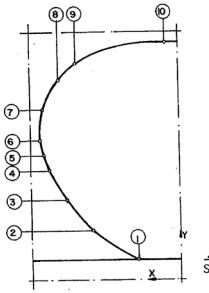
Esquemas del puente del Alamillo, Sevilla.

de: WHAT IS A BRIDGE, The making of Caltrava's Bridge in Seville.
Spiro N. Pollalis.

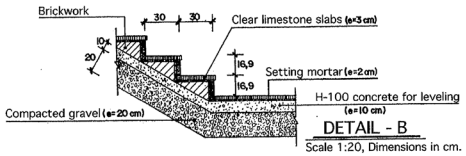
Fig. C.1

	X	Y	Z
1	185,5	7	5,819
2	186,249	7,5	5,567
3	186,688	8	5,261
4	186,969	8,5	4,979
5	187,065	8,743	4,828
6	187,123	9	4,664
7	187,08	9,5	4,327
8	186,797	10	3,966
9	186,492	10,24	3,774
10	185	10,62	3,364



DETAIL - A

Scale 1:40, Dimensions in cm.

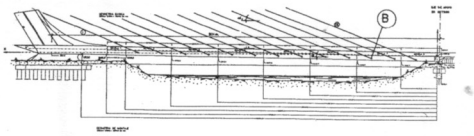


DETAIL - B

Scale 1:20, Dimensions in cm.

NOTE

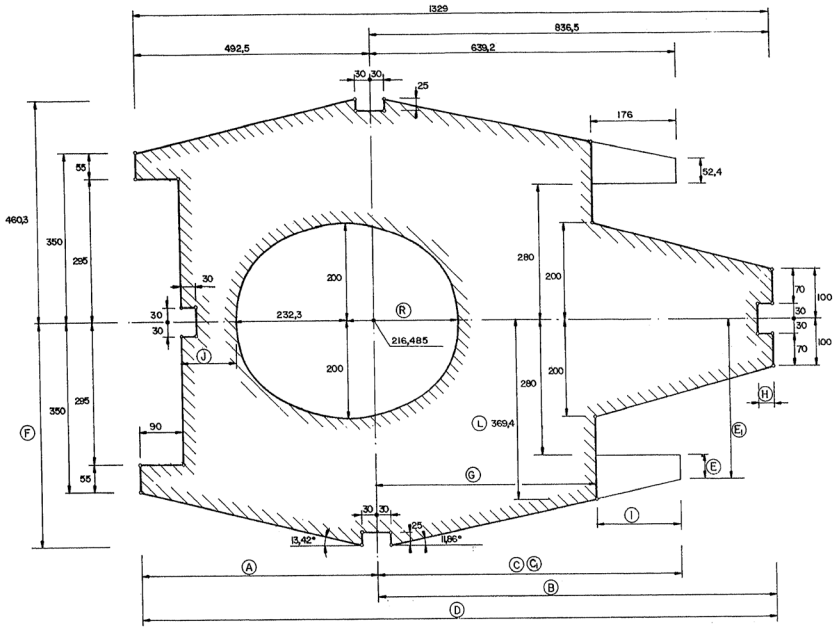
Elevations in this drawing do not consider execution deflections, which are defined in another drawing.

