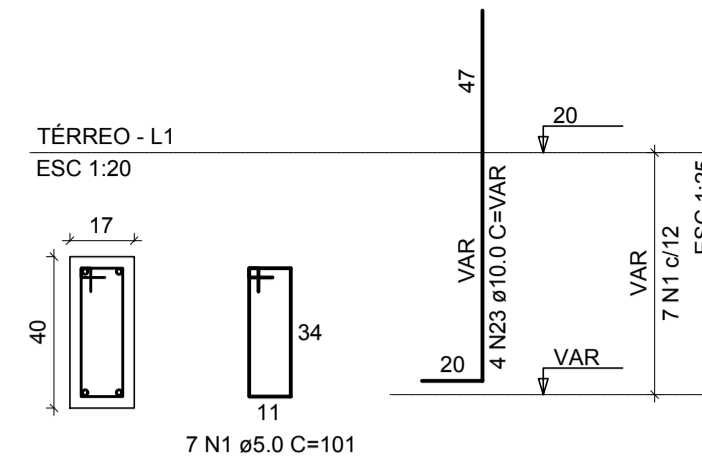
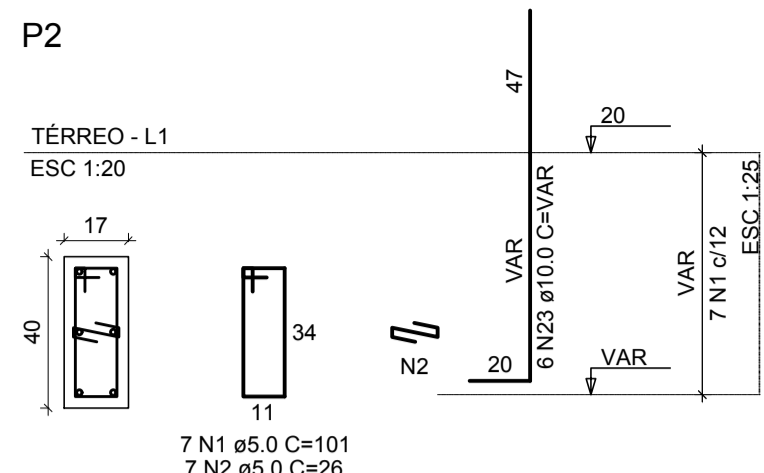


