	x: 0.839 m η = 2.4	x: 0.839 m η = 25.7	x: 0.839 m η = 0.4	x: 0.629 m η = 5.0	η < 0.1	η < 0.1	x: 0.839 m η = 35.8	η < 0.1	η = 4.8	x: 0.419 m η = 0.2	x: 0.419 m η = 0.2	**CUMPLE η = 35.8**
N91/N122	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 16.1	x: 0.573 m η = 2.7	x: 0.573 m η = 17.7	x: 0 m η = 0.5	x: 0 m η = 4.1	η < 0.1	η < 0.1	x: 0.573 m η = 32.3	η < 0.1	x: 0.287 m η = 4.5	x: 0.287 m η = 0.4	x: 0.287 m η = 0.4	**CUMPLE η = 32.3**
N122/N89	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 16.5	x: 0 m η = 2.5	x: 0.778 m η = 27.1	x: 0.778 m η = 0.4	x: 0 m η = 5.0	η < 0.1	η < 0.1	x: 0.778 m η = 39.9	η < 0.1	η = 2.7	x: 0.778 m η = 0.2	x: 0.778 m η = 0.2	**CUMPLE η = 39.9**
N89/N120	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 17.9	x: 0.57 m η = 3.1	x: 0.57 m η = 17.0	x: 0 m η = 0.5	x: 0 m η = 3.5	η < 0.1	η < 0.1	x: 0.57 m η = 32.9	η < 0.1	x: 0.285 m η = 3.1	x: 0 m η = 0.4	x: 0 m η = 0.4	**CUMPLE η = 32.9**
N120/N87	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 18.4	x: 0 m η = 3.1	x: 0.775 m η = 24.6	x: 0.775 m η = 0.5	x: 0.194 m η = 4.4	η < 0.1	η < 0.1	x: 0.775 m η = 38.7	η < 0.1	η = 1.7	x: 0.775 m η = 0.3	x: 0.775 m η = 0.3	**CUMPLE η = 38.7**
N87/N118	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 17.7	x: 0.546 m η = 3.1	x: 0.546 m η = 16.9	x: 0 m η = 0.6	x: 0 m η = 3.4	η < 0.1	η < 0.1	x: 0.546 m η = 32.5	η < 0.1	η = 2.0	x: 0.273 m η = 0.4	x: 0.273 m η = 0.4	**CUMPLE η = 32.5**
N118/N85	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 18.2	x: 0 m η = 3.3	x: 0.793 m η = 23.3	x: 0.793 m η = 0.5	x: 0 m η = 3.7	η < 0.1	η < 0.1	x: 0.793 m η = 37.2	η < 0.1	η = 0.9	x: 0.793 m η = 0.4	x: 0.793 m η = 0.4	**CUMPLE η = 37.2**
N85/N116	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 16.2	x: 0.572 m η = 2.9	x: 0.572 m η = 13.7	x: 0 m η = 0.5	x: 0 m η = 2.4	η < 0.1	η < 0.1	x: 0.572 m η = 27.9	η < 0.1	x: 0 m η = 1.4	x: 0 m η = 0.4	x: 0 m η = 0.4	**CUMPLE η = 27.9**
N116/N83	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 16.6	x: 0 m η = 3.2	x: 0.761 m η = 19.9	x: 0.761 m η = 0.5	x: 0 m η = 3.0	η < 0.1	η < 0.1	x: 0.761 m η = 32.7	η < 0.1	η = 0.3	x: 0.761 m η = 0.4	x: 0.761 m η = 0.4	**CUMPLE η = 32.7**
N83/N114	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 16.0	x: 0.665 m η = 3.1	x: 0.665 m η = 11.8	x: 0 m η = 0.5	η = 1.5	η < 0.1	η < 0.1	x: 0.665 m η = 24.0	η < 0.1	η = 0.5	x: 0.166 m η = 0.4	x: 0.166 m η = 0.4	**CUMPLE η = 24.0**
N114/N81	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0.332 m η = 15.9	x: 0 m η = 3.8	x: 0.665 m η = 16.7	x: 0.665 m η = 0.8	η = 2.2	η < 0.1	η < 0.1	x: 0.665 m η = 27.8	η < 0.1	η = 0.7	x: 0.665 m η = 0.5	x: 0.665 m η = 0.5	**CUMPLE η = 27.8**
N81/N112	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0.331 m η = 10.7	x: 0.662 m η = 2.6	x: 0 m η = 8.0	x: 0 m η = 0.6	η = 0.5	η < 0.1	η < 0.1	x: 0.662 m η = 16.4	η < 0.1	η = 0.5	x: 0 m η = 0.4	x: 0 m η = 0.4	**CUMPLE η = 16.4**

CALLE 15 # 29 – 18 Piso 2 Tel.: (8)7604662
CEL.: 310-3043066 - 320-4163185 - 310-5633286
E-mail: gerencia@cpdingenieria.com - disenos@cpdingenieria.com
Duitama - Boyacá

Barras	COMPROBACIONES (CTE DB SE-A)														Estado
	$\bar{\lambda}$	N_t	N_c	M_Y	M_Z	V_Z	V_Y	M_YV_Z	M_ZV_Y	NM_YM_Z	$NM_YM_ZV_YV_Z$	M_t	M_tV_Z	M_tV_Y	
N112/N79	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m η = 10.5	x: 0 m η = 3.2	x: 0.664 m η = 12.2	x: 0.664 m η = 0.8	η = 1.3	η < 0.1	η < 0.1	x: 0.664 m η = 21.1	η < 0.1	x: 0 m η = 2.1	x: 0.664 m η = 0.6	x: 0.664 m η = 0.6	**CUMPLE η = 21.1**
N79/N110	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m η = 5.3	x: 0.661 m η = 1.9	x: 0 m η = 11.9	x: 0 m η = 0.5	η = 1.1	η < 0.1	η < 0.1	x: 0 m η = 16.5	η < 0.1	η = 2.2	x: 0 m η = 0.3	x: 0 m η = 0.3	**CUMPLE η = 16.5**
N110/N77	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m η = 5.2	x: 0.663 m η = 2.7	x: 0.663 m η = 20.0	x: 0.663 m η = 0.7	η = 3.6	η < 0.1	η < 0.1	x: 0.663 m η = 27.6	η < 0.1	η = 5.1	x: 0.663 m η = 0.6	x: 0.663 m η = 0.6	**CUMPLE η = 27.6**
N75/N108	$\bar{\lambda} < 2.0$ Cumple	x: 0.863 m η = 1.2	x: 0 m η = 0.5	x: 0 m η = 1.0	x: 0 m η = 24.3	x: 0 m η = 0.2	x: 0 m η = 4.3	η < 0.1	η < 0.1	x: 0 m η = 25.7	η < 0.1	x: 0.216 m η = 7.7	x: 0 m η = 0.1	x: 0 m η = 0.1	**CUMPLE η = 25.7**
N108/N77	$\bar{\lambda} < 2.0$ Cumple	x: 0.655 m η = 1.2	x: 0 m η = 0.5	x: 0.655 m η = 1.3	x: 0.655 m η = 24.9	x: 0.655 m η = 0.1	η = 3.6	η < 0.1	η < 0.1	x: 0.655 m η = 26.2	η < 0.1	η = 3.0	x: 0.655 m η = 0.1	x: 0.655 m η = 0.1	**CUMPLE η = 26.2**
N73/N106	$\bar{\lambda} < 2.0$ Cumple	x: 0.825 m η = 7.1	x: 0 m η = 1.8	x: 0.825 m η = 1.6	x: 0 m η = 21.9	x: 0.825 m η = 0.1	x: 0 m η = 4.2	η < 0.1	η < 0.1	x: 0 m η = 25.3	η < 0.1	x: 0 m η = 7.9	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 25.3**
N106/N75	$\bar{\lambda} < 2.0$ Cumple	x: 0.947 m η = 7.2	x: 0 m η = 1.6	x: 0 m η = 1.8	x: 0.947 m η = 38.4	x: 0 m η = 0.2	x: 0.237 m η = 5.0	η < 0.1	η < 0.1	x: 0.947 m η = 42.3	η < 0.1	x: 0.237 m η = 2.4	x: 0 m η = 0.1	x: 0 m η = 0.1	**CUMPLE η = 42.3**
N71/N104	$\bar{\lambda} < 2.0$ Cumple	x: 0.864 m η = 7.9	x: 0 m η = 1.3	x: 0.864 m η = 1.9	x: 0 m η = 22.1	x: 0.864 m η = 0.2	x: 0.216 m η = 3.9	η < 0.1	η < 0.1	x: 0 m η = 26.0	η < 0.1	x: 0.648 m η = 8.9	x: 0.864 m η = 0.1	x: 0.864 m η = 0.1	**CUMPLE η = 26.0**
N104/N73	$\bar{\lambda} < 2.0$ Cumple	x: 0.907 m η = 8.2	x: 0 m η = 1.0	x: 0 m η = 2.0	x: 0.907 m η = 39.0	x: 0 m η = 0.2	x: 0.227 m η = 5.7	η < 0.1	η < 0.1	x: 0.907 m η = 43.4	η < 0.1	x: 0.227 m η = 4.4	x: 0 m η = 0.1	x: 0 m η = 0.1	**CUMPLE η = 43.4**
N69/N102	$\bar{\lambda} < 2.0$ Cumple	x: 0.854 m η = 5.0	x: 0 m η = 1.1	x: 0.854 m η = 2.9	x: 0 m η = 22.4	x: 0.854 m η = 0.3	x: 0.64 m η = 3.5	η < 0.1	η < 0.1	x: 0 m η = 25.0	η < 0.1	x: 0.64 m η = 9.7	x: 0.64 m η = 0.1	x: 0.64 m η = 0.1	**CUMPLE η = 25.0**
N102/N71	$\bar{\lambda} < 2.0$ Cumple	x: 0.917 m η = 6.6	x: 0 m η = 2.0	x: 0 m η = 2.5	x: 0.917 m η = 36.2	x: 0.917 m η = 0.2	x: 0.688 m η = 5.7	η < 0.1	η < 0.1	x: 0.917 m η = 39.4	η < 0.1	x: 0.688 m η = 6.5	x: 0.459 m η = 0.1	x: 0.459 m η = 0.1	**CUMPLE η = 39.4**
