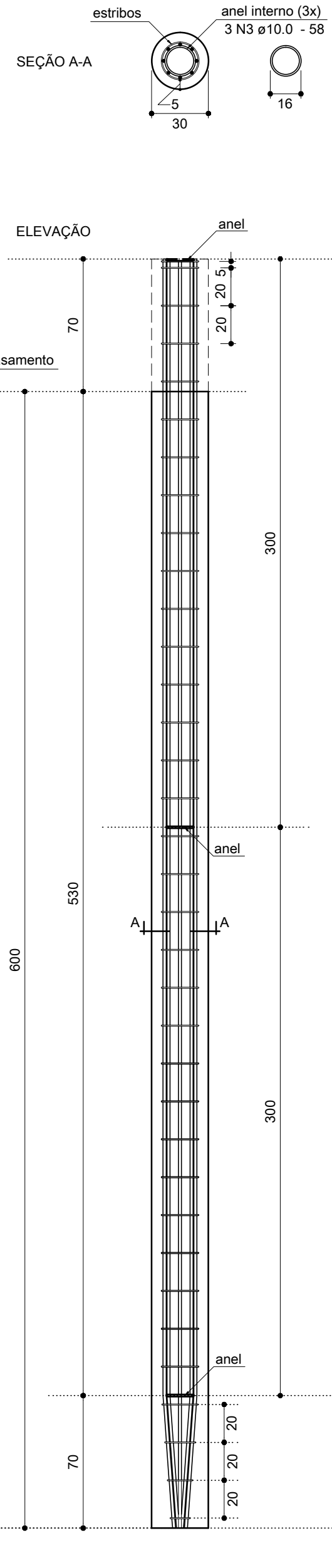


**ESTACA TIPO I
(203x)
ø30cm**

BLOCO (n° de estacas)

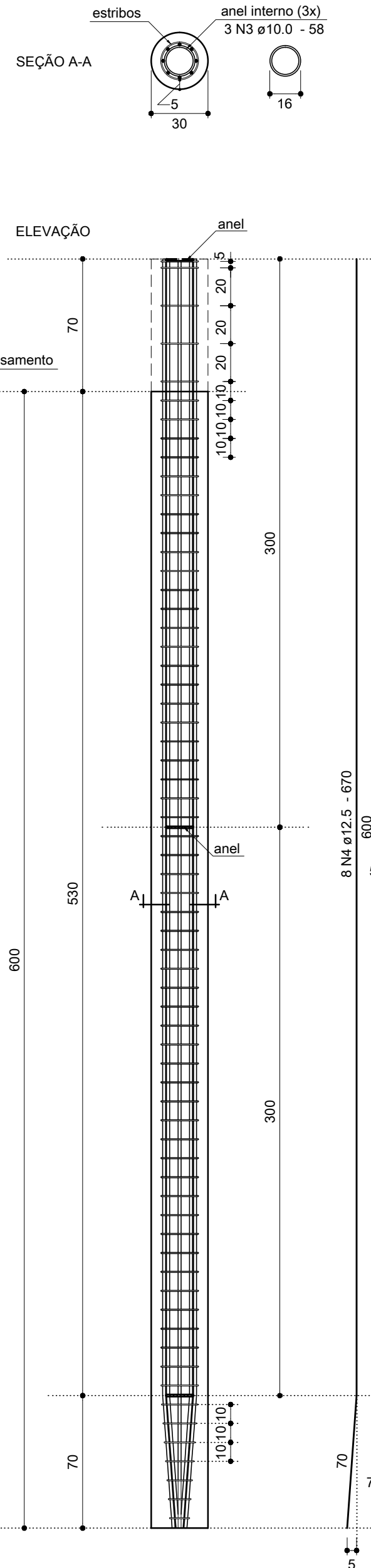
B153 (3)
B154 (4)
B155(J)(4)
B156 (4)
B157 (4)
B158 (4)
B217 (3)
B218 (4)
B219 (4)
B220 (3)
B230 (4)
B231(J)(4)
B232 (4)
B233 (4)
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B235(J)(4)
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B238 (4)
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B273 (4)
B274(J)(4)
B275 (3)
B276 (3)
B292(J)(4)
B294(J)(4)
B295(J)(4)
B296(J)(4)
B297(J)(4)
B298(J)(4)
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B397 (3)
B398 (3)



**ESTACA TIPO J
(115x)
ø30cm**

BLOCO (n° de estacas)