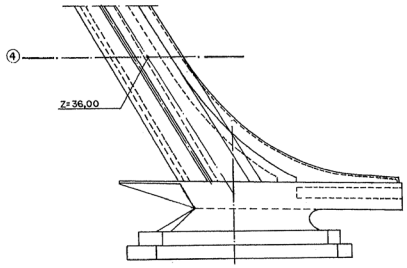


CABLE	X	Y	Z
A 1 – 2	224,728	2,460	43,138
B 1 – 2	155,692	3,023	11,663
C 1 – 2	212,921	2,556	37,687
A 3 – 4	229,050	2,460	50,451
B 3 – 4	143,295	2,592	11,386
C 3 – 4	217,673	2,477	45,189
A 5 – 6	233,372	2,460	57,764
B 5 – 6	130,993	2,460	11,139
C 5 – 6	222,424	2,460	52,688
A 7 – 8	237,694	2,460	65,077
B 7 – 8	118,999	2,460	11,023
C 7 – 8	227,156	2,460	60,159
A 9 – 10	242,017	2,460	72,390
B 9 – 10	107,025	2,460	10,899
C 9 – 10	231,906	2,460	67,657
A 11 – 12	246,339	2,460	79,703
B 11 – 12	95,041	2,460	10,789
C 11 – 12	236,857	2,460	75,156
A 13 – 14	250,661	2,460	87,016
B 13 – 14	83,030	2,460	10,636
C 13 – 14	241,411	2,460	82,662
A 15 – 16	254,983	2,460	94,330
B 15 – 16	71,050	2,460	10,502
C 15 – 16	246,161	2,460	90,161
A 17 – 18	259,305	2,460	101,643
B 17 – 18	59,065	2,460	10,366
C 17 – 18	250,912	2,460	97,662
A 19 – 20	263,627	2,460	108,956
B 19 – 20	47,075	2,460	10,228
C 19 – 20	255,665	2,460	105,186
A 21 – 22	267,949	2,460	116,269
B 21 – 22	35,093	2,460	10,085
C 21 – 22	260,461	2,460	112,737
A 23 – 24	272,271	2,460	123,582
B 23 – 24	23,103	2,460	9,937
C 23 – 24	265,173	2,460	120,176
A 25 – 26	276,594	2,460	130,895
B 25 – 26	11,091	2,460	9,785
C 25 – 26	269,962	2,460	127,736

Fig. C.2

Fig. C.3





Horizontal section ④, Z= 36,00

Scale 1:50.-Dimensions in cm

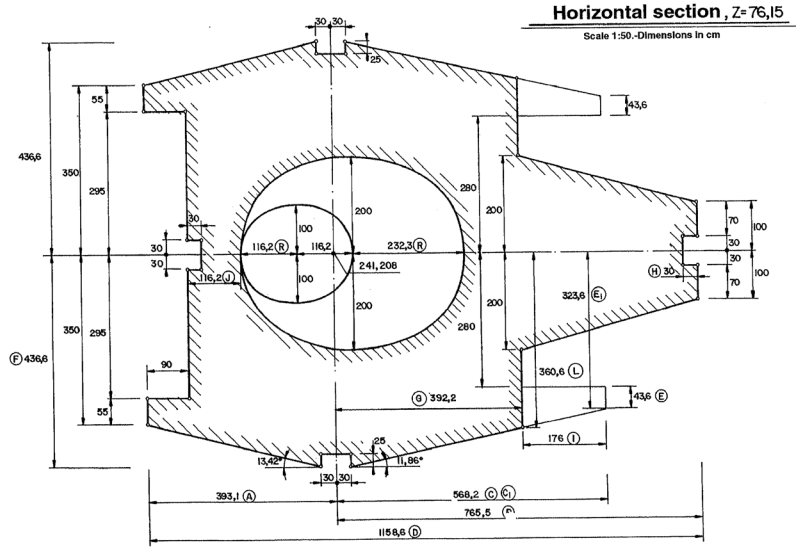
SECTION	X	Z	A	B	C	D	E	F	G
-1	203.400	14.750	5.450	31.250	13.089	36.700	0.530	4.729	5.008
1	204.016	15.750	5.426	28.832	13.708	34.258	0.530	4.723	4.991
2	207.710	21.750	5.277	13.075	9.409	18.352	0.530	4.688	4.885
3	211.990	28.700	5.105	9.178	6.894	14.283	0.530	4.647	4.762
4	216.485	36.000	4.925	8.365	6.392	13.290	0.324	4.603	4.632
5	221.803	44.637	4.711	8.213	6.240	12.924	0.505	4.552	4.480
6	226.306	51.950	4.530	8.083	6.110	12.613	0.489	4.509	4.350
7	230.809	59.263	4.349	7.954	5.981	12.303	0.473	4.466	4.221
8	235.312	66.576	4.168	7.825	5.852	11.993	0.457	4.423	4.092
9	239.815	73.889	3.987	7.695	5.722	11.682	0.441	4.380	3.962
10	244.318	81.202	3.806	7.566	5.593	11.372	0.425	4.337	3.833
11	248.821	88.515	3.625	7.437	5.464	11.062	0.409	4.293	3.704
12	253.324	95.828	3.444	7.307	5.334	10.751	0.393	4.250	3.574
13	257.827	103.141	3.263	7.178	5.205	10.441	0.377	4.207	3.445
14	262.330	110.454	3.082	7.048	5.075	10.131	0.361	4.164	3.315
15	266.834	117.767	2.901	6.919	4.946	9.820	0.345	4.121	3.186
16	271.337	125.080	2.720	6.790	4.817	9.510	0.329	4.077	3.057