N67/N101	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m η = 4.0	x: 0.91 m η = 1.2	x: 0 m η = 31.4	x: 0.91 m η = 0.2	x: 0.91 m η = 3.8	η < 0.1	η < 0.1	x: 0 m η = 35.5	η < 0.1	η = 8.8	x: 0.683 m η = 0.1	x: 0.683 m η = 0.1	**CUMPLE η = 35.5**
N101/N69	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m η = 3.4	x: 0.862 m η = 1.5	x: 0 m η = 30.1	x: 0.862 m η = 0.2	x: 0.646 m η = 5.4	η < 0.1	η < 0.1	x: 0 m η = 33.2	η < 0.1	η = 8.5	x: 0.862 m η = 0.1	x: 0.862 m η = 0.1	**CUMPLE η = 33.2**
N65/N67	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0.888 m η = 21.5	x: 0 m η = 8.9	x: 0 m η = 32.2	x: 0.888 m η = 1.0	η = 2.8	η < 0.1	η < 0.1	x: 0 m η = 52.5	η < 0.1	η = 8.0	x: 0.888 m η = 0.7	x: 0.888 m η = 0.7	**CUMPLE η = 52.5**
N66/N99	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m η = 4.9	x: 0 m η = 18.0	x: 0 m η = 52.3	x: 0.588 m η = 3.2	η = 3.3	η < 0.1	η < 0.1	x: 0 m η = 67.6	η < 0.1	η = 5.8	x: 0.588 m η = 2.1	x: 0.588 m η = 2.1	**CUMPLE η = 67.6**
N99/N68	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m η = 5.2	x: 0 m η = 2.3	x: 0 m η = 29.2	x: 0 m η = 0.2	η = 2.1	η < 0.1	η < 0.1	x: 0 m η = 35.0	η < 0.1	x: 0.455 m η = 8.2	x: 0 m η = 0.2	x: 0 m η = 0.2	**CUMPLE η = 35.0**
N68/N100	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0.562 m η = 14.6	x: 0.749 m η = 1.4	x: 0 m η = 12.4	x: 0.749 m η = 0.2	η = 1.1	η < 0.1	η < 0.1	x: 0 m η = 25.2	η < 0.1	η = 9.3	x: 0.749 m η = 0.2	x: 0.749 m η = 0.2	**CUMPLE η = 25.2**
N100/N70	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0.187 m η = 14.7	x: 0.749 m η = 3.1	x: 0 m η = 8.1	x: 0.749 m η = 0.3	η = 0.9	η < 0.1	η < 0.1	x: 0.749 m η = 22.2	η < 0.1	x: 0.562 m η = 10.0	x: 0.749 m η = 0.2	x: 0.749 m η = 0.2	**CUMPLE η = 22.2**
N70/N103	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m η = 19.1	x: 0 m η = 2.7	x: 0.766 m η = 6.6	x: 0 m η = 0.3	x: 0.574 m η = 0.7	η < 0.1	η < 0.1	x: 0.766 m η = 23.8	η < 0.1	η = 9.2	x: 0.383 m η = 0.1	x: 0.383 m η = 0.1	**CUMPLE η = 23.8**
N103/N72	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m η = 19.0	x: 0.766 m η = 2.6	x: 0.766 m η = 10.5	x: 0.766 m η = 0.3	x: 0.191 m η = 0.6	η < 0.1	η < 0.1	x: 0.766 m η = 27.0	η < 0.1	x: 0.383 m η = 8.8	x: 0.766 m η = 0.1	x: 0.766 m η = 0.1	**CUMPLE η = 27.0**
N72/N105	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m η = 18.7	x: 0 m η = 2.7	x: 0.733 m η = 10.3	x: 0 m η = 0.3	η = 0.5	η < 0.1	η < 0.1	x: 0 m η = 25.0	η < 0.1	x: 0.183 m η = 8.1	x: 0 m η = 0.2	x: 0 m η = 0.2	**CUMPLE η = 25.0**
N105/N74	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m η = 18.7	x: 0.733 m η = 2.2	x: 0.733 m η = 12.9	x: 0.733 m η = 0.3	η = 0.4	η < 0.1	η < 0.1	x: 0.733 m η = 27.3	η < 0.1	x: 0 m η = 7.2	x: 0.733 m η = 0.1	x: 0.733 m η = 0.1	**CUMPLE η = 27.3**
N74/N107	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m η = 16.4	x: 0 m η = 2.5	x: 0.842 m η = 13.5	x: 0 m η = 0.3	η = 0.4	η < 0.1	η < 0.1	x: 0.842 m η = 23.9	η < 0.1	x: 0 m η = 6.7	x: 0 m η = 0.2	x: 0 m η = 0.2	**CUMPLE η = 23.9**
N107/N76	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m η = 15.9	x: 0.678 m η = 1.2	x: 0.678 m η = 15.8	x: 0 m η = 0.2	η = 0.4	η < 0.1	η < 0.1	x: 0.678 m η = 25.8	η < 0.1	η = 6.1	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 25.8**
N78/N109	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0.324 m η = 11.4	x: 0 m η = 1.8	x: 0 m η = 12.9	x: 0.649 m η = 0.5	η = 0.1	η < 0.1	η < 0.1	x: 0 m η = 20.5	η < 0.1	η = 6.8	x: 0.649 m η = 0.3	x: 0.649 m η = 0.3	**CUMPLE η = 20.5**
N109/N76	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m η = 11.5	x: 0.649 m η = 2.0	x: 0 m η = 12.8	x: 0.649 m η = 0.1	η = 0.1	η < 0.1	η < 0.1	x: 0 m η = 19.7	η < 0.1	η = 7.7	x: 0.649 m η = 0.1	x: 0.649 m η = 0.1	**CUMPLE η = 19.7**
N80/N111	$\bar{\lambda} < 2.0$ Cumple	x: 0.792 m η = 0.4	x: 0 m η = 5.8	x: 0 m η = 2.1	x: 0.792 m η = 10.4	x: 0.792 m η = 0.4	η = 0.1	η < 0.1	η < 0.1	x: 0 m η = 13.2	η < 0.1	x: 0.396 m η = 3.8	x: 0.792 m η = 0.2	x: 0.792 m η = 0.2	**CUMPLE η = 13.2**
N111/N78	$\bar{\lambda} < 2.0$ Cumple	x: 0.265 m η = 0.4	x: 0.265 m η = 5.7	x: 0.529 m η = 0.6	x: 0.529 m η = 11.1	x: 0 m η = 0.2	η = 0.1	η < 0.1	η < 0.1	x: 0.529 m η = 13.4	η < 0.1	η = 4.8	x: 0 m η = 0.1	x: 0 m η = 0.1	**CUMPLE η = 13.4**
N82/N113	$\bar{\lambda} < 2.0$ Cumple	x: 0.714 m η = 1.2	x: 0 m η = 0.4	x: 0 m η = 3.1	x: 0.714 m η = 9.3	x: 0.714 m η = 0.6	η = 0.1	η < 0.1	η < 0.1	x: 0 m η = 11.7	η < 0.1	η = 1.5	x: 0.714 m η = 0.3	x: 0.714 m η = 0.3	**CUMPLE η = 11.7**
N113/N80	$\bar{\lambda} < 2.0$ Cumple	x: 0.607 m η = 1.2	x: 0 m η = 0.5	x: 0.607 m η = 1.1	x: 0.607 m η = 9.6	x: 0 m η = 0.3	η = 0.1	η < 0.1	η < 0.1	x: 0.607 m η = 11.3	η < 0.1	η = 2.1	x: 0 m η = 0.2	x: 0 m η = 0.2	**CUMPLE η = 11.3**
N84/N115	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.782 m η = 4.6	$N_{Ed} = 0.00$ N.P.[3]	x: 0 m η = 2.6	x: 0.782 m η = 9.2	x: 0.782 m η = 0.4	η = 0.2	η < 0.1	η < 0.1	x: 0.782 m η = 12.6	η < 0.1	η = 0.4	x: 0.782 m η = 0.3	x: 0.782 m η = 0.3	**CUMPLE η = 12.6**
N115/N82	$\bar{\lambda} \leq 3.0$ Cumple	x: 0 m η = 4.6	$N_{Ed} = 0.00$ N.P.[3]	x: 0.539 m η = 2.1	x: 0.539 m η = 9.1	x: 0 m η = 0.4	η = 0.1	η < 0.1	η < 0.1	x: 0.539 m η = 13.4	η < 0.1	η = 0.5	x: 0 m η = 0.3	x: 0 m η = 0.3	**CUMPLE η = 13.4**
N86/N117	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.563 m η = 7.4	$N_{Ed} = 0.00$ N.P.[3]	x: 0 m η = 2.8	x: 0.751 m η = 7.7	x: 0.751 m η = 0.4	η = 0.2	η < 0.1	η < 0.1	x: 0.188 m η = 12.3	η < 0.1	η = 1.6	x: 0.751 m η = 0.3	x: 0.751 m η = 0.3	**CUMPLE η = 12.3**
N117/N84	$\bar{\lambda} \leq 3.0$ Cumple	x: 0 m η = 7.4	$N_{Ed} = 0.00$ N.P.[3]	x: 0.57 m η = 2.2	x: 0.57 m η = 8.2	x: 0 m η = 0.4	η = 0.2	η < 0.1	η < 0.1	x: 0.57 m η = 13.9	η < 0.1	η = 1.4	x: 0 m η = 0.3	x: 0 m η = 0.3	**CUMPLE η = 13.9**
N88/N119	$\bar{\lambda} < 2.0$ Cumple	x: 0.797 m η = 15.3	x: 0.199 m η = 6.7	x: 0 m η = 2.6	x: 0.797 m η = 6.6	x: 0.797 m η = 0.5	η = 0.2	η < 0.1	η < 0.1	x: 0.797 m η = 19.8	η < 0.1	x: 0 m η = 2.8	x: 0.797 m η = 0.3	x: 0.797 m η = 0.3	**CUMPLE η = 19.8**
N119/N86	$\bar{\lambda} < 2.0$ Cumple	x: 0.525 m η = 9.4	x: 0 m η = 0.6	x: 0.525 m η = 2.7	x: 0.525 m η = 7.3	x: 0 m η = 0.7	η = 0.2	η < 0.1	η < 0.1	x: 0.525 m η = 14.3	η < 0.1	η = 2.5	x: 0 m η = 0.4	x: 0 m η = 0.4	**CUMPLE η = 14.3**

