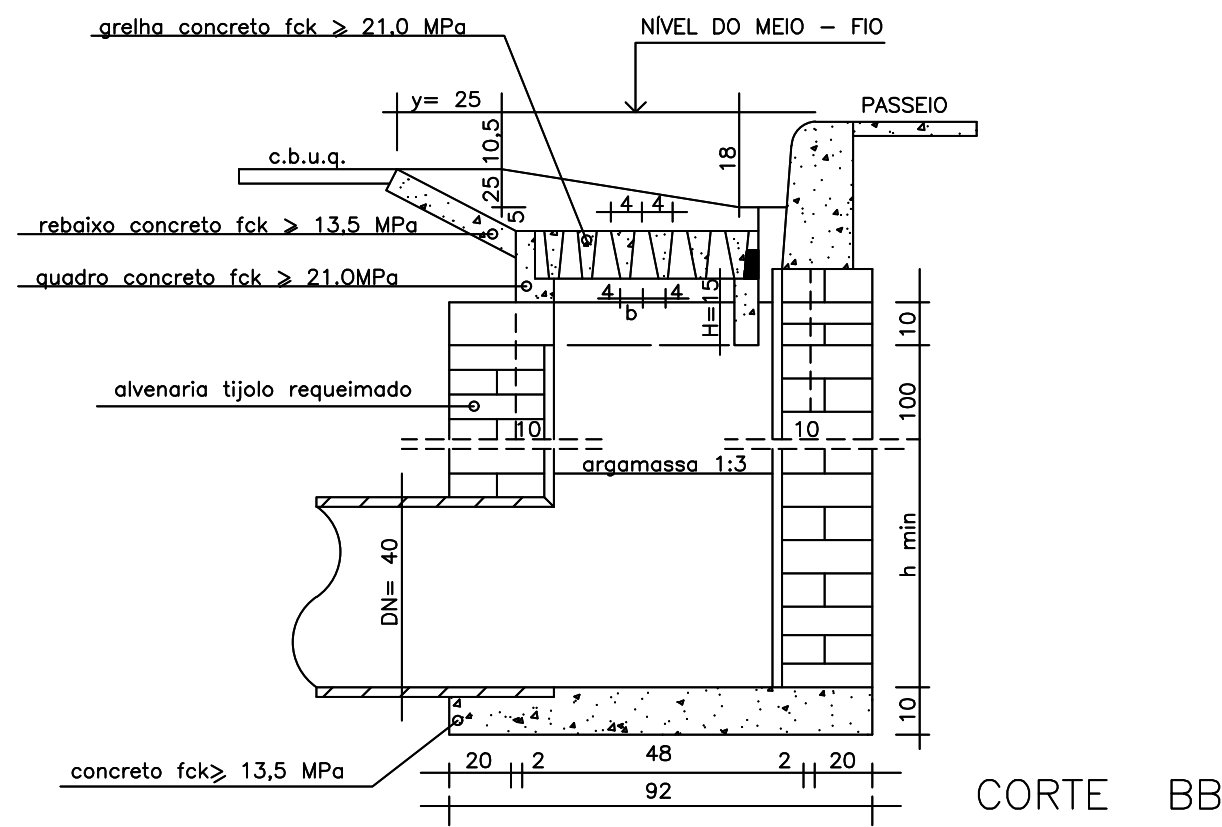
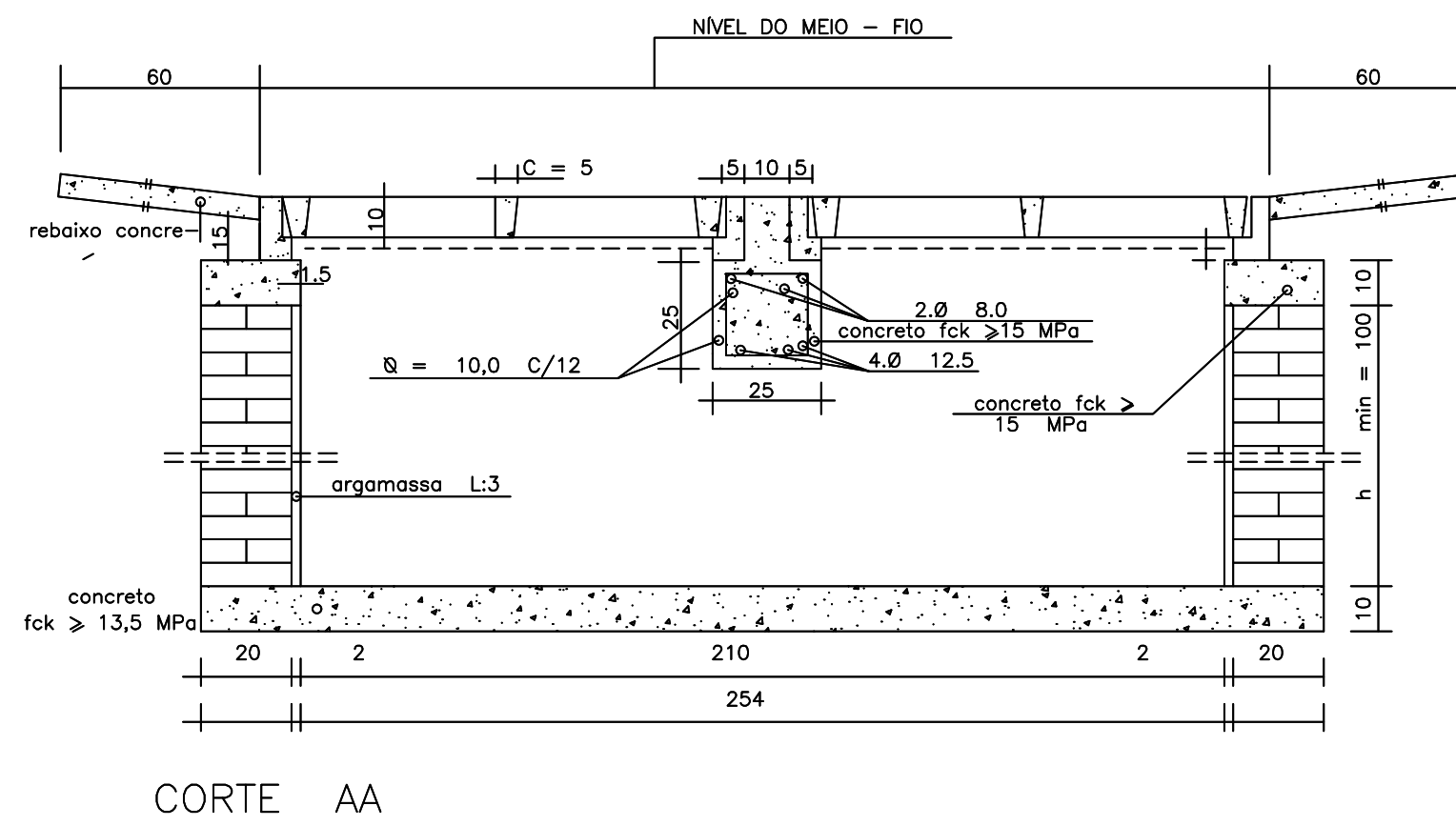


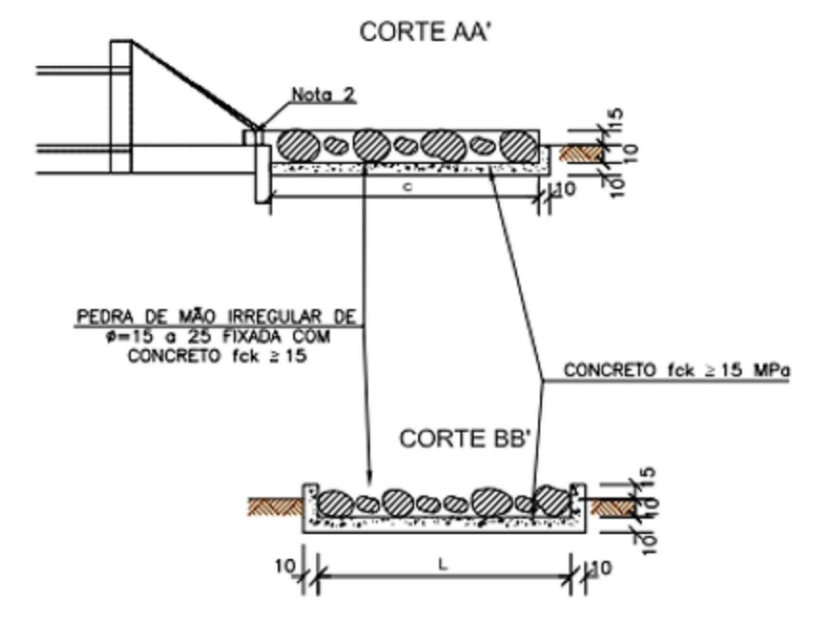
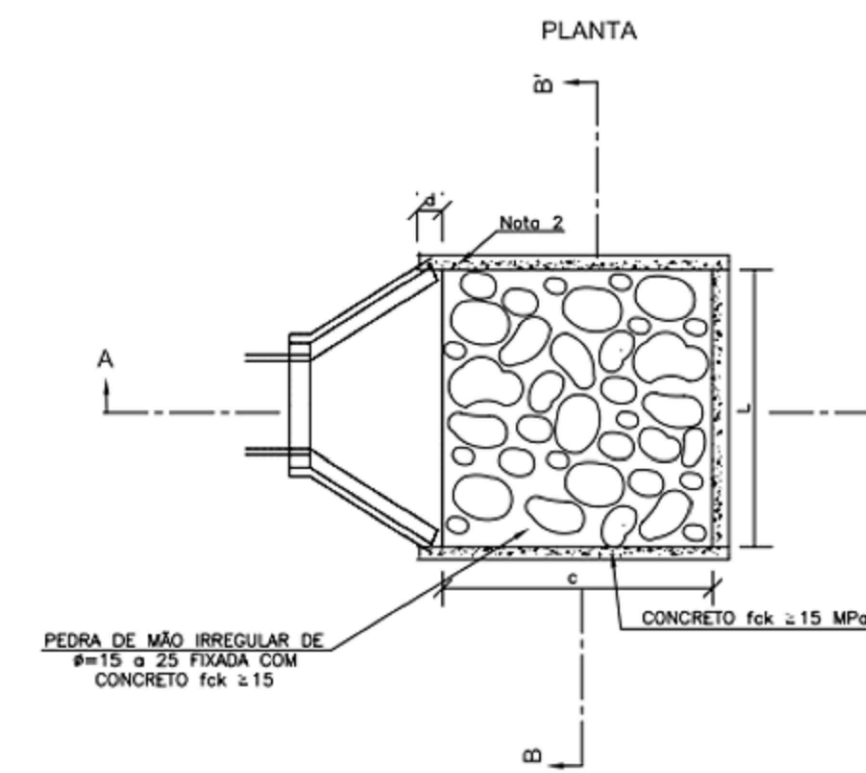
QUANTIDADES		
DESCRIÇÃO	UNID.	QUANT.
ESCAVAÇÃO	m³/un	3,19
QUADRO DE CONC.	un/un	2
GRELHA CONC.	un/un	2
ALVENARIA 0,20	m²/un	6,12
