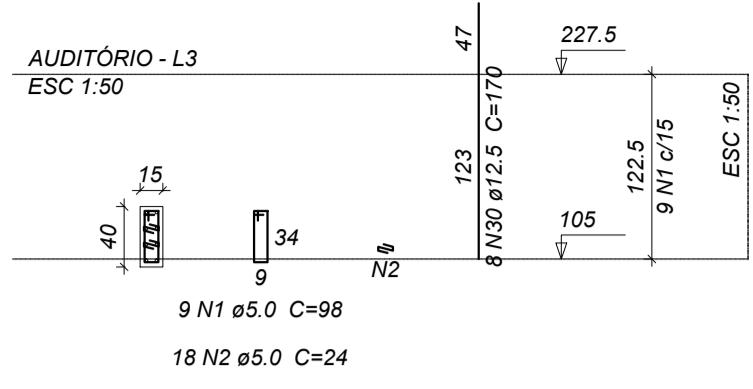
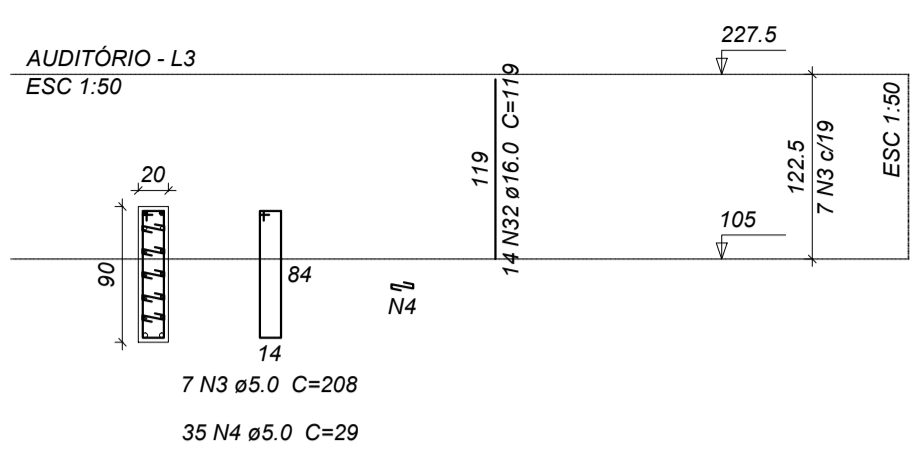


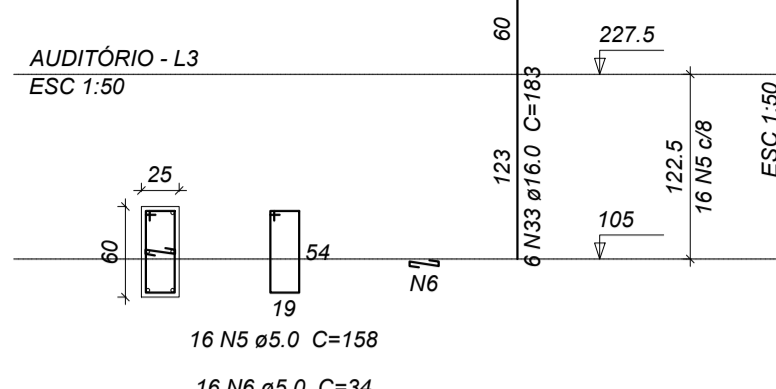
P14=P27=P71=P93=P99



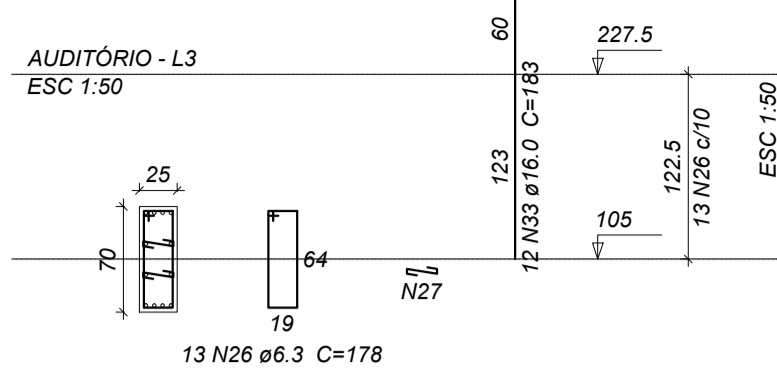
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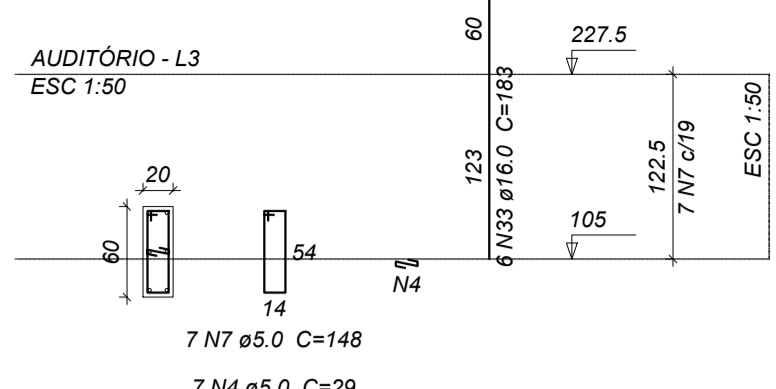
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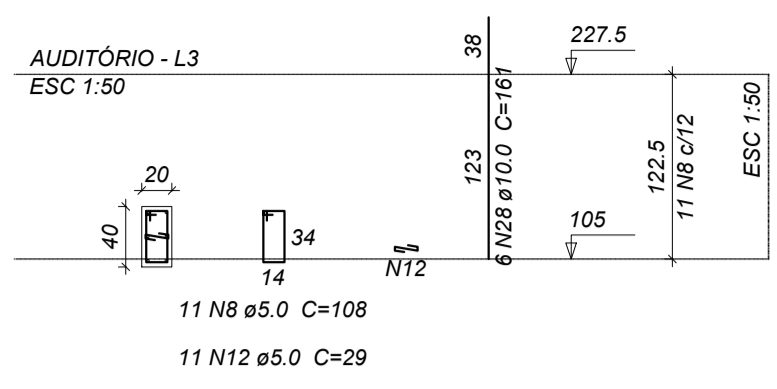