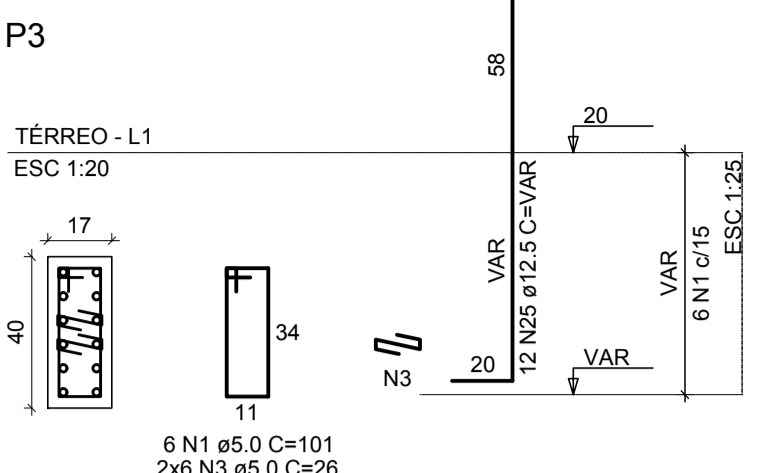
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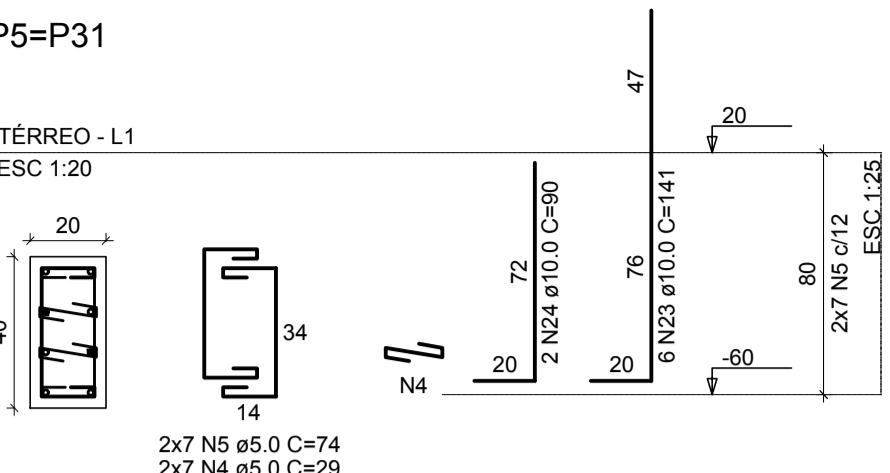
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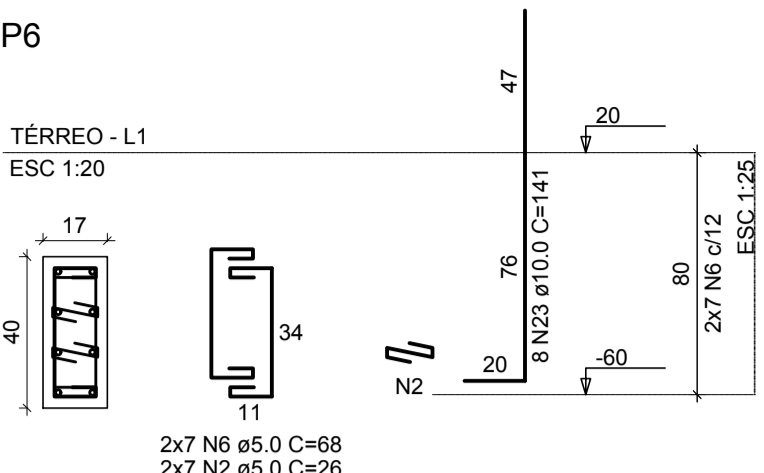
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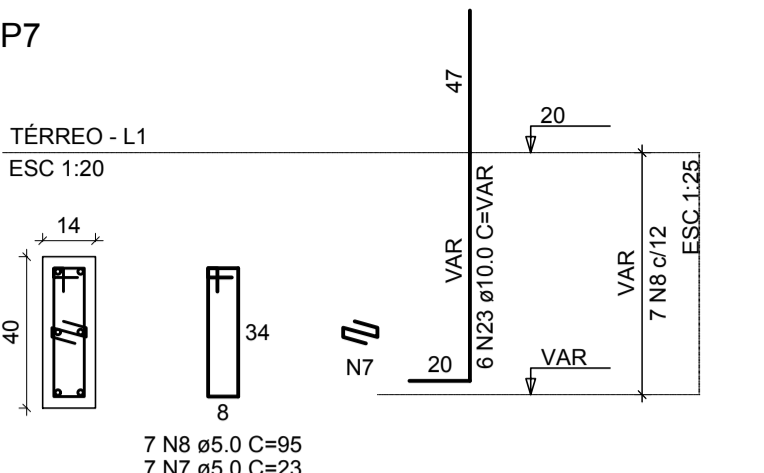
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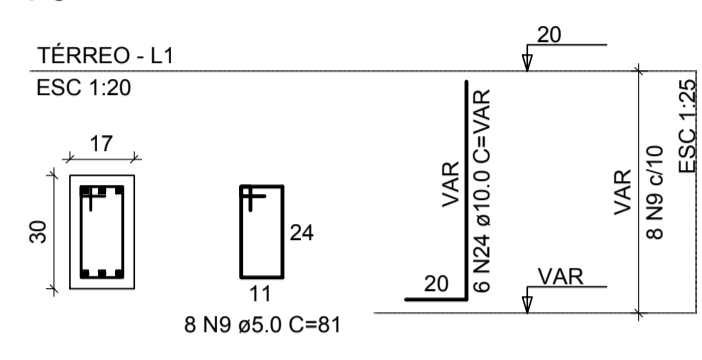
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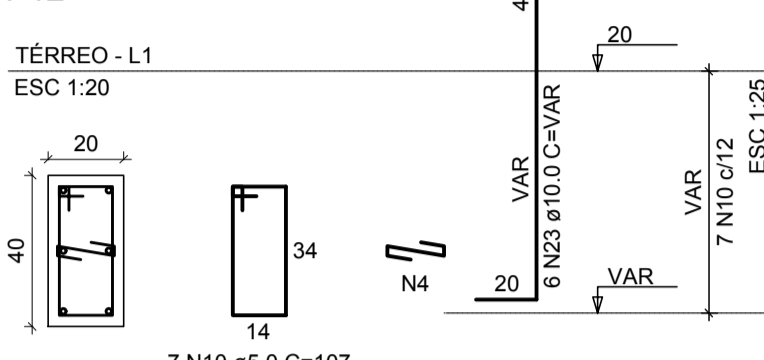