ARGAMASSA 1:3	m²/un	0,11
FORMA	m²/un	0,79
CONCRETO fck>13,5MPa	m³/un	0,36
CONCRETO fck>15,0MPa	m³/un	0,04
AO CA - 50	kg/un	5,60

DIMENSÕES		
VDE " BOCA-DE-LOBO SIMPLES COMBINADA TIPO B "		



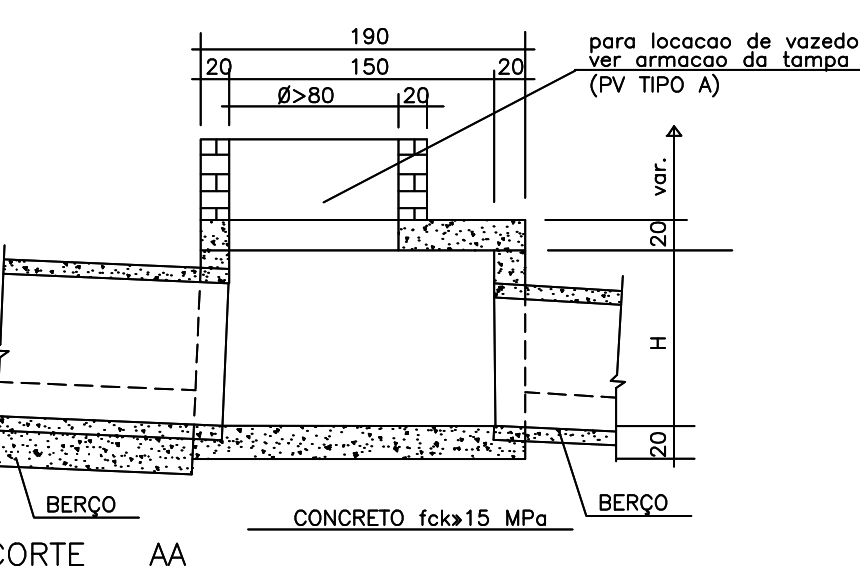
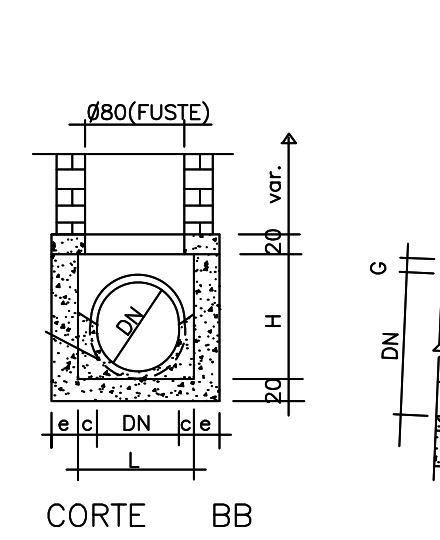
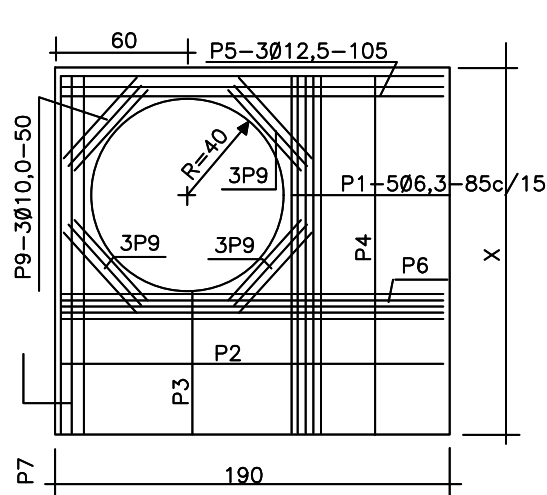
