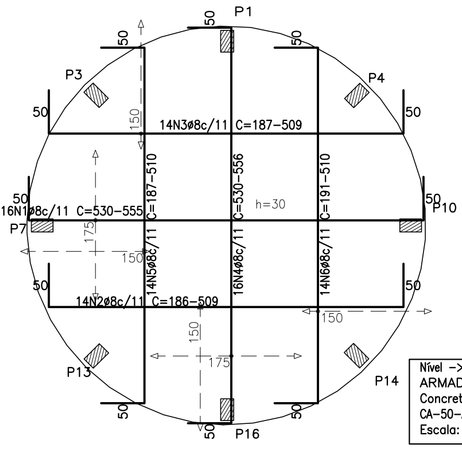
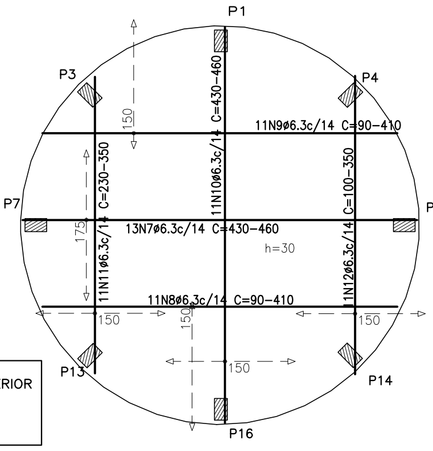
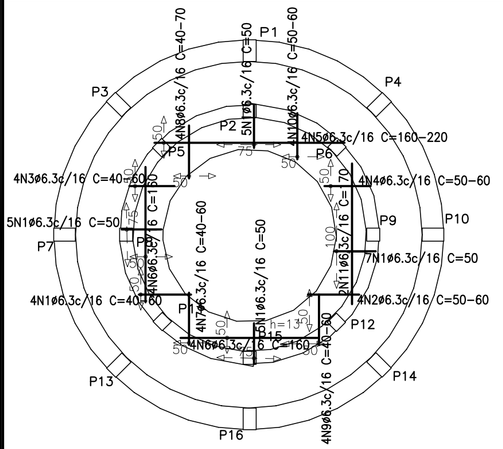


Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50–A (kg)	CA-60–B (kg)
ARMADURA LONG.TRANS.INFERIOR	1	ø8	16	50	VAR.	50	VAR.	8704	34.2	
	2	ø8	14	50	VAR.	50	VAR.	5446	21.4	
	3	ø8	14	50	VAR.	50	VAR.	5446	21.4	
	4	ø8	16	50	VAR.	50	VAR.	8704	34.2	
	5	ø8	14	50	VAR.	50	VAR.	5446	21.4	
	6	ø8	14	50	VAR.	50	VAR.	5474	21.5	
							Total+10%:		169.5	
ARMADURA LONG.TRANS.SUPERIOR	7	ø6.3	13		VAR.		VAR.	5850	14.5	
	8	ø6.3	11		VAR.		VAR.	3245	8.0	
	9	ø6.3	11		VAR.		VAR.	3245	8.0	
	10	ø6.3	11		VAR.		VAR.	4972	12.3	
	11	ø6.3	11		VAR.		VAR.	3542	8.8	
	12	ø6.3	11		VAR.		VAR.	3080	7.6	
							Total+10%:		65.1	
							ø6.3:		65.1	0.0
							ø8:		169.5	0.0
							Total:		234.6	0.0

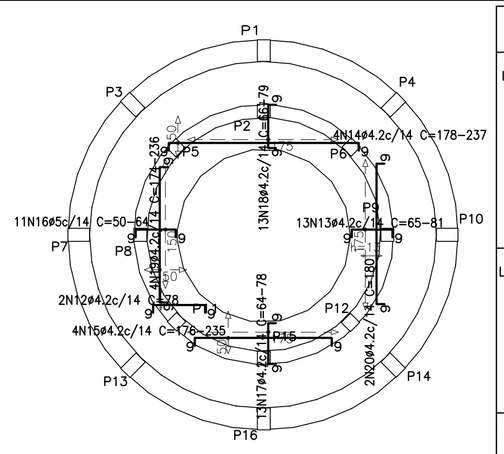
Nível -> -5.15 m
ARMADURA LONG.TRANS.INFERIOR
Concreto: C25, usina.rigor
CA-50-A e CA-60-B
Escala: 1:50