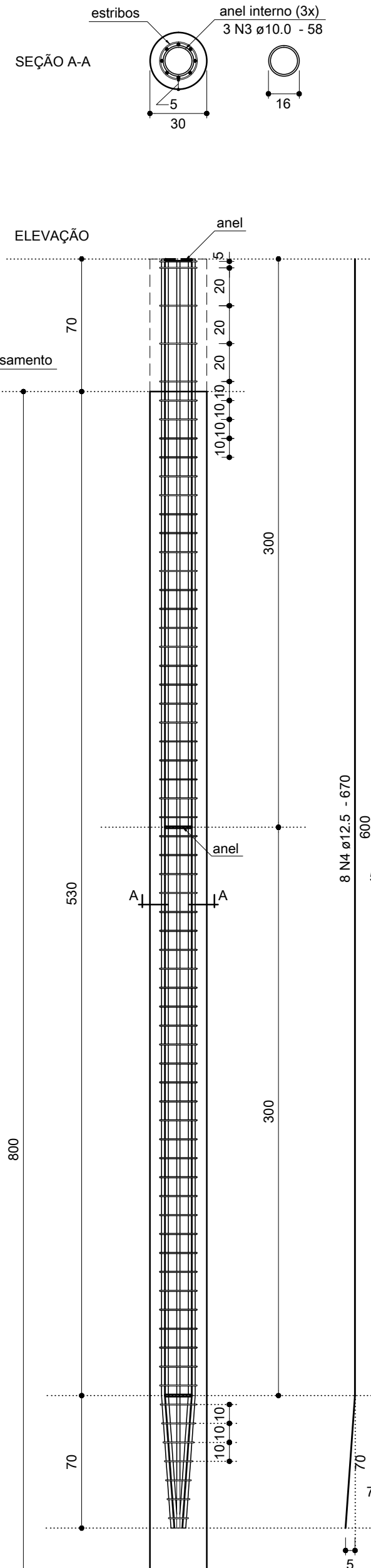
B107 (4)
B108 (4)
B109 (3)
B110 (4)
B111 (4)
B138 (3)
B159 (4)
B160 (3)
B161 (3)
B162 (4)
B166 (3)
B214 (3)
B239 (4)
B328A (3)
B329B (3)
B351 (3)
B300(J)(4)
B362 (3)
B404 (3)
B409(J)(4)
B410 (3)
B411 (3)
B412 (3)
B413 (3)
B414 (4)
B415 (4)
B416(J)(4)
B417 (4)
B418 (4)
B419 (4)
B420 (4)
BR5 (3)
BR6 (3)



**ESTACA TIPO K
(2x)
ø30cm**

BLOCO (n° de estacas)

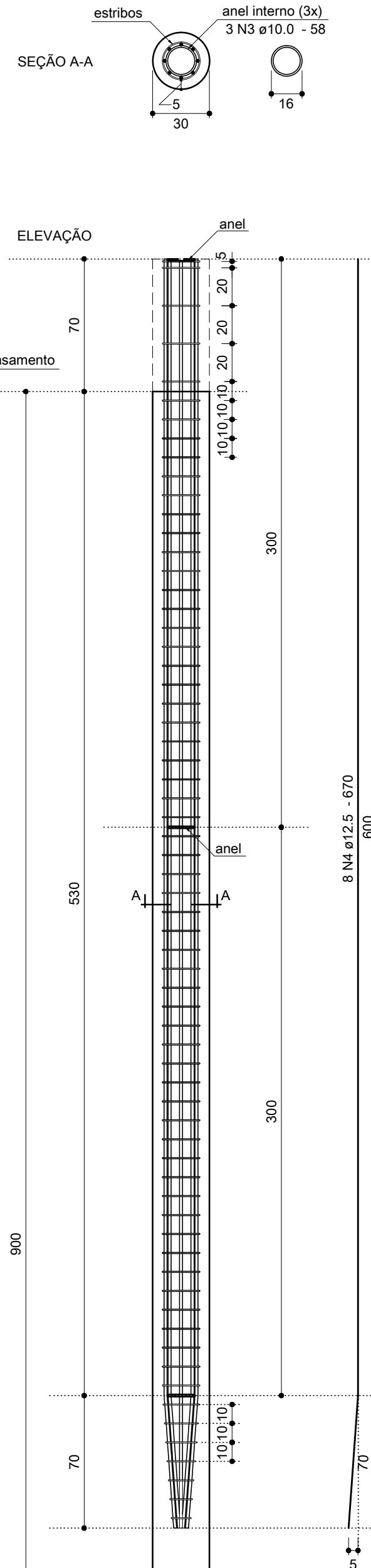
BR101 (2)