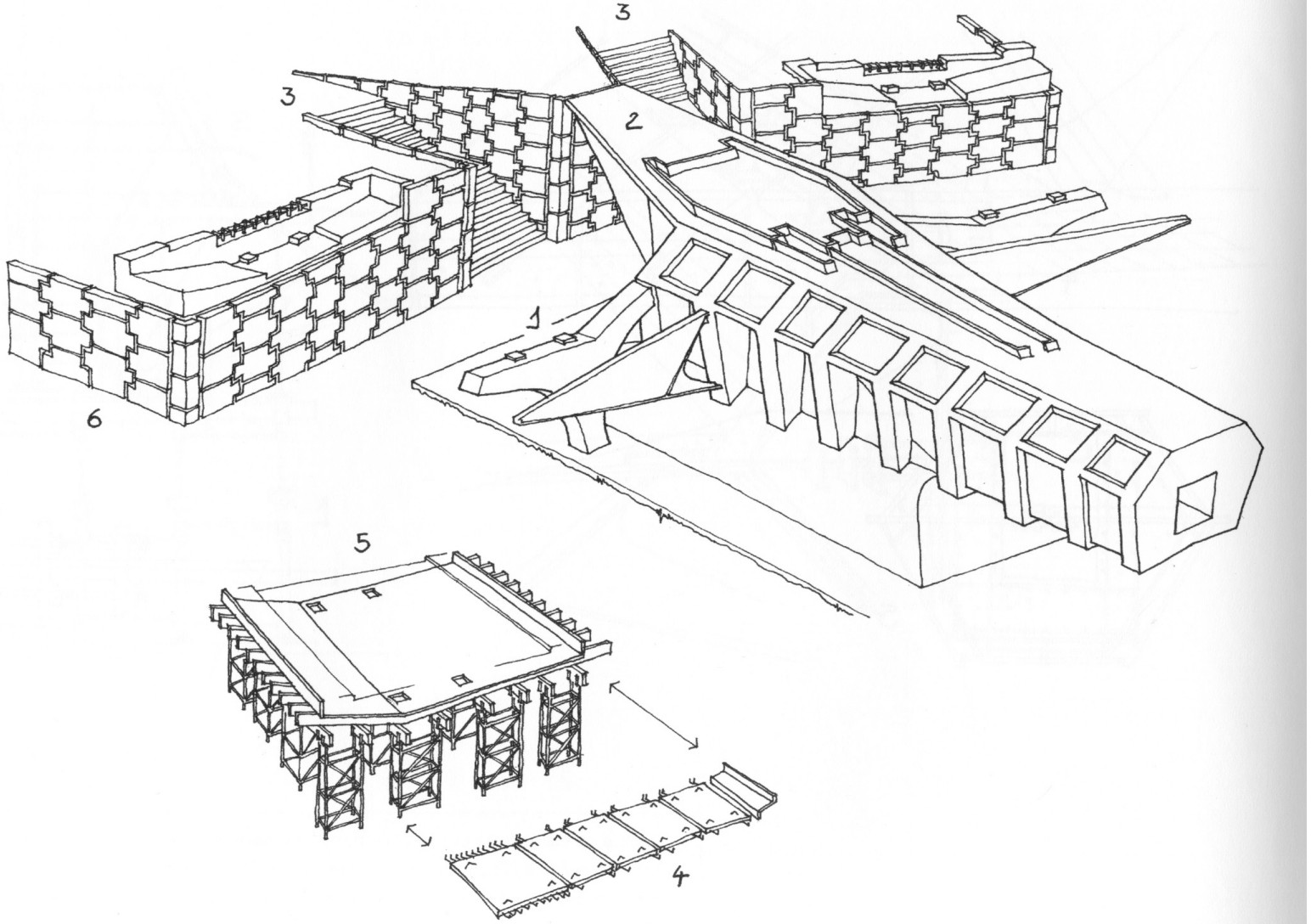
SECTION	Z	H	I	J	R	L	C1	E1	I1
-1	14.750	0.314	2.105	1.162	2.323	3.740	6.768	3.371	22.509
1	15.750	3.347	2.105	1.162	2.323	3.738	6.751	3.368	20.109
2	21.750	0.464	2.265	1.162	2.323	3.725	6.645	3.355	4.457
3	28.700	0.340	1.890	1.162	2.323	3.710	6.522	3.340	0.684
4	36.000	0.300	1.760	1.162	2.323	3.694	6.392	3.324	0.000
5	44.637	0.300	1.760	1.162	2.323	3.675	6.240	3.305	0.000
6	51.950	0.300	1.760	1.162	2.323	3.659	6.110	3.289	0.000
7	59.263	0.300	1.760	1.162	2.323	3.643	5.981	3.273	0.000
8	66.576	0.300	1.760	1.162	2.323	3.627	5.852	3.257	0.000
9	73.889	0.300	1.760	1.162	2.323	3.611	5.722	3.241	0.000
10	81.202	0.300	1.760	1.162	1.162	3.595	5.593	3.225	0.000
11	88.515	0.300	1.760	1.162	1.162	3.579	5.464	3.209	0.000
12	95.828	0.300	1.760	1.162	1.162	3.563	5.334	3.193	0.000
13	103.141	0.300	1.760	1.162	1.162	3.547	5.205	3.177	0.000
14	110.454	0.300	1.760	1.162	1.162	3.531	5.075	3.161	0.000
15	117.767	0.300	1.760	1.162	1.162	3.515	4.946	3.145	0.000
16	125.080	0.300	1.760	1.162	1.162	3.499	4.817	3.129	0.000

