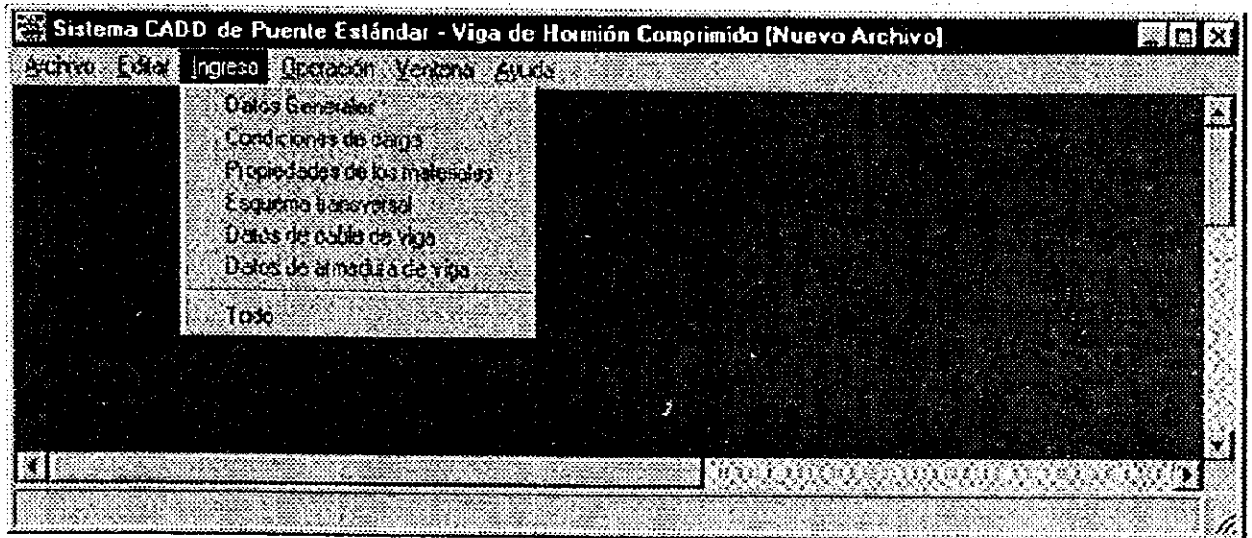


2) Program-B : Prestressed-Concrete Beam

Viga de Hormigón Comprimido

Input section of Prestressed-Concrete Beam consists of the following 6 sheets.



Datos Generales : General data

Condiciones de carga : Load Conditions

Propiedades de los materiales : Material data

Esquema transversal : Transversal Section

Datos de cable de viga : Cable Arrangement

Datos de armadura de viga : Reinforcement bar

Datos Generales

Sistema CADD de Puente Estándar - Viga de Hormión Comprimido [Nuevo Archivo]

Archivo Editar Ingreso Operación Ventana Ayuda

Datos Generales

Fecha : Número de Puente :

Nombre del Puente :

De la Ruta, Camino : Del Ruta :

En el Cauce :

Región : Provincia :

Longitud del Puente : L = m Luz (Longitud de cálculo) : Lc = m

Número de Pistas : 1 2

Parillos : m Calzada : m

200 800 200 1.200 m

1.0% 1.5% 2.0%

0.250 m 50 100 50

Pendiente : 1.5 %

UNIDAD : mm.

1. Date : Input or System Date for automation setting (within 20 characters)
2. Number of Bridge : Input (within 10 characters)
3. Bridge Name : Input (within 50 characters)
4. Road Name : Input (within 40 characters)
5. Distance : Input (within 10 characters)
6. River Name : Input (within 40 characters)
7. Region : The selecting for Number and Name of Region.
8. Name of Province : Input (within 20 characters)
9. Bridge Length : Input (within 1000.00 m)
10. Span Length : Input (from 10.000 to 40.000 m)
11. Numbers of Lane : Select 1 or 2 Lanes.
When the numbers of Lane is changed, Road Width is shown automatically.
12. Side-walk Width : Input (from 0.400, to 2.000 m)
13. Lane Width : Input (1 Lane : from 3.000 to 6.000 m, 2 Lanes : from 6.000 to 10.000 m)
14. Cross-fall of Side-walk : Fixed value (1%)
15. Cross-fall of Lane : Select (1.5% or 2.0%)
16. Minimum thickness of Pavement : Input (from 0 to 999 mm)
When the minimum thickness is input, the maximum thickness at Road Center is shown.
17. Curb Width : Input (from 1 to 999 mm)
18. Curb Height : Input (from 0.004 to 0.999 m)

Where the value shown in the screen is default value.

Condiciones de carga

Sistema CADD de Puenne Estándar - Viga de Hormión Comprimido [Nuevo Archivo]

Archivo | Editar | Ingreso | Operación | Ventana | Ayuda

Condiciones de carga

Baranda : $WB = 0.050 \text{ t/m}$, $WL = 0.020 \text{ t/m}$, $h = 1.100 \text{ m}$

Cargas de Pavimento : 2.30 t/m^3

Hormigón : 2.30 t/m^3 (masa), 2.50 t/m^3 (armado y pretensado)

Acero : 7.85 t/m^3

Peatonos : $W_p = 0.415 \text{ t/m}^2$ (Losa), 0.293 t/m^2 (Viga)

Cargas de Tránsito : HS20-44

Cargas de Viento : $W_w = 0.244 \text{ t/m}^2$

Coefficientes sísmicos : $K_h = 0.15$, $K_v = 0.00$

Previo | Siguiente | Salida

1. Railing Load : Input (from 0.000 to 9.999 t/m)
2. Railing Pushing Force : Input (from 0.000 to 9.999 t/m)
3. Railing Height : Input (from 0.000 to 9.999 m)
4. Unit weight of Pavement: Input (from 0.00 to 9.99 t/m³)
5. Unit weight of plain concrete: Input (from 0.00 to 9.99 t/m³)
6. Unit weight of reinforced concrete : Input (from 0.00 to 9.99 t/m³)
7. Sidewalk Loading of Slab : Fixed (0.415 t/m²)
Sidewalk Loading of Beam (automation by AASHTO 3.14.1.1)
8. Wind Load : Input (from 0.000 to 9.999 t/m²)
9. Horizontal Seismic Coefficient of design : Input (from 0.00 to 1.00)
10. Vertical Seismic Coefficient of design : Input (from 0.00 to 1.00)

Where the value shown in the screen is default value.

Propiedades de los materiales

Sistema CADD de Puen'e Estándar - Viga de Hormión Comprimido [Nuevo Archivo]

Archivo Editar Ingreso Operación Ventana Ayuda

Propiedades de los Materiales

Hormigón

Losa y Travesaño grado : $f_cL = 250 \text{ kg/cm}^2$ $f_{cI} = 0.4 \times f_cL = 100 \text{ kg/cm}^2$

$E_{rc} = W_c$ 1.5 1/2 33(fcr) - 57000(fcr) psi - 15400(fcr) kg/cm^2 $2.50 \times 10^5 \text{ kg/cm}^2$

$W_c = 145 \text{ pcf} = 2.32 \text{ kg/m}^3$ (AASHTO 8.7.1)

Viga grado : $f_cV = 350 \text{ kg/cm}^2$ $E_{pc} = 3.01 \times 10^5 \text{ kg/cm}^2$

$f_{cI} = 0.8 \times f_cV = 280 \text{ kg/cm}^2$ $E_{pI} = 2.69 \times 10^5 \text{ kg/cm}^2$

Acero en Losa y Viga : $f_y = 4200 \text{ kg/cm}^2$ $f_{sa} = 1690 \text{ kg/cm}^2$

Acero Travesaño y barras antisísmicas : $f_y = 2800 \text{ kg/cm}^2$ $f_{sa} = 1400 \text{ kg/cm}^2$

Acero (cable): Cable $A_s = 6.910 \text{ cm}^2$

Tensión de ruptura : $f_{pu} = 18980 \text{ kg/cm}^2$ $E_s = 1.97 \times 10^6 \text{ kg/cm}^2$