**ESTACA TIPO L
(24x)
ø30cm**

BLOCO (n° de estacas)

B101 (4)
B102 (4)
B103 (4)
B104(J)(4)
B105 (4)
B106 (4)



Relação total do aço

ESTACA TIPO I (203x)				ESTACA TIPO K (2x)			
AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)	VAR	C.TOTAL (cm)
CA50	1	6.3	14471	71	1027441		
	2	6.3	1799	58	59856		
	3	10.0	1032	670	1843840		
	4	12.5	2752				

Resumo total do aço

AÇO	DIAM	C.TOTAL (m)	PESO (kg)
CA50	6.3	11371.8	2782.7
	10.0	598.6	369
	12.5	18438.4	17762.4
PESO TOTAL (kg)		Vol. concreto = 168.42 m³	
CA50	20914.2		

QUADRO 01 - BLOCOS COM ESTACAS COM Ø = 300mm																			
PR1	PR2	PR3	PR4	PR5	PR6	PR7	PR8	PR9	PR10	PR11	PR12	PR13	PR14	PR15	PR16	PR17	PR18	PR19	PR20
24	28	29	32	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
60	64	70	72	80	81	82	83	84	85										
86	87	88	89	90	91	92	93	94	95										
119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138
142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161
168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187
178	179	180	186	197	198	199	200	201	202										
203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222
223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242
256	258	259	257	258	269	273	274	282	283	284									
285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304
313	314	315	316	317	318	319	320	321	322	323									
333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352
353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372
374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389				
390	391	392	393	395	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411
418	419	420																	