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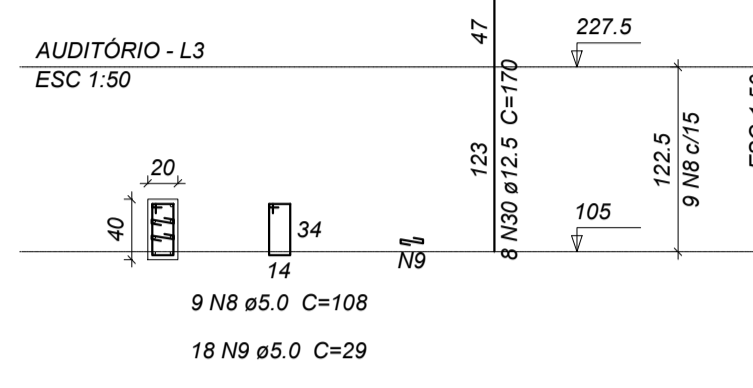
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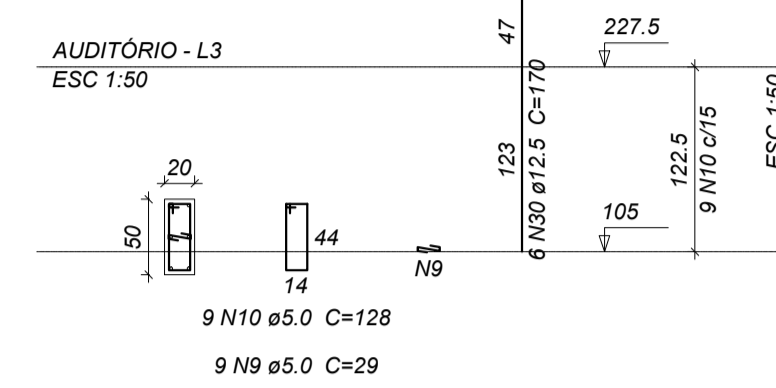
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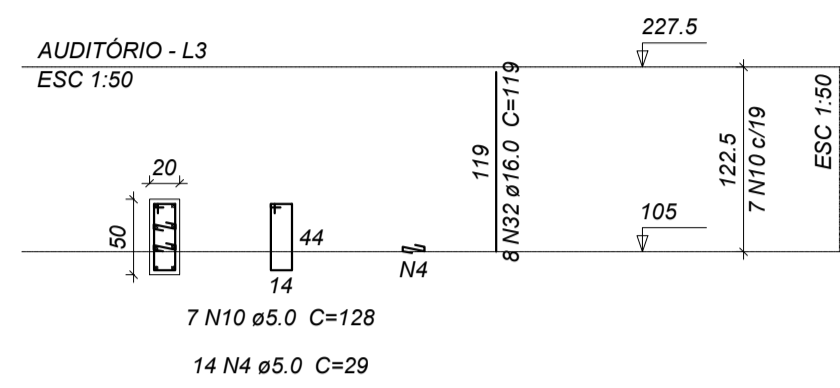