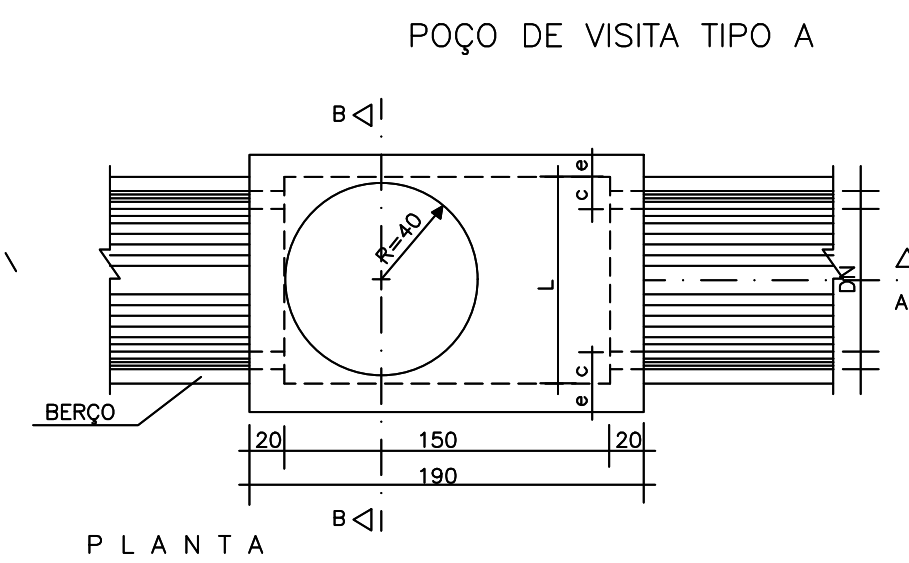
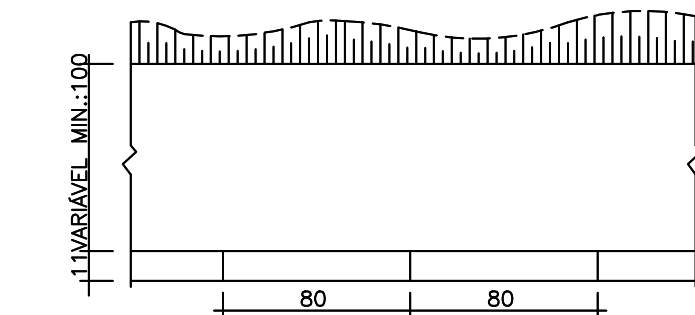
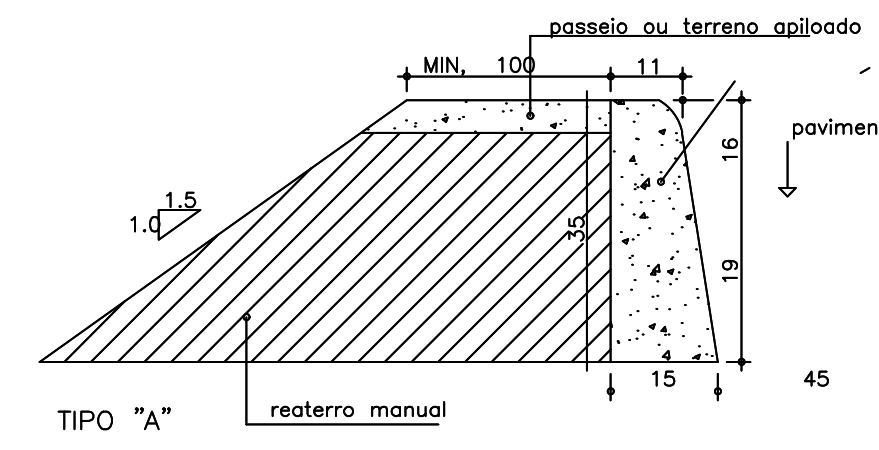
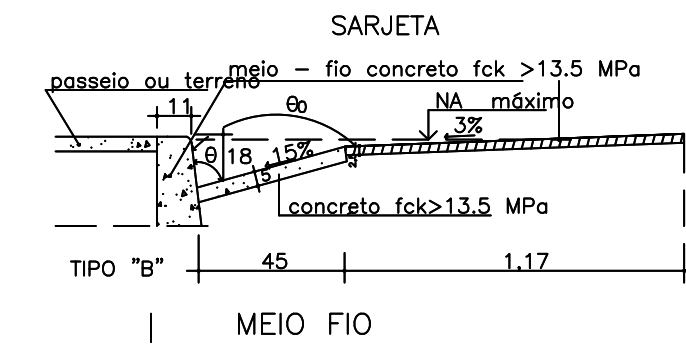
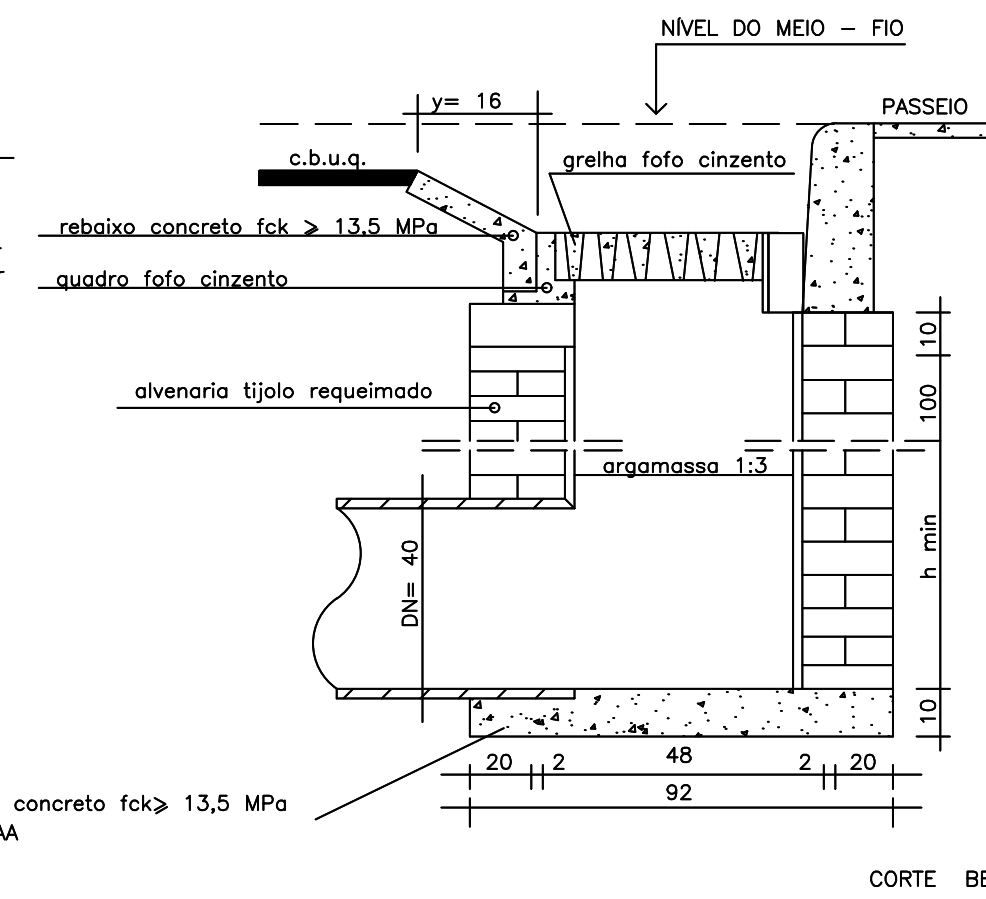
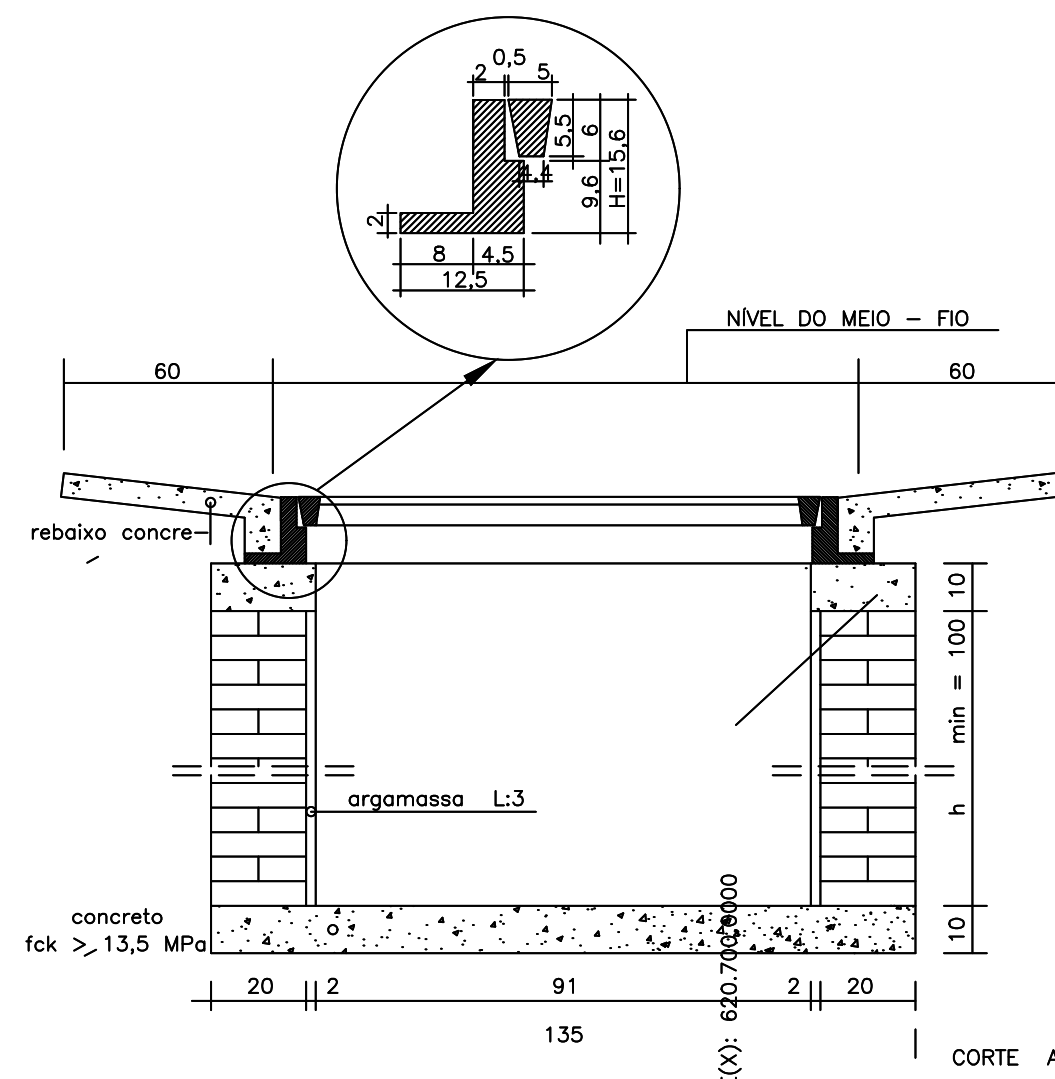
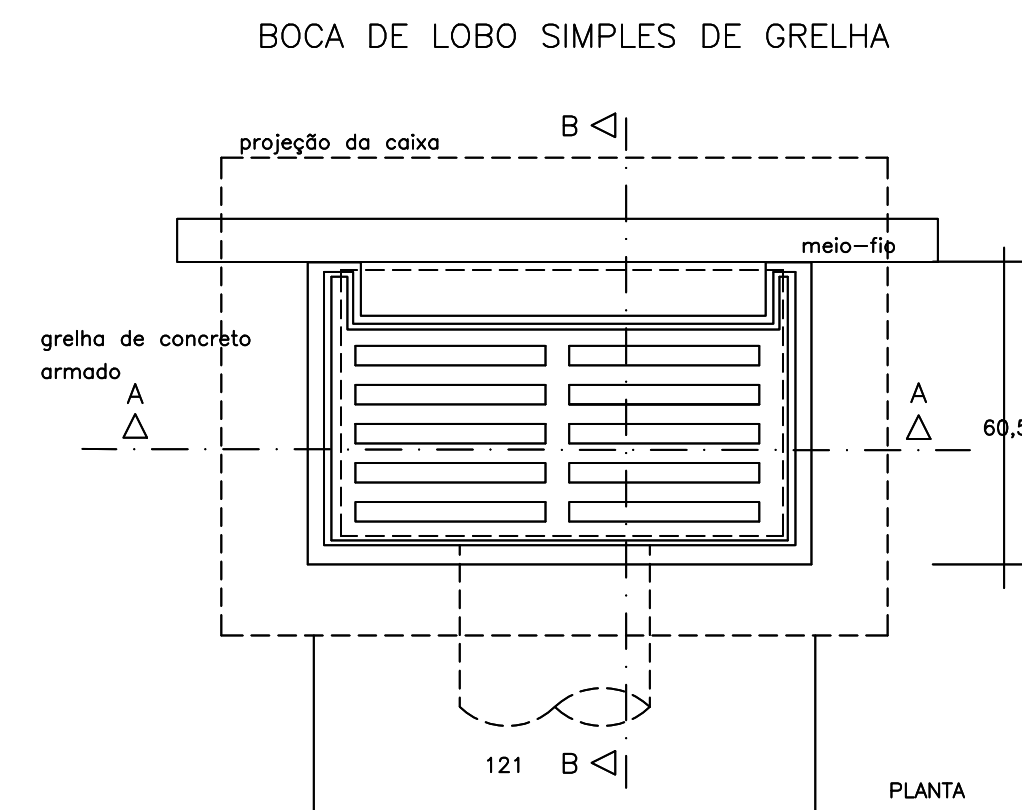