ELEVATION OF THE PYLON'S HORIZONTAL SECTIONS

Horizontal section, Z= 76,15

Scale 1:50.-Dimensions in cm




3
3
2
1
6
5
4

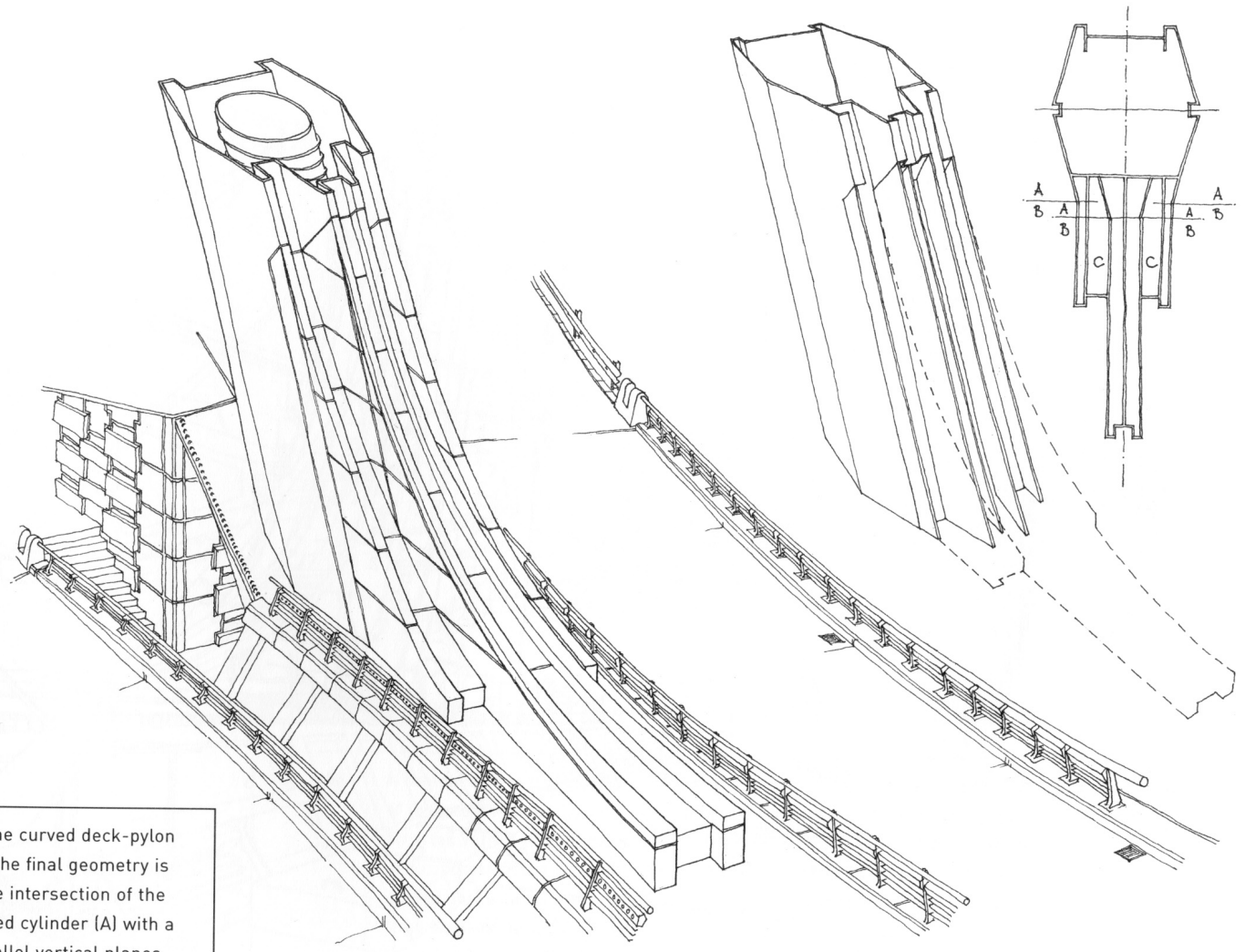
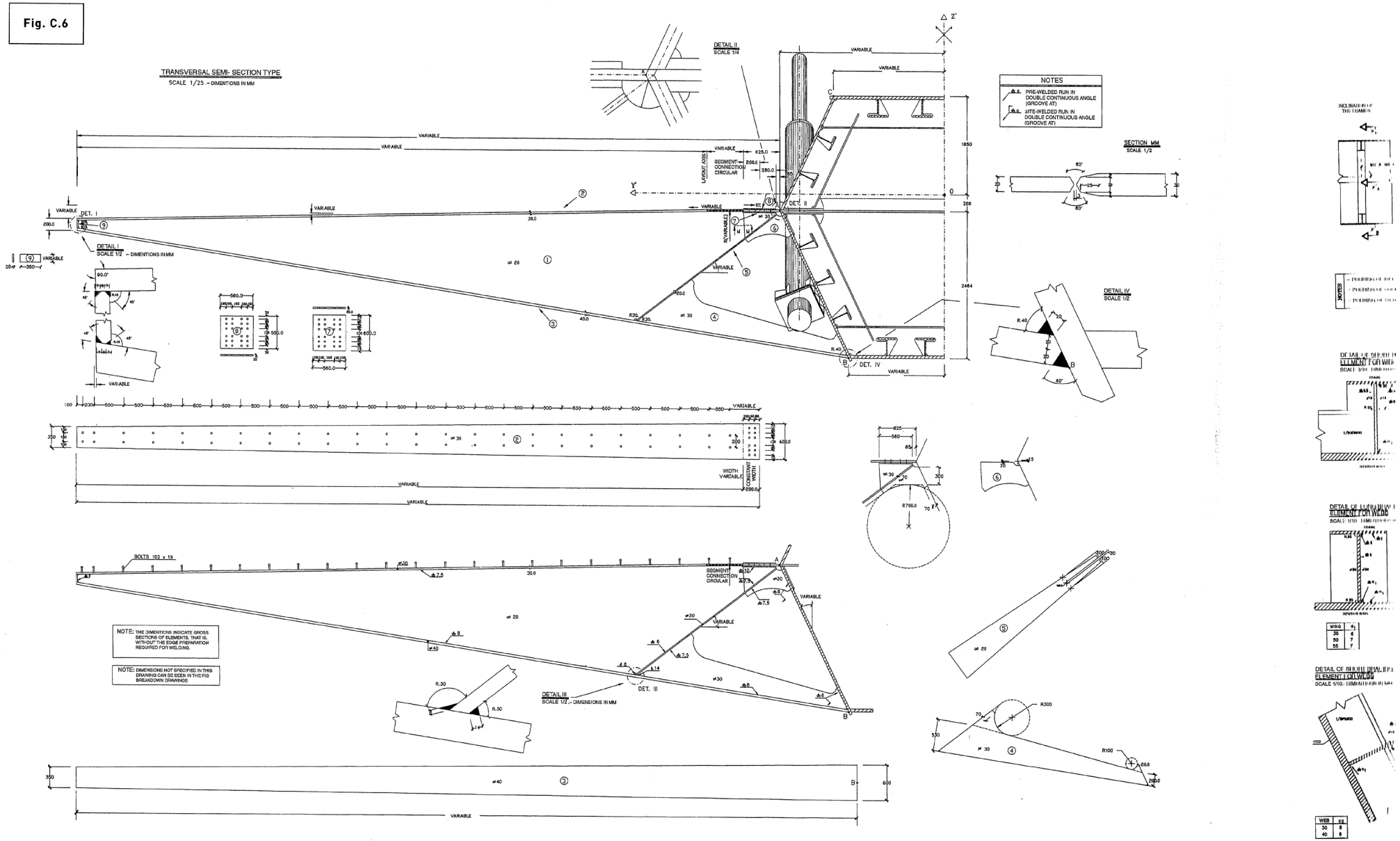