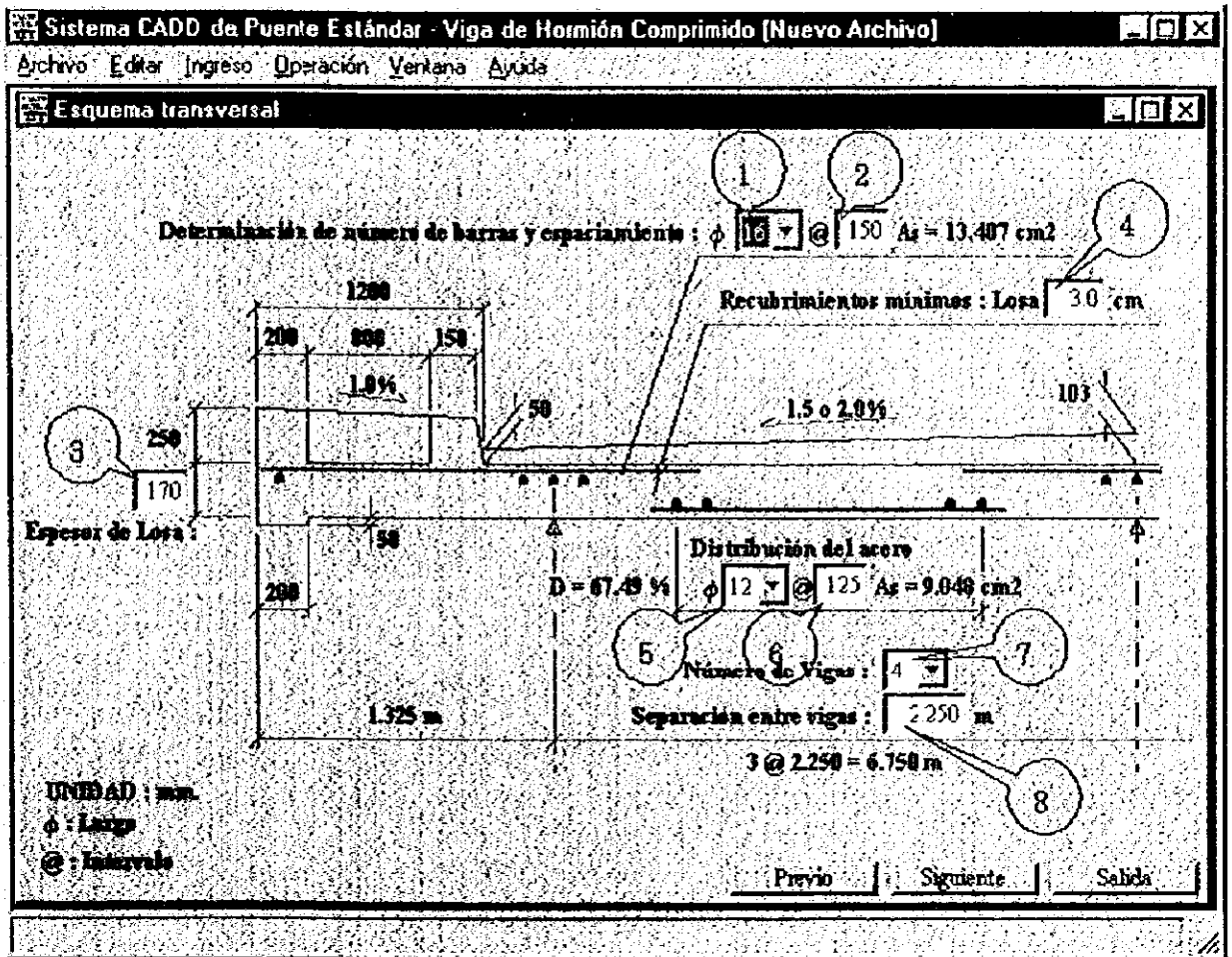
Tensión de fluencia : $f_{py} = 16100 \text{ kg/cm}^2$

Previo | Siguiente | Salir

1. Concrete for Slab and Crossbeam : Select (H-5, H-10, H-15, H-20, H-25, H-30, H-35, H-40)
2. Concrete Strength at 28 days : Input (from 1 to 999 kg/cm^2)
3. Allowable Stress of Concrete : Auto. ($0.4 \times$ Concrete Design Strength kg/cm^2)
4. Young's Modulus of Concrete : Input (from 0.01 to $9.99 \times 10^5 \text{ kg/cm}^2$)
5. Pre-stressed Concrete : Select (H-10, H-15, H-20, H-25, H-30, H-35, H-40)
6. Concrete Strength of Main Beam : Input (from 1 to 999 kg/cm^2)
7. Young's Modulus at Service Load : Input (from 0.01 to $9.99 \times 10^5 \text{ kg/cm}^2$)
8. Allowable Stress of Main Beam : Input (from 1 to 999 kg/cm^2)
9. Young' Modulus at Initial Load : Input (from 0.01 to $9.99 \times 10^5 \text{ kg/cm}^2$)
10. Reinforcement bar for Slab and Main Beam : Select (A44-28H, A63-42H)
11. Yield Strength of Reinforcement bar for Slab and Main Beam : Input
12. Allowable Stress of Reinforcement bar : Input (from 1 to 9999 kg/cm^2)
13. Crossbeam Reinforcement bar and Anti-seismic-bar : Select (A44-28H, A63-42H)
14. Yield Strength of Reinforcement bar and Anti-seismic-bar : Input (from 1 to 9999 kg/cm^2)
15. Allowable Stress of Reinforcement bar and Anti-seismic-bar : Input (from 1 to 9999 kg/cm^2)
16. Kinds of Pre-stressing Steel : Select (1-12.7, 1-15.24, 7-12.7,)
17. Ultimate Strength of Pre-stressing Steel : Input
18. Young's Modulus of Pre-stressing Steel : Input (from 0.01 to $9.99 \times 10^5 \text{ kg/cm}^2$)
19. Yield Strength of Pre-stressing Steel : Input (within 99999 kg/cm^2)

Where the value shown in the screen is default value.

Esquema transversal

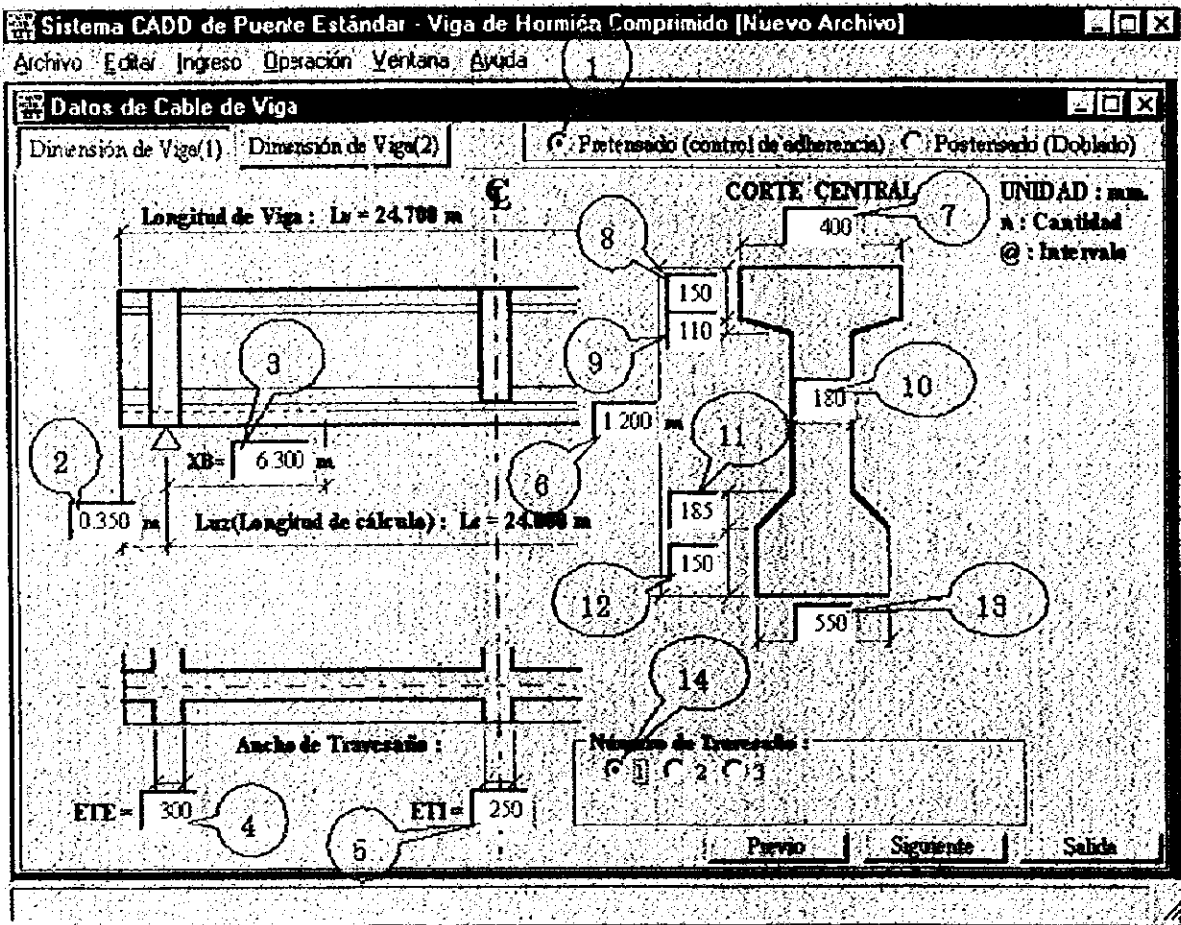


1. Diameter of Main Reinforcement bar: Select
($\phi 6, \phi 8, \phi 10, \phi 12, \phi 16, \phi 18, \phi 22, \phi 25, \phi 28, \phi 32, \phi 36$)
2. Pitch of Main Reinforcement bar for Deck slab : Input (from 1 to 999 mm)
When the Diameter and spacing are input, the Area is shown.
3. Slab thickness : Input (from 1 to 999 mm)
4. Slab Covering : Input (from 0.1 to 99.9 cm)
5. Diameter of Distribution Reinforcement for Deck Slab : Select
($\phi 6, \phi 8, \phi 10, \phi 12, \phi 16, \phi 18, \phi 22, \phi 25, \phi 28, \phi 32, \phi 36$)
6. Pitch of Distribution Reinforcement Bar : Input (from 1 to 999 mm).
When the Diameter and Pitch are input, the Area is shown.
7. Numbers of Main Beam : Select (from 2 to 6 Main Beams)
8. Spacing between Main Beams : Input (from 0.001 to 9.999 m)

Where the value shown in the screen is default value.