QUADRO 02 - BLOCOS COM ESTACAS COM Ø = 300mm

PR1	PR2	PR3	PR4	PR5	PR6	PR7	PR8	PR9	PR10	PR11	PR12	PR13	PR14	PR15	PR16	PR17	PR18	PR19	PR20	PR21	PR22	PR23	PR24	PR25	PR26	PR27	PR28	PR29	PR30	PR31	PR32	PR33	PR34	PR35	PR36	PR37	PR38	PR39	PR40	PR41	PR42	PR43	PR44	PR45	PR46	PR47	PR48	PR49	PR50	PR51	PR52	PR53	PR54	PR55	PR56	PR57	PR58	PR59	PR60	PR61	PR62	PR63	PR64	PR65	PR66	PR67	PR68	PR69	PR70	PR71	PR72	PR73	PR74	PR75	PR76	PR77	PR78	PR79	PR80	PR81	PR82	PR83	PR84	PR85	PR86	PR87	PR88	PR89	PR90	PR91	PR92	PR93	PR94	PR95	PR96	PR97	PR98	PR99	PR100	PR101	PR102	PR103	PR104	PR105	PR106	PR107	PR108	PR109	PR110	PR111	PR112	PR113	PR114	PR115	PR116	PR117	PR118	PR119	PR120	PR121	PR122	PR123	PR124	PR125	PR126	PR127	PR128	PR129	PR130	PR131	PR132	PR133	PR134	PR135	PR136	PR137	PR138	PR139	PR140	PR141	PR142	PR143	PR144	PR145	PR146	PR147	PR148	PR149	PR150	PR151	PR152	PR153	PR154	PR155	PR156	PR157	PR158	PR159	PR160	PR161	PR162	PR163	PR164	PR165	PR166	PR167	PR168	PR169	PR170	PR171	PR172	PR173	PR174	PR175	PR176	PR177	PR178	PR179	PR180	PR181	PR182	PR183	PR184	PR185	PR186	PR187	PR188	PR189	PR190	PR191	PR192	PR193	PR194	PR195	PR196	PR197	PR198	PR199	PR200	PR201	PR202	PR203	PR204	PR205	PR206	PR207	PR208	PR209	PR210	PR211	PR212	PR213	PR214	PR215	PR216	PR217	PR218	PR219	PR220	PR221	PR222	PR223	PR224	PR225	PR226	PR227	PR228	PR229	PR230	PR231	PR232	PR233	PR234	PR235	PR236	PR237	PR238	PR239	PR240	PR241	PR242	PR243	PR244	PR245	PR246	PR247	PR248	PR249	PR250	PR251	PR252	PR253	PR254	PR255	PR256	PR257	PR258	PR259	PR260	PR261	PR262	PR263	PR264	PR265	PR266	PR267	PR268	PR269	PR270	PR271	PR272	PR273	PR274	PR275	PR276	PR277	PR278	PR279	PR280	PR281	PR282	PR283	PR284	PR285	PR286	PR287	PR288	PR289	PR290	PR291	PR292	PR293	PR294	PR295	PR296	PR297	PR298	PR299	PR300	PR301	PR302	PR303	PR304	PR305	PR306	PR307	PR308	PR309	PR310	PR311	PR312	PR313	PR314	PR315	PR316	PR317	PR318	PR319	PR320	PR321	PR322	PR323	PR324	PR325	PR326	PR327	PR328	PR329	PR330	PR331	PR332	PR333	PR334	PR335	PR336	PR337	PR338	PR339	PR340	PR341	PR342	PR343	PR344	PR345	PR346	PR347	PR348	PR349	PR350	PR351	PR352	PR353	PR354	PR355	PR356	PR357	PR358	PR359	PR360	PR361	PR362	PR363	PR364	PR365	PR366	PR367	PR368	PR369	PR370	PR371	PR372	PR373	PR374	PR375	PR376	PR377	PR378	PR379	PR380	PR381	PR382	PR383	PR384	PR385	PR386	PR387	PR388	PR389	PR390	PR391	PR392	PR393	PR394	PR395	PR396	PR397	PR398	PR399	PR400	PR401	PR402	PR403	PR404	PR405	PR406	PR407	PR408	PR409	PR410	PR411	PR412	PR413	PR414	PR415	PR416	PR417	PR418	PR419	PR420	PR421	PR422	PR423	PR424	PR425	PR426	PR427	PR428	PR429	PR430	PR431	PR432	PR433	PR434	PR435	PR436	PR437	PR438	PR439	PR440	PR441	PR442	PR443	PR444	PR445	PR446	PR447	PR448	PR449	PR450	PR451	PR452	PR453	PR454	PR455	PR456	PR457	PR458	PR459	PR460	PR461	PR462	PR463	PR464	PR465	PR466	PR467	PR468	PR469	PR470	PR471	PR472	PR473	PR474	PR475	PR476	PR477	PR478	PR479	PR480	PR481	PR482	PR483	PR484	PR485	PR486	PR487	PR488	PR489	PR490	PR491	PR492	PR493	PR494	PR495	PR496	PR497	PR498	PR499	PR500	PR501	PR502	PR503	PR504	PR505	PR506	PR507	PR508	PR509	PR510	PR511	PR512	PR513	PR514	PR515	PR516	PR517	PR518	PR519	PR520	PR521	PR522	PR523	PR524	PR525	PR526	PR527	PR528	PR529	PR530	PR531	PR532	PR533	PR534	PR535	PR536	PR537	PR538	PR539	PR540	PR541	PR542	PR543	PR544	PR545	PR546	PR547	PR548	PR549	PR550	PR551	PR552	PR553	PR554	PR555	PR556	PR557	PR558	PR559	PR560	PR561	PR562	PR563	PR564	PR565	PR566	PR567	PR568	PR569	PR570	PR571	PR572	PR573	PR574	PR575	PR576	PR577	PR578	PR579	PR580	PR581	PR582	PR583	PR584	PR585	PR586	PR587	PR588	PR589	PR590	PR591	PR592	PR593	PR594	PR595	PR596	PR597	PR598	PR599	PR600	PR601	PR602	PR603	PR604	PR605	PR606	PR607	PR608	PR609	PR610	PR611	PR612	PR613	PR614	PR615	PR616	PR617	PR618	PR619	PR620	PR621	PR622	PR623	PR624	PR625	PR626	PR627	PR628	PR629	PR630	PR631	PR632	PR633	PR634	PR635	PR636	PR637	PR638	PR639	PR640	PR641	PR642	PR643	PR644	PR645	PR646	PR647	PR648	PR649	PR650	PR651	PR652	PR653	PR654	PR655	PR656	PR657	PR658	PR659	PR660	PR661	PR662	PR663	PR664	PR665	PR666	PR667	PR668	PR669	PR670	PR671	PR672	PR673	PR674	PR675	PR676	PR677	PR678	PR679	PR680	PR681	PR682	PR683	PR684	PR685	PR686	PR687	PR688	PR689	PR690	PR691	PR692	PR693	PR694	PR695	PR696	PR697	PR698	PR699	PR700	PR701	PR702	PR703	PR704	PR705	PR706	PR707	PR708	PR709	PR710	PR711	PR712	PR713	PR714	PR715	PR716	PR717	PR718	PR719	PR720	PR721	PR722	PR723	PR724	PR725	PR726	PR727	PR728	PR729	PR730	PR731	PR732	PR733	PR734	PR735	PR736	PR737	PR738	PR739	PR740	PR741	PR742	PR743	PR744	PR745	PR746	PR747	PR748	PR749	PR750	PR751	PR752	PR753	PR754	PR755	PR756	PR757	PR758	PR759	PR760	PR761	PR762	PR763	PR764	PR765	PR766	PR767	PR768	PR769	PR770	PR771	PR772	PR773	PR774	PR775	PR776	PR777	PR778	PR779	PR780	PR781	PR782	PR783	PR784	PR785	PR786	PR787	PR788	PR789	PR790	PR791	PR792	PR793	PR794	PR795	PR796	PR797	PR798	PR799	PR800	PR801	PR802	PR803	PR804	PR805	PR806	PR807	PR808	PR809	PR810	PR811	PR812	PR813	PR814	PR815	PR816	PR817	PR818	PR819	PR820	PR821	PR822	PR823	PR824	PR825	PR826	PR827	PR828	PR829	PR830	PR831	PR832	PR833	PR834	PR835	PR836	PR837	PR838	PR839	PR840	PR841	PR842	PR843	PR844	PR845	PR846	PR847	PR848	PR849	PR850	PR851	PR852	PR853	PR854	PR855	PR856	PR857	PR858	PR859	PR860	PR861	PR862	PR863	PR864	PR865	PR866	PR867	PR868	PR869	PR870	PR871	PR872	PR873	PR874	PR875	PR876	PR877	PR878	PR879	PR880	PR881	PR882	PR883	PR884	PR885	PR886	PR887	PR888	PR889	PR890	PR891	PR892	PR893	PR894	PR895	PR896	PR897	PR898	PR899	PR900	PR901	PR902	PR903	PR904	PR905	PR906	PR907	PR908	PR909	PR910	PR911	PR912	PR913	PR914	PR915	PR916	PR917	PR918	PR919	PR920	PR921	PR922	PR923	PR924	PR925	PR926	PR927	PR928	PR929	PR930	PR931	PR932	PR933	PR934	PR935	PR936	PR937	PR938	PR939	PR940	PR941	PR942	PR943	PR944	PR945	PR946	PR947	PR948	PR949	PR950	PR951	PR952	PR953	PR954	PR955	PR956	PR957	PR958	PR959	PR960	PR961	PR962	PR963	PR964	PR965	PR966	PR967	PR968	PR969	PR970	PR971	PR972	PR973	PR974	PR975	PR976	PR977	PR978	PR979	PR980	PR981	PR982	PR983	PR984	PR985	PR986	PR987	PR988	PR989	PR990	PR991	PR992	PR993	PR994	PR995	PR996	PR997	PR998	PR999	PR1000
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NOTAS TÉCNICAS:

- (1) Os quadros acima estabelecem o planejamento executivo da obra quanto ao diâmetro das estacas HC empregadas.
- (2) A Proger Engenharia tem ciência da execução das estacas do Quadro 02 com diâmetro de 350mm e autoriza as modificações abaixo descritas.
- (3) As estacas de 350mm dos blocos descritos no Quadro 02 poderão ter sua profundidade reduzida em 1,00m, pois continuarão a atender às respectivas capacidades de carga admissíveis, necessárias ao projeto.
- (4) A redução da profundidade descrita em (3) acima, fica limitada à profundidade mínima, em qualquer caso, de 4,00m.

Engº Dionísio Augusto Amricano de Neves e Souza
CREA-RJ 52.791-D - PROGER ENGENHARIA LTDA

Relação do aço

203xESTACA TIPO I

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA50	1	6.3	6293	71	446803
	2	6.3	812	VAR	VAR
	3	10.0	609	58	35322
	4	12.5	1624	670	1088080

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO (kg)
CA50	6.3	4963.4	1214.6
	10.0	353.3	217.8
	12.5	10880.8	10481.9
PESO TOTAL (kg)		Vol. concreto = 96.22 m³	
CA50	11914.2		

Relação do aço

115xESTACA TIPO J

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA50	1	6.3	6670	71	473570
	2	6.3	805	VAR	VAR
	3	10.0	345	58	20010
	4	12.5	920	670	616400

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO (kg)
CA50	6.3	5226.8	1279
	10.0	200.1	123.4
	12.5	6164	5938
PESO TOTAL (kg)		Vol. concreto = 54.51 m³	
CA50	7340.4		