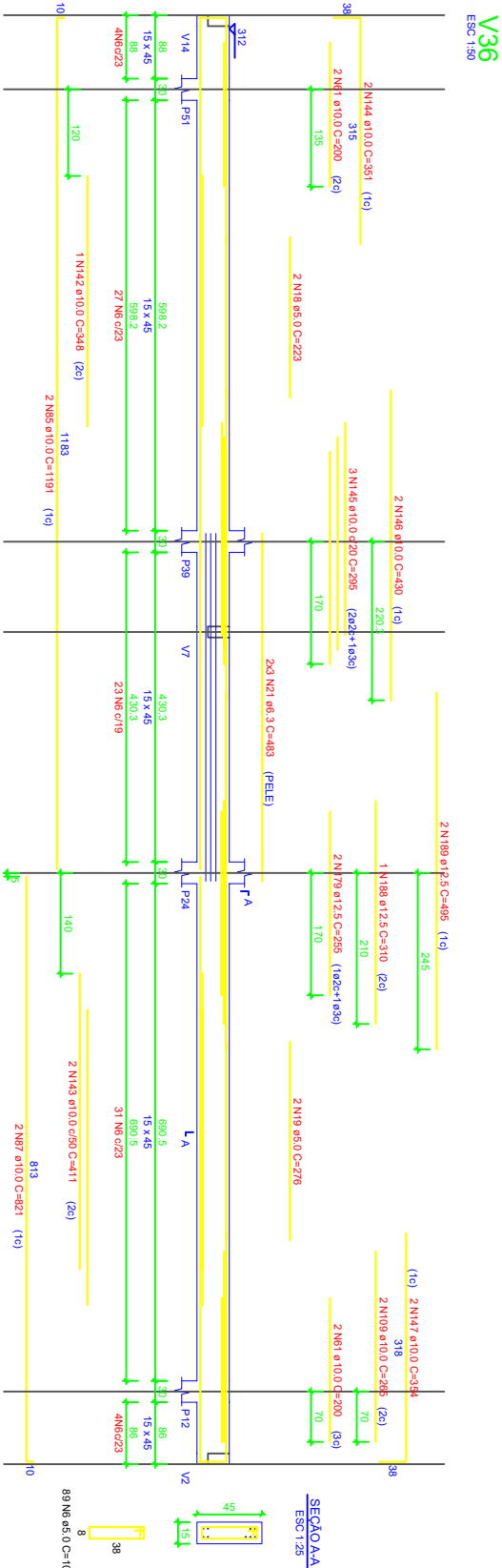
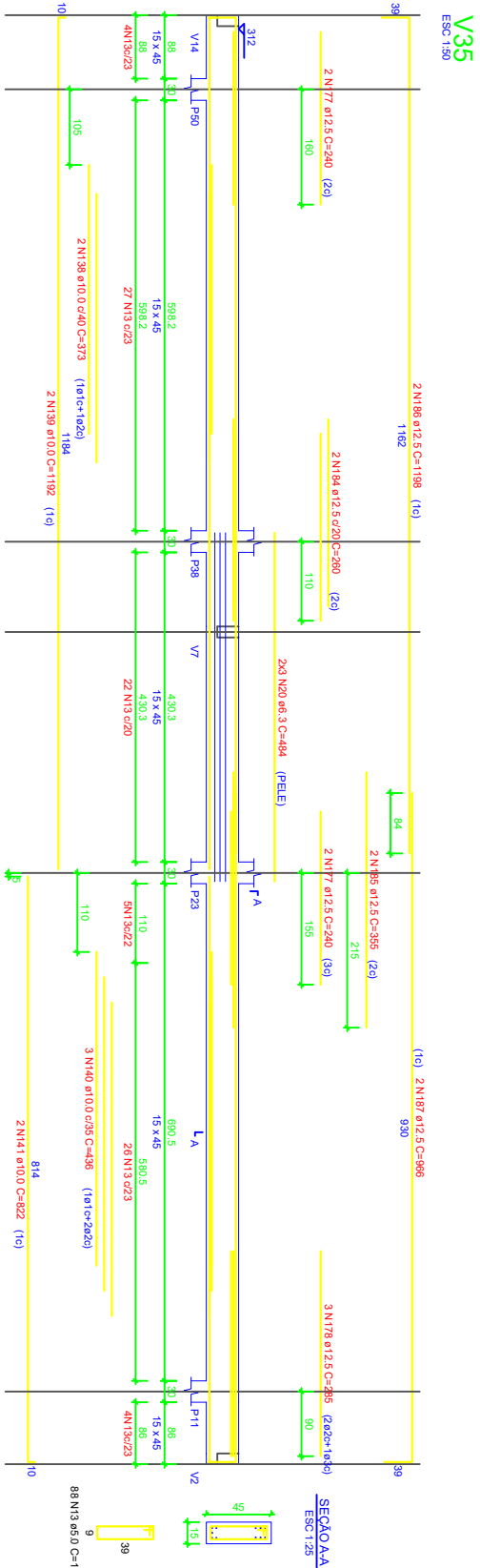