Datos de cable de viga

(Dimension de viga 1)[Pretensado]

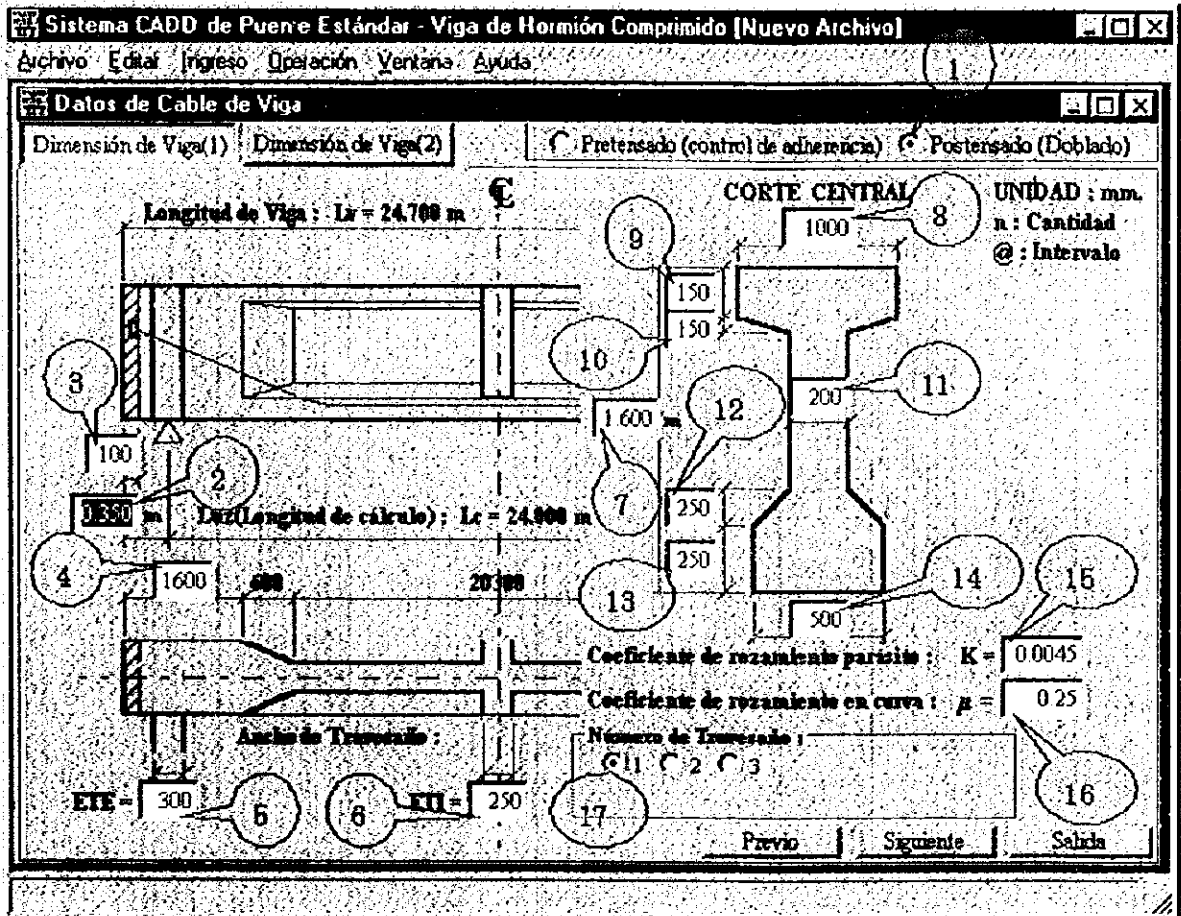


1. Select Pre-tension or Post-tension Beam : Select
2. Distance from Supporting-point to End-beam : Input (within 1.000 m)
3. Bond-controlled Position : Input (within 40.000 m)
4. Thickness of End-crossbeam : Input (from 1 to 999 mm)
5. Thickness of Interior-crossbeam : Input (from 1 to 999 mm)
6. Beam Height : Input (from 0.001 to 9.999 m)
7. Width of Upper-flange of Main Beam : Input (from 1 to 1200 mm)
8. Thickness of Upper-flange of Main Beam : Input (from 100 to 999 mm)
9. Height of Upper-haunch of Main Beam : Input (from 1 to 999 mm)
10. Web Thickness of Main Beam : Input (from 1 to 999 mm)
11. Height of Lower-haunch of Main Beam : Input (from 1 to 999 mm)
12. Thickness of Lower-flange of Main Beam : Input (from 100 to 999 mm)
13. Width of Main Beam bottom : Input (from 1 to 999 mm)
14. Number of Intermediate-crossbeam : Select (from 1 to 3)
15. Spacing of Intermediate-crossbeam : Input (within 12.500 m)

Where the value shown in the screen is default value.

Datos de cable de viga

(Dimension de viga 1)[Postensado]



1. Select Pre-tension or Post-tension Beam : Select
2. Distance from Supporting-point to End-beam.: Input (within 1.000 m)
3. Covering of Main Beam End : Input (from 1 to 999 mm)
4. Length of Enlarging part of Main Beam End: Input (from 1 to 9999 mm)
5. Thickness of End-crossbeam : Input (from 1 to 999 mm)
6. Thickness of Intermediate-crossbeam : Input (from 1 to 999 mm)
7. Height of Main Beam (m) : Input (from 0.001 to 9.999 m)
8. Width of Upper-flange of Main Beam : Input (from 1 to 1200 mm)
9. Thickness of Upper-flange of Main Beam : Input (from 100 to 999 mm)
10. Height of Upper-haunch of Main Beam : Input (from 1 to 999 mm)
11. Web Thickness of Main Beam : Input (from 1 to 999 mm)
12. Height of Lower-haunch of Main Beam : Input (from 1 to 999 mm)
13. Thickness of Lower-flange of Main Beam : Input (from 100 to 999 mm)
14. Width of Lower-flange of Main Beam : Input (from 1 to 999 mm)
15. Friction Modulus for Cable length : Input (within 9.9999)
16. Friction Modulus for Cable angle : Input (within 9.99)
17. Number of Intermediate-crossbeam : Select (from 1 to 3)
18. Spacing between Intermediate-crossbeams : Input (within 12.500 m)

Where the value shown in the screen is default value.

Datos de cable de viga

(Dimension de viga 2)[Pretensado]

Sistema CADD de Puente Estándar - Viga de Hormión Compresido [Nuevo Archivo]

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Datos de Cable de Viga

Dimension de Viga(1) Dimension de Viga(2) Pretensado (control de adherencia) Postensado (Doblado)

3.325 m XB = 6.650 m

No.	yr(cm)	N
1	114.5	2
2	330	0
3	27.5	0
4	22.0	2
5	16.5	8
6	11.0	8
7	5.5	7
TOTAL		27