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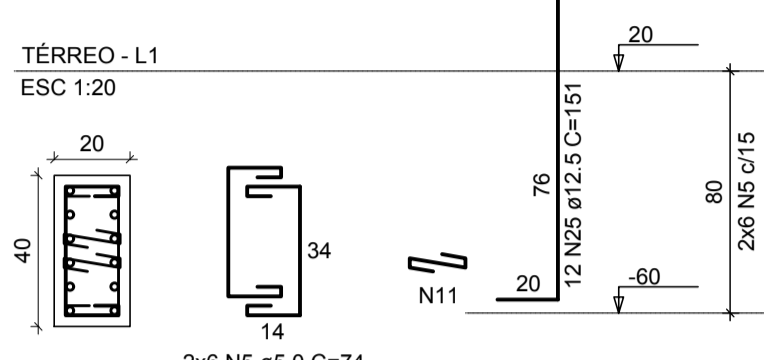
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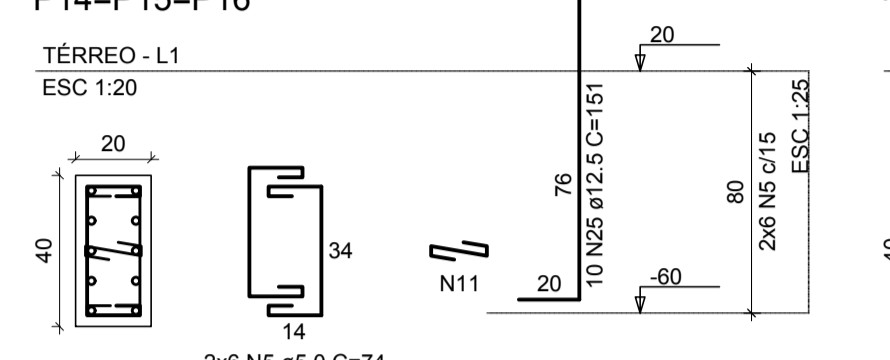
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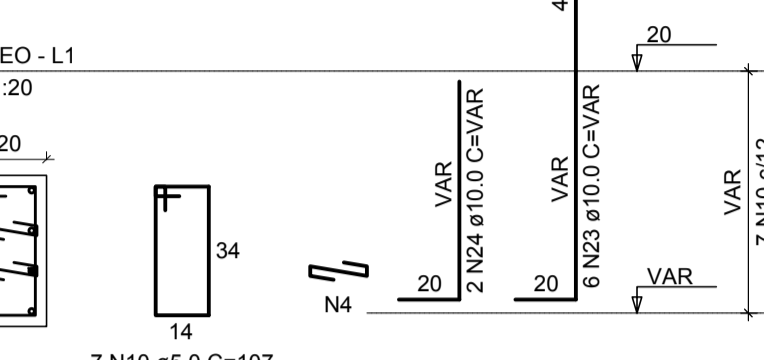
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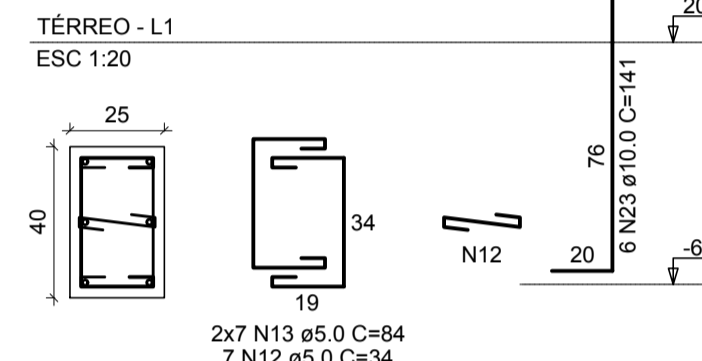
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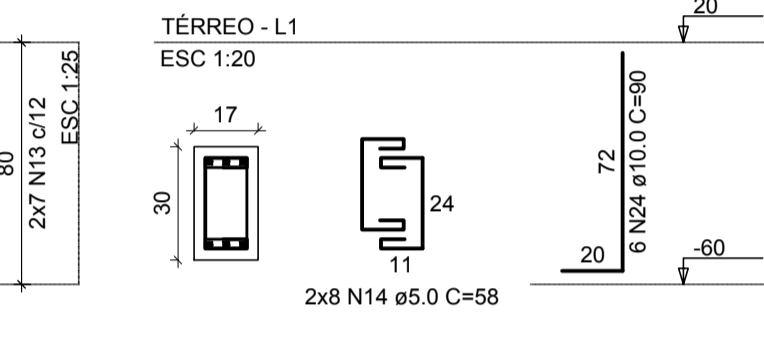
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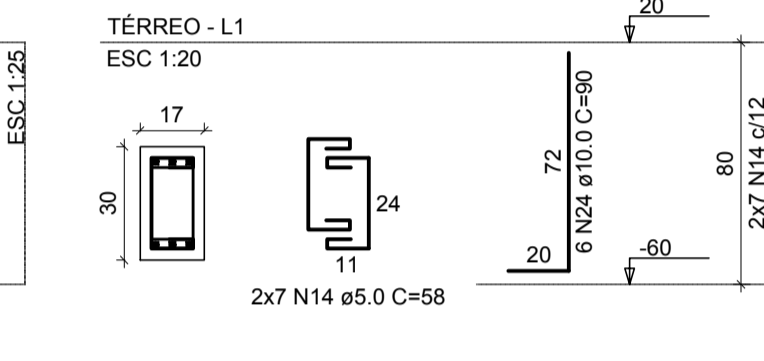