CALLE 15 # 29 – 18 Piso 2 Tel.: (8)7604662
CEL.: 310-3043066 - 320-4163185 - 310-5633286
E-mail: gerencia@cpdingenieria.com - disenos@cpdingenieria.com
Duitama - Boyacá

Barras	COMPROBACIONES (CTE DB SE-A)														Estado
	$\bar{\lambda}$	N_t	N_c	M_Y	M_Z	V_Z	V_Y	M_YV_Z	M_ZV_Y	NM_YM_Z	$NM_YM_ZV_YV_Z$	M_t	M_tV_Z	M_tV_Y	
N90/N121	$\bar{\lambda} < 2.0$ Cumple	x: 0.808 m $\eta = 13.5$	x: 0 m $\eta = 6.3$	x: 0 m $\eta = 2.1$	x: 0.808 m $\eta = 5.9$	x: 0.808 m $\eta = 0.4$	$\eta = 0.3$	$\eta < 0.1$	$\eta < 0.1$	x: 0.808 m $\eta = 17.3$	$\eta < 0.1$	x: 0.202 m $\eta = 4.2$	x: 0.808 m $\eta = 0.2$	x: 0.808 m $\eta = 0.2$	**CUMPLE $\eta = 17.3$**
N121/N88	$\bar{\lambda} < 2.0$ Cumple	x: 0.514 m $\eta = 13.5$	x: 0 m $\eta = 6.1$	x: 0.514 m $\eta = 2.8$	x: 0.514 m $\eta = 6.4$	x: 0 m $\eta = 0.6$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0.514 m $\eta = 17.6$	$\eta < 0.1$	x: 0 m $\eta = 4.0$	x: 0 m $\eta = 0.4$	x: 0 m $\eta = 0.4$	**CUMPLE $\eta = 17.6$**
N92/N123	$\bar{\lambda} < 2.0$ Cumple	x: 0.774 m $\eta = 9.3$	x: 0 m $\eta = 6.7$	x: 0.774 m $\eta = 2.7$	x: 0.774 m $\eta = 3.9$	x: 0.774 m $\eta = 0.4$	$\eta = 0.5$	$\eta < 0.1$	$\eta < 0.1$	x: 0.774 m $\eta = 14.1$	$\eta < 0.1$	$\eta = 7.2$	x: 0.581 m $\eta = 0.1$	x: 0.581 m $\eta = 0.1$	**CUMPLE $\eta = 14.1$**
N123/N90	$\bar{\lambda} < 2.0$ Cumple	x: 0.548 m $\eta = 9.4$	x: 0 m $\eta = 6.5$	x: 0.548 m $\eta = 2.5$	x: 0.548 m $\eta = 5.1$	x: 0 m $\eta = 0.5$	x: 0.548 m $\eta = 0.4$	$\eta < 0.1$	$\eta < 0.1$	x: 0.548 m $\eta = 13.6$	$\eta < 0.1$	$\eta = 6.1$	x: 0 m $\eta = 0.3$	x: 0 m $\eta = 0.3$	**CUMPLE $\eta = 13.6$**
N94/N125	$\bar{\lambda} < 2.0$ Cumple	x: 0.817 m $\eta = 1.7$	x: 0 m $\eta = 8.6$	x: 0 m $\eta = 4.4$	x: 0 m $\eta = 10.5$	x: 0 m $\eta = 0.9$	$\eta = 0.8$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 15.2$	$\eta < 0.1$	$\eta = 12.7$	x: 0.817 m $\eta = 0.3$	x: 0.817 m $\eta = 0.3$	**CUMPLE $\eta = 15.2$**
N125/N92	$\bar{\lambda} < 2.0$ Cumple	x: 0.506 m $\eta = 1.7$	x: 0 m $\eta = 8.0$	x: 0 m $\eta = 2.3$	x: 0 m $\eta = 6.0$	x: 0 m $\eta = 0.6$	$\eta = 0.5$	$\eta < 0.1$	$\eta < 0.1$	x: 0.506 m $\eta = 12.3$	$\eta < 0.1$	$\eta = 10.6$	x: 0 m $\eta = 0.3$	x: 0 m $\eta = 0.3$	**CUMPLE $\eta = 12.3$**
N96/N127	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 17.9$	x: 0 m $\eta = 27.1$	x: 0 m $\eta = 62.6$	x: 0 m $\eta = 3.7$	$\eta = 5.0$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 91.9$	$\eta < 0.1$	$\eta = 15.4$	x: 0 m $\eta = 2.1$	x: 0 m $\eta = 2.1$	**CUMPLE $\eta = 91.9$**
N127/N94	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 16.7$	x: 0 m $\eta = 3.9$	x: 0 m $\eta = 16.1$	x: 0.532 m $\eta = 1.0$	$\eta = 1.7$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 30.6$	$\eta < 0.1$	$\eta = 16.4$	x: 0.532 m $\eta = 0.2$	x: 0.532 m $\eta = 0.2$	**CUMPLE $\eta = 30.6$**
N99/N67	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.728 m $\eta = 2.6$	$N_{Ed} = 0.00$ N.P.[3]	x: 0 m $\eta = 8.8$	x: 0.728 m $\eta = 21.4$	x: 0.728 m $\eta = 0.9$	x: 0.546 m $\eta = 2.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0.728 m $\eta = 28.3$	$\eta < 0.1$	$\eta = 4.7$	x: 0.728 m $\eta = 0.6$	x: 0.728 m $\eta = 0.6$	**CUMPLE $\eta = 28.3$**
N100/N69	$\bar{\lambda} < 2.0$ Cumple	x: 0.9 m $\eta = 0.2$	x: 0 m $\eta < 0.1$	x: 0.9 m $\eta = 3.1$	x: 0.9 m $\eta = 7.9$	x: 0.9 m $\eta = 0.3$	x: 0.675 m $\eta = 0.5$	$\eta < 0.1$	$\eta < 0.1$	x: 0.9 m $\eta = 9.6$	$\eta < 0.1$	x: 0.675 m $\eta = 6.8$	x: 0.9 m $\eta = 0.2$	x: 0.9 m $\eta = 0.2$	**CUMPLE $\eta = 9.6$**
N68/N101	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 0.7$	x: 0.727 m $\eta = 4.8$	x: 0.727 m $\eta = 13.9$	x: 0.727 m $\eta = 0.5$	x: 0.545 m $\eta = 1.3$	$\eta < 0.1$	$\eta < 0.1$	x: 0.727 m $\eta = 17.1$	$\eta < 0.1$	x: 0.545 m $\eta = 7.8$	x: 0.727 m $\eta = 0.4$	x: 0.727 m $\eta = 0.4$	**CUMPLE $\eta = 17.1$**
N70/N102	$\bar{\lambda} < 2.0$ Cumple	x: 0.862 m $\eta = 1.7$	x: 0 m $\eta = 4.1$	x: 0.862 m $\eta = 1.4$	x: 0.862 m $\eta = 6.3$	x: 0.862 m $\eta = 0.1$	x: 0.647 m $\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0.862 m $\eta = 7.6$	$\eta < 0.1$	x: 0.647 m $\eta = 6.7$	x: 0.862 m $\eta = 0.1$	x: 0.862 m $\eta = 0.1$	**CUMPLE $\eta = 7.6$**
N103/N71	$\bar{\lambda} < 2.0$ Cumple	x: 1.015 m $\eta = 0.2$	x: 0 m $\eta = 0.5$	x: 1.015 m $\eta = 0.5$	x: 1.015 m $\eta = 6.5$	x: 1.015 m $\eta = 0.1$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 1.015 m $\eta = 6.7$	$\eta < 0.1$	x: 0.338 m $\eta = 5.6$	x: 1.015 m $\eta < 0.1$	x: 1.015 m $\eta < 0.1$	**CUMPLE $\eta = 6.7$**
N72/N104	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 1.7$	x: 0 m $\eta = 0.5$	x: 0 m $\eta = 5.6$	x: 0 m $\eta = 0.1$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 7.6$	$\eta < 0.1$	x: 0 m $\eta = 5.4$	x: 0 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	**CUMPLE $\eta = 7.6$**
N105/N73	$\bar{\lambda} < 2.0$ Cumple	x: 1.067 m $\eta = 0.1$	x: 0 m $\eta = 0.6$	x: 0 m $\eta = 0.7$	x: 1.067 m $\eta = 6.9$	x: 0 m $\eta = 0.1$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 1.067 m $\eta = 7.5$	$\eta < 0.1$	$\eta = 4.4$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE $\eta = 7.5$**
N74/N106	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 2.0$	x: 0 m $\eta = 0.9$	x: 0 m $\eta = 6.6$	x: 0 m $\eta = 0.1$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 8.7$	$\eta < 0.1$	$\eta = 4.2$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE $\eta = 8.7$**
N107/N75	$\bar{\lambda} < 2.0$ Cumple	x: 1.066 m $\eta = 0.2$	x: 0 m $\eta = 0.4$	x: 0 m $\eta = 1.3$	x: 1.066 m $\eta = 6.9$	x: 0 m $\eta = 0.1$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 1.066 m $\eta = 7.8$	$\eta < 0.1$	$\eta = 3.2$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE $\eta = 7.8$**
N76/N108	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 1.8$	x: 0 m $\eta = 1.8$	x: 0.923 m $\eta = 7.8$	x: 0 m $\eta = 0.2$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0.923 m $\eta = 10.3$	$\eta < 0.1$	$\eta = 3.8$	x: 0.692 m $\eta = 0.1$	x: 0.692 m $\eta = 0.1$	**CUMPLE $\eta = 10.3$**
N109/N77	$\bar{\lambda} \leq 3.0$ Cumple	x: 1.003 m $\eta = 0.4$	$N_{Ed} = 0.00$ N.P.[3]	x: 0 m $\eta = 3.0$	x: 1.003 m $\eta = 6.6$	x: 0 m $\eta = 0.2$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 1.003 m $\eta = 8.8$	$\eta < 0.1$	$\eta = 2.8$	x: 1.003 m $\eta = 0.2$	x: 1.003 m $\eta = 0.2$	**CUMPLE $\eta = 8.8$**
N78/N110	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 1.0$	x: 0.979 m $\eta = 5.6$	x: 0 m $\eta = 2.6$	$\eta = 0.1$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0.979 m $\eta = 7.9$	$\eta < 0.1$	$\eta = 2.6$	x: 0 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	**CUMPLE $\eta = 7.9$**
N111/N79	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.97 m $\eta = 0.5$	$N_{Ed} = 0.00$ N.P.[3]	x: 0 m $\eta = 2.6$	x: 0.97 m $\eta = 4.6$	x: 0.97 m $\eta = 0.2$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.97 m $\eta = 6.6$	$\eta < 0.1$	$\eta = 1.7$	x: 0.97 m $\eta = 0.2$	x: 0.97 m $\eta = 0.2$	**CUMPLE $\eta = 6.6$**
N80/N112	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 1.0$	x: 0.951 m $\eta = 3.5$	x: 0.951 m $\eta = 2.3$	$\eta = 0.1$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0.951 m $\eta = 5.3$	$\eta < 0.1$	$\eta = 0.7$	x: 0.475 m $\eta < 0.1$	x: 0.475 m $\eta < 0.1$	**CUMPLE $\eta = 5.3$**
N113/N81	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.938 m $\eta = 0.7$	$N_{Ed} = 0.00$ N.P.[3]	x: 0.938 m $\eta = 2.4$	x: 0.938 m $\eta = 2.9$	x: 0.938 m $\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.938 m $\eta = 4.5$	$\eta < 0.1$	$\eta = 0.4$	x: 0.938 m $\eta = 0.1$	x: 0.938 m $\eta = 0.1$	**CUMPLE $\eta = 4.5$**
N82/N114	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 1.0$	x: 0.913 m $\eta = 2.5$	x: 0 m $\eta = 2.2$	x: 0.457 m $\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.913 m $\eta = 3.8$	$\eta < 0.1$	$\eta = 0.6$	x: 0.913 m $\eta = 0.1$	x: 0.913 m $\eta = 0.1$	**CUMPLE $\eta = 3.8$**
N115/N83	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.887 m $\eta = 0.6$	$N_{Ed} = 0.00$ N.P.[3]	x: 0 m $\eta = 1.7$	x: 0 m $\eta = 2.1$	x: 0.887 m $\eta = 0.2$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.887 m $\eta = 3.7$	$\eta < 0.1$	x: 0.887 m $\eta = 0.7$	x: 0.665 m $\eta = 0.1$	x: 0.665 m $\eta = 0.1$	**CUMPLE $\eta = 3.7$**
N84/N116	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 0.8$	x: 0.847 m $\eta = 1.4$	x: 0 m $\eta = 2.7$	x: 0.847 m $\eta = 0.1$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 3.6$	$\eta < 0.1$	$\eta = 1.5$	x: 0.847 m $\eta = 0.1$	x: 0.847 m $\eta = 0.1$	**CUMPLE $\eta = 3.6$**
N117/N85	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.835 m $\eta = 0.6$	$N_{Ed} = 0.00$ N.P.[3]	x: 0.835 m $\eta = 1.2$	x: 0.835 m $\eta = 2.8$	x: 0.835 m $\eta = 0.1$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.835 m $\eta = 3.8$	$\eta < 0.1$	$\eta = 1.7$	x: 0.835 m $\eta = 0.1$	x: 0.835 m $\eta = 0.1$	**CUMPLE $\eta = 3.8$**
N86/N118	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 0.8$	x: 0.78 m $\eta = 1.5$	x: 0 m $\eta = 2.5$	x: 0.78 m $\eta = 0.2$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 3.4$	$\eta < 0.1$	x: 0 m $\eta = 2.1$	x: 0.78 m $\eta = 0.1$	x: 0.78 m $\eta = 0.1$	**CUMPLE $\eta = 3.4$**
N119/N87	$\bar{\lambda} < 2.0$ Cumple	x: 0.762 m $\eta = 3.3$	x: 0 m $\eta = 2.9$	x: 0.762 m $\eta = 0.4$	x: 0.762 m $\eta = 2.9$	x: 0.762 m $\eta < 0.1$	x: 0.572 m $\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.762 m $\eta = 5.1$	$\eta < 0.1$	$\eta = 2.2$	x: 0.762 m $\eta < 0.1$	x: 0.762 m $\eta < 0.1$	**CUMPLE $\eta = 5.1$**
N88/N120	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 0.9$	x: 0 m $\eta = 1.0$	x: 0 m $\eta = 3.3$	x: 0 m $\eta = 0.1$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 4.3$	$\eta < 0.1$	x: 0.712 m $\eta = 2.9$	x: 0 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	**CUMPLE $\eta = 4.3$**
N121/N89	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.685 m $\eta = 0.7$	$N_{Ed} = 0.00$ N.P.[3]	x: 0 m $\eta = 1.4$	x: 0.685 m $\eta = 4.8$	x: 0 m $\eta = 0.2$	x: 0 m $\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0.685 m $\eta = 5.8$	$\eta < 0.1$	$\eta = 3.1$	x: 0.171 m $\eta = 0.1$	x: 0.171 m $\eta = 0.1$	**CUMPLE $\eta = 5.8$**
N90/N122	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 1.1$	x: 0 m $\eta = 1.8$	x: 0.63 m $\eta = 4.7$	x: 0 m $\eta = 0.2$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 6.5$	$\eta < 0.1$	x: 0.63 m $\eta = 3.4$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE $\eta = 6.5$**
N123/N91	$\bar{\lambda} < 2.0$ Cumple	x: 0.601 m $\eta = 0.7$	x: 0 m $\eta = 0.3$	x: 0 m $\eta = 3.0$	x: 0.601 m $\eta = 7.8$	x: 0 m $\eta = 0.4$	x: 0.301 m $\eta = 0.4$	$\eta < 0.1$	$\eta < 0.1$	x: 0.601 m $\eta = 9.6$	$\eta < 0.1$	x: 0.301 m $\eta = 3.6$	x: 0 m $\eta = 0.2$	x: 0 m $\eta = 0.2$	**CUMPLE $\eta = 9.6$**
N92/N124	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 1.4$	x: 0 m $\eta = 3.8$	x: 0.521 m $\eta = 7.5$	x: 0 m $\eta = 0.6$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0.521 m $\eta = 11.4$	$\eta < 0.1$	x: 0.261 m $\eta = 4.9$	x: 0.521 m $\eta = 0.5$	x: 0.521 m $\eta = 0.5$	**CUMPLE $\eta = 11.4$**
N125/N93	$\bar{\lambda} < 2.0$ Cumple	x: 0.493 m $\eta = 0.6$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 6.5$	x: 0.493 m $\eta = 11.5$	x: 0 m $\eta = 1.0$	x: 0.246 m $\eta = 0.6$	$\eta < 0.1$	$\eta < 0.1$	x: 0.493 m $\eta = 15.3$	$\eta < 0.1$	x: 0.246 m $\eta = 5.6$	x: 0 m $\eta = 0.7$	x: 0 m $\eta = 0.7$	**CUMPLE $\eta = 15.3$**
N94/N126	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 1.8$	x: 0.415 m $\eta = 9.3$	x: 0.415 m $\eta = 19.2$	x: 0 m $\eta = 1.8$	x: 0 m $\eta = 1.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0.415 m $\eta = 28.1$	$\eta < 0.1$	x: 0 m $\eta = 7.2$	x: 0 m $\eta = 1.3$	x: 0 m $\eta = 1.3$	**CUMPLE $\eta = 28.1$**

CALLE 15 # 29 – 18 Piso 2 Tel.: (8)7604662
CEL.: 310-3043066 - 320-4163185 - 310-5633286
E-mail: gerencia@cpdingenieria.com - disenos@cpdingenieria.com
Duitama - Boyacá