COORTE CENTRAL

NB	NBC
1	2 0
2	0 0
3	0 0
4	0 2
5	4 4
6	2 6
7	4 3

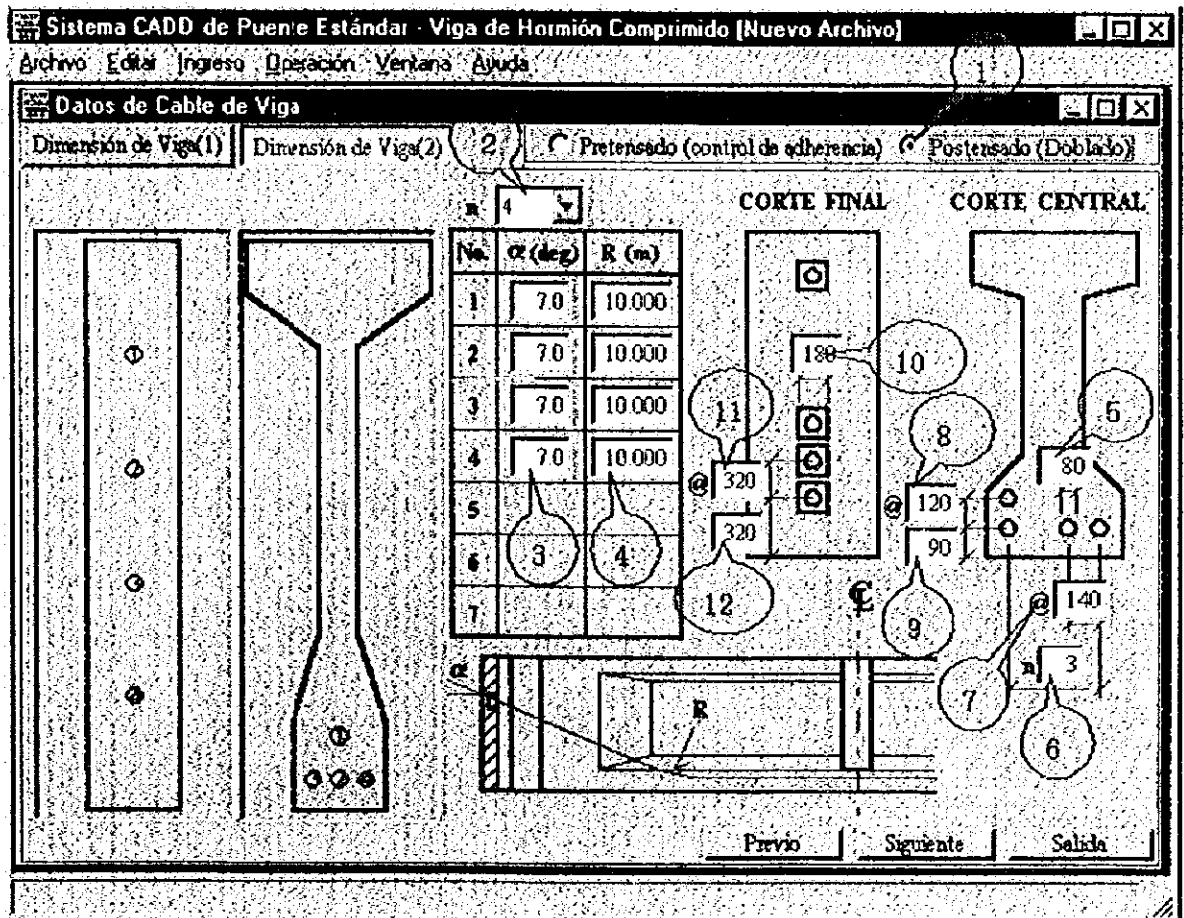
Sin control de adherencia
 Control de adherencia

1. Select Pre-tension or Post-tension Beam : Select
2. Number of PC-Cable : Input (Top ; within 4 , others ; within 8)
3. Position of PC-cable from the Top of Beam : Input (within 999 mm)
4. Horizontal Spacing of PC-Cable : Input (within 999 mm)
5. Distance of PC-Cable from Beam side : Input (from 1 to 999 mm)
6. Vertical Spacing of PC-Cable : Input (from 1 to 999 mm)
7. Position of PC-Cable from the Bottom of Beam : Input (within 999 mm)
8. Information of Bond-control : Check

Where the value shown in the screen is default value.

Datos de cable de viga

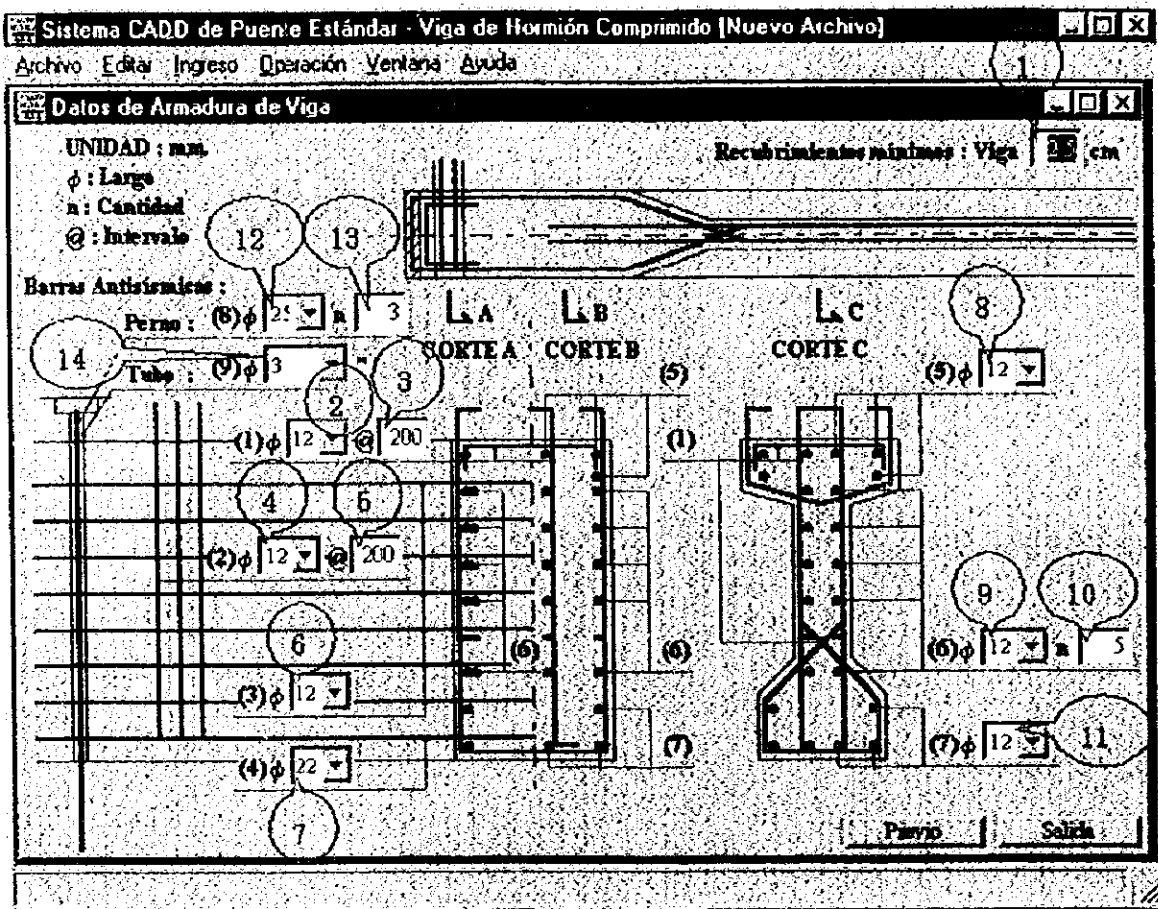
(Dimension de viga 2)[Postensado]



1. Select Pre-tension or Post-tension Beam : Select
2. Number of PC-Duct : Input (from 3 to 7)
3. Degree of PC-Cable at the Beam end : Input (within 45 degree)
4. Radius of PC-Cable : Input (within 99.999 m)
5. Diameter of PC-Duct : Input (from 1 to 999 mm)
6. Number of PC-Duct by 1 layer : Input (within 3)
7. Horizontal Spacing of PC-Duct at Beam center : Input (from 1 to 999 mm)
8. Vertical Spacing of PC-Duct at Beam end : Input (from 1 to 999 mm)
9. Position of PC-Duct from the Bottom of Beam at Beam center : Input (from 1 to 99 mm)
10. Distance of PC-Cable from Beam side : Input (from 1 to 999 mm)
11. Vertical Spacing of PC-Duct at Beam center : Input (from 1 to 999 mm)
12. Position of PC-Duct from the Bottom of Beam at Beam end : Input (from 1 to 999 mm)

Where the value shown in the screen is default value.