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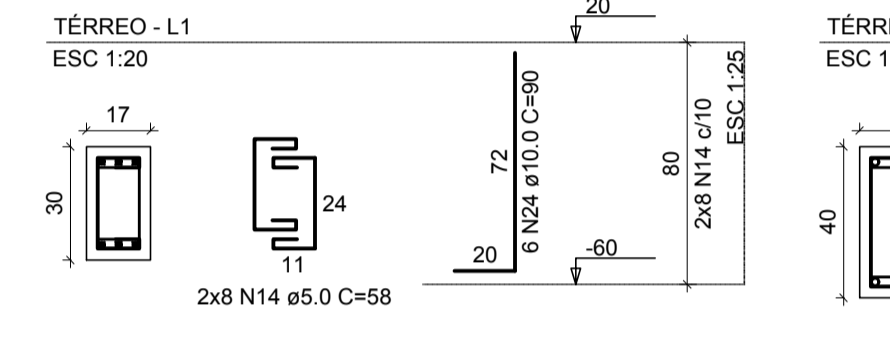
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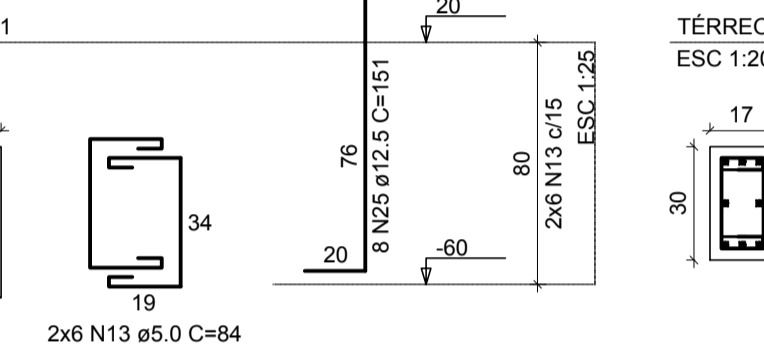
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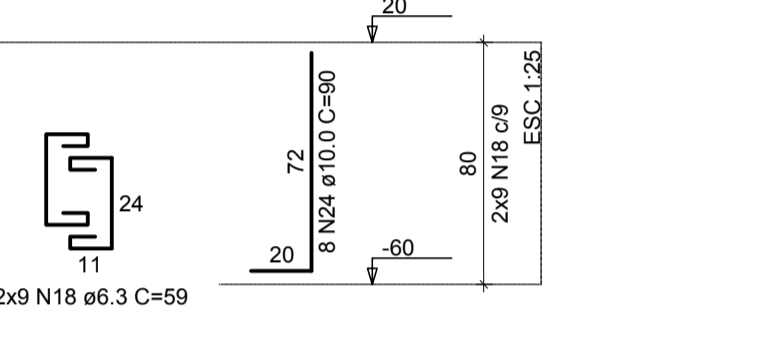
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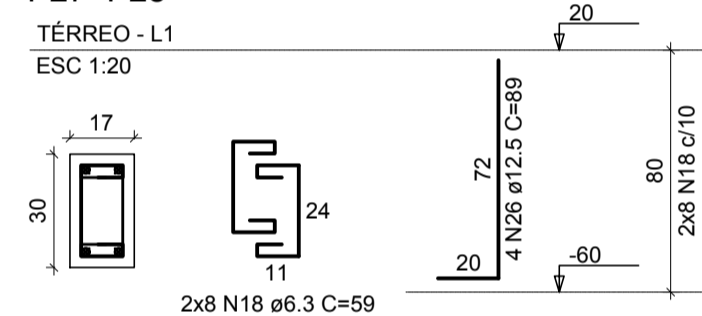
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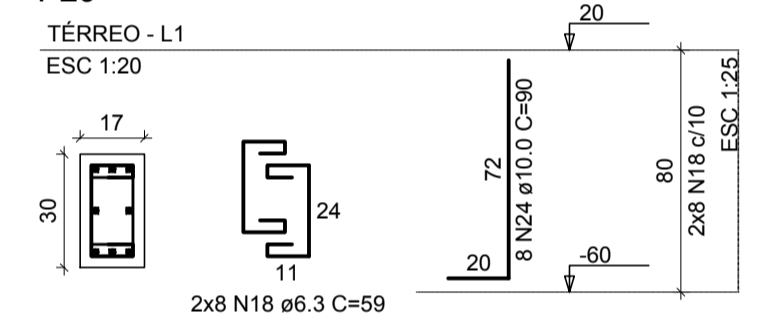