Barras	COMPROBACIONES (CTE DB SE-A)														Estado
	$\bar{\lambda}$	N_t	N_c	M_Y	M_Z	V_Z	V_Y	M_YV_Z	M_ZV_Y	NM_YM_Z	$NM_YM_ZV_YV_Z$	M_t	M_tV_Z	M_tV_Y	
N127/N95	$\bar{\lambda} < 2.0$ Cumple	x: 0.383 m $\eta = 0.2$	x: 0 m $\eta = 3.8$	x: 0 m $\eta = 17.2$	x: 0.383 m $\eta = 44.9$	x: 0 m $\eta = 3.4$	x: 0.191 m $\eta = 6.9$	$\eta < 0.1$	$\eta < 0.1$	x: 0.383 m $\eta = 56.3$	$\eta < 0.1$	x: 0.191 m $\eta = 9.5$	x: 0 m $\eta = 2.2$	x: 0 m $\eta = 2.2$	**CUMPLE $\eta = 56.3$**
N96/N128	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 6.9$	x: 0.311 m $\eta = 4.3$	x: 0.311 m $\eta = 64.7$	x: 0 m $\eta = 0.4$	$\eta = 14.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0.311 m $\eta = 71.5$	$\eta < 0.1$	$\eta = 10.0$	x: 0 m $\eta = 0.3$	x: 0 m $\eta = 0.3$	**CUMPLE $\eta = 71.5$**
N1/N65	N.P.[1]	$N_{Ed} = 0.00$ N.P.[2]	$N_{Ed} = 0.00$ N.P.[3]	$M_{Ed} = 0.00$ N.P.[4]	$M_{Ed} = 0.00$ N.P.[4]	x: 0 m $\eta < 0.1$	$V_{Ed} = 0.00$ N.P.[5]	N.P.[6]	N.P.[6]	N.P.[7]	N.P.[8]	$M_{Ed} = 0.00$ N.P.[9]	N.P.[10]	N.P.[10]	**CUMPLE $\eta < 0.1$**
N2/N66	N.P.[1]	$N_{Ed} = 0.00$ N.P.[2]	$N_{Ed} = 0.00$ N.P.[3]	$M_{Ed} = 0.00$ N.P.[4]	$M_{Ed} = 0.00$ N.P.[4]	x: 0 m $\eta < 0.1$	$V_{Ed} = 0.00$ N.P.[5]	N.P.[6]	N.P.[6]	N.P.[7]	N.P.[8]	$M_{Ed} = 0.00$ N.P.[9]	N.P.[10]	N.P.[10]	**CUMPLE $\eta < 0.1$**
N130/N129	N.P.[1]	$N_{Ed} = 0.00$ N.P.[2]	$N_{Ed} = 0.00$ N.P.[3]	$M_{Ed} = 0.00$ N.P.[4]	$M_{Ed} = 0.00$ N.P.[4]	x: 0 m $\eta < 0.1$	$V_{Ed} = 0.00$ N.P.[5]	N.P.[6]	N.P.[6]	N.P.[7]	N.P.[8]	$M_{Ed} = 0.00$ N.P.[9]	N.P.[10]	N.P.[10]	**CUMPLE $\eta < 0.1$**
N132/N131	N.P.[1]	$N_{Ed} = 0.00$ N.P.[2]	$N_{Ed} = 0.00$ N.P.[3]	$M_{Ed} = 0.00$ N.P.[4]	$M_{Ed} = 0.00$ N.P.[4]	x: 0 m $\eta < 0.1$	$V_{Ed} = 0.00$ N.P.[5]	N.P.[6]	N.P.[6]	N.P.[7]	N.P.[8]	$M_{Ed} = 0.00$ N.P.[9]	N.P.[10]	N.P.[10]	**CUMPLE $\eta < 0.1$**
N133/N262	N.P.[1]	$N_{Ed} = 0.00$ N.P.[2]	$N_{Ed} = 0.00$ N.P.[3]	$M_{Ed} = 0.00$ N.P.[4]	$M_{Ed} = 0.00$ N.P.[4]	x: 0 m $\eta < 0.1$	$V_{Ed} = 0.00$ N.P.[5]	N.P.[6]	N.P.[6]	N.P.[7]	N.P.[8]	$M_{Ed} = 0.00$ N.P.[9]	N.P.[10]	N.P.[10]	**CUMPLE $\eta < 0.1$**
N262/N134	N.P.[1]	$N_{Ed} = 0.00$ N.P.[2]	$N_{Ed} = 0.00$ N.P.[3]	x: 0 m $\eta < 0.1$	$M_{Ed} = 0.00$ N.P.[4]	x: 0 m $\eta < 0.1$	$V_{Ed} = 0.00$ N.P.[5]	x: 0 m $\eta < 0.1$	N.P.[6]	N.P.[7]	N.P.[8]	$M_{Ed} = 0.00$ N.P.[9]	N.P.[10]	N.P.[10]	**CUMPLE $\eta < 0.1$**
N134/N135	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.936 m $\eta = 22.9$	$N_{Ed} = 0.00$ N.P.[3]	x: 0 m $\eta = 3.5$	x: 0 m $\eta = 21.9$	x: 0 m $\eta = 0.2$	x: 0.702 m $\eta = 1.6$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 40.2$	$\eta < 0.1$	x: 0.702 m $\eta = 7.4$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE $\eta = 40.2$**
N135/N136	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 33.3$	x: 0 m $\eta = 1.5$	x: 1.165 m $\eta = 12.9$	x: 0 m $\eta = 0.1$	$\eta = 0.3$	$\eta < 0.1$	$\eta < 0.1$	x: 1.165 m $\eta = 39.0$	$\eta < 0.1$	$\eta = 3.7$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE $\eta = 39.0$**
N136/N137	$\bar{\lambda} \leq 3.0$ Cumple	x: 1.127 m $\eta = 11.5$	$N_{Ed} = 0.00$ N.P.[3]	x: 0 m $\eta = 0.7$	x: 1.127 m $\eta = 14.1$	x: 1.127 m $\eta = 0.1$	x: 0.564 m $\eta = 0.5$	$\eta < 0.1$	$\eta < 0.1$	x: 1.127 m $\eta = 20.0$	$\eta < 0.1$	$\eta = 0.7$	x: 1.127 m $\eta < 0.1$	x: 1.127 m $\eta < 0.1$	**CUMPLE $\eta = 20.0$**
N137/N138	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 18.8$	x: 0 m $\eta = 1.4$	x: 0 m $\eta = 4.8$	x: 0 m $\eta = 0.1$	x: 1.214 m $\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 20.9$	$\eta < 0.1$	x: 1.214 m $\eta = 2.8$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE $\eta = 20.9$**
N138/N139	$\bar{\lambda} < 2.0$ Cumple	x: 1.049 m $\eta = 0.6$	x: 0 m $\eta = 2.0$	x: 0 m $\eta = 0.6$	x: 1.259 m $\eta = 12.0$	x: 1.259 m $\eta < 0.1$	x: 0 m $\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 1.259 m $\eta = 14.2$	$\eta < 0.1$	x: 0 m $\eta = 0.7$	x: 0 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	**CUMPLE $\eta = 14.2$**
N140/N139	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 6.8$	x: 1.283 m $\eta = 0.8$	x: 1.283 m $\eta = 3.7$	x: 1.283 m $\eta = 0.1$	x: 0.428 m $\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 1.283 m $\eta = 9.9$	$\eta < 0.1$	x: 0.214 m $\eta = 2.2$	x: 1.283 m $\eta = 0.1$	x: 1.283 m $\eta = 0.1$	**CUMPLE $\eta = 9.9$**
N140/N141	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 8.5$	x: 1.312 m $\eta = 0.6$	x: 1.312 m $\eta = 10.8$	x: 1.312 m $\eta < 0.1$	x: 0.219 m $\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 1.312 m $\eta = 19.9$	$\eta < 0.1$	x: 0.219 m $\eta = 1.3$	x: 1.312 m $\eta < 0.1$	x: 1.312 m $\eta < 0.1$	**CUMPLE $\eta = 19.9$**
N142/N141	$\bar{\lambda} < 2.0$ Cumple	x: 0.851 m $\eta = 1.4$	x: 0.851 m $\eta = 1.0$	x: 0 m $\eta = 0.7$	x: 1.277 m $\eta = 3.6$	x: 0 m $\eta = 0.1$	x: 1.064 m $\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 1.277 m $\eta = 4.7$	$\eta < 0.1$	x: 1.064 m $\eta = 1.8$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE $\eta = 4.7$**
N142/N143	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 14.2$	x: 1.359 m $\eta = 0.9$	x: 1.359 m $\eta = 10.1$	x: 1.359 m $\eta = 0.1$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 1.359 m $\eta = 23.8$	$\eta < 0.1$	x: 0.226 m $\eta = 1.2$	x: 1.359 m $\eta < 0.1$	x: 1.359 m $\eta < 0.1$	**CUMPLE $\eta = 23.8$**
N144/N143	$\bar{\lambda} \leq 3.0$ Cumple	x: 1.264 m $\eta = 4.5$	$N_{Ed} = 0.00$ N.P.[3]	x: 0 m $\eta = 0.9$	x: 1.264 m $\eta = 3.9$	x: 0 m $\eta = 0.1$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 1.264 m $\eta = 8.4$	$\eta < 0.1$	x: 0 m $\eta = 0.4$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE $\eta = 8.4$**
N144/N145	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 17.4$	x: 1.132 m $\eta = 1.9$	x: 0 m $\eta = 8.9$	x: 1.132 m $\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 1.132 m $\eta = 24.1$	$\eta < 0.1$	$\eta = 1.5$	x: 1.132 m $\eta = 0.1$	x: 1.132 m $\eta = 0.1$	**CUMPLE $\eta = 24.1$**
N146/N145	$\bar{\lambda} \leq 3.0$ Cumple	x: 1.254 m $\eta = 10.4$	$N_{Ed} = 0.00$ N.P.[3]	x: 0 m $\eta = 1.1$	x: 1.254 m $\eta = 4.1$	x: 0 m $\eta = 0.1$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 1.254 m $\eta = 13.7$	$\eta < 0.1$	$\eta = 0.5$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE $\eta = 13.7$**
N146/N147	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 15.0$	x: 1.105 m $\eta = 2.0$	x: 0 m $\eta = 6.9$	x: 1.105 m $\eta = 0.2$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 20.2$	$\eta < 0.1$	x: 0.552 m $\eta = 1.2$	x: 1.105 m $\eta = 0.1$	x: 1.105 m $\eta = 0.1$	**CUMPLE $\eta = 20.2$**
N148/N147	$\bar{\lambda} \leq 3.0$ Cumple	x: 1.252 m $\eta = 9.5$	$N_{Ed} = 0.00$ N.P.[3]	x: 1.252 m $\eta = 0.4$	x: 1.252 m $\eta = 3.1$	x: 0 m $\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 1.252 m $\eta = 10.8$	$\eta < 0.1$	$\eta = 1.0$	x: 0 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	**CUMPLE $\eta = 10.8$**
N148/N149	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 12.6$	x: 1.059 m $\eta = 1.7$	x: 0 m $\eta = 4.5$	x: 1.059 m $\eta = 0.2$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 15.9$	$\eta < 0.1$	x: 1.059 m $\eta = 0.9$	x: 1.059 m $\eta = 0.1$	x: 1.059 m $\eta = 0.1$	**CUMPLE $\eta = 15.9$**
N150/N149	$\bar{\lambda} < 2.0$ Cumple	x: 1.241 m $\eta = 8.5$	x: 0 m $\eta = 0.1$	x: 1.241 m $\eta = 0.5$	x: 1.241 m $\eta = 3.8$	x: 0 m $\eta < 0.1$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 1.241 m $\eta = 10.1$	$\eta < 0.1$	$\eta = 1.3$	x: 0 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	**CUMPLE $\eta = 10.1$**
N150/N151	$\bar{\lambda} < 2.0$ Cumple	x: 1.006 m $\eta = 0.9$	x: 0 m $\eta = 10.6$	x: 0 m $\eta = 1.8$	x: 0 m $\eta = 3.3$	x: 1.006 m $\eta = 0.2$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 13.2$	$\eta < 0.1$	x: 1.006 m $\eta = 0.9$	x: 1.006 m $\eta = 0.1$	x: 1.006 m $\eta = 0.1$	**CUMPLE $\eta = 13.2$**
N152/N151	$\bar{\lambda} < 2.0$ Cumple	x: 1.222 m $\eta = 8.1$	x: 0 m $\eta = 4.2$	x: 0.407 m $\eta = 0.5$	x: 1.222 m $\eta = 4.1$	x: 1.222 m $\eta < 0.1$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 1.222 m $\eta = 9.8$	$\eta < 0.1$	$\eta = 1.3$	x: 1.222 m $\eta < 0.1$	x: 1.222 m $\eta < 0.1$	**CUMPLE $\eta = 9.8$**
N152/N153	$\bar{\lambda} < 2.0$ Cumple	x: 0.946 m $\eta = 2.6$	x: 0 m $\eta = 8.5$	x: 0 m $\eta = 1.7$	x: 0 m $\eta = 2.0$	x: 0.946 m $\eta = 0.1$	x: 0.946 m $\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 10.6$	$\eta < 0.1$	$\eta = 0.5$	x: 0.71 m $\eta = 0.1$	x: 0.71 m $\eta = 0.1$	**CUMPLE $\eta = 10.6$**
N154/N153	$\bar{\lambda} \leq 3.0$ Cumple	x: 1.194 m $\eta = 2.0$	$N_{Ed} = 0.00$ N.P.[3]	x: 0.199 m $\eta = 0.6$	x: 1.194 m $\eta = 5.5$	x: 1.194 m $\eta = 0.1$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 1.194 m $\eta = 6.2$	$\eta < 0.1$	$\eta = 1.3$	x: 1.194 m $\eta < 0.1$	x: 1.194 m $\eta < 0.1$	**CUMPLE $\eta = 6.2$**
N154/N155	$\bar{\lambda} < 2.0$ Cumple	x: 0.881 m $\eta < 0.1$	x: 0 m $\eta = 1.1$	x: 0 m $\eta = 0.9$	x: 0.881 m $\eta = 1.6$	x: 0.881 m $\eta = 0.1$	x: 0.881 m $\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.881 m $\eta = 3.0$	$\eta < 0.1$	x: 0.661 m $\eta = 0.8$	x: 0.881 m $\eta = 0.1$	x: 0.881 m $\eta = 0.1$	**CUMPLE $\eta = 3.0$**
N156/N155	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 2.3$	x: 0 m $\eta = 0.9$	x: 1.156 m $\eta = 5.7$	x: 1.156 m $\eta = 0.1$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 1.156 m $\eta = 8.2$	$\eta < 0.1$	x: 0 m $\eta = 1.2$	x: 1.156 m $\eta = 0.1$	x: 1.156 m $\eta = 0.1$	**CUMPLE $\eta = 8.2$**
N156/N157	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.814 m $\eta = 1.7$	$N_{Ed} = 0.00$ N.P.[3]	x: 0 m $\eta = 0.7$	x: 0.814 m $\eta = 2.0$	x: 0.814 m $\eta = 0.1$	x: 0.61 m $\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0.814 m $\eta = 3.0$	$\eta < 0.1$	x: 0.61 m $\eta = 1.6$	x: 0.814 m $\eta = 0.1$	x: 0.814 m $\eta = 0.1$	**CUMPLE $\eta = 3.0$**
N158/N157	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 6.5$	x: 0 m $\eta = 1.0$	x: 1.11 m $\eta = 7.7$	x: 1.11 m $\eta = 0.1$	x: 0 m $\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 1.11 m $\eta = 13.7$	$\eta < 0.1$	x: 0.37 m $\eta = 1.6$	x: 1.11 m $\eta = 0.1$	x: 1.11 m $\eta = 0.1$	**CUMPLE $\eta = 13.7$**
N158/N159	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.745 m $\eta = 4.3$	$N_{Ed} = 0.00$ N.P.[3]	x: 0.745 m $\eta = 0.8$	x: 0.745 m $\eta = 2.6$	x: 0.745 m $\eta = 0.1$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0.745 m $\eta = 5.6$	$\eta < 0.1$	x: 0.373 m $\eta = 2.6$	x: 0.745 m $\eta < 0.1$	x: 0.745 m $\eta < 0.1$	**CUMPLE $\eta = 5.6$**
N160/N159	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0.176 m $\eta = 13.6$	x: 0 m $\eta = 1.0$	x: 1.054 m $\eta = 8.5$	x: 1.054 m $\eta = 0.1$	x: 0.527 m $\eta = 0.3$	$\eta < 0.1$	$\eta < 0.1$	x: 1.054 m $\eta = 19.2$	$\eta < 0.1$	$\eta = 3.0$	x: 1.054 m $\eta = 0.1$	x: 1.054 m $\eta = 0.1$	**CUMPLE $\eta = 19.2$**
N160/N161	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.679 m $\eta = 10.4$	$N_{Ed} = 0.00$ N.P.[3]	x: 0.679 m $\eta = 2.1$	x: 0.679 m $\eta = 3.8$	x: 0 m $\eta = 0.2$	$\eta = 0.2$	$\eta < 0.1$	$\eta < 0.1$	x: 0.679 m $\eta = 12.7$	$\eta < 0.1$	x: 0 m $\eta = 4.4$	x: 0.17 m $\eta < 0.1$	x: 0.17 m $\eta < 0.1$	**CUMPLE $\eta = 12.7$**
N162/N161	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.[2]	x: 0 m $\eta = 23.1$	x: 0.986 m $\eta = 1.0$	x: 0 m $\eta = 12.5$	x: 0.986 m $\eta = 0.1$	x: 0.74 m $\eta = 0.5$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 31.2$	$\eta < 0.1$	$\eta = 6.3$	x: 0.986 m $\eta < 0.1$	x: 0.986 m $\eta < 0.1$	**CUMPLE $\eta = 31.2$**

CALLE 15 # 29 – 18 Piso 2 Tel.: (8)7604662
CEL.: 310-3043066 - 320-4163185 - 310-5633286
E-mail: gerencia@cpdingenieria.com - disenos@cpdingenieria.com
Duitama - Boyacá