Fig. 6.32 Diagram of the curved deck-pylon connection. The final geometry is formed by the intersection of the pylon's inclined cylinder (A) with a series of parallel vertical planes (B and C).

Fig. C.6


TRANSVERSAL SEMI- SECTION TYPE
SCALE 1/25 – DIMENTIONS IN MM
DETAIL II
SCALE 1/4
NOTES
PRE-WELDED RUN IN DOUBLE CONTINUOUS ANGLE (GROOVE AT)
SITE-WELDED RUN IN DOUBLE CONTINUOUS ANGLE (GROOVE AT)
SECTION MM
SCALE 1/2
DETAIL I
SCALE 1/2 – DIMENTIONS IN MM
DET. I
DET. II
DET. III
DET. IV
DETAIL III
SCALE 1/2 – DIMENSIONS IN MM
DETAIL IV
SCALE 1/2
BOLTS 102 x 19
SEGMENT CONNECTION CIRCULAR
LAYOUT AXIS
VARIABLE
NOTE: THE DIMENTIONS INDICATE GROSS SECTIONS OF ELEMENTS, THAT IS, WITHOUT THE EDGE PREPARATION REQUIRED FOR WELDING.
NOTE: DIMENSIONS NOT SPECIFIED IN THIS DRAWING CAN BE SEEN IN THE FIG BREAKDOWN DRAWINGS