		RELACÃO DO AÇO						
		ACO	N	DIM	QUANT	C.UINT	C.TOTAL	
		CMANO				(cm3)		
V1	V2	1	2	5,0	1257			
V2	V3	2	3	5,0		586	586	
V3	V4	3	4	5,0		220	806	
V4	V5	4	5	5,0		1056	1862	
V5	V6	5	6	5,0	569	4	264	
V6	V7	6	7	5,0		586	807	
V7	V8	7	8	5,0		264	1071	
V8	V9	8	9	5,0		569	1640	
V9	V10	9	10	5,0		264	1904	
V10	V11	10	11	5,0		569	2473	
V11	V12	11	12	5,0		264	2737	
V12	V13	12	13	5,0		569	3306	
V13	V14	13	14	5,0		264	3570	
V14	V15	14	15	5,0		569	4139	
V15	V16	15	16	5,0		264	4403	
V16	V17	16	17	5,0		569	4972	
V17	V18	17	18	5,0		264	5236	
V18	V19	18	19	5,0		569	5805	
V19	V20	19	20	5,0		264	6069	
V20	V21	20	21	5,0		569	6638	
V21	V22	21	22	5,0		264	6902	
V22	V23	22	23	5,0		569	7471	
V23	V24	23	24	5,0		264	7735	
V24	V25	24	25	5,0		569	8304	
V25	V26	25	26	5,0		264	8568	
V26	V27	26	27	5,0		569	9137	
V27	V28	27	28	5,0		264	9401	
V28	V29	28	29	5,0		569	9970	
V29	V30	29	30	5,0		264	10234	
V30	V31	30	31	5,0		569	10803	
V31	V32	31	32	5,0		264	11067	
V32	V33	32	33	5,0		569	11636	
V33	V34	33	34	5,0		264	11900	
V34	V35	34	35	5,0		569	12469	
V35	V36	35	36	5,0		264	12733	
V36	V37	36	37	5,0		569	13302	
V37	V38	37	38	5,0		264	13566	
V38	V39	38	39	5,0		569	14135	
V39	V40	39	40	5,0		264	14399	
V40	V41	40	41	5,0		569	14968	
V41	V42	41	42	5,0		264	15232	
V42	V43	42	43	5,0		569	15801	
V43	V44	43	44	5,0		264	16065	
V44	V45	44	45	5,0		569	16634	
V45	V46	45	46	5,0		264	16898	
V46	V47	46	47	5,0		569	17467	
V47	V48	47	48	5,0		264	17731	
V48	V49	48	49	5,0		569	18300	
V49	V50	49	50	5,0		264	18564	
V50	V51	50	51	5,0		569	19133	
V51	V52	51	52	5,0		264	19397	
V52	V53	52	53	5,0		569	19966	
V53	V54	53	54	5,0		264	20230	
V54	V55	54	55	5,0		569	20799	
V55	V56	55	56	5,0		264		

ACO	N	DMM (mm)	QUANT	CUNIT (cm)	CTOTAL (cm)
89	100	100	2	275	550
90	100	100	2	485	970
91	100	100	4	245	980
92	100	100	2	369	738
93	100	100	1	635	635
94	100	100	6	235	4488
95	100	100	3	335	1410
96	100	100	1	137	414
97	100	100	3	137	414
98	100	100	3	194	582
99	100	100	6	197	1182
100	100	100	6	786	4776
101	100	100	2	358	716

	DIAM	C.TOTAL	PESO + 10%
	(mm)	(m)	(kg)
ACO	6.3	58	15.6
CA50	10.0	2125	1441.2
CA60	12.5	470.4	486.4
PESO TOTAL	5.0	2403.2	407.5
CA50	1985.2		
CA60	407.5		

Volume de concreto (C-30) = 28.95 m³
Área de forma = 460.06 m²



AOQ	N	DAM	QUANT	COUNT	COTOTAL
CA60	1	50	1257	220	5880
	2	50	4	98	5880
	3	50	5	250	5880
	4	50	5	254	10560
	5	50	5	264	58807
	6	50	569	153	58807
	7	50	2	762	58807
	8	50	2	762	58807
	9	50	2	263	58807
	10	50	2	261	58807
	11	50	2	482	58807
	12	50	2	236	472
	13	50	667	157	73509
	14	50	4	185	140
	15	50	5	140	978
	16	50	4	244	978
	17	50	2	224	448
	18	50	2	276	448
	19	50	2	254	2504
	20	50	6	562	2504
CA50	1	63	6	454	2504
	2	63	6	454	2504
	3	63	6	905	1810
	4	63	6	905	1810
	5	63	16	1810	1810
	6	63	16	1810	1810
	7	63	16	1810	1810
	8	63	16	1810	1810
	9	63	16	1810	1810
	10	63	16	1810	1810
	11	63	16	1810	1810
	12	63	16	1810	1810
	13	63	16	1810	1810
	14	63	16	1810	1810
	15	63	16	1810	1810
	16	63	16	1810	1810
	17	63	16	1810	1810
	18	63	16	1810	1810
	19	63	16	1810	1810
	20	63	16	1810	1810

[illegible]

ACO	DIAM (mm)	C TOTAL (m)	PESO + 10% (kg)
C60	6,3	58	15,6
C60	12,5	217,4	144,2
C60	5,0	2403,2	488,4
PESO TOTAL (kg)			407,5
C60 C60	1955,2 407,5		

Volume de concreto (C-30) = 28,95 m³
 Área da forma = 480,06 m²

The diagrams illustrate the calculation of the effective length factor (K) for a column. The left diagram shows a column with a fixed support at the bottom and a pinned support at the top. The right diagram shows a column with a fixed support at the bottom and a pinned support at the top. Both diagrams show the column's deflection shape and the effective length factor K.

[illegible]

Technical drawing of a mechanical part, showing two views: a front view (top) and a side view (bottom). The drawing is labeled "SECCAO A-A" and "ESC 1:25".

Front View (Top):

- Overall width: 100
- Slot width: 30
- Slot depth: 15
- Slot position: 35 from the left edge, 30 from the right edge.
- Slot height: 15
- Material: 88 N13 45.0 C=107

Side View (Bottom):

- Overall height: 100
- Slot height: 15
- Slot position: 35 from the left edge, 30 from the right edge.
- Slot width: 30
- Slot depth: 15
- Material: 88 N13 45.0 C=107

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