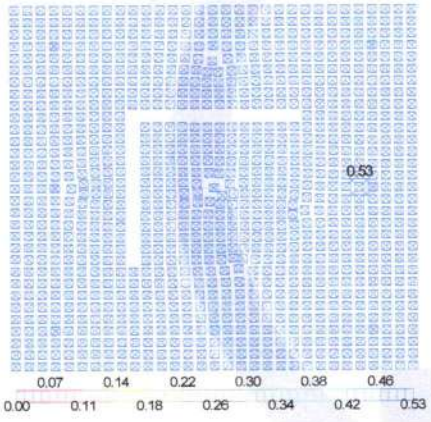
Barras	COMPROBACIONES (CTE DB SE-A)														Estado
	$\bar{\lambda}$	N_t	N_c	M_Y	M_Z	V_Z	V_Y	M_YV_Z	M_ZV_Y	NM_YM_Z	$NM_YM_ZV_YV_Z$	M_t	M_tV_Z	M_tV_Y	
N162/N163	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.626 m η = 18.0	N_{Ed} = 0.00 N.P.(3)	x: 0 m η = 2.0	x: 0 m η = 11.3	x: 0 m η = 0.3	η = 0.5	η < 0.1	η < 0.1	x: 0 m η = 25.6	η < 0.1	η = 6.9	x: 0 m η = 0.1	x: 0 m η = 0.1	**CUMPLE η = 25.6**
N164/N163	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 31.5	x: 0 m η = 10.8	x: 0 m η = 32.7	x: 0 m η = 0.7	x: 0.91 m η = 2.2	η < 0.1	η < 0.1	x: 0 m η = 63.6	η < 0.1	η = 11.3	x: 0.228 m η = 0.4	x: 0.228 m η = 0.4	**CUMPLE η = 63.6**
N164/N165	N.P.(1)	N_{Ed} = 0.00 N.P.(2)	N_{Ed} = 0.00 N.P.(3)	x: 0 m η < 0.1	M_{Ed} = 0.00 N.P.(4)	x: 0 m η < 0.1	V_{Ed} = 0.00 N.P.(5)	x: 0 m η < 0.1	N.P.(6)	N.P.(7)	N.P.(8)	M_{Ed} = 0.00 N.P.(9)	N.P.(10)	N.P.(10)	**CUMPLE η < 0.1**
N165/N196	$\bar{\lambda} < 2.0$ Cumple	x: 0.523 m η = 18.4	x: 0 m η = 0.2	x: 0.523 m η = 15.5	x: 0.523 m η = 21.3	x: 0.523 m η = 3.5	x: 0 m η = 2.5	η < 0.1	η < 0.1	x: 0.523 m η = 40.3	η < 0.1	η = 17.9	x: 0 m η = 2.3	x: 0 m η = 2.3	**CUMPLE η = 40.3**
N196/N166	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.185 m η = 18.6	N_{Ed} = 0.00 N.P.(3)	x: 0 m η = 16.5	x: 0 m η = 27.7	x: 0 m η = 3.9	η = 2.0	η < 0.1	η < 0.1	x: 0 m η = 45.4	η < 0.1	η = 14.7	x: 0 m η = 2.3	x: 0 m η = 2.3	**CUMPLE η = 45.4**
N166/N163	$\bar{\lambda} \leq 3.0$ Cumple	x: 0.512 m η = 18.7	N_{Ed} = 0.00 N.P.(3)	x: 0 m η = 7.9	x: 0 m η = 23.9	x: 0 m η = 1.3	η = 2.1	η < 0.1	η < 0.1	x: 0 m η = 37.3	η < 0.1	η = 14.5	x: 0 m η = 0.8	x: 0 m η = 0.8	**CUMPLE η = 37.3**
N163/N194	$\bar{\lambda} < 2.0$ Cumple	x: 0.542 m η = 0.9	x: 0 m η = 5.4	x: 0 m η = 2.1	x: 0 m η = 26.0	x: 0 m η = 0.6	η = 4.4	η < 0.1	η < 0.1	x: 0 m η = 31.0	η < 0.1	η = 15.1	x: 0 m η = 0.3	x: 0 m η = 0.3	**CUMPLE η = 31.0**
N194/N161	$\bar{\lambda} < 2.0$ Cumple	x: 0.828 m η = 0.7	x: 0 m η = 5.5	x: 0.828 m η = 3.5	x: 0 m η = 29.2	x: 0 m η = 0.7	x: 0.621 m η = 4.8	η < 0.1	η < 0.1	x: 0 m η = 33.2	η < 0.1	η = 9.9	x: 0 m η = 0.3	x: 0 m η = 0.3	**CUMPLE η = 33.2**
N161/N192	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 11.9	x: 0.523 m η = 2.1	x: 0 m η = 16.1	x: 0 m η = 0.6	x: 0.523 m η = 4.7	η < 0.1	η < 0.1	x: 0 m η = 26.0	η < 0.1	η = 8.1	x: 0 m η = 0.3	x: 0 m η = 0.3	**CUMPLE η = 26.0**
N192/N159	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 12.3	x: 0.839 m η = 2.3	x: 0.839 m η = 25.8	x: 0.839 m η = 0.4	x: 0.629 m η = 5.0	η < 0.1	η < 0.1	x: 0.839 m η = 36.0	η < 0.1	η = 4.8	x: 0.419 m η = 0.1	x: 0.419 m η = 0.1	**CUMPLE η = 36.0**
N159/N190	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 16.1	x: 0.573 m η = 2.7	x: 0.573 m η = 17.3	x: 0 m η = 0.5	x: 0 m η = 4.1	η < 0.1	η < 0.1	x: 0.573 m η = 32.0	η < 0.1	x: 0.287 m η = 4.5	x: 0.287 m η = 0.3	x: 0.287 m η = 0.3	**CUMPLE η = 32.0**
N190/N157	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 16.5	x: 0 m η = 2.5	x: 0.778 m η = 27.6	x: 0.778 m η = 0.3	x: 0.389 m η = 5.1	η < 0.1	η < 0.1	x: 0.778 m η = 40.4	η < 0.1	η = 2.6	x: 0.778 m η = 0.2	x: 0.778 m η = 0.2	**CUMPLE η = 40.4**
N157/N188	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 17.8	x: 0.57 m η = 3.1	x: 0.57 m η = 16.7	x: 0 m η = 0.5	x: 0 m η = 3.4	η < 0.1	η < 0.1	x: 0.57 m η = 32.6	η < 0.1	x: 0.285 m η = 3.1	x: 0 m η = 0.4	x: 0 m η = 0.4	**CUMPLE η = 32.6**
N188/N155	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 18.3	x: 0 m η = 3.1	x: 0.775 m η = 24.7	x: 0.775 m η = 0.4	η = 4.4	η < 0.1	η < 0.1	x: 0.775 m η = 39.0	η < 0.1	η = 1.7	x: 0.775 m η = 0.3	x: 0.775 m η = 0.3	**CUMPLE η = 39.0**
N155/N186	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 17.7	x: 0.546 m η = 3.1	x: 0.546 m η = 17.2	x: 0 m η = 0.6	x: 0 m η = 3.4	η < 0.1	η < 0.1	x: 0.546 m η = 32.7	η < 0.1	η = 2.0	x: 0 m η = 0.4	x: 0 m η = 0.4	**CUMPLE η = 32.7**
N186/N153	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 18.2	x: 0 m η = 3.2	x: 0.793 m η = 23.3	x: 0.793 m η = 0.5	x: 0 m η = 3.7	η < 0.1	η < 0.1	x: 0.793 m η = 37.3	η < 0.1	η = 0.9	x: 0.793 m η = 0.4	x: 0.793 m η = 0.4	**CUMPLE η = 37.3**
N153/N184	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 19.6	x: 0.572 m η = 3.3	x: 0.572 m η = 13.3	x: 0 m η = 0.5	x: 0 m η = 2.4	η < 0.1	η < 0.1	x: 0.572 m η = 27.7	η < 0.1	η = 1.4	x: 0 m η = 0.4	x: 0 m η = 0.4	**CUMPLE η = 27.7**
N184/N151	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 20.1	x: 0 m η = 3.8	x: 0.761 m η = 20.4	x: 0.761 m η = 0.7	x: 0 m η = 3.1	η < 0.1	η < 0.1	x: 0.761 m η = 33.1	η < 0.1	η = 0.3	x: 0.761 m η = 0.4	x: 0.761 m η = 0.4	**CUMPLE η = 33.1**
N151/N182	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 15.1	x: 0.665 m η = 3.1	x: 0.665 m η = 11.2	x: 0 m η = 0.5	η = 1.3	η < 0.1	η < 0.1	x: 0.665 m η = 23.0	η < 0.1	η = 0.5	x: 0.166 m η = 0.4	x: 0.166 m η = 0.4	**CUMPLE η = 23.0**
N182/N149	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 14.9	x: 0 m η = 3.7	x: 0.665 m η = 17.4	x: 0.665 m η = 0.8	η = 2.4	η < 0.1	η < 0.1	x: 0.665 m η = 29.0	η < 0.1	η = 0.7	x: 0.665 m η = 0.5	x: 0.665 m η = 0.5	**CUMPLE η = 29.0**
N149/N180	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 10.1	x: 0.662 m η = 2.6	x: 0 m η = 8.7	x: 0 m η = 0.5	η = 0.4	η < 0.1	η < 0.1	x: 0 m η = 16.8	η < 0.1	η = 0.5	x: 0 m η = 0.4	x: 0 m η = 0.4	**CUMPLE η = 16.8**
N180/N147	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 10.0	x: 0 m η = 3.1	x: 0.664 m η = 12.0	x: 0.664 m η = 0.8	η = 1.3	η < 0.1	η < 0.1	x: 0.664 m η = 20.7	η < 0.1	x: 0 m η = 2.0	x: 0.664 m η = 0.6	x: 0.664 m η = 0.6	**CUMPLE η = 20.7**
N147/N178	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 5.3	x: 0.661 m η = 1.9	x: 0 m η = 11.8	x: 0 m η = 0.5	η = 1.1	η < 0.1	η < 0.1	x: 0 m η = 16.4	η < 0.1	η = 2.2	x: 0 m η = 0.3	x: 0 m η = 0.3	**CUMPLE η = 16.4**
N178/N145	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 5.2	x: 0.663 m η = 2.5	x: 0.663 m η = 20.0	x: 0.663 m η = 0.7	η = 3.5	η < 0.1	η < 0.1	x: 0.663 m η = 27.6	η < 0.1	η = 5.1	x: 0.663 m η = 0.5	x: 0.663 m η = 0.5	**CUMPLE η = 27.6**
N143/N176	$\bar{\lambda} < 2.0$ Cumple	x: 0.863 m η = 1.4	x: 0 m η = 0.8	x: 0 m η = 1.0	x: 0 m η = 24.3	x: 0 m η = 0.1	x: 0 m η = 4.2	η < 0.1	η < 0.1	x: 0 m η = 25.7	η < 0.1	x: 0.216 m η = 7.7	x: 0 m η = 0.1	x: 0 m η = 0.1	**CUMPLE η = 25.7**
N176/N145	$\bar{\lambda} < 2.0$ Cumple	x: 0.655 m η = 1.4	x: 0 m η = 0.7	x: 0.655 m η = 1.3	x: 0.655 m η = 25.3	x: 0.655 m η = 0.1	η = 3.8	η < 0.1	η < 0.1	x: 0.655 m η = 26.7	η < 0.1	η = 3.0	x: 0.655 m η = 0.1	x: 0.655 m η = 0.1	**CUMPLE η = 26.7**
N141/N174	$\bar{\lambda} < 2.0$ Cumple	x: 0.825 m η = 6.4	x: 0 m η = 1.0	x: 0.825 m η = 1.5	x: 0 m η = 21.7	x: 0.825 m η = 0.1	x: 0 m η = 4.1	η < 0.1	η < 0.1	x: 0 m η = 24.9	η < 0.1	x: 0 m η = 7.9	x: 0 m η < 0.1	x: 0 m η < 0.1	**CUMPLE η = 24.9**
N174/N143	$\bar{\lambda} < 2.0$ Cumple	x: 0.947 m η = 6.6	x: 0 m η = 0.9	x: 0 m η = 1.6	x: 0.947 m η = 38.8	x: 0 m η = 0.2	x: 0.237 m η = 5.1	η < 0.1	η < 0.1	x: 0.947 m η = 42.5	η < 0.1	x: 0.237 m η = 2.4	x: 0 m η = 0.1	x: 0 m η = 0.1	**CUMPLE η = 42.5**
N139/N172	$\bar{\lambda} < 2.0$ Cumple	x: 0.864 m η = 7.2	x: 0 m η = 0.6	x: 0.864 m η = 1.8	x: 0 m η = 22.1	x: 0.864 m η = 0.2	x: 0.216 m η = 3.9	η < 0.1	η < 0.1	x: 0 m η = 25.9	η < 0.1	x: 0.648 m η = 8.9	x: 0.864 m η = 0.1	x: 0.864 m η = 0.1	**CUMPLE η = 25.9**
N172/N141	$\bar{\lambda} < 2.0$ Cumple	x: 0.907 m η = 7.5	x: 0 m η = 0.3	x: 0 m η = 1.8	x: 0.907 m η = 39.3	x: 0 m η = 0.2	x: 0.227 m η = 5.7	η < 0.1	η < 0.1	x: 0.907 m η = 43.6	η < 0.1	x: 0.227 m η = 4.3	x: 0 m η = 0.1	x: 0 m η = 0.1	**CUMPLE η = 43.6**
N137/N170	$\bar{\lambda} < 2.0$ Cumple	x: 0.854 m η = 4.6	x: 0 m η = 0.6	x: 0.854 m η = 2.6	x: 0 m η = 22.5	x: 0.854 m η = 0.3	x: 0.64 m η = 3.5	η < 0.1	η < 0.1	x: 0 m η = 25.4	η < 0.1	x: 0.64 m η = 9.7	x: 0.854 m η = 0.1	x: 0.854 m η = 0.1	**CUMPLE η = 25.4**
N170/N139	$\bar{\lambda} < 2.0$ Cumple	x: 0.917 m η = 6.0	x: 0 m η = 1.3	x: 0 m η = 2.3	x: 0.917 m η = 36.1	x: 0.917 m η = 0.2	x: 0.688 m η = 5.7	η < 0.1	η < 0.1	x: 0.917 m η = 39.4	η < 0.1	x: 0.688 m η = 6.5	x: 0.459 m η < 0.1	x: 0.459 m η < 0.1	**CUMPLE η = 39.4**
N135/N169	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 4.0	x: 0.91 m η = 1.1	x: 0 m η = 31.8	x: 0.91 m η = 0.2	x: 0.91 m η = 3.8	η < 0.1	η < 0.1	x: 0 m η = 35.7	η < 0.1	η = 8.8	x: 0.683 m η = 0.1	x: 0.683 m η = 0.1	**CUMPLE η = 35.7**
N169/N137	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 3.3	x: 0.862 m η = 1.5	x: 0 m η = 30.1	x: 0.862 m η = 0.2	x: 0.646 m η = 5.4	η < 0.1	η < 0.1	x: 0 m η = 33.2	η < 0.1	x: 0.646 m η = 8.5	x: 0.862 m η = 0.1	x: 0.862 m η = 0.1	**CUMPLE η = 33.2**
N133/N135	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 20.6	x: 0 m η = 8.5	x: 0 m η = 32.2	x: 0.888 m η = 1.0	η = 2.8	η < 0.1	η < 0.1	x: 0 m η = 52.8	η < 0.1	η = 8.0	x: 0.888 m η = 0.7	x: 0.888 m η = 0.7	**CUMPLE η = 52.8**
N134/N167	$\bar{\lambda} < 2.0$ Cumple	N_{Ed} = 0.00 N.P.(2)	x: 0 m η = 4.6	x: 0 m η = 17.2	x: 0 m η = 52.3	x: 0.588 m η = 3.0	η = 3.3	η < 0.1	η < 0.1	x: 0 m η = 68.2	η < 0.1	η = 5.8	x: 0.588 m η = 2.0	x: 0.588 m η = 2.0	**CUMPLE η = 68.2**

CALLE 15 # 29 – 18 Piso 2 Tel.: (8)7604662
CEL.: 310-3043066 - 320-4163185 - 310-5633286
E-mail: gerencia@cpdingenieria.com - disenos@cpdingenieria.com
Duitama - Boyacá