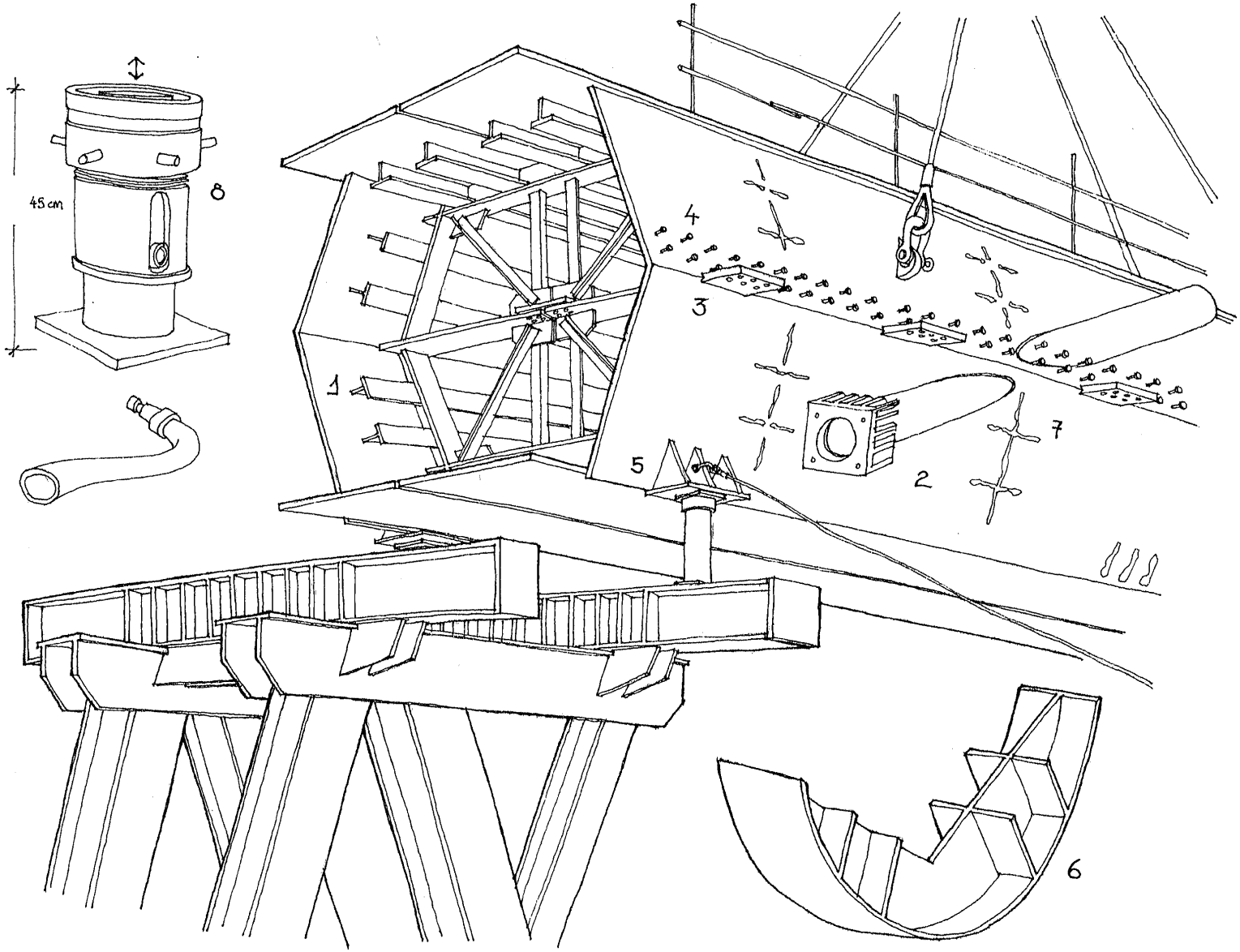
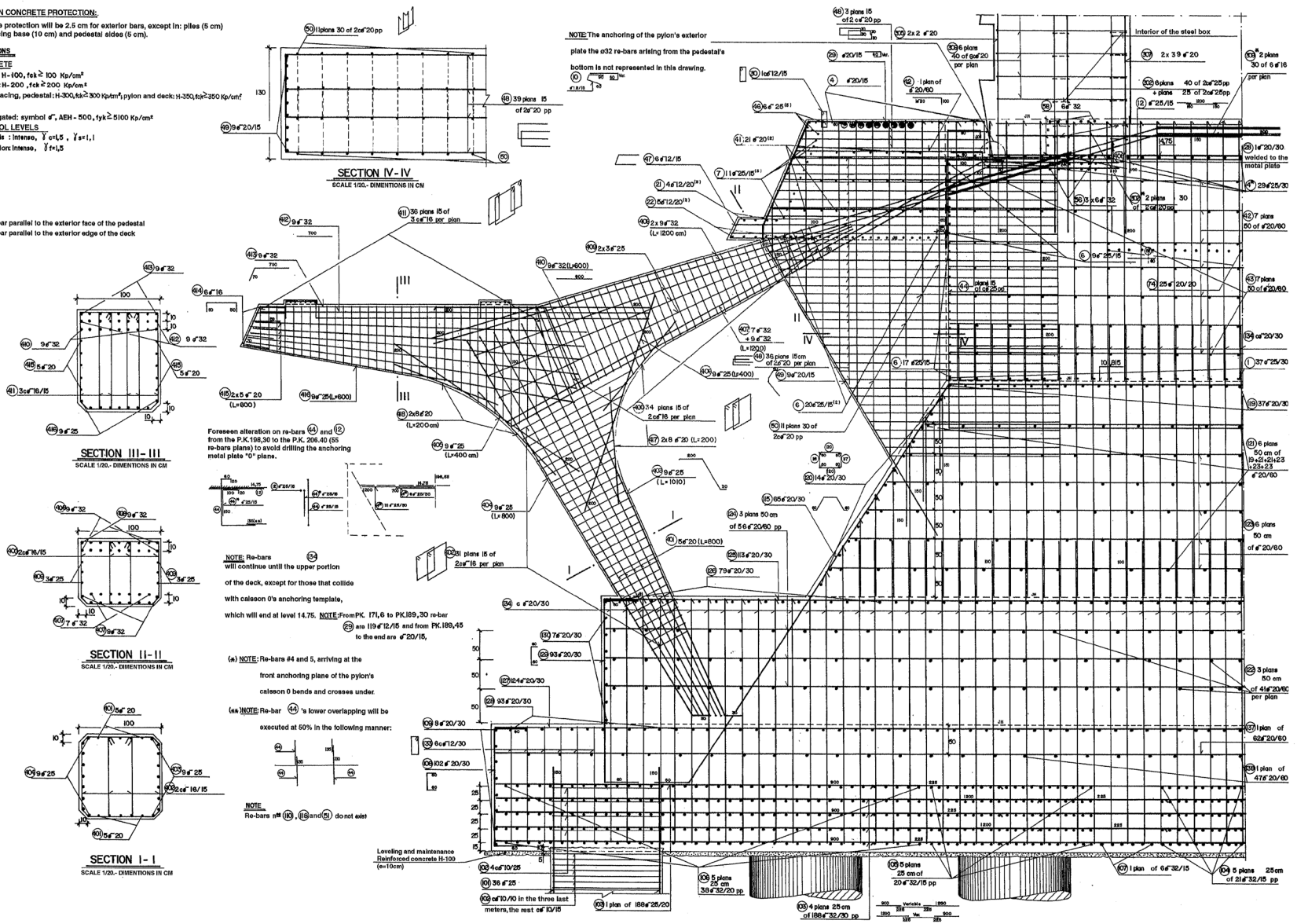

