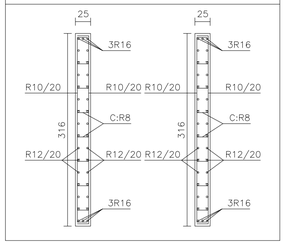
	1	2	3, 4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24, 25
2	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R20 C:Sr8/20	35*35 Ay=1r12 Ax=1r12 Ap=4R16 C:Sr8/18	35*35 Ay=1r12 Ax=1r12 Ap=4R16 C:Sr8/18	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r12 Ax=1r12 Ap=4R16 C:Sr8/18	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	HEB-200	35*35 Ay=1r12 Ax=1r12 Ap=4R16 C:Sr8/18	35*35 Ay=1r12 Ax=1r12 Ap=4R16 C:Sr8/18	35*35 Ay=1r12 Ax=1r12 Ap=4R16 C:Sr8/18	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r12 Ax=1r12 Ap=4R16 C:Sr8/18	35*35 Ay=1r12 Ax=1r12 Ap=4R16 C:Sr8/18	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	HEB-200
1	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R20 C:Sr8/20	35*35 Ay=1r12 Ax=1r12 Ap=4R16 C:Sr8/18	35*35 Ay=1r12 Ax=1r12 Ap=4R16 C:Sr8/18	35*35 Ay=1r16 Ax=1r16 Ap=4R20 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R20 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	HEB-200	35*35 Ay=1r12 Ax=1r12 Ap=4R16 C:Sr8/18	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r12 Ax=1r12 Ap=4R16 C:Sr8/18	35*35 Ay=1r16 Ax=1r16 Ap=4R20 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*40 Ay=1r20 Ax=1r20 Ap=4R20 C:Sr8/20	35*35 Ay=1r12 Ax=1r12 Ap=4R16 C:Sr8/18	35*35 Ay=1r12 Ax=1r12 Ap=4R16 C:Sr8/18	35*40 Ay=1r20 Ax=1r20 Ap=4R25 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	HEB-200

PILARES (BLOQUE A) (LA PRIMERA DIMENSIÓN ES PARALELA A LA LINEA 5-11-17)

	26	27	28	29	30	31	32, 37	33, 39	34, 40	35	36	38	41	42, 43	44, 45	46	47, 48	49	50, 51	52	53, 54	55, 56
2	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r12 Ax=1r12 Ap=4R16 C:Sr8/18	35*35 Ay=1r16 Ax=1r16 Ap=4R20 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=2r20 Ax=1r20 Ap=4R20 C:Mr8/20	35*45 Ay=2r20 Ax=1r20 Ap=4R20 C:Mr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R20 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20		
1	ø 220*10	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r20 Ax=1r20 Ap=4R20 C:Sr8/20	35*40 Ay=1r20 Ax=1r20 Ap=4R25 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R20 C:Sr8/20	35*35 Ay=1r20 Ax=1r20 Ap=4R20 C:Sr8/20	35*35 Ay=1r20 Ax=1r20 Ap=4R20 C:Sr8/20	35*40 Ay=1r20 Ax=1r20 Ap=4R25 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r12 Ap=4R16 C:Sr8/18	35*35 Ay=1r16 Ax=1r16 Ap=4R20 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*45 Ay=2r20 Ax=1r20 Ap=4R20 C:Mr8/20	35*45 Ay=2r20 Ax=1r20 Ap=4R20 C:Mr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R20 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	35*35 Ay=1r16 Ax=1r16 Ap=4R16 C:Sr8/20	30*30 Ay=1r12 Ax=1r12 Ap=4R16 C:Sr8/18	30*30 Ay=1r12 Ax=1r12 Ap=4R16 C:Sr8/18

PILARES (BLOQUE B) (LA PRIMERA DIMENSIÓN ES PARALELA A LA LINEA 30-34-40)

PANTALLAS ASCENSOR 25 cm.