Barras	COMPROBACIONES (CTE DB SE-A)														Estado
	$\bar{\lambda}$	N_t	N_c	M_y	M_z	V_z	V_y	M_yV_z	M_zV_y	NM_yM_z	$NM_yM_zV_yV_z$	M_t	M_tV_z	M_tV_y	
N167/N136	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.(2)	x: 0 m $\eta = 4.9$	x: 0 m $\eta = 2.3$	x: 0 m $\eta = 29.3$	x: 0 m $\eta = 0.2$	$\eta = 2.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 35.1$	$\eta < 0.1$	x: 0.455 m $\eta = 8.2$	x: 0 m $\eta = 0.1$	x: 0 m $\eta = 0.1$	**CUMPLE $\eta = 35.1$**
N136/N168	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.(2)	x: 0 m $\eta = 14.3$	x: 0.749 m $\eta = 1.4$	x: 0 m $\eta = 12.4$	x: 0.749 m $\eta = 0.2$	$\eta = 1.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 25.1$	$\eta < 0.1$	$\eta = 9.3$	x: 0.749 m $\eta = 0.2$	x: 0.749 m $\eta = 0.2$	**CUMPLE $\eta = 25.1$**
N168/N138	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.(2)	x: 0 m $\eta = 14.3$	x: 0.749 m $\eta = 2.9$	x: 0 m $\eta = 8.1$	x: 0.749 m $\eta = 0.3$	$\eta = 0.9$	$\eta < 0.1$	$\eta < 0.1$	x: 0.749 m $\eta = 22.0$	$\eta < 0.1$	x: 0.562 m $\eta = 10.0$	x: 0.749 m $\eta = 0.1$	x: 0.749 m $\eta = 0.1$	**CUMPLE $\eta = 22.0$**
N138/N171	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.(2)	x: 0 m $\eta = 18.5$	x: 0 m $\eta = 2.5$	x: 0.766 m $\eta = 6.6$	x: 0 m $\eta = 0.3$	x: 0.574 m $\eta = 0.7$	$\eta < 0.1$	$\eta < 0.1$	x: 0.766 m $\eta = 23.8$	$\eta < 0.1$	$\eta = 9.2$	x: 0.383 m $\eta = 0.1$	x: 0.383 m $\eta = 0.1$	**CUMPLE $\eta = 23.8$**
N171/N140	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.(2)	x: 0.191 m $\eta = 18.4$	x: 0.766 m $\eta = 2.4$	x: 0.766 m $\eta = 10.5$	x: 0.766 m $\eta = 0.3$	x: 0 m $\eta = 0.6$	$\eta < 0.1$	$\eta < 0.1$	x: 0.766 m $\eta = 26.7$	$\eta < 0.1$	x: 0.383 m $\eta = 8.8$	x: 0.766 m $\eta = 0.1$	x: 0.766 m $\eta = 0.1$	**CUMPLE $\eta = 26.7$**
N140/N173	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.(2)	x: 0 m $\eta = 18.1$	x: 0 m $\eta = 2.6$	x: 0.733 m $\eta = 10.3$	x: 0 m $\eta = 0.3$	$\eta = 0.5$	$\eta < 0.1$	$\eta < 0.1$	x: 0.733 m $\eta = 24.8$	$\eta < 0.1$	x: 0.183 m $\eta = 8.1$	x: 0 m $\eta = 0.2$	x: 0 m $\eta = 0.2$	**CUMPLE $\eta = 24.8$**
N173/N142	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.(2)	x: 0 m $\eta = 18.0$	x: 0.733 m $\eta = 2.0$	x: 0.733 m $\eta = 12.9$	x: 0.733 m $\eta = 0.2$	$\eta = 0.4$	$\eta < 0.1$	$\eta < 0.1$	x: 0.733 m $\eta = 27.0$	$\eta < 0.1$	x: 0 m $\eta = 7.2$	x: 0.733 m $\eta = 0.1$	x: 0.733 m $\eta = 0.1$	**CUMPLE $\eta = 27.0$**
N142/N175	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.(2)	x: 0 m $\eta = 15.7$	x: 0 m $\eta = 2.4$	x: 0.842 m $\eta = 13.6$	x: 0 m $\eta = 0.3$	$\eta = 0.4$	$\eta < 0.1$	$\eta < 0.1$	x: 0.842 m $\eta = 24.1$	$\eta < 0.1$	x: 0 m $\eta = 6.7$	x: 0 m $\eta = 0.2$	x: 0 m $\eta = 0.2$	**CUMPLE $\eta = 24.1$**
N175/N144	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.(2)	x: 0.339 m $\eta = 15.2$	x: 0.678 m $\eta = 1.1$	x: 0.678 m $\eta = 15.8$	x: 0 m $\eta = 0.1$	$\eta = 0.4$	$\eta < 0.1$	$\eta < 0.1$	x: 0.678 m $\eta = 26.0$	$\eta < 0.1$	$\eta = 6.1$	x: 0 m $\eta < 0.1$	x: 0 m $\eta < 0.1$	**CUMPLE $\eta = 26.0$**
N146/N177	$\bar{\lambda} < 2.0$ Cumple	$N_{Ed} = 0.00$ N.P.(2)	x: 0.324 m $\eta = 10.6$	x: 0 m $\eta = 1.8$	x: 0 m $\eta = 12.9$	x: 0.649 m $\eta = 0.5$	$\eta = 0.1$	$\eta < 0.1$	$\eta < 0.1$	x: 0 m $\eta = 19.6$	$\eta < 0.1$	x: 0.324 m $\eta = 6.9$	x: 0.649 m $\eta = 0.4$	x: 0.649 m $\eta = 0.4$	**CUMPLE $\eta = 19.6$**

7.2. VERFICACIÓN DE PERNOS

Check bearing stress of base plate



Bearing Stress

$f_{max} = 0.526N$ (Area = 1.000mm²)

$f_{min} = 0.525N$ (Area = 1.000mm²)

$\sigma_{max} = 0.526MPa$

$\sigma_{min} = 0.525MPa$

Calculate Bearing Stress of Concrete

$\Phi = 0.650$

A1 = **¡Error!** = 1,000,000mm²

$Fn = 0.85\ fck \sqrt{A2 / A1} = 40.80MPa$

$\phi Fn = 26.52MPa$

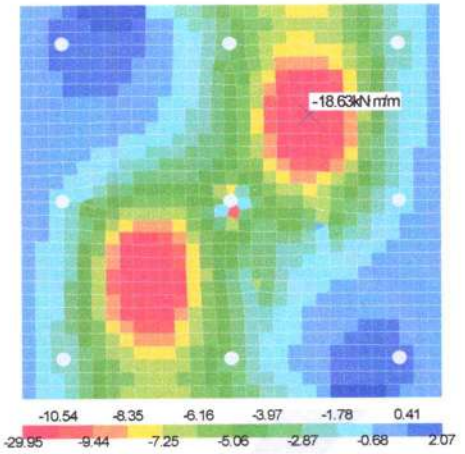
Calculate ratio

$\sigma_{max} / \phi F_n = 0.020 < 1.000 \rightarrow O.K$

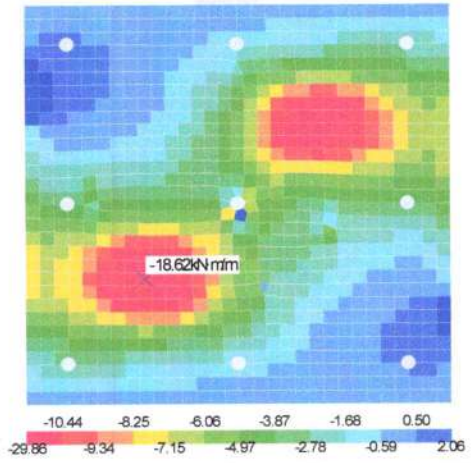
Check tension stress of anchor bolt

Tension Force not EXIST.

Check base plate
Moment Diagram (Element Force. Nodal Average is not Applied.)
Moment Diagram (Mxx)

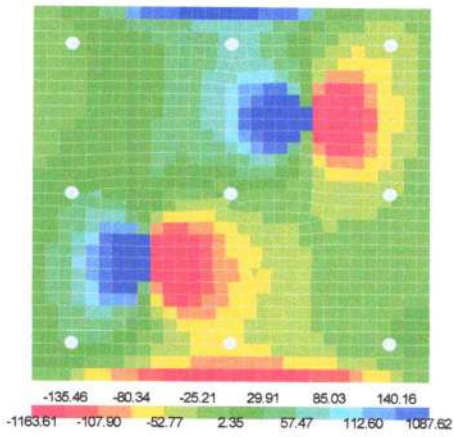


Moment Diagram (Myy)

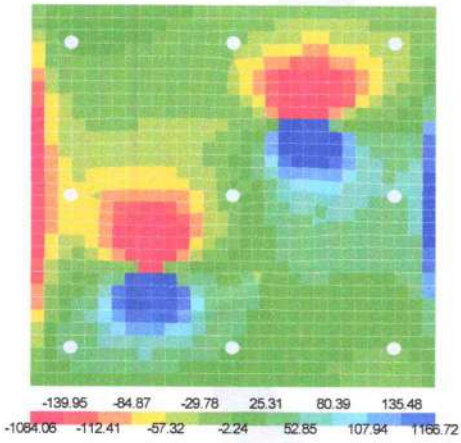


Shear Force Diagram
Shear Force Diagram (Vxx)

P.D
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PROYECTOS Y DISEÑOS



Shear Force Diagram (Vyy)



Design Moment (Use Average)
M_{ux} = -18.63kN·m/m
M_{uy} = -18.62kN·m/m
M_u = max(M_{ux} , M_{uy}) = -18.63kN·m/m
Calculate moment strength
Φ = 0.900
$Z_{bp} = (t_{bp})^2 / 4 = 95.06\ mm^3/mm$
$M_n = F_y \times Z_{bp}$ = 23.60kN·m/m
ϕM_n = 21.24kN·m/m
Calculate ratio
$M_u / \phi M_n = 0.877 < 1.000 \rightarrow$ O.K

Check anchor bolt (Cast-In-Place)
Design Force
Number of Anchor Bolt = 9EA
$T_{u.max}$ = 0.000kN
V_u = 0.000kN

CALLE 15 # 29 – 18 Piso 2 Tel.: (8)7604662
CEL.: 310-3043066 - 320-4163185 - 310-5633286
E-mail: gerencia@cpdingenieria.com - disenos@cpdingenieria.com
Duitama - Boyacá

$V_{ul} = 0.000kN$
Check Shear Strength
$\Phi = 0.750$
$A_b = 285mm^2$
$F_{nv} = 165MPa$
$R_{nv} = F_{nv} \times A_b = 47.16kN$
$\phi R_{nv} = 35.37kN$
$V_{ul} / \phi R_{nv} = 0.000 < 1.000 \rightarrow O.K$

Check Development Length of Anchor Bolt
Tension Force is not Exist.

8. AREA DE RESTAURANTE

8.1. ASIGNACIÓN DE MATERIALES Y ELEMENTOS TIPO FRAME.

Se debe ingresar cada uno de los materiales sus características mecánicas y configuración en el modelo de elementos finitos, para este fin se da uso a la herramienta de modelado Sap 2000. En cual debemos mediante la parrilla de herramientas asignar de la siguiente manera:

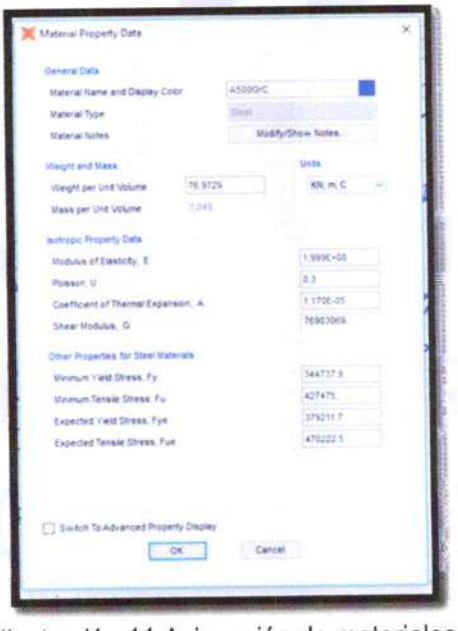


Ilustración 11 Asignación de materiales.

De igual forma se debe asignar cada uno de los elementos tipo frame, para este caso se asignarán los siguientes elementos en el apartado de Define, Seccion propieties, Frame sections.

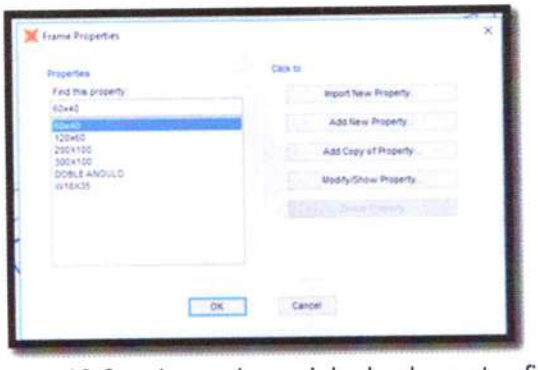


Ilustración 12 Secciones de modelo de elementos finitos.

Por otra parte, en la creación de cada una de estas secciones se definirá el tipo de material al cual corresponde cada sección y desde luego su configuración.

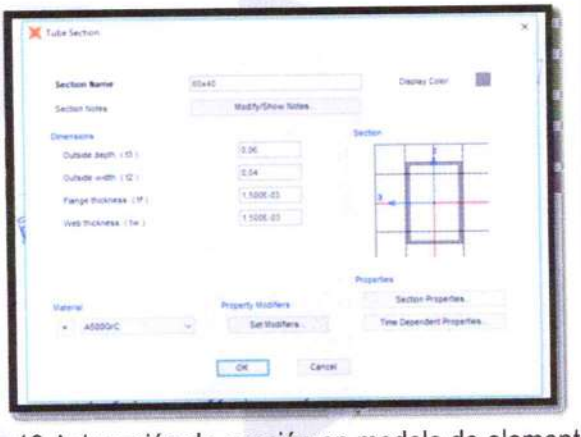


Ilustración 13 Asignación de sección en modelo de elementos finitos.

8.2. ASIGNACIÓN DE COMBINACIONES.

Luego asignar cada una de las secciones y materiales correspondientes a cada sección se debe definir las combinaciones y el tipo de cargas que se van a asignar a cada elemento, para este fin se crean cada una de las cargas existentes, esto se presenta de la siguiente manera.

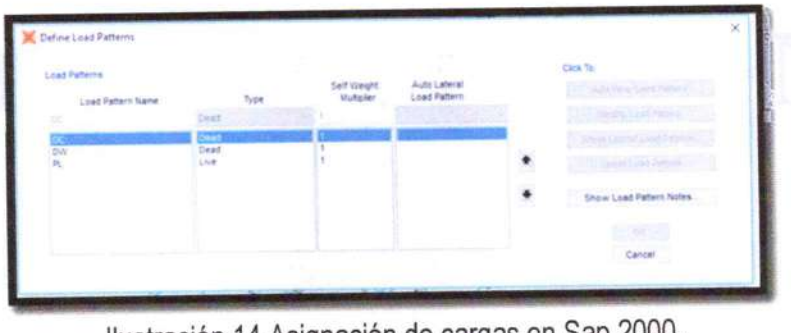


Ilustración 14 Asignación de cargas en Sap 2000.