45 cm
8
1
2
3
4
5
6
7

Fig. C.12


NOTE ON CONCRETE PROTECTION:
Concrete protection will be 2.5 cm for exterior bars, except in: piles (5 cm) pile bracing base (10 cm) and pedestal sides (5 cm).
CONDITIONS
CONCRETE
- Base: H-100, fck ≥ 100 Kp/cm²
- Piles : H-200 , fck ≥ 200 Kp/cm²
- Pile bracing, pedestal: H-300, fck ≥ 300 Kp/cm², pylon and deck: H-350, fck ≥ 350 Kp/cm²
STEEL
- Corrugated: symbol ø, AEH - 500, fyk ≥ 5100 Kp/cm²
CONTROL LEVELS
- Materials : Intense, γc=1,5 , γs=1,1
- Execution: Intense, γf=1,5
NOTES
(2) Re-bar parallel to the exterior face of the pedestal
(3) Re-bar parallel to the exterior edge of the deck
SECTION IV-IV
SCALE 1/20.- DIMENTIONS IN CM
SECTION III-III
SCALE 1/20.- DIMENTIONS IN CM
SECTION II-II
SCALE 1/20.- DIMENTIONS IN CM
SECTION I-I
SCALE 1/20.- DIMENTIONS IN CM
NOTE: The anchoring of the pylon's exterior plate the ø32 re-bars arising from the pedestal's bottom is not represented in this drawing.
Interior of the steel box
Foreseen alteration on re-bars (44) and (12) from the P.K.198,30 to the P.K. 206.40 (55 re-bars plans) to avoid drilling the anchoring metal plate "0" plans.
NOTE: Re-bars (34) will continue until the upper portion of the deck, except for those that collide with caisson 0's anchoring template, which will end at level 14.75. NOTE: From PK. 171,6 to PK.189,30 re-bar (29) are 119 ø12/15 and from PK.189,45 to the end are ø20/15,
(a) NOTE: Re-bars #4 and 5, arriving at the front anchoring plane of the pylon's caisson 0 bends and crosses under.
(aa) NOTE: Re-bar (44) 's lower overlapping will be executed at 50% in the following manner:
NOTE Re-bars nos (113), (118) and (91) do not exist
Leveling and maintenance Reinforced concrete H-100 (e=10cm)