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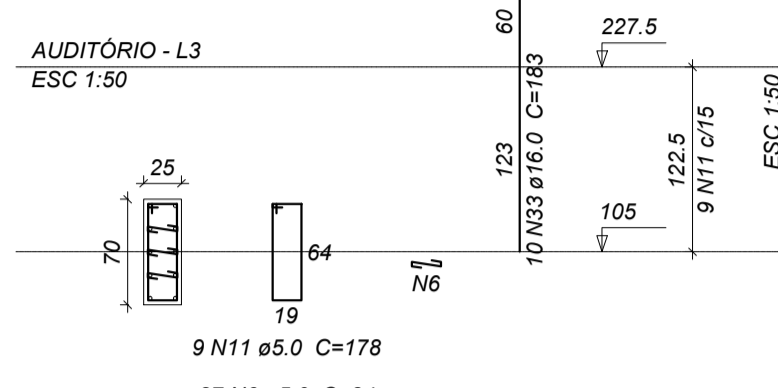
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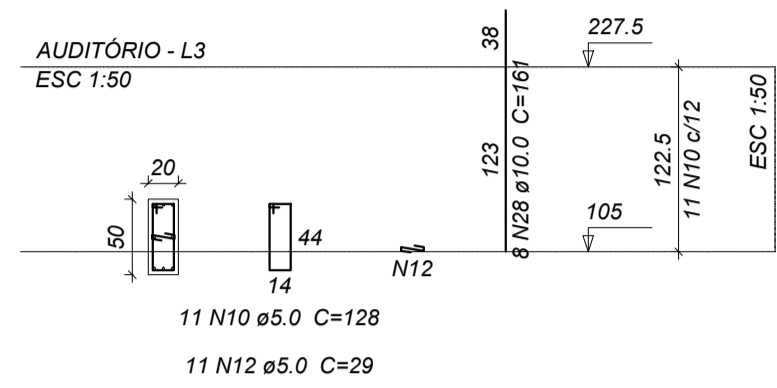
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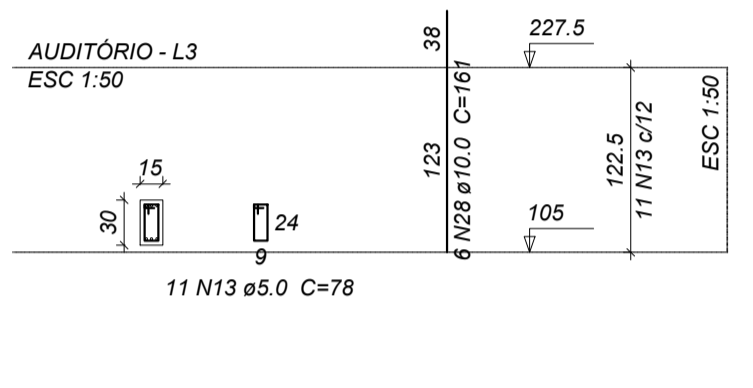
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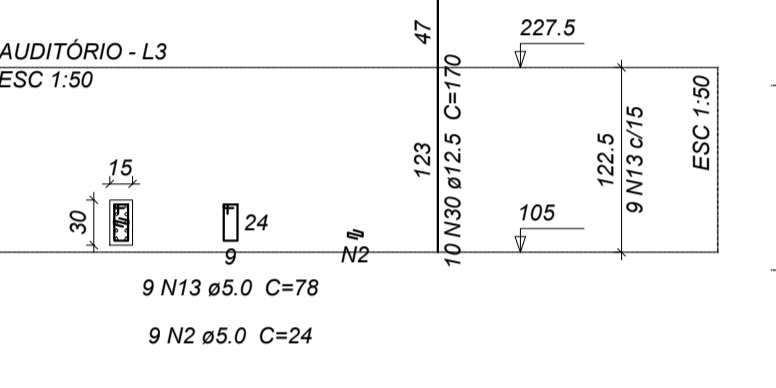