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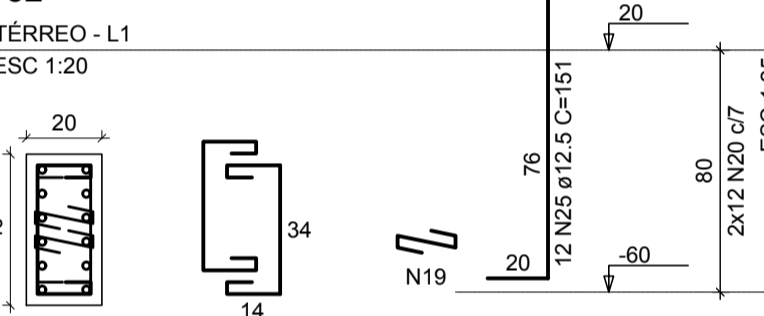
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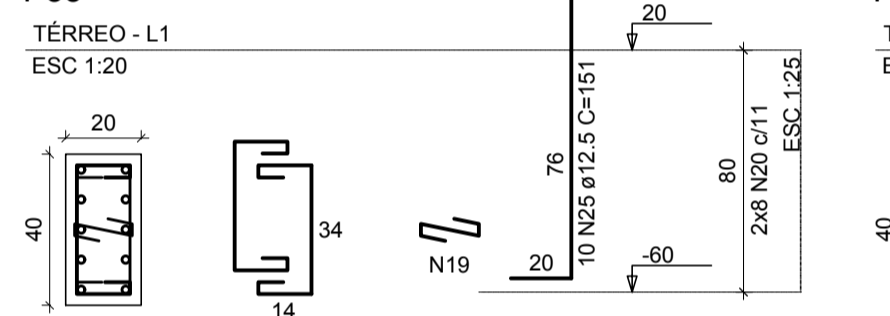
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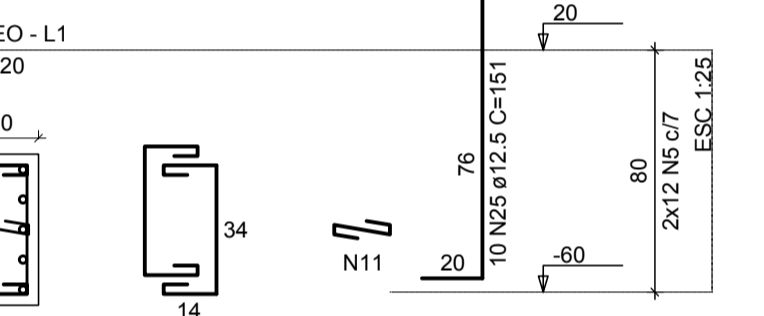
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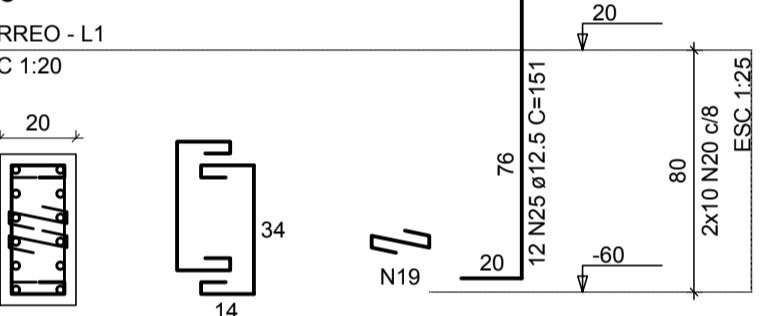
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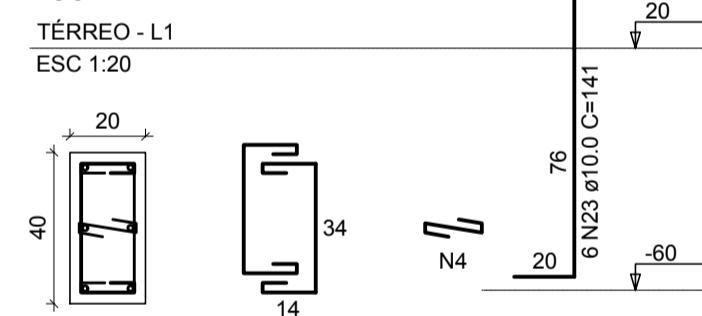
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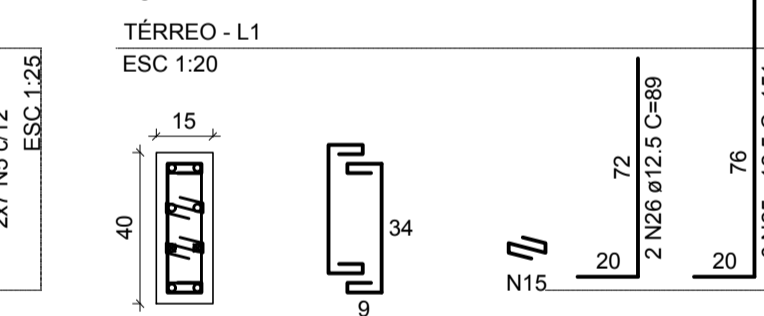