Datos de armadura de viga



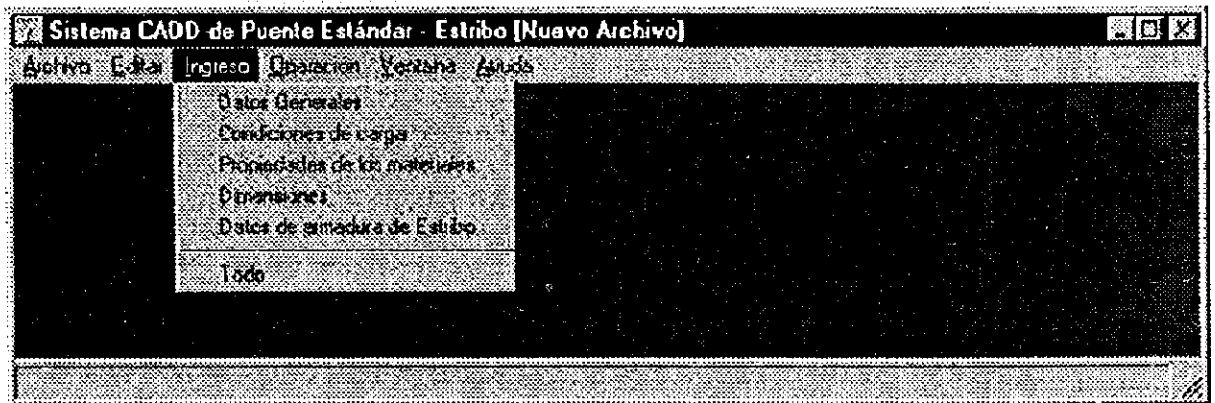
1. Minimum cover of Beam : Input (from 0.1 to 9.9 cm)
2. Diameter of Reinforcement bar at Main beam Vertical No.(1): Select
($\phi 6$, $\phi 8$, $\phi 10$, $\phi 12$, $\phi 16$, $\phi 18$, $\phi 22$, $\phi 25$, $\phi 28$, $\phi 32$, $\phi 36$)
3. Pitch of Reinforcement bar of No.(1) : Input (from 1 to 999 mm)
4. Diameter of Reinforcement bar at Crossbeam Vertical No.(2): Select
($\phi 6$, $\phi 8$, $\phi 10$, $\phi 12$, $\phi 16$, $\phi 18$, $\phi 22$, $\phi 25$, $\phi 28$, $\phi 32$, $\phi 36$)
5. Pitch of Reinforcement bar of Crossbeam Vertical No.(2): Input (within 999 mm)
6. Diameter of Reinforcement bar of Crossbeam side No.(3): Select
($\phi 6$, $\phi 8$, $\phi 10$, $\phi 12$, $\phi 16$, $\phi 18$, $\phi 22$, $\phi 25$, $\phi 28$, $\phi 32$, $\phi 36$)
7. Diameter of Reinforcement bar at Crossbeam Bottom No.(4): Select
($\phi 6$, $\phi 8$, $\phi 10$, $\phi 12$, $\phi 16$, $\phi 18$, $\phi 22$, $\phi 25$, $\phi 28$, $\phi 32$, $\phi 36$)
8. Diameter of Reinforcement bar at Upper flange No.(5): Select
($\phi 6$, $\phi 8$, $\phi 10$, $\phi 12$, $\phi 16$, $\phi 18$, $\phi 22$, $\phi 25$, $\phi 28$, $\phi 32$, $\phi 36$)
9. Diameter of Reinforcement bar at Beam side No.(6): Select
($\phi 6$, $\phi 8$, $\phi 10$, $\phi 12$, $\phi 16$, $\phi 18$, $\phi 22$, $\phi 25$, $\phi 28$, $\phi 32$, $\phi 36$)
10. Number of Reinforcement bar at Beam side No.(6): Input (from 2 to 999)
11. Diameter of Reinforcement bar at Bottom No.(7): Select
($\phi 6$, $\phi 8$, $\phi 10$, $\phi 12$, $\phi 16$, $\phi 18$, $\phi 22$, $\phi 25$, $\phi 28$, $\phi 32$, $\phi 36$)
12. Diameter of Anti-seismic-bar : Select ($\phi 6$, $\phi 8$, $\phi 10$, $\phi 12$, $\phi 16$, $\phi 18$, $\phi 22$, $\phi 25$, $\phi 28$, $\phi 32$, $\phi 36$)
13. Number of Anti-seismic-bar : Input (from 1 to 999)
14. Diameter of Pipe for Anti-seismic-bar : Select (2, 2 3/8, 2 1/2, 3, 3 1/2, 4, 4 1/2, 5)

Where the value shown in the screen is default value.

3) Program-C : Abutment



Input section of Abutment consists of the following 5 sheets.



Datos Generales : General data

Condiciones de carga : Load Conditions

Propiedades de los materiales : Material data

Dimensiones : Dimensiones

Datos de armadura de estribo : Reinforcement bar of Abutment

Datos Generales

1. Date : Input or System Date for automation setting (within 20 characters)
2. Number of Bridge : Input (within 10 characters)
3. Bridge Name : Input (within 50 characters)
4. Road Name : Input (within 40 characters)
5. Distance : Input (within 10 characters)
6. River Name : Input (within 40 characters)
7. Region : The selecting for Number and Name of Region.
8. Name of Province : Input (within 20 characters)
9. Bridge Length : Input (from 0.000 to 1000.00 m)
10. Numbers of Lane : Select 1 or 2 Lanes.
When the numbers of Lane is changed, Road Width is shown automatically.
11. Side-walk Width : Input (from 0.700, to 2.000 m)
12. Lane Width : Input (1 Lane : from 3.000 to 6.000 m, 2 Lanes : from 6.000 to 10.000 m)
13. Cross-fall of Side-walk : Fixed value (1.0%)
14. Cross-fall of Lane : Select (1.5% or 2.0%)

Where the value shown in the screen is default value.

Condiciones de carga

Sistema CADD de Puente Estándar - Estribo [Nuevo Archivo]

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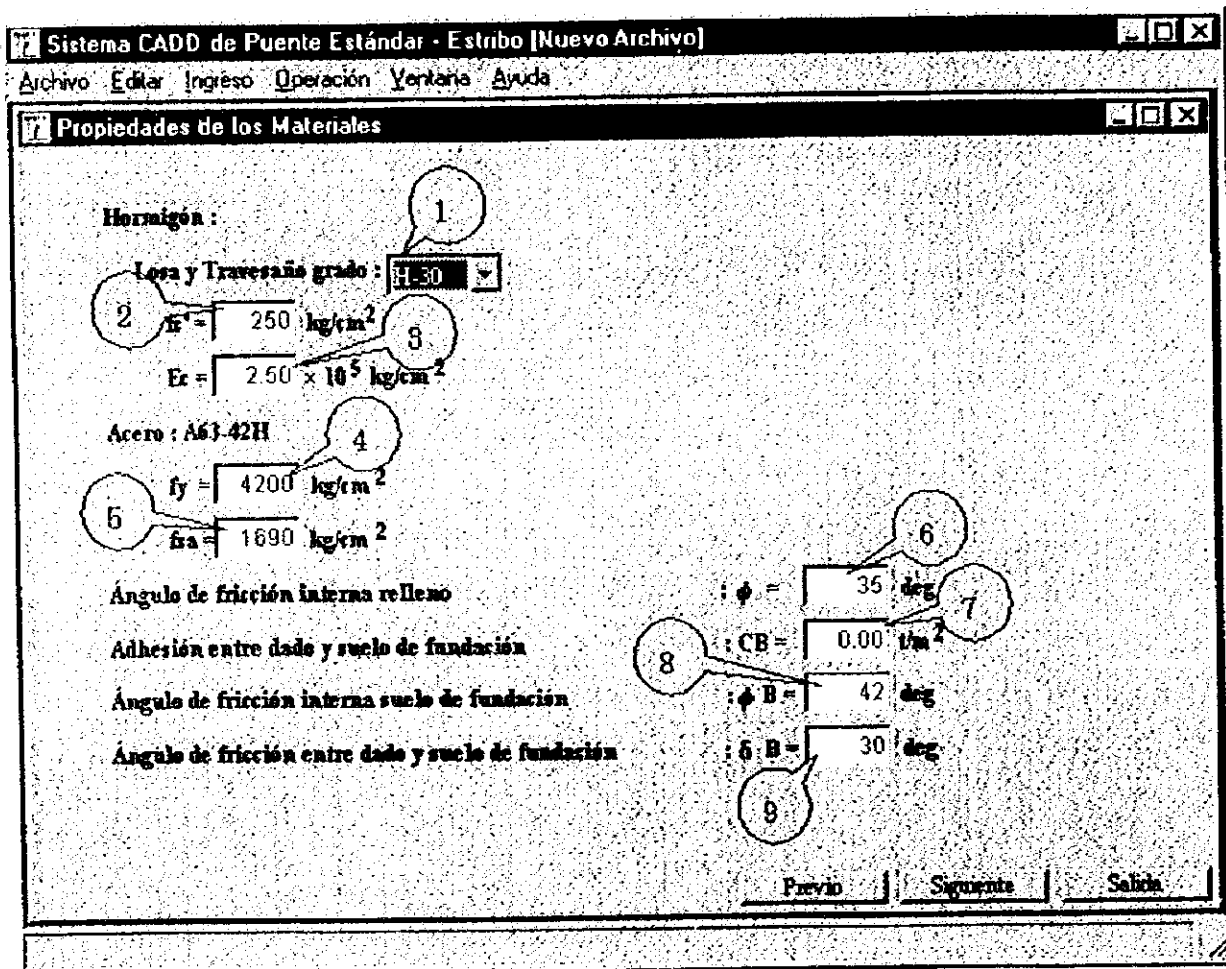
Condiciones de carga

Peso unitario del suelo : $\gamma_c =$ t/m^3 1
 Peso unitario del Hormigón : $W_c =$ t/m^3 2
 Coeficientes de Aceleración de Diseño : $A =$ 3
 Longitud de Viga : $L_v =$ m 4
 Luz : $L_c =$ m (Longitud de cálculo) 5
 Número de Vigas : $n =$ 6 Separación entre vigas : $S =$ m 7
 Altura de Viga : $h =$ m 8
 Ancho de Viga : $b_b =$ cm 9 10
 Peso de Superestructura : $R_v =$ t Cargas de Tránsito : HS20-44
 (Para el Apoyo)
 Carga de superficie : $Q_w =$ t/m^2 11 Cargas de Pavimento : $\gamma =$ t/m^3 12

1. Unit weight of Soil : Input (within 9.99 t/m^3)
2. Unit weight of Concrete: Input (within 9.99 t/m^3)
3. Horizontal Seismic Coefficient of design : Input (within 9.99)
4. Girder Length : Input (within 99.999)
5. Span Length: Input (from 0.001 to 99.999)
6. Numbers of Main Girder : Select (from 2 to 6)
7. Spacing between Girders : Input (from 0.001 to 9.999 m)
8. Height of Beam (m) : Input (from 0.001 to 9.999 m)
9. Width of Beam (cm) : Input (from 0.1 to 99.9 m)
10. Reaction Force of Superstructure : Input (from 0.00 to 9999.99 t)
11. Load on the Ground Surface : Input (from 0.00 to 9.99 t/m^2)
12. Unit weight of Pavement: Input (from 0.00 to 9.99 t/m^3)

Where the value shown in the screen is default value.