## DISSIPADORES DE ENERGIA (II) APLICÁVEIS À SAÍDAS DE BUEIROS TUBULARES E DESCIDAS D'ÁGUA DE ATERROS - DEB



DIMENSÕES E CONSUMOS MÉDIOS PARA UMA UNIDADE									
TIPO	ADAPTÁVEL EM	G	L	d	e	CONCRETO (m³)	FORMAS (m²)	PEDRA/TEIXOTA COM CONCRETO (m³) (m²/100mm)	ESCAVAÇÃO (m³)
DEB 01	DAB01/02/03	200	70	10	15	0,35700	2,730	0,210	0,294
DEB 02	DAB02/02	200	74	10	15	0,36900	2,742	0,222	0,311
DEB 03	DEB03/04	240	130	30	15	0,65180	5,630	0,468	0,650
DEB 04	DEB04/05/06	300	160	30	15	0,99380	4,680	0,768	1,056
DEB 05	DEB05/07/08	400	190	30	15	1,40300	5,730	1,140	1,558
DEB 06	DEB06/09/10	480	220	30	15	1,87440	6,780	1,384	2,158
DEB 07	DEB07/11/12	560	260	30	15	2,30340	7,860	1,684	2,964
DEB 08	DEB08/13/14	600	310	30	15	2,09900	6,090	1,860	2,542
DEB 09	DEB09/15/16	480	260	30	15	2,44820	7,200	2,592	3,528
DEB 10	DEB10/17/18	560	430	30	15	3,87020	4,370	3,612	4,902
DEB 11	DEB11/19	400	430	30	15	2,79500	6,450	2,580	3,528
DEB 12	DEB12/20	480	500	30	15	3,81700	7,620	3,600	4,800
DEB 13	DEB13/21	600	600	30	15	5,60100	9,360	5,400	7,320

Notas:  
1- Dimensões em cm;  
2- Na conexão com as descidas d'água não são necessárias as pequenas alas, indicadas no desenho;  
3- O concreto de fixação das pedras deverá ter espessura mínima de 10cm.