Nível -> -5.15 m
ARMADURA LONG.TRANS.SUPERIOR
Concreto: C25, usina.rigor
CA-50-A e CA-60-B
Escala: 1:50

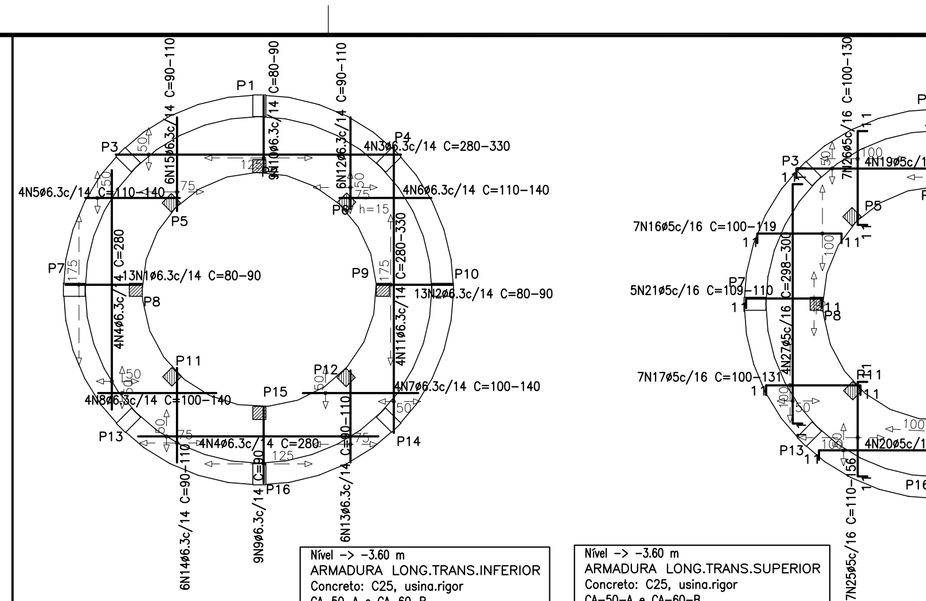


Nível -> -2.50 m
ARMADURA LONG.TRANS.INFERIOR
Concreto: C25, usina.rigor
CA-50-A e CA-60-B
Escala: 1:50

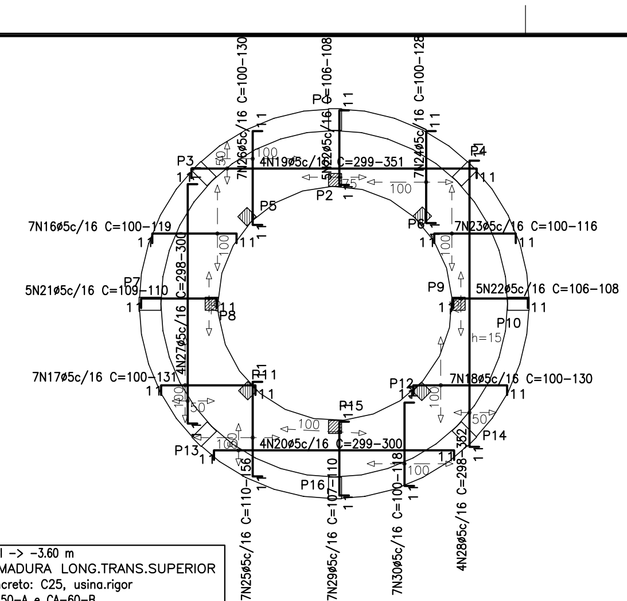


Nível -> -2.50 m
ARMADURA LONG.TRANS.SUPERIOR
Concreto: C25, usina.rigor
CA-50-A e CA-60-B
Escala: 1:50

Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50–A (kg)	CA-60–B (kg)
ARMADURA LONG.TRANS.INFERIOR	1	ø6.3	26		VAR.		VAR.	1300	3.2	
	2	ø6.3	4		VAR.		VAR.	220	0.5	
	3	ø6.3	4		VAR.		VAR.	200	0.5	
	4	ø6.3	4		VAR.		VAR.	220	0.5	
	5	ø6.3	4		VAR.		VAR.	760	1.9	
	6	ø6.3	8		160		VAR.	1280	3.2	
	7	ø6.3	4		VAR.		VAR.	200	0.5	
	8	ø6.3	4		VAR.		VAR.	220	0.5	
	9	ø6.3	4		VAR.		VAR.	200	0.5	
	10	ø6.3	4		VAR.		VAR.	220	0.5	
	11	ø6.3	2		170		170	340	0.8	
							Total+10%:		13.9	
ARMADURA LONG.TRANS.SUPERIOR	12	ø4.2	2	9	60	9	78	156		0.2
	13	ø4.2	13	9	VAR.	9	VAR.	923		1.0
	14	ø4.2	4	9	VAR.	9	VAR.	832		0.9
	15	ø4.2	4	9	VAR.	9	VAR.	824		0.9
	16	ø5	11	9	VAR.	9	VAR.	660		1.0
	17	ø4.2	13	9	VAR.	9	VAR.	897		1.0
	18	ø4.2	13	9	VAR.	9	VAR.	936		1.0
	19	ø4.2	4	9	VAR.	9	VAR.	820		0.9
	20	ø4.2	2	9	162	9	180	360		0.4
							Total+10%:			8.0
							ø4.2:		0.0	6.9
							ø5:		0.0	1.1
							ø6.3:		13.9	0.0
							Total:		13.9	8.0



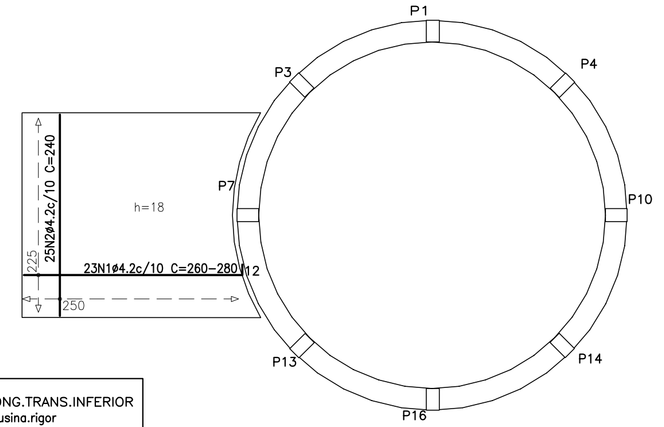
Nível -> -3.60 m
ARMADURA LONG.TRANS.INFERIOR
Concreto: C25, usina.rigor
CA-50-A e CA-60-B
Escala: 1:50



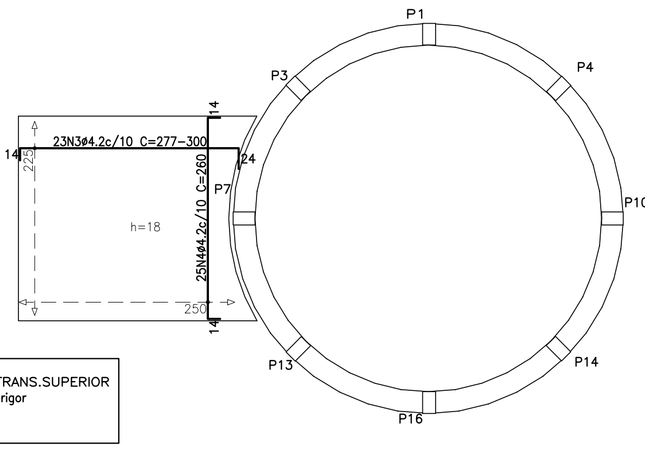
Nível -> -3.60 m
ARMADURA LONG.TRANS.SUPERIOR
Concreto: C25, usina.rigor
CA-50-A e CA-60-B
Escala: 1:50

Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50–A (kg)	CA-60–B (kg)
ARMADURA LONG.TRANS.INFERIOR	1	ø6.3	13		VAR.		VAR.	1131	2.8	
	2	ø6.3	13		VAR.		VAR.	1092	2.7	
	3	ø6.3	4		VAR.		VAR.	1220	3.0	
	4	ø6.3	8		280		280	2240	5.5	
	5	ø6.3	4		VAR.		VAR.	500	1.2	
	6	ø6.3	4		VAR.		VAR.	500	1.2	
	7	ø6.3	4		VAR.		VAR.	480	1.2	
	8	ø6.3	4		VAR.		VAR.	480	1.2	
	9	ø6.3	9		90		90	810	2.0	
	10	ø6.3	9		VAR.		VAR.	774	1.9	
	11	ø6.3	4		VAR.		VAR.	1220	3.0	
	12	ø6.3	6		VAR.		VAR.	600	1.5	
	13	ø6.3	6		VAR.		VAR.	600	1.5	
	14	ø6.3	6		VAR.		VAR.	600	1.5	
	15	ø6.3	6		VAR.		VAR.	600	1.5	
							Total+10%:		34.9	
ARMADURA LONG.TRANS.SUPERIOR	16	ø5	7	11	VAR.	11	VAR.	770		1.2
	17	ø5	7	11	VAR.	11	VAR.	805		1.3
	18	ø5	7	11	VAR.	11	VAR.	805		1.3
	19	ø5	4	11	VAR.	11	VAR.	1300		2.0
	20	ø5	4	11	277	11	299	1196		1.9
	21	ø5	5	11	87	11	109	545		0.9
	22	ø5	10	11	86	11	108	1080		1.7
	23	ø5	7	11	VAR.	11	VAR.	763		1.2
	24	ø5	7	11	VAR.	11	VAR.	805		1.3
	25	ø5	7	11	VAR.	11	VAR.	938		1.5
	26	ø5	7	11	VAR.	11	VAR.	805		1.3
	27	ø5	4	11	276	11	298	1192		1.9
	28	ø5	4	11	VAR.	11	VAR.	1300		2.0
	29	ø5	7	11	85	11	107	749		1.2
	30	ø5	7	11	VAR.	11	VAR.	770		1.2
							Total+10%:			24.1
							ø5:		0.0	24.1
							ø6.3:		34.9	0.0
							Total:		34.9	24.1

Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50–A (kg)	CA-60–B (kg)
ARMADURA LONG.TRANS.INFERIOR	1	ø4.2	23	12	VAR.		VAR.	6141		6.7
	2	ø4.2	25		240		240	6000		6.5
							Total+10%:			14.5
ARMADURA LONG.TRANS.SUPERIOR	3	ø4.2	23	14	VAR.	24	VAR.	6601		7.2
	4	ø4.2	25	14	232	14	260	6500		7.1
							Total+10%:			15.7
							ø4.2:		0.0	30.2
							Total:		0.0	30.2