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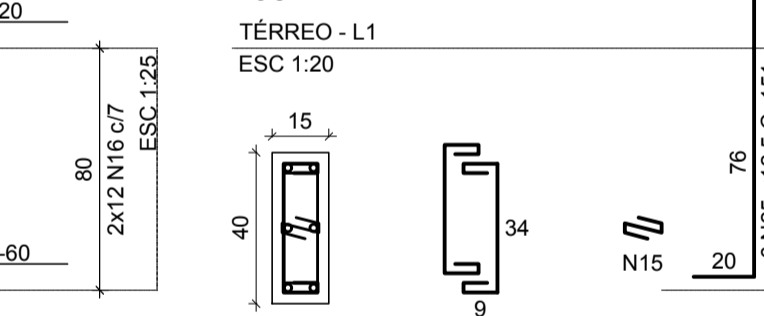
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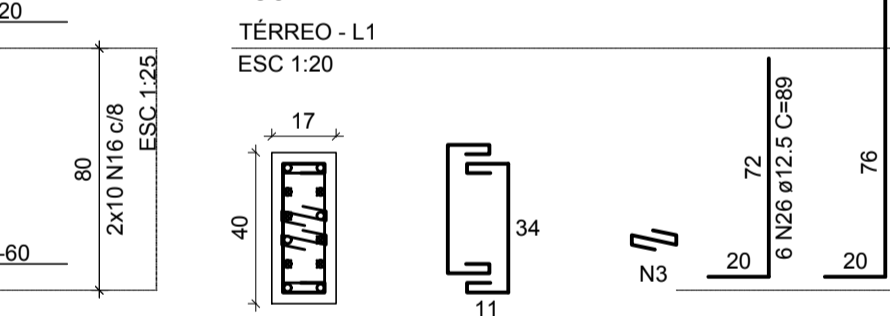
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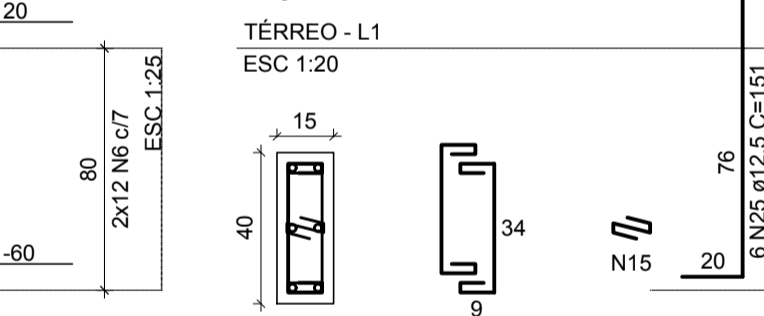
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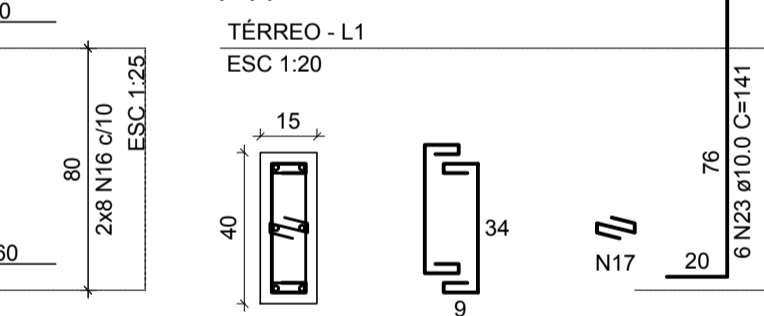
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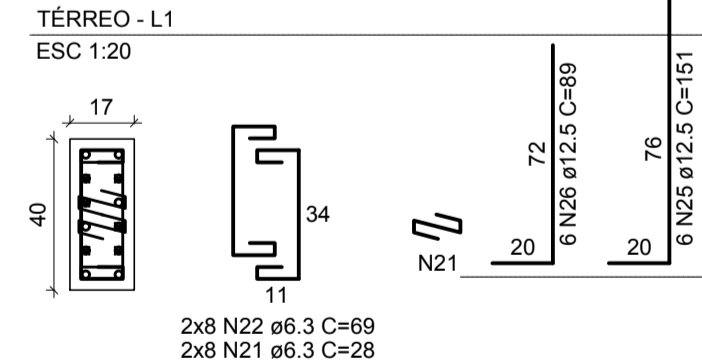
P40