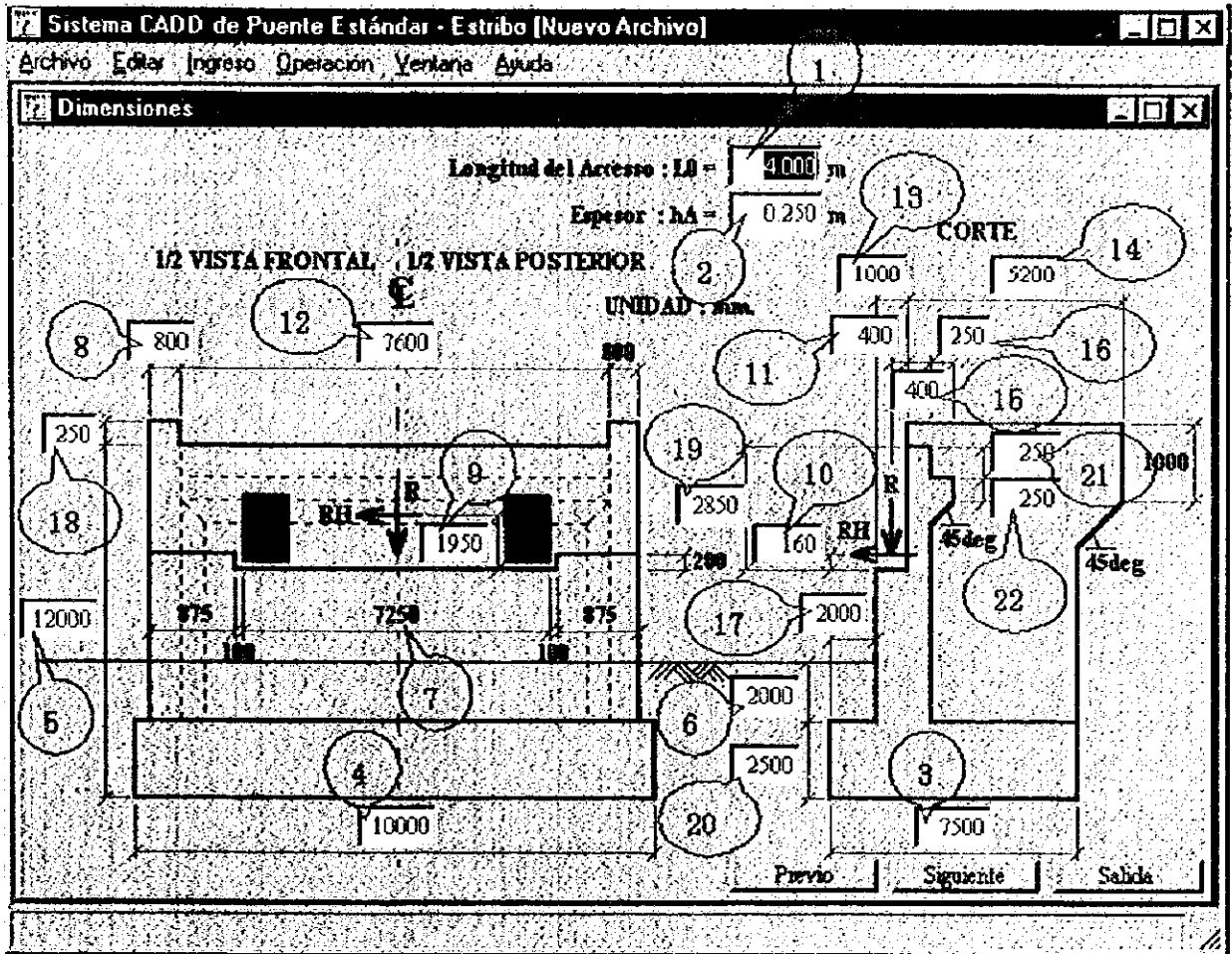
Propiedades de los materiales



1. Kinds of concrete : Select (H-5, H-10, H-15, H-20, H-25, H-30, H-40)
2. Concrete Strength at 28 days : Input (from 1 to 999 kg/cm²)
3. Young's Modulus of Concrete : Input (from 1.00 to 99.99x10⁵ kg/cm²)
4. Yield Strength of Reinforcement bar : Input (from 1 to 9999)
5. Allowable Strength of Reinforcement bar : Input (from 1 to 9999)
6. Friction Angle of back fill : Input (from 0 to 45)
7. Cohesive Force between Footing and Ground : Input (from 0 to 99.99)
8. Friction Angle of Ground : Input (from 0 to 50)
9. Angle of Shearing Resistance between Footing and Ground : Input (from 0 to 45)

Where the value shown in the screen is default value.