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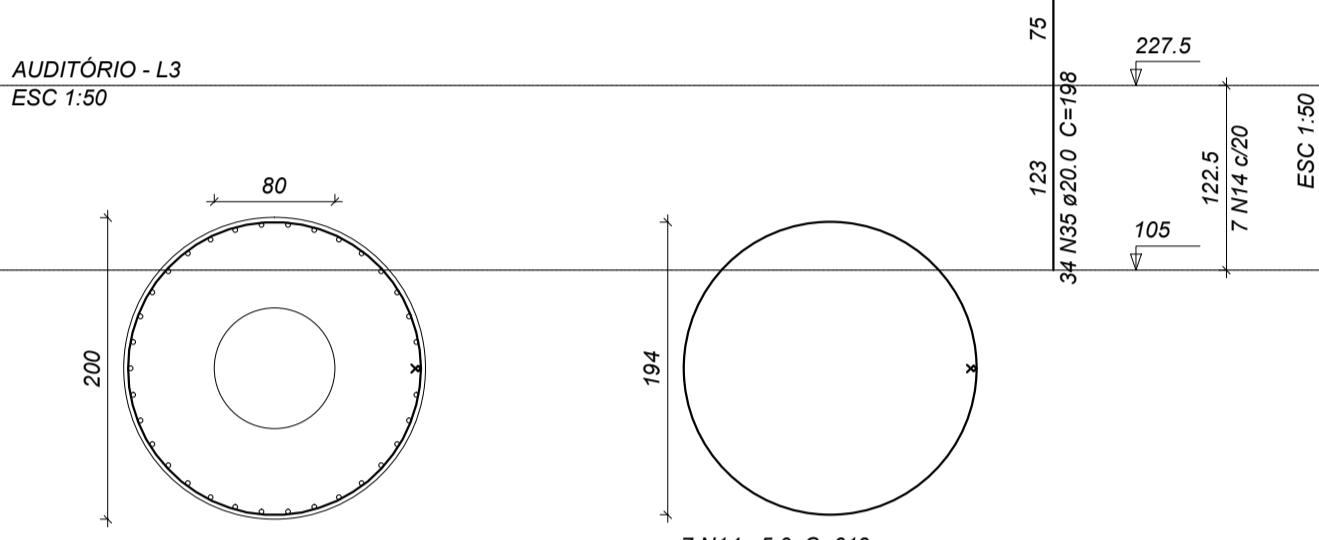
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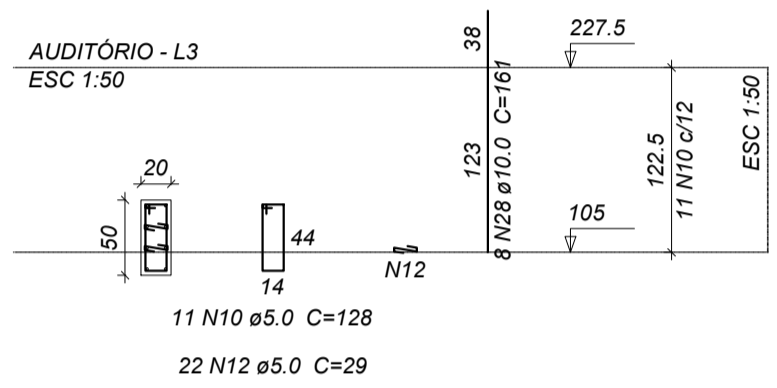
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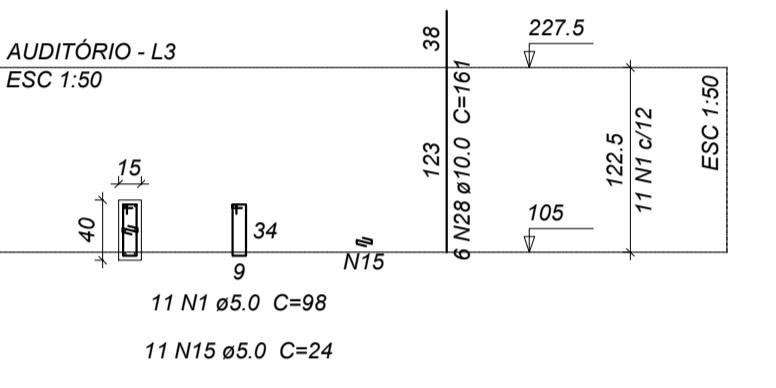