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E-mail: gerencia@cpdingenieria.com - disenos@cpdingenieria.com
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El siguiente paso es la asignación de cada uno de las combinaciones requeridas esto se hace en el apartado difene, load combinations. Y se obtiene el siguiente listado de combinaciones.

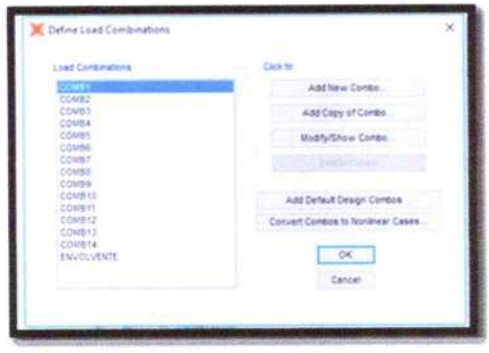


Ilustración 15 Combinaciones asignadas a modelo.

Dentro de estas combinaciones se tiene una combinación envolvente la cual se caracteriza por compilar los momentos máximos y mínimos de cada una de las variables y estimar el máximo del máximo y el mínimo de los mínimos, esta está compuesta de la siguiente manera.

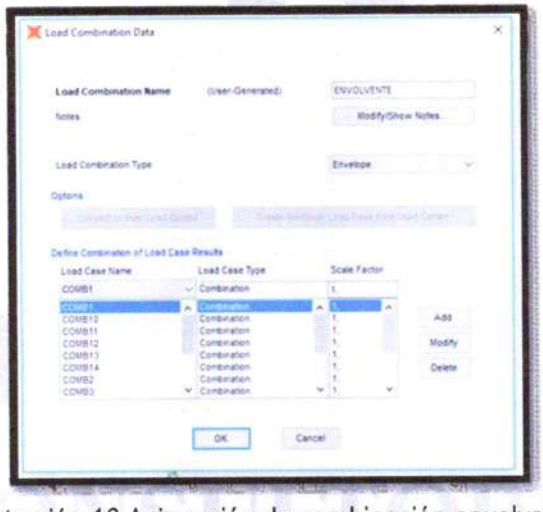


Ilustración 16 Asignación de combinación envolvente.

8.3. COMBINACIONES ASIGNADAS.

ID	Carga muerta	Carga viva	Sismo en X	Sismo en Y	NSR 10
F1	1,40	0,00	0,00	0,00	B.2.4-1
F2	1,20	1,60	0,00	0,00	B.2.4-2
F3	1,20	1,00	0,00	0,00	B.2.4-3
F4	1,20	1,00	0,37	0,11	B.2.4-5
F5	1,20	1,00	-0,37	0,11	B.2.4-5
F6	1,20	1,00	0,37	-0,11	B.2.4-5
F7	1,20	1,00	-0,37	-0,11	B.2.4-5

ID	Carga muerta	Carga viva	Sismo en X	Sismo en Y	NSR 10
F8	1,20	1,00	0,11	0,37	B.2.4-5
F9	1,20	1,00	-0,11	0,37	B.2.4-5
F10	1,20	1,00	0,11	-0,37	B.2.4-5
F11	1,20	1,00	-0,11	-0,37	B.2.4-5
F12	0,90	0,00	0,37	0,11	B.2.4-5
F13	0,90	0,00	-0,37	0,11	B.2.4-5
F14	0,90	0,00	0,37	-0,11	B.2.4-5
F15	0,90	0,00	-0,37	-0,11	B.2.4-5
F16	0,90	0,00	0,11	0,37	B.2.4-5
F17	0,90	0,00	-0,11	0,37	B.2.4-5
F18	0,90	0,00	0,11	-0,37	B.2.4-5
F19	0,90	0,00	-0,11	-0,37	B.2.4-5

8.4. Combinaciones de Diseño a Cortante

Para el diseño a cortante de los elementos se tienen las siguientes combinaciones:

8.4.1. Diseño a cortante para Vigas

De acuerdo al apartado de la NSR-10 B.2.4, para el diseño de vigas se debe tomar el doble del valor del sismo en cualquier dirección que el usado en los combos de flexión.

ID	Carga muerta	Carga viva	Sismo en X	Sismo en Y	NSR 10
CV1	1,40	0,00	0,00	0,00	B.2.4-1
CV2	1,20	1,60	0,00	0,00	B.2.4-2
CV3	1,20	1,00	0,00	0,00	B.2.4-3
CV4	1,20	1,00	0,74	0,22	B.2.4-5
CV5	1,20	1,00	-0,74	0,22	B.2.4-5
CV6	1,20	1,00	0,74	-0,22	B.2.4-5
CV7	1,20	1,00	-0,74	-0,22	B.2.4-5
CV8	1,20	1,00	0,22	0,74	B.2.4-5
CV9	1,20	1,00	-0,22	0,74	B.2.4-

ID	Carga muerta	Carga viva	Sismo en X	Sismo en Y	NSR 10
					5
CV10	1,20	1,00	0,22	-0,74	B.2.4-5
CV11	1,20	1,00	-0,22	-0,74	B.2.4-5
CV12	0,90	0,00	0,74	0,22	B.2.4-5
CV13	0,90	0,00	-0,74	0,22	B.2.4-5
CV14	0,90	0,00	0,74	-0,22	B.2.4-5
CV15	0,90	0,00	-0,74	-0,22	B.2.4-5
CV16	0,90	0,00	0,22	0,74	B.2.4-5
CV17	0,90	0,00	-0,22	0,74	B.2.4-5
CV18	0,90	0,00	0,22	-0,74	B.2.4-5
CV19	0,90	0,00	-0,22	-0,74	B.2.4-5

8.4.2. Diseño a cortante para Columnas

Para el diseño a cortante de columnas, se tiene en cuenta el factor de sobre resistencia Ω_o, el cual se multiplica por el valor del sismo que se tienen en cuenta para los combos de diseño a flexión.

ID	Carga muerta	Carga viva	Sismo en X	Sismo en Y	NSR 10
CC1	1,40	0,00	0,00	0,00	B.2.4-1
CC2	1,20	1,60	0,00	0,00	B.2.4-2
CC3	1,20	1,00	0,00	0,00	B.2.4-3
CC4	1,20	1,00	1,11	0,33	B.2.4-5
CC5	1,20	1,00	-1,11	0,33	B.2.4-5
CC6	1,20	1,00	1,11	-0,33	B.2.4-5
CC7	1,20	1,00	-1,11	-0,33	B.2.4-

ID	Carga muerta	Carga viva	Sismo en X	Sismo en Y	NSR 10
					5
CC8	1,20	1,00	0,33	1,11	B.2.4-5
CC9	1,20	1,00	-0,33	1,11	B.2.4-5
CC10	1,20	1,00	0,33	-1,11	B.2.4-5
CC11	1,20	1,00	-0,33	-1,11	B.2.4-5
CC12	0,90	0,00	1,11	0,33	B.2.4-5
CC13	0,90	0,00	-1,11	0,33	B.2.4-5
CC14	0,90	0,00	1,11	-0,33	B.2.4-5
CC15	0,90	0,00	-1,11	-0,33	B.2.4-5
CC16	0,90	0,00	0,33	1,11	B.2.4-5
CC17	0,90	0,00	-0,33	1,11	B.2.4-5
CC18	0,90	0,00	0,33	-1,11	B.2.4-5
CC19	0,90	0,00	-0,33	-1,11	B.2.4-5

Tabla 7 Combinaciones de diseño a cortante para columnas P1 y P2

CONSULTORIA
PROYECTOS Y DISEÑOS

8.5. DISEÑO DE SUPERESTRUCTURA.

Diseño de vigas.

DISEÑO DE VIGAS

Método de Estados límites

NIVEL: PISO 2

f_y (MPa) = 420,00 | $\Phi_{flexión}$ = 0,90

f'_c (MPa) = 21,00 | $\Phi_{cortante}$ = 0,75

E_c (MPa) = 22.454,62 | λ = 1,00

E_s (MPa) = 200.000,00

$\rho_{minima\ 1}$ = 0,00273

$\rho_{minima\ 2}$ = 0,00333

$\rho_{balanceada}$ = 0,02125

75% $\rho_{balanceada}$ = 0,01594

Tipo de Concreto	Concreto normal

$$\rho = \left(1 - \sqrt{1 - \frac{2{,}36\,M_u}{\phi f'_c b d^2}}\right)\frac{f'_c}{1{,}18 f_y} \qquad \rho_{balanceada} = 0{,}85^2\left(\frac{f'_c}{f_y}\right)\left(\frac{0{,}0038\,\varepsilon_y}{0{,}0038\,\varepsilon_y + f_y}\right)$$

COLUMNAS

ID PLANOS	ID 1 SAP 2000	ID 2 SAP 2000	Ancho cm	Altura cm	Recubrimiento cm	Altura efectiva (d) cm	Longitud m	DISEÑO A FLEXION MOMENTO POSITIVO Y NEGATIVO: M+ kN-m	ρ+	CHEQUEO ρ+ vs 75% ρbalanceada	REFUERZO A?	$A_{requerido}$ cm²	No. Barra 1	# Barra 1	No. Barra 2	# Barra 2	$A_{suministrado}$ cm²	CHEQUEO $A_{requerido}$ vs $A_{suministrado}$	S cm	S_{minima} cm	CHEQUEO S_{minima} vs S
V2-d	10	11	250	250	40	210	3,92 m	15,40	0,00387	OK	SOLO A TRACCIÓN	203	No. 4	3	NO	0	387	OK	5,65	3,00	OK
V2-d	11	12	250	250	40	210	3,92 m	15,40	0,00387	OK	SOLO A TRACCIÓN	203	No. 4	3	NO	0	387	OK	5,65	3,00	OK
V2-b	16	17	250	250	40	210	3,92 m	15,40	0,00387	OK	SOLO A TRACCIÓN	203	No. 4	3	NO	0	387	OK	5,65	3,00	OK
V2-b	17	18	250	250	40	210	3,92 m	15,40	0,00387	OK	SOLO A TRACCIÓN	203	No. 4	3	NO	0	387	OK	5,65	3,00	OK
V2-1	16	13	250	250	40	210	3,92 m	7,30	0,00179	OK	SOLO A TRACCIÓN	175	No. 4	2	NO	0	258	OK	12,56	3,00	OK
V2-1	13	10	250	250	40	210	3,92 m	7,27	0,00178	OK	SOLO A TRACCIÓN	175	No. 4	2	NO	0	258	OK	12,56	3,00	OK
V2-4	17	14	250	250	40	210	3,85 m	11,14	0,00276	OK	SOLO A TRACCIÓN	175	No. 4	2	NO	0	258	OK	12,56	3,00	OK
V2-4	14	11	250	250	40	210	3,85 m	11,14	0,00276	OK	SOLO A TRACCIÓN	175	No. 4	2	NO	0	258	OK	12,56	3,00	OK
V2-7	18	15	250	250	40	210	3,85 m	7,27	0,00178	OK	SOLO A TRACCIÓN	175	No. 4	2	NO	0	258	OK	12,56	3,00	OK
V2-7	15	12	250	250	40	210	3,85 m	7,27	0,00178	OK	SOLO A TRACCIÓN	175	No. 4	2	NO	0	258	OK	12,56	3,00	OK

$$\phi V_c = \phi 0{,}17\lambda\sqrt{f'_c}\,bd \qquad S_{estribos} = \frac{A_v\, d\, f_y}{\phi V_s}$$

DISEÑO A CORTANTE

ID PLANOS	ID 1 SAP 2000	ID 2 SAP 2000	V kN	ϕV_c kN	0.50 ϕV_c kN	CHEQUEO $V_u \leq 0{,}50\,\phi V_c$	ϕV_s kN	$\frac{\sqrt{f'_c}\,bd}{3}$	$\frac{2\sqrt{f'_c}\,bd}{3}$	CHEQUEO $\phi V_s \leq 2/3\sqrt{f'_c}\,bd$	No. Estribo	# Ramas	A_v cm²	$S_{calculo}$ cm	S_{maximo} cm	$S_{utilizar}$ cm	$S_{confinamiento}$ cm	$L_{confinamiento}$ cm
V2-d	10	11	10,72	30,67	15,34	REFUERZO MINIMO	0,00	80,20	160,39	OK	No. 3	2	141	50,00	10,50	10,50	5,25	50
V2-d	11	12	10,27	30,67	15,34	REFUERZO MINIMO	0,00	80,20	160,39	OK	No. 3	2	141	50,00	10,50	10,50	5,25	50
V2-b	16	17	10,27	30,67	15,34	REFUERZO MINIMO	0,00	80,20	160,39	OK	No. 3	2	141	50,00	10,50	10,50	5,25	50
V2-b	17	18	10,27	30,67	15,34	REFUERZO MINIMO	0,00	80,20	160,39	OK	No. 3	2	141	50,00	10,50	10,50	5,25	50
V2-1	16	13	9,55	30,67	15,34	REFUERZO MINIMO	0,00	80,20	160,39	OK	No. 3	2	141	50,00	10,50	10,50	5,25	50
V2-1	13	10	9,55	30,67	15,34	REFUERZO MINIMO	0,00	80,20	160,39	OK	No. 3	2	141	50,00	10,50	10,50	5,25	50
V2-4	17	14	13,31	30,67	15,34	REFUERZO MINIMO	0,00	80,20	160,39	OK	No. 3	2	141	50,00	10,50	10,50	5,25	50
V2-4	14	11	13,31	30,67	15,34	REFUERZO MINIMO	0,00	80,20	160,39	OK	No. 3	2	141	50,00	10,50	10,50	5,25	50
V2-7	18	15	9,55	30,67	15,34	REFUERZO MINIMO	0,00	80,20	160,39	OK	No. 3	2	141	50,00	10,50	10,50	5,25	50
V2-7	15	12	9,55	30,67	15,34	REFUERZO MINIMO	0,00	80,20	160,39	OK	No. 3	2	141	50,00	10,50	10,50	5,25	50

CONSULTORIA PROYECTOS

DISEÑO DE CUBIERTA

CARGAS MUERTAS DL:

Dado las características de esta tipología de estructuras las cargas se estima un valor de 0,5KN/m2 esta carga la cual se estima según criterio del diseñador.

8.6. ASIGNACIÓN EN SAP2000.

Luego de la asignación de elementos tipo frame, sus materiales y combinaciones se procede a asignar cada una de las cargas requeridas o que impactan a cada elemento en este caso la carga DL.