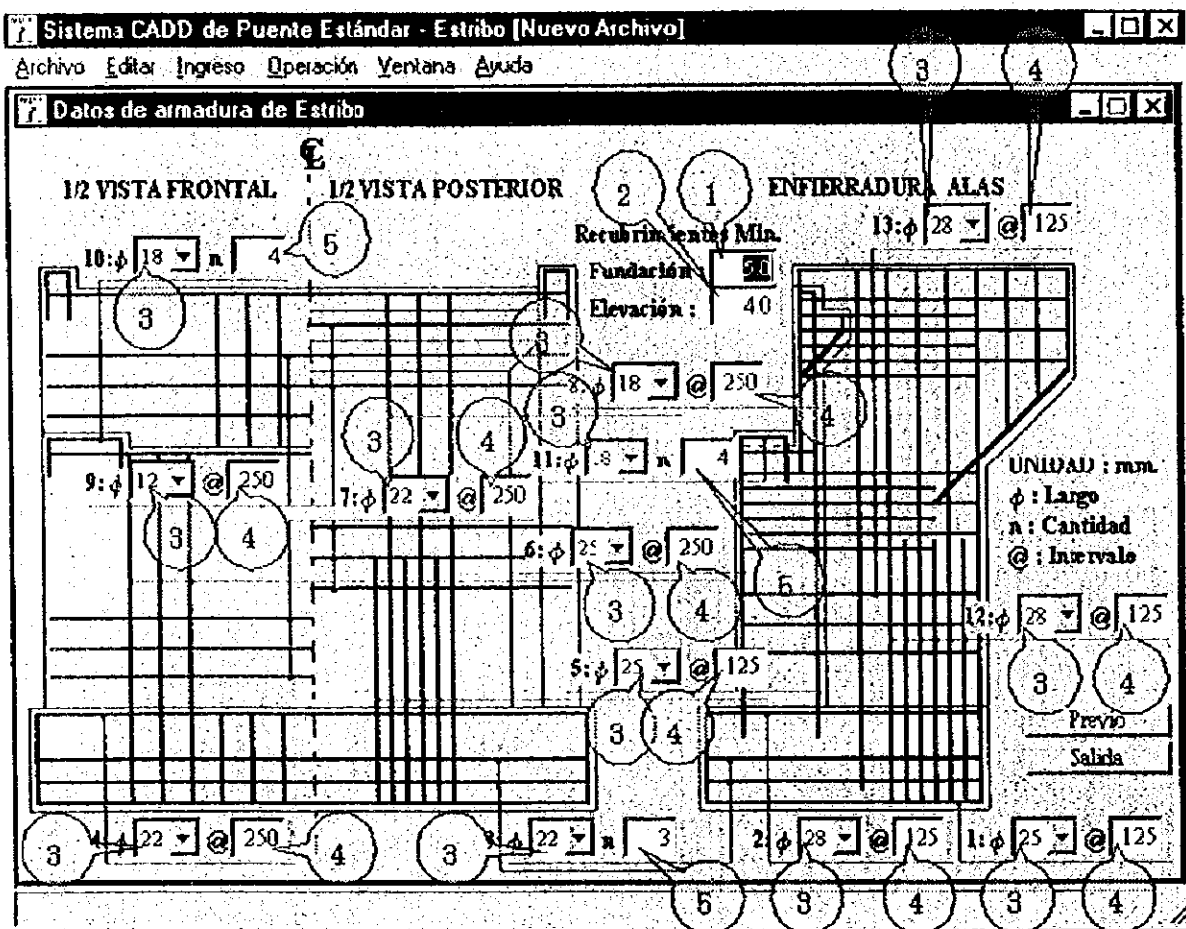
Dimensiones



1. Length of Approach Slab : Input (from 0.001 to 99.999)
2. Thickness of Approach Slab : Input (from 0.001 to 9.999)
3. Longitudinal Length of Footing : Input (from 1 to 99999)
4. Transversal Width of Footing : Input (from 1 to 99999)
5. Abutment Height : Input (from 1 to 99999)
6. Height from footing Upper-surface to the ground : Input (from 1 to 9999)
7. Width of Superstructure-bottom
8. Thickness of Wing Wall : Input (from 1 to 9999)
9. Position of Earthquake-force for transversal (from 1 to 9999)
10. Position of Longitudinal Earthquake-force. (from 1 to 9999)
11. Position of Transversal Earthquake-force. (from 1 to 9999)
12. Width of Wing inside : Input (from 1 to 99999)
13. Longitudinal length of Shoe seat : Input (from 1 to 9999)
14. Length of Wing-wall : Input (from 1 to 9999)
15. Thickness of Parapet : Input (from 1 to 999)
16. Support length of Approach Slab : Input (from 1 to 999)
17. Length of Footing Toe : Input (from 1 to 9999)
18. Curb Height : Input (from 1 to 999)
19. Parapet Height : Input (from 1 to 9999)
20. Footing Height : Input (from 1 to 9999)
21. Height No.21: Input (from 1 to 999)
22. Height No.22 : Input (from 1 to 999)

Where the value shown in the screen is default value.

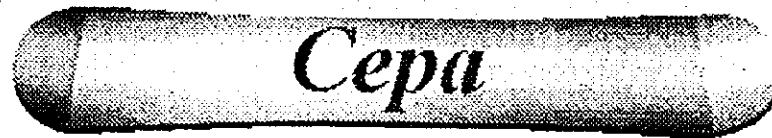
Datos de armadura de estribo



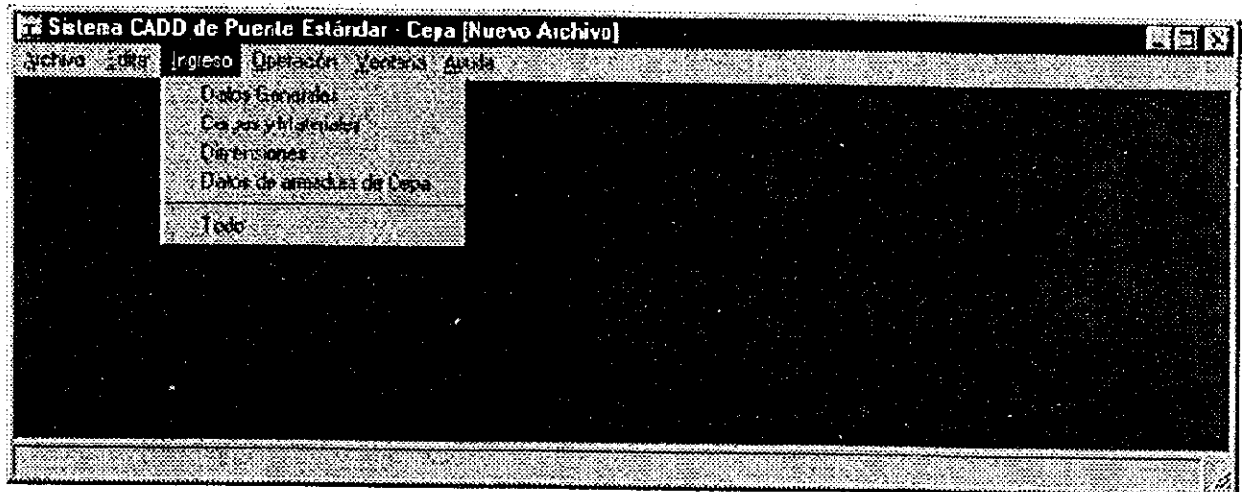
1. Minimum Coving of footing : Input (from 0.1 to 9.99 cm)
2. Minimum Coving of Wall : Input (from 0.1 to 9.99 cm)
3. Diameter of Reinforcement bar : Select ($\phi 6$, $\phi 8$, $\phi 10$, $\phi 12$, $\phi 16$, $\phi 18$, $\phi 22$, $\phi 25$, $\phi 28$, $\phi 32$, $\phi 36$)
4. Pitch of Reinforcement bars : Input (from 1 to 999 mm)
5. Number of Reinforcement bar : Input (from 1 to 999)

Where the value shown in the screen is default value.

4) Program-D : Pier



Input section of Pier consists of the following 4 sheets.



Datos Generales : General data

Cargas y Materiales : Load Conditions and Material data

Dimensiones : Dimensiones

Datos de armadura de cepa : Reinforcement bar of Pier

Datos Generales

1. Date : Input or System Date Set automatically for automation setting (within 20 characters)
2. Number of Bridge : Input (within 10 characters)
3. Bridge Name : Input (within 50 characters)
4. Road Name : Input (within 40 characters)
5. Distance : Input (within 10 characters)
6. River Name : Input (within 40 characters)
7. Region : The selecting for Number and Name of Region.
8. Name of Province : Input (within 20 characters)
9. Bridge Length : Input (from 0.000 to 1000.00 m)
10. Number of Lane : Select 1 or 2 Lanes.
When the numbers of Lane is changed, Road Width is shown automatically.
11. Side-walk Width : Input (from 0.700, to 2.000 m)
12. Lane Width : Input (1 Lane : from 3.000 to 6.000 m, 2 Lanes : from 6.000 to 10.000 m)
13. Cross-fall of Side-walk : Fixed value (1.0%)
14. Cross-fall of Lane : Select (1.5% or 2.0%)

Where, the value shown in the screen is default value.

Cargas y Materiales

Sistema CADD de Puentes Estándar - Cepa [Nuevo Archivo]

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Cargas y Materiales

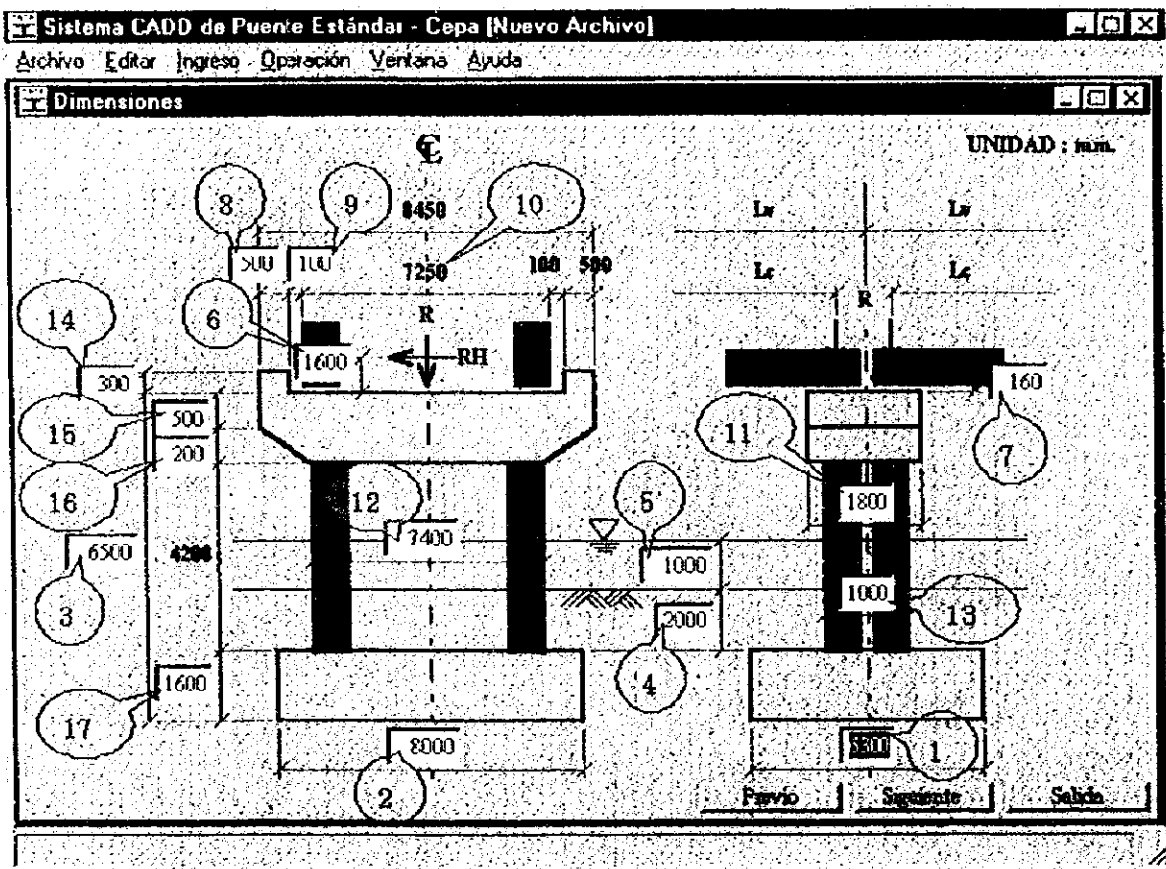
Cargas		Material	
Cargas de Suelo : $\gamma_c =$	2.00 t/m ³	Hormigón :	
Cargas de Hormigón : $\gamma_c =$	2.50 t/m ³	Losa y Travesaño (grado) :	H-30
Coefficientes sísmicos : $K_h =$	0.15	$f_r =$	250 kg/cm ²
Longitud de Viga : $L_v =$	27.925 m	$E_c =$	2.50×10^5 kg/cm ²
Luz : $L_c =$ [27.225 m (Longitud de cálculo)]		Acero : A63-42H	$f_y =$ 4200 kg/cm ²
Número de Vigas : $n_v =$	4	$f_r =$	1690 kg/cm ²
Separación entre Vigas : $S =$	3.250 m	Adherión entre dado y suelo de fundación :	
Ancho de Viga : $b_b =$	50.0 cm	$c_B =$	0.00 t/m ²
Carga de Viga : $R_v =$	50.05 t	Ángulo de fricción interna suelo de fundación :	
(Para 1 Apoyo)		$\phi_B =$	42 deg
Altura de Superestructura : $H_v =$	1.850 m	Ángulo de fricción entre dado y suelo de fundación :	
Carga de viento sobre Superestructura : $W_v =$	0.244 t/m ²	$\delta_B =$	30 deg
Carga de viento sobre Infraestructura : $W_E =$	0.244 t/m ²		
Velocidad del viento : $V =$	2.00 m/s		