P41



P42



RELAÇÃO DO AÇO

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	48	101	4848
2xP5	2	5.0	21	26	546
P6	3	5.0	36	26	936
3xP14	4	5.0	63	29	1827
2xP20	5	5.0	114	74	8436
2xP24	6	5.0	38	68	2584
2xP27	7	5.0	7	23	161
P33	8	5.0	7	95	665
P34	9	5.0	8	81	648
P36	10	5.0	21	107	2247
P38	11	5.0	42	29	1218
P42	12	5.0	14	34	476
	13	5.0	52	84	4368
	14	5.0	62	58	3596
	15	5.0	42	44	1848
	16	5.0	74	64	4736
	17	5.0	24	24	576
	18	6.3	66	24	1584
	19	6.3	52	31	1612
	20	6.3	60	75	4500
	21	6.3	16	28	448
	22	6.3	16	69	1104
	23	10.0	92	VAR	VAR
	24	10.0	54	80	4320
	25	12.5	144	VAR	VAR
	26	12.5	22	89	1958

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 0% (kg)
CA50	6.3	115.6	28.3
	10.0	178.3	109.9
	12.5	237	228.3
CA60	5.0	384.7	59.3
PESO TOTAL (kg)			
CA50		366.6	
CA60		59.3	

Volume de concreto (C-25) = 2.36 m³
Área de forma = 37.87 m²

ESTRUTURAL

MUNICÍPIO ANTÔNIO CARLOS - SC

OBRA	CENTRO DE APOIO A TERCEIRA IDADE	CONTEÚDO	PILARES DO TÉRREO
PROJETO	RUA 06 DE NOVEMBRO - CENTRO	EXECUÇÃO	
DESENHO	Virgínia	ESCALA	INDICADAS
DATA	DEZ/2018	ÁREA	281,33m²
PRANCHA			3

ASSOCIAÇÃO DOS MUNICÍPIOS DA REGIÃO DA GRANDE FLORIANÓPOLIS "GRANFPOLIS" ASSESSORIA DE ENGENHARIA E ARQUITETURA

Ancoragem dos estribos - Norma NBR 6118 - Item 9.4.6

DIÂMETRO DOS PINOS DE DOBRAMENTO DOS ESTRIBOS (Øpino)

BITOLA (mm)	TIPO DE AÇO		
	CA25	CA50	CA60
Ø ≤ 10mm	3 Ø	3 Ø	3 Ø
10mm < Ø ≤ 20mm	4 Ø	5 Ø	-
≥ 20mm	5 Ø	8 Ø	-