CARGAS MUERTAS LL:

Dado las características de esta tipología de estructuras las cargas se estima un valor de 0,4Kn/m2 esta carga la cual se estima.

8.7. ASIGNACIÓN EN SAP2000.

Luego de la asignación de elementos tipo frame, sus materiales y combinaciones se procede a asignar cada una de las cargas requeridas o que impactan a cada elemento en este caso la carga LL.

CARGA VIVA DE LA CUBIERTA ALIGERADA

Cubiertas inclinadas con pendientes mayores de 15 grados en estructuras metálicas	Tabla B.4.2.1-2	0,35	KN/m^2

CARGAS VIVA WL

Dado las características de esta tipología de estructuras las cargas se estima un valor de 3,6 Kn/m2 esta carga la cual se estima de la siguiente manera:

Carga Viva		
Elemento	Unidad	Cantidad Kn/M2
Carga de Viento	M2	0,4

Tabla 8 Carga PL.

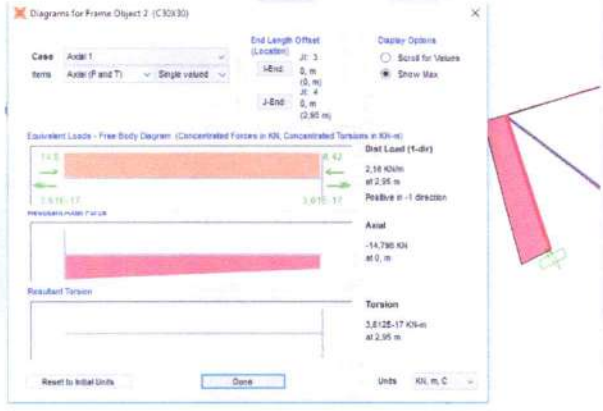
8.8. ASIGNACIÓN EN SAP2000.

Luego de la asignación de elementos tipo frame, sus materiales y combinaciones se procede a asignar cada una de las cargas requeridas o que impactan a cada elemento en este caso la carga PL.

8.9. RESULTADOS.

Al realizar el anterior proceso de cargue, asignación y análisis de los efectos tanto cortante, momentos, y demás esfuerzos presentes en la estructura, y aclarando que los tableros o súper estructura no son sometidos a análisis con efectos sísmico dado su aislamiento de base. Por otra parte, se hace el análisis gracias a la ACI 360 la cual se aplica en los parámetros de diseño del modelo de elementos finitos, adicional a esto se debe condicionar el funcionamiento de la estructura a un máximo del 75% de Fy, por tanto, se muestra el

8.10. DISEÑO DE CIMENTACIÓN

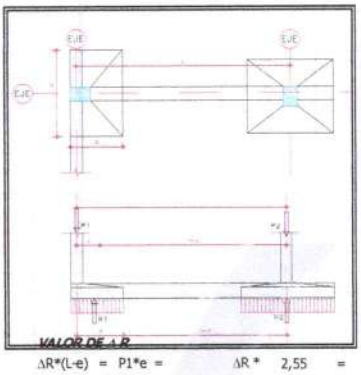


CONSULTORIA
PROYECTOS Y DISEÑOS

DISEÑO DE ZAPATA EXCENTRICA

Columna b_c = 30 cm; t = 30 cm; **f'c** = 21 MPa; **fy** = 420 MPa; **σ** = 0,069 MPa

PREDIMENSIONAMIENTO



c =	0,70	m	
b =	1,20	m	
l-e =	2,55	m	
d =	1,05	m	
e =	0,45	m	
L =	3,000	m	

Cargas

PS =	15,00	kN
Pp (10%) =	1,50	kN
Σ P_1 =	16,50	kN

Area necesaria = $\frac{\Sigma P1}{\sigma} = \frac{16,50}{0,07} =$ 0,24 m²

c » 2b 0,24 = c x b b = 0.50xc

c =	0,692	m	***Asumimos***	**c**=	0,70 m
b =	0,35	m		**b**=	1,20 m

VALOR DE ΔR

ΔR*(L-e) = P1*e = ΔR * 2,55 = 7,43 kN-m **ΔR** = 2,91 kN

c = (P1 + ΔR)/(σ*b) = 0,23 m Entonces **c**= 0,70 m

σ_{neto} = (Pu+ΔR)/(b*c) = 0,021 MPa ***OK*** σ_{neto}= 0,021 Mpa

DISEÑO DE VIGA DE CONTRAPESO :

Flexión Donde el cortante es cero (0), el momento es máximo

Md = ΔR(l-d) = 5,678 kN-m **h** = 0,30 m

Mu = 1.5 * Md = 8,52 kN-m **bv** = 0,30 m

d = 0,23 m

Cuantia = 0,00333

As = 2,30 cm²

Armadura=

Cortante

Carga long. Bajo la zapata exterior = 14,93 kN/m

Ai = 2,24 kN

Ad= 12,76 kN

V(d) = -2,91 kN

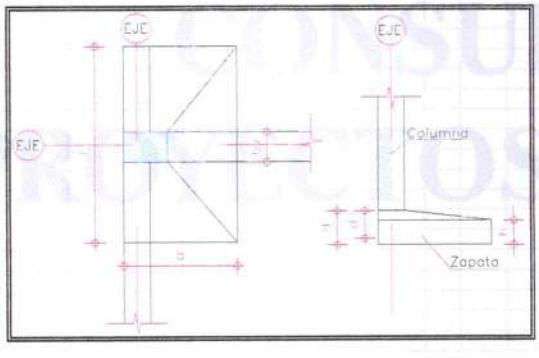
V borde de columna = 10,52 kN

VMax Resist 197,62 kN

DISEÑO DE ZAPATA EXCENTRICA

0

Flexión Se considera como voladizos en el sentido más largo, soportados en la viga de contrapeso:



σ =	0,021	MPa
M=(σ*b*(c-bv)/2*(c-bv)/2)/2=	0,51	kN-m
Mu = 1,7*M =	0,87	kN-m
H =	0,30	m
d =	0,25	m
b =	1,20	m
L=	0,70	m
h=	0,30	m
Cuantia1 =	0,0020	Principal
Cuantia2 =	0,0020	Transversal
As1 =	3,50	cm²
As2 =	6,00	cm²
A var=	1,99	m
s=	0,20	
No. var=	4	
Armadura $_{(x)}$:	4#515c./0,2	*Principal*
A var=	1,29	m
s=	0,20	
No. var=	7	
Armadura $_{(y)}$:	7#510c./0,2	*Transversales*

Chequeo por cortante

$vu = \frac{Vu}{b*d}$ Vu borde viga = σneto*b*(c-bv)/2 = 5,12 kN

Vu = 1.5* V borde = 7,16 kN vu = 0,024 MPa

ϕvc= 0,573 MPa **OK**

CALLE 15 # 29 – 18 Piso 2 Tel.: (8)7604662
CEL.: 310-3043066 - 320-4163185 - 310-5633286
E-mail: gerencia@cpdingenieria.com - disenos@cpdingenieria.com
Duitama - Boyacá

CARTA DE CESIÓN DE DERECHOS

Yo **YAMID EDUARDO SILVA CASTELLANOS** identificado con CC No 1.118.536.580, en mi condición de Ingeniero Civil – Especialista en Estructuras, portador de la Tarjeta Profesional No. **25202233562CND**, certifico que realicé la actualización del DISEÑO ESTRUCTURAL del Contrato de Consultoría No. 123 de 2015 la cual tuvo como objeto **"REALIZACIÓN DE ESTUDIOS Y DISEÑOS A DETALLE PARA LA ADECUACIÓN DE LA INFRAESTRUCTURA FÍSICA DE LOS COLEGIOS SANTA TERESITA DEL MUNICIPIO DE ARAUCA Y SAN LUIS DEL MUNICIPIO DE TAME EN EL DEPARTAMENTO DE ARAUCA".**
Por lo anterior, es importante mencionar que el proyecto actualmente tiene como objeto: **"MEJORAMIENTO Y ADECUACIÓN DE LA INFRAESTRUCTURA FÍSICA DE LA INSTITUCIÓN EDUCATIVA SAN LUIS, SEDE SAN LUIS DEL MUNICIPIO DE TAME, DEPARTAMENTO DE ARAUCA".**

Por lo anterior, manifiesto ceder plenamente los derechos a la Gobernación de Arauca.

La duración de los derechos cedidos será por término indefinido a partir de la fecha de la firma de la presente carta de cesión de derechos.

Para los fines pertinentes, anexo copia de mi Tarjeta o Matrícula Profesional, certificado de vigencia de la misma y copia de la cédula de ciudadanía.

Se expide a solicitud del interesado, a los Once (11) días del mes de Abril de 2025.

YAMID EDUARDO SILVA CASTELLANOS
T.P. 25202233562CND
Ingeniero Civil – Especialista en Estructuras

MEMORIAL DE RESPONSABILIDAD

Yo **YAMID EDUARDO SILVA CASTELLANOS** identificado con CC No 1.118.536.580, en mi condición de Ingeniero Civil – Especialista en Estructuras, portador de la Tarjeta Profesional No. **25202233562CND**, por medio del presente cedo plenamente los derechos a la entidad de la Gobernación de Arauca, el certifico que actualicé el DISEÑO ESTRUCTURAL para el proyecto cuyo objeto es: **"MEJORAMIENTO Y ADECUACIÓN DE LA INFRAESTRUCTURA FÍSICA DE LA INSTITUCIÓN EDUCATIVA SAN LUIS, SEDE SAN LUIS DEL MUNICIPIO DE TAME, DEPARTAMENTO DE ARAUCA"**, basados en la información inicial obtenida del Contrato de Consultoría No. 123 de 2015 la cual tuvo como objeto: " REALIZACIÓN DE ESTUDIOS Y DISEÑOS A DETALLE PARA LA ADECUACIÓN DE LA INFRAESTRUCTURA FÍSICA DE LOS COLEGIOS SANTA TERESITA DEL MUNICIPIO DE ARAUCA Y SAN LUIS DEL MUNICIPIO DE TAME EN EL DEPARTAMENTO DE ARAUCA".

Por lo anterior, manifiesto que asumo toda responsabilidad referente a los perjuicios que puedan deducirse a causa de este estudio y exonero al Departamento de Arauca ante terceros de cualquier responsabilidad civil, penal o administrativa por cualquier falta u omision del presente estudio.

Acepto y reconozco que la revisión efectuada por la secretaria de Infraestructura Física Departamental no constituye una aprobacion del estudio, sino una verificación.

Para los fines pertinentes, anexo copia de mi Tarjeta o Matrícula Profesional, certificado de vigencia de la misma y copia de la cédula de ciudadanía.

Se expide a solicitud del interesado, a los Once (11) días del mes de Abril de 2025.

YAMID EDUARDO SILVA CASTELLANOS
T.P. 25202233562CND
Ingeniero Civil – Especialista en Estructuras

REPUBLICA DE COLOMBIA

CONSEJO PROFESIONAL NACIONAL DE INGENIERIA

COPNIA



MATRICULA PROFESIONAL No.

25202233562CND
INGENIERO CIVIL

DE FECHA **16/08/2012**
YAMID EDUARDO
SILVA CASTELLANOS
C.C. 1118536580
CORPORACION UNIVERSIDAD
PILOTO DE COLOMBIA

PRESIDENTE DEL CONSEJO

LA CORPORACIÓN

UNIVERSIDAD PILOTO DE COLOMBIA

PERSONERÍA JURÍDICA RESOLUCIÓN No. 00661 DEL 07 DE NOVIEMBRE DE 1962 MINISTERIO DE JUSTICIA

CONFIERE EL TÍTULO DE

Ingeniero Civil

A

Yamid Eduardo Silva Castellanos

CÉDULA DE C. No. 1.118.536.580 EXPEDIDA EN Yopal

QUIEN CUMPLIÓ SATISFACTORIAMENTE LOS REQUISITOS ACADÉMICOS EXIGIDOS POR LA UNIVERSIDAD, EN TESTIMONIO DE ELLO OTORGA EL PRESENTE DIPLOMA

EN LA CIUDAD DE Bogotá EL DÍA 27 DEL MES DE Abril DEL AÑO 2012

PRESIDENTE DE LA CORPORACIÓN

RECTOR DE LA UNIVERSIDAD

DECANO DEL PROGRAMA

SECRETARIO GENERAL DE LA CORPORACIÓN

UNIVERSIDAD PILOTO DE COLOMBIA
ACTA DE GRADO No. C-559
LIBRO DE REGISTRO No. 17
FOLIO No. 14.800
FECHA 27.04.12

26522

República de Colombia
Ministerio de Educación Nacional

La Universidad Pedagógica y Tecnológica de Colombia

Creada mediante Decreto 2655 de 1953 y Ley 73 de 1962

Teniendo en cuenta que:

Yamid Eduardo Silva Castellanos

C. C. Nº 1.118.536.580 de Yopal

Cumplió satisfactoriamente con los requisitos académicos exigidos, le confiere el título de

Especialista en Estructuras

En testimonio de ello, otorga el presente DIPLOMA

en Tunja, a los 17 días del mes de diciembre de 2015

Admisiones y Control
de Registro Académico
Diploma No. 094701
Libro de Registro No. 31
Folio No. 542
Fecha 17-12-2015

Rector

Secretario General

Decano

Coordinador

REPÚBLICA DE COLOMBIA
COPNIA
Consejo Profesional Nacional de Ingeniería

Certificado de vigencia y antecedentes disciplinarios
CVAD-2025-3514023

CONSEJO PROFESIONAL NACIONAL DE INGENIERÍA
COPNIA

EL DIRECTOR GENERAL

CERTIFICA:

1. Que YAMID EDUARDO SILVA CASTELLANOS, identificado(a) con CEDULA DE CIUDADANIA 1118536580, se encuentra inscrito(a) en el Registro Profesional Nacional que lleva esta entidad, en la profesión de INGENIERIA CIVIL con MATRICULA PROFESIONAL 25202-233562 desde el 16 de Agosto de 2012, otorgado(a) mediante Resolución Nacional 1405.

2. Que el(la) MATRICULA PROFESIONAL es la autorización que expide el Estado para que el titular ejerza su profesión en todo el territorio de la República de Colombia, de conformidad con lo dispuesto en la Ley 842 de 2003.

3. Que el(la) referido(a) MATRICULA PROFESIONAL se encuentra **VIGENTE**

4. Que el profesional no tiene antecedentes disciplinarios ético-profesionales.

5. Que la presente certificación se expide en Bogotá, D.C., a los once (11) días del mes de Abril del año dos mil veinticinco (2025).

Rubén Dario Ochoa Arbeláez

Firma del titular (*)

(*)Con el fin de verificar que el titular autoriza su participación en procesos estatales de selección de contratistas. La falta de firma del titular no invalida el Certificado

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