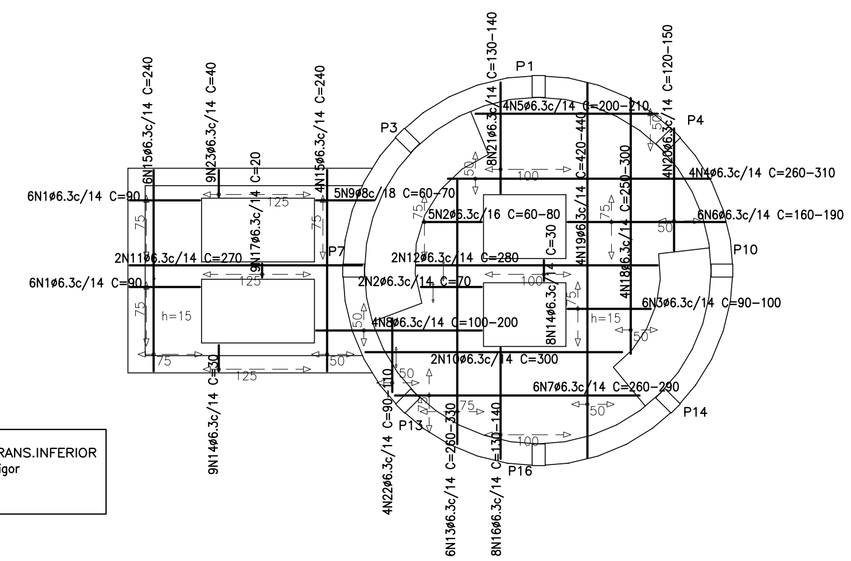


Nível -> -1.60 m
ARMADURA LONG.TRANS.INFERIOR
Concreto: C25, usina.rigor
CA-50-A e CA-60-B
Escala: 1:50

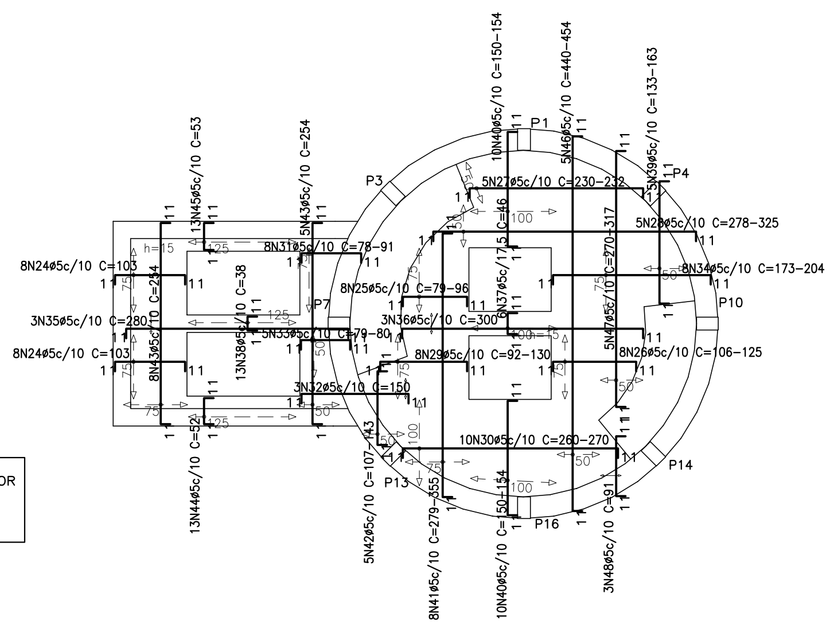


Nível -> -1.60 m
ARMADURA LONG.TRANS.SUPERIOR
Concreto: C25, usina.rigor
CA-50-A e CA-60-B
Escala: 1:50

Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50–A (kg)	CA-60–B (kg)
ARMADURA LONG.TRANS.INFERIOR	1	ø6.3	12		90		90	1080	2.7	
	2	ø6.3	7		VAR.		VAR.	490	1.2	
	3	ø6.3	6		VAR.		VAR.	582	1.4	
	4	ø6.3	4		VAR.		VAR.	1140	2.8	
	5	ø6.3	4		VAR.		VAR.	820	2.0	
	6	ø6.3	6		VAR.		VAR.	1062	2.6	
	7	ø6.3	6		VAR.		VAR.	1662	4.1	
	8	ø6.3	4		VAR.		VAR.	600	1.5	
	9	ø8	5		VAR.		VAR.	335	1.3	
	10	ø6.3	2		300		300	600	1.5	
	11	ø6.3	2		270		270	540	1.3	
	12	ø6.3	2		280		280	560	1.4	
	13	ø6.3	6		VAR.		VAR.	1800	4.5	
	14	ø6.3	17		30		30	510	1.3	
	15	ø6.3	10		240		240	2400	5.9	
	16	ø6.3	8		VAR.		VAR.	1104	2.7	
	17	ø6.3	9		20		20	180	0.4	
	18	ø6.3	4		VAR.		VAR.	1100	2.7	
	19	ø6.3	4		VAR.		VAR.	1720	4.3	
	20	ø6.3	4		VAR.		VAR.	540	1.3	
	21	ø6.3	8		VAR.		VAR.	1104	2.7	
	22	ø6.3	4		VAR.		VAR.	400	1.0	
	23	ø6.3	9		40		40	360	0.9	
							Total+10%:		56.7	
ARMADURA LONG.TRANS.SUPERIOR	24	ø5	16	11	81	11	103	1648		2.6
	25	ø5	8	11	VAR.	11	VAR.	704		1.1
	26	ø5	8	11	VAR.	11	VAR.	928		1.5
	27	ø5	5	11	208	11	230	1150		1.8
	28	ø5	5	11	VAR.	11	VAR.	1510		2.4
	29	ø5	8	11	VAR.	11	VAR.	920		1.4
	30	ø5	10	11	VAR.	11	VAR.	2650		4.2
	31	ø5	8	11	VAR.	11	VAR.	672		1.1
	32	ø5	3	11	128	11	150	450		0.7
	33	ø5	5	11	57	11	79	395		0.6
	34	ø5	8	11	VAR.	11	VAR.	1528		2.4
	35	ø5	3	11	258	11	280	840		1.3
	36	ø5	3	11	278	11	300	900		1.4
	37	ø5	6	11	24	11	46	276		0.4
	38	ø5	13	11	16	11	38	494		0.8
	39	ø5	5	11	VAR.	11	VAR.	740		1.2
	40	ø5	20	11	132	11	154	3080		4.8
	41	ø5	8	11	VAR.	11	VAR.	2560		4.0
	42	ø5	5	11	VAR.	11	VAR.	625		1.0
	43	ø5	13	11	232	11	254	3302		5.2
	44	ø5	13	11	30	11	52	676		1.1
	45	ø5	13	11	31	11	53	689		1.1
	46	ø5	5	11	VAR.	11	VAR.	2235		3.5
	47	ø5	5	11	VAR.	11	VAR.	1470		2.3
	48	ø5	3	11	69	11	91	273		0.4
							Total+10%:			53.1
							ø5:		0.0	53.1
							ø6.3:		55.2	0.0
							ø8:		1.5	0.0
							Total:		56.7	53.1



Nível -> 0,00
ARMADURA LONG.TRANS.INFERIOR
Concreto: C25, usina.rigor
CA-50-A e CA-60-B
Escala: 1:50



Nível -> 0,00
ARMADURA LONG.TRANS.SUPERIOR
Concreto: C25, usina.rigor
CA-50-A e CA-60-B
Escala: 1:50

LEGENDA:

NOTAS

ARTICULAÇÃO:

REVISÕES

Nº	NATUREZA DA REVISÃO	DATA	APROVO
00			
01			
02			
03			
04			
05			

CODEVASF

ELABORADO POR:

KL ENGENHARIA

MINISTÉRIO DA INTEGRAÇÃO NACIONAL - MI
COMPANHIA DE DESENVOLVIMENTO DOS VALES DO SÃO FRANCISCO E DO PARNAÍBA - CODEVASF

OBRA:
PROJETO BÁSICO DO SISTEMA DE ESGOTAMENTO SANITÁRIO DE OUROLANDIA - BA

ASSUNTO:
PROJETO ESTRUTURAL - EEE_01
LAJES MACIÇAS - ARMAÇAO

ENG. JOSÉ MENESCAL NETO	CREA 2066/D - CE	DATA:	MARÇO/2009
ENG.	CREA	ESCALA:	INDICADA
ENG.	CREA	ARQUIVO:	04-OUR-PB-EST-EEE_01-R0