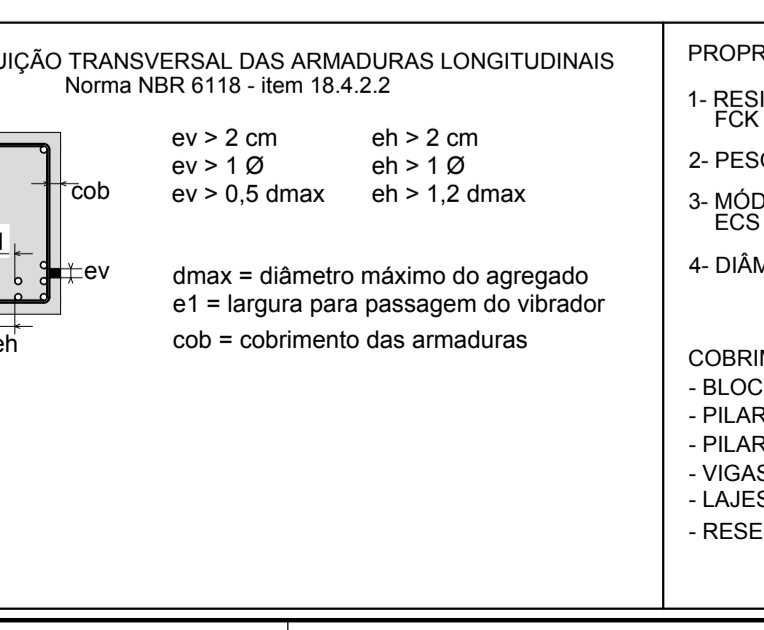
Øt = Diâmetro das barras de armadura transversal

Ganchos nas extremidades das barras longitudinais - Norma NBR 6118 - Item 9.4.2.3

DIÂMETRO DOS PINOS DE DOBRAMENTO (Øpino)

BITOLA (mm)	TIPO DE AÇO		
	CA25	CA50	CA60
< 20mm	4 Ø	5 Ø	6 Ø
≥ 20mm	5 Ø	8 Ø	-

Ø = Diâmetro das barras de armadura



PROPRIEDADES DO CONCRETO

- RESISTÊNCIA CARACTERÍSTICA DO CONCRETO A COMPRESSÃO - $f_{ck} = 25 \text{ MPa}$ (250 Kgf / cm²)
- PESO ESPECÍFICO DO CONCRETO = 2500 kgf / m³
- MÓDULO DE ELASTICIDADE $E_{cs} = 241500 \text{ Kgf / cm}^2$
- DIÂMETRO MÁXIMO DO AGREGADO = 19mm

COBRIMENTO DAS ARMADURAS

- BLOCOS = 4.5 cm
- PILARES EM CONTATO COM O SOLO = 4.5 cm
- PILARES = 3 cm
- VIGAS = 3 cm
- LAJES = 2.5 cm
- RESERVATÓRIOS = 3 cm

NOTAS:

- DIMENSÕES EM CENTÍMETROS.
- CONFIRAR MEDIDAS NO LOCAL.
- AS FORMAS DEVEM SER MOLHADAS ANTES DA CONCRETAGEM E CONSERVAR ÚMIDAS AS PARTES CONCRETADAS, NO MÍNIMO SETE DIAS.
- NA RETIRADA DAS FORMAS E ESCORAMENTOS CONSIDERAR OS SEGUINTE TEMPOS:
 - FACE LATERAL : 3 DIAS
 - FACES INFERIORES, MANTENDO-SE OS PONTALETES BEM ENCUNHADOS E CONVENIENTEMENTE ESPAÇADOS : 14 DIAS
 - FACES INFERIORES, SEM PONTALETES : 21 DIAS.
- NOS BALANÇOS A RETIRADA DAS FORMAS COMEÇA PELA BORDA LIVRE
- CAPEAMENTO ARMADO SOBRE AS LAJES CONSULTAR FORNECEDOR OU MALHA DE CA-60 4.2mm A CADA 15cm OU TELA AÇO SOLDADA Q-92 AÇO CA-60 4.2mm - MALHA 15X15cm

SIMBOLOGIA

	PILAR QUE PASSA
	PILAR QUE MORRE
	PILAR QUE NASCE
	PILAR C/ MUDANÇA DE SEÇÃO
	Ponto fixo do pilar
	LAJE EM DESNÍVEL