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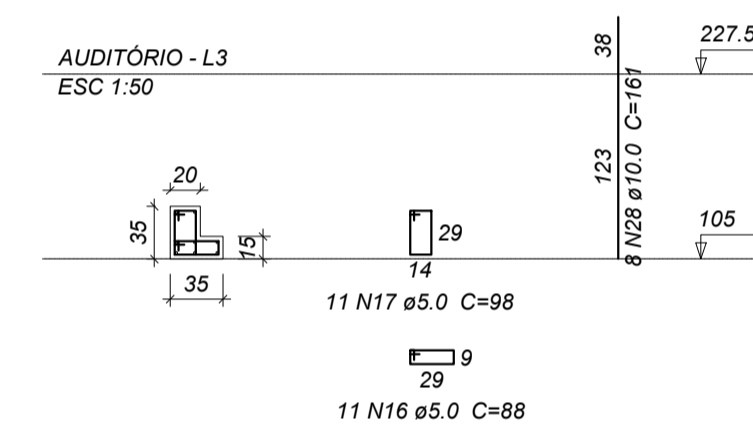
P38



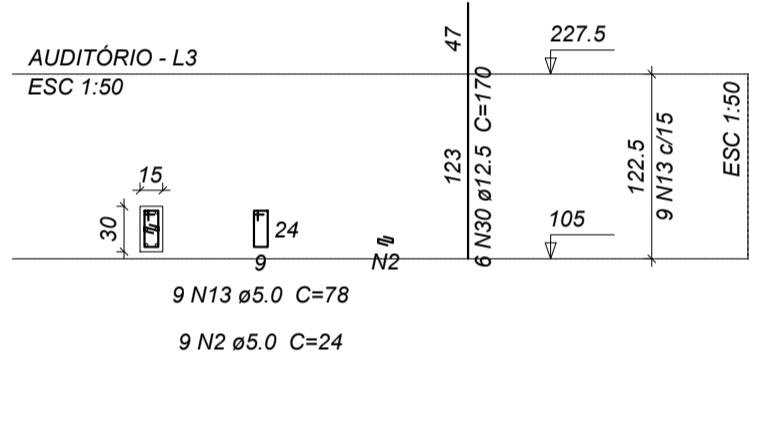
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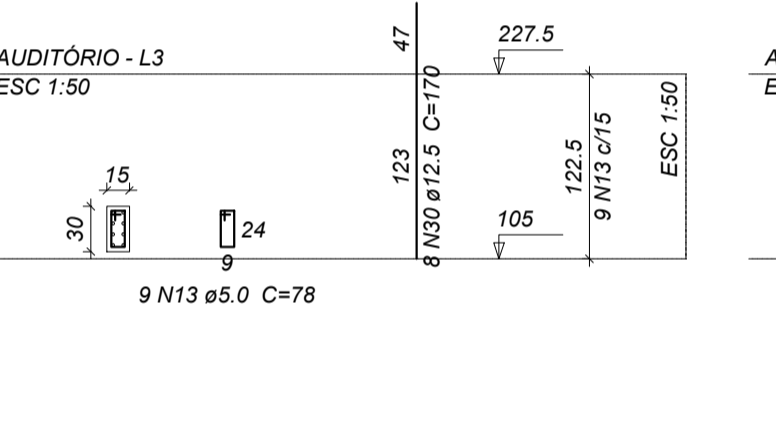
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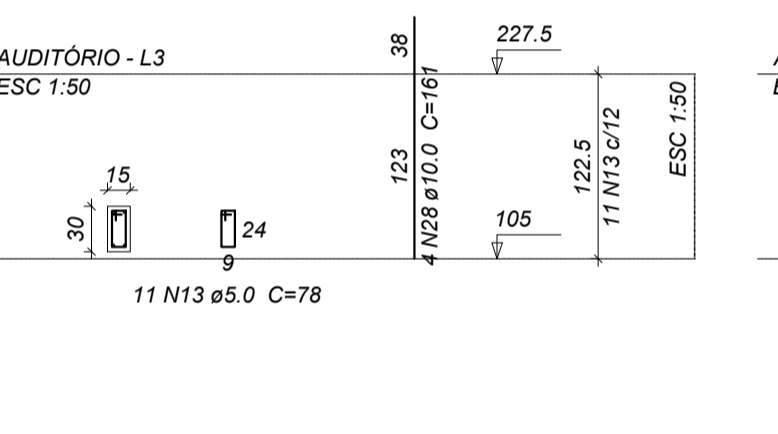
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