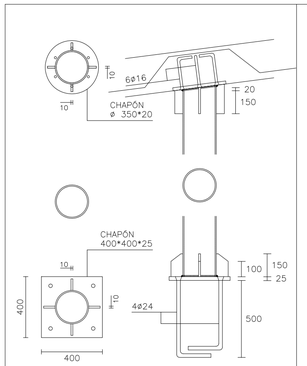


1	ø 100*4

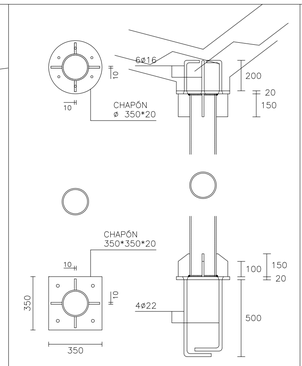
PILARES ESCALERA

1	ø 220*8	ø 200*8	ø 175*8	2UPN-180

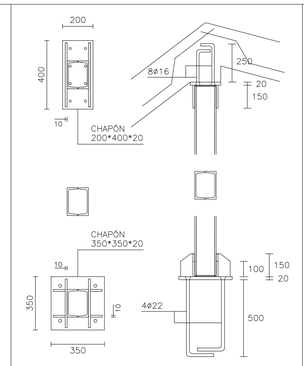
PILARES (TALLERES)



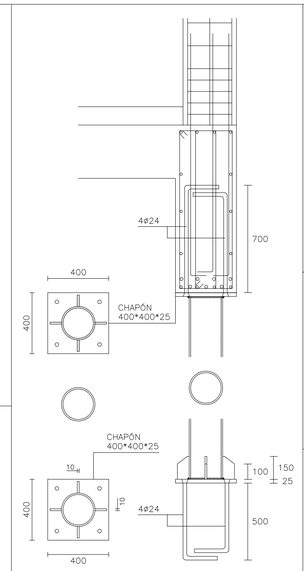
PILARES: (ø 220*8) (ø 200*8)
PLACA DE ARRANQUE (400*400*25)



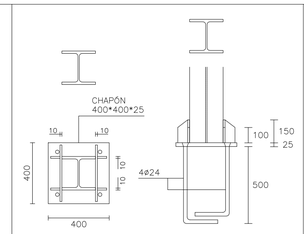
PILARES: ø 175*8
PLACA DE ARRANQUE (350*350*20)



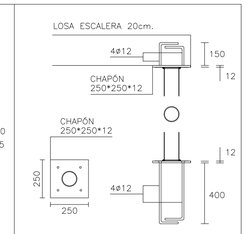
PILARES: 2UPN-180
PLACA DE ARRANQUE (350*350*20)



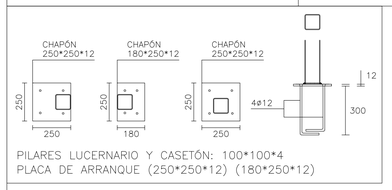
PILAR 26: ø 220*10
PLACA DE ARRANQUE (400*400*25)



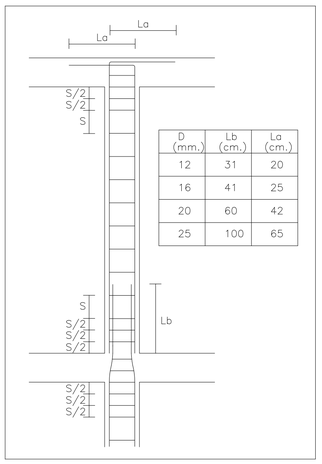
PILARES: HEB-200
PLACA DE ARRANQUE (400*400*25)



PILARES ESCALERA: ø100*4
PLACA DE ARRANQUE (250*250*12)

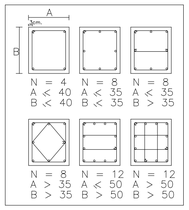


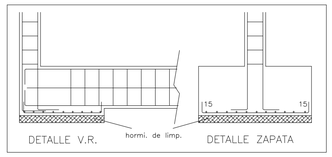
PILARES LUCERNARIO Y CASETÓN: 100*100*4
PLACA DE ARRANQUE (250*250*12) (180*250*12)



D (mm.)	Lb (cm.)	La (cm.)
12	31	20
16	41	25
20	60	42
25	100	65

DETALLE CERCOS EN PILARES
(S: CERCOS SIMPLES)
(M: CERCOS MULTIPLES)





HA-30 (B-500s)	SOLAPO (1) (Ls) (cm)		SOLAPO (2) (Ls) (cm)		ANCLAJE (Lb) (cm)	
ø (mm)	Ls I	Ls II	Ls I	Ls II	Lb I	Lb II
6	21	30	26	36	15	21
8	28	40	34	49	20	29
10	35	50	43	61	25	36
12	42	60	51	73	30	43
16	80	114			40	57
20	120	168			60	84
25	188	262			94	131