MT	DEPARTAMENTO NACIONAL DE INFRA-ESTRUTURA DE TRANSPORTES - DNIT	IPR
DISSIPADORES DE ENERGIA (II)		
APLICÁVEIS A SAÍDAS DE BUEIROS TUBULARES E DESCIDAS D'ÁGUA DE ATERROS - DEB		
ALBUM DE PROJETOS-TIPO DE DISPOSITIVOS DE DRENAGEM		DESENHO 1.18



DN (mm)	FORMA (m²/un)	CONCRETO (m³/un)	ACO (kg/un)
100	11,45	1,51	18,4
150	15,47	1,88	19,0
200	19,49	2,25	19,6
250	23,51	2,62	20,2
300	27,53	2,99	20,8
350	31,55	3,36	21,4
400	35,57	3,73	22,0
450	39,59	4,10	22,6
500	43,61	4,47	23,2
550	47,63	4,84	23,8
600	51,65	5,21	24,4
650	55,67	5,58	25,0
700	59,69	5,95	25,6
750	63,71	6,32	26,2
800	67,73	6,69	26,8
850	71,75	7,06	27,4
900	75,77	7,43	28,0
950	79,79	7,80	28,6
1000	83,81	8,17	29,2
1050	87,83	8,54	29,8
1100	91,85	8,91	30,4
1150	95,87	9,28	31,0
1200	99,89	9,65	31,6

DN (mm)	ESPAÇAMENTO (mm)	DIÂMETRO (mm)	ESPAÇAMENTO (mm)
100	80	100	80
150	100	150	100
200	120	200	120
250	140	250	140
300	160	300	160
350	180	350	180
400	200	400	200
450	220	450	220
500	240	500	240
550	260	550	260
600	280	600	280
650	300	650	300
700	320	700	320
750	340	750	340
800	360	800	360
850	380	850	380
900	400	900	400
950	420	950	420
1000	440	1000	440
1050	460	1050	460
1100	480	1100	480
1150	500	1150	500
1200	520	1200	520

DN (mm)	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
100	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
150	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
200	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
250	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
300	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
350	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
400	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
450	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
500	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
550	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
600	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
650	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
700	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
750	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
800	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
850	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
900	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95
950	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
1000	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
1050	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110
1100	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
1150	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
1200	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125

A seguir apresenta-se o QUADRO III com o quadro de armadura das tampas de poços de visita.

X (cm)	P1	P2	P3	P4	P5	P6	P7	P7	P6
100	68,3	2/15	68,3	2/15	68,3	2/15	68,3	2/15	68,3
150	88,3	2/15	88,3	2/15	88,3	2/15	88,3	2/15	88,3
200	108,3	2/15	108,3	2/15	108,3	2/15	108,3	2/15	108,3
250	128,3	2/15	128,3	2/15	128,3	2/15	128,3	2/15	128,3
300	148,3	2/15	148,3	2/15	148,3	2/15	148,3	2/15	148,3
350	168,3	2/15	168,3	2/15	168,3	2/15	168,3	2/15	168,3
400	188,3	2/15	188,3	2/15	188,3	2/15	188,3	2/15	188,3