Previo | Siguiente | Salida

1. Unit weight of Soil : Input (from 0.00 to 9.99 t/m³)
2. Unit weight of Concrete: Input (from 0.00 to 9.99 t/m³)
3. Horizontal Seismic Coefficient of design : Input (from 0.00 to 9.99)
4. Girder Length : Input (from 0.001 to 99.999)
5. Span Length: Input (from 0.001 to 99.999)
6. Numbers of Girder : Select (from 2 to 6)
7. Spacing between Girders (m) : Input (from 0.001 to 99.999 m)
8. Width of Beam : Input (from 0.1 to 99.9 m)
9. Dead Load Reaction of Superstructure : Input (from 0.00 to 9999.99 t)
10. Height of Superstructure : Input (from 0.001 to 99.999 m)
11. Wind Load on Superstructure : Input (from 0.000 to 99.999 t / m²)
12. Wind Load on Substructure : Input (from 0.000 to 99.999 t / m²)
13. Maximum Flowing-speed : Input (from 0.00 to 9.99 m/s)
14. Kinds of concrete for Slab and Crossbeam : Select (H-5, H-10, H-15, H-20, H-25, H-30, H-40)
15. Concrete Strength at 28 days : Input (from 0 to 9999 kg/cm²)
16. Young's Modulus of Concrete : Input (from 0.00 to 9.99x10⁵ kg/cm²)
17. Kinds of Steel : Select (A63 - 42H)
18. Tension Yield Strength of Steel : Input (from 0 to 9999)
19. Reinforcement bar Strength : Input (from 0 to 9999)
20. Cohesive Force between Footing and Ground : Input (from 0.00 to 9999.99)
21. Friction Angle between Footing and Ground : Input (from 0 to 50)
22. Angle of Shearing Resistance between Footing and Ground : Input (from 0 to 45)

Where, the value shown in the screen is default value.

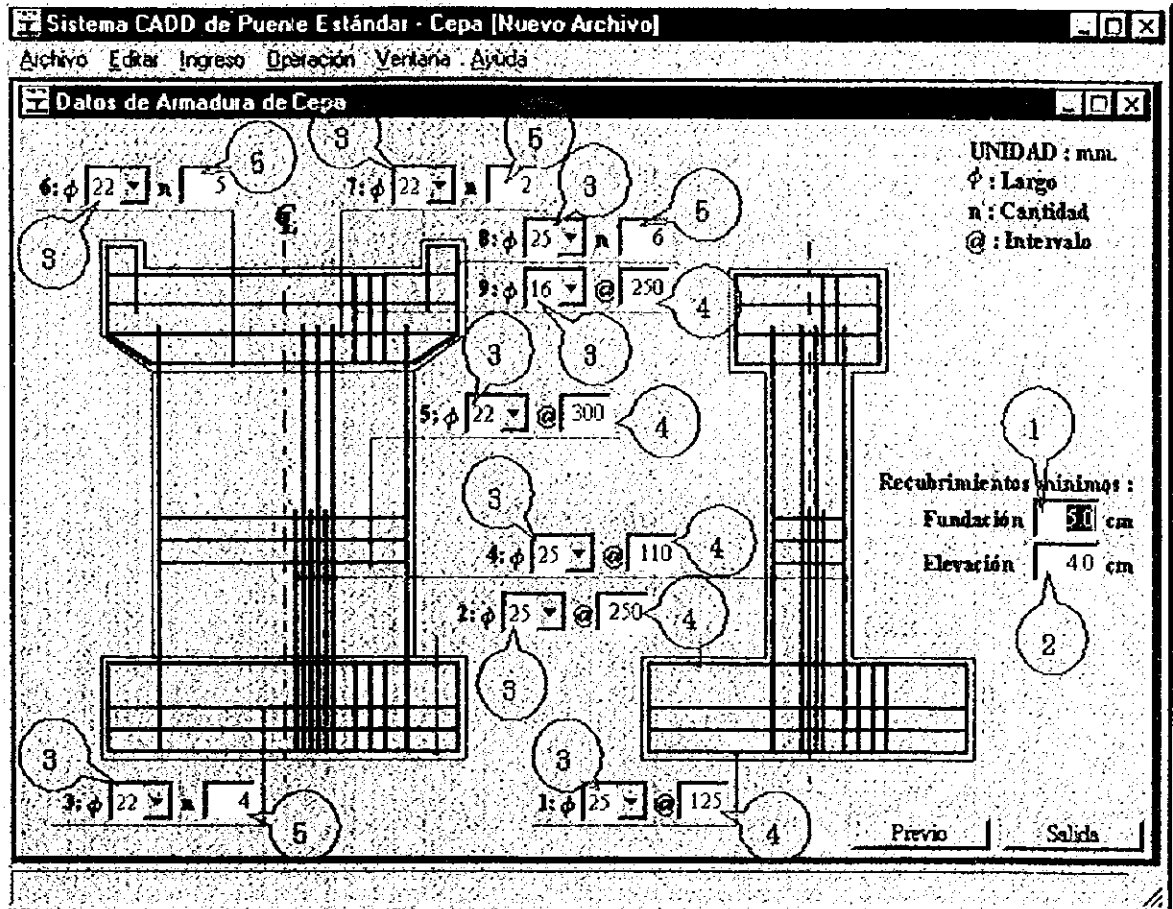
Dimensiones



1. Longitudinal length of Footing : Input (from 1 to 9999 mm)
2. Transversal Width of Footing : Input (from 1 to 99999 mm)
3. Pier Height : Input (from 1 to 99999 mm)
4. Height from Upper-surface of footing to Ground : Input (from 1 to 9999 mm)
5. Middle-level of Water : Input (from 0 to 9999 mm)
6. Position of Transverse Earthquake-force : Input (from 1 to 9999 mm)
7. Position of Longitudinal Earthquake-force : Input (from 1 to 9999 mm)
8. Width of Side-stopper : Input (from 1 to 999 mm)
9. Spacing to Beam Bottom side : Input (from 1 to 999 mm)
10. Width of Superstructure-Bottom : Automatic
11. Longitudinal Length of Pier Top : Input (from 1 to 9999 mm)
12. Transversal Width of Column-wall : Input (from 1 to 99999 mm)
13. Thickness of Pier Column-wall : Input (from 1 to 9999 mm)
14. Height of Side-stopper : Input (from 1 to 9999 mm)
15. Height of Pier Side : Input (from 1 to 9999 mm)
16. Height of Haunch : Input (from 1 to 9999 mm)
17. Height of Footing : Input (from 1 to 9999 mm)

Where the value shown in the screen is default value.

Datos de armadura de cepa



1. Minimum Coving of footing : Input (from 0.1 to 9.99 cm)
2. Minimum Coving of Beam and Wall : Input (from 0.1 to 9.99 cm)
3. Diameter of Reinforcement bar : Select ($\phi 6$, $\phi 8$, $\phi 10$, $\phi 12$, $\phi 16$, $\phi 18$, $\phi 22$, $\phi 25$, $\phi 28$, $\phi 32$, $\phi 36$)
4. Pitch of Reinforcement bars : Input (from 1 to 999 mm)
5. Number of Reinforcement bar : Input (from 1 to 999)

Where the value shown in the screen is default value.







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