PARA GARANTIZAR LOS RECUBRIMIENTOS EXIGIDOS DE LAS ARMADURAS SE UTILIZARÁN SEPARADORES DE MORTERO DE CEMENTO LONGITUDES DE SOLAPE DE ACUERDO A EHE-08.
SE HA CONSIDERADO UNA DURABILIDAD DE 50 AÑOS

TODOS LOS DATOS RELATIVOS A LA GEOMETRÍA DE ESTE PROYECTO, (COTAS, HUECOS, PENDIENTES, ETC.) SE TOMARÁN DE LOS PLANOS DE ARQUITECTURA. LOS VALORES QUE FIGUREN EN LOS PLANOS DE ESTRUCTURA SE VERFICARÁN CON LOS PLANOS DE REPLANTEO, QUEDANDO A JUICIO DEL DIRECTOR DE OBRA EL POSIBLE RECÁLCULO DE LAS ZONAS NO COINCIDENTES.

CUADRO DE CARACTERISTICAS SEGUN EHE / CTE

MATERIAL	LOCALIZACION	DESIGNACION	NIVEL DE CONTROL	COEFICIENTE PONDERACION
HORMIGON	LOSA Y VIGAS	HA-30/F/12/IIa	ESTADISTICO	Yc=1.50
	ELEMENTOS INTERIORES	HA-30/B/20/IIa		
	CIMENTACION Y MUROS	HA-30/B/20/Qa		
ACERO PASIVO	ARMADURAS	B-500 S	NORMAL	Ys=1.15
	MALLAS ELECTROSOLDADAS	B-500 T		
ACERO ESTRUCTURAL	TODA LA OBRA	S-275 JR	NORMAL	Ys=1.00
EJECUCION	ESTRUCTURA DE HORMIGON	-	NORMAL	PESO PROPIO Yf=1.35
				RESTO Yf=1.50
	ESTRUCTURA DE ACERO			C. PERMANENTESYf=1.35
				SOBRECARGAS Yf=1.50

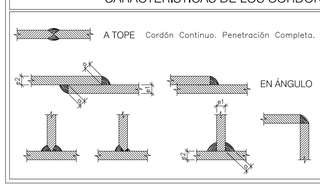
CUADRO DE ESPECIFICACIONES SEGUN C.T.E-SE-A

ACERO	S275	
DESCRIPCION	SEGUN NORMA CTE-SE-A	
LIMITE ELASTICO (mínimo garantizado)	Espesor < = 16 mm,	275 N/mm.^{2}
	Espesor > 16 mm, y < = 40 mm.	265 N/mm.^{2}
	Espesor > 40 mm, y < = 63 mm.	255 N/mm.^{2}
TENSIÓN ROTURA	3 < = t < = 100 mm.	410 N/mm.^{2}

CARACTERISTICAS DE LAS SOLDADURAS SEGUN CTE-SE-A

TIPO DE ACERO	S-275 JR	TIPO DE ELECTRODO (Para Punteados)	RUTILO: E 6013 R
		TIPO DE ELECTRODO (En Obra) (Soldadura de Importancia)	BÁSICO: E 7016
		SOLDADURA EN TALLER	MIG (Hilo): ER 70 S

CARACTERISTICAS DE LOS CORDONES



REGLA PRÁCTICA (GENERAL)
e1 > e2 ⇔ a ≥ 1/2 e1
e2 > e1 ⇔ a ≥ 1/2 e2

SUPERVISADO-SERVICIO DE CONSTRUCCIONES.CONSEJERÍA EDUCACIÓN JCYL

Firmado digitalmente por SUPERVISADO-SERVICIO DE CONSTRUCCIONES.CONSEJERÍA EDUCACIÓN JCYL
Fecha: 2019.06.07 13:20:43 +02'00'

Nota: Estos planos se complementan con los planos de replanteo de estructura

escala1/100

proyecto ejecución

Escuela de Arte de Valladolid

Calle Mirabel Valladolid

Grupo de Planos:	ESTRUCTURA	Nº.:	E11
Plano:	Cuadro de pilares	Escala:	1/100
Promotor: Consejería de Educación, Junta de Castilla y León		Fecha:	Abril 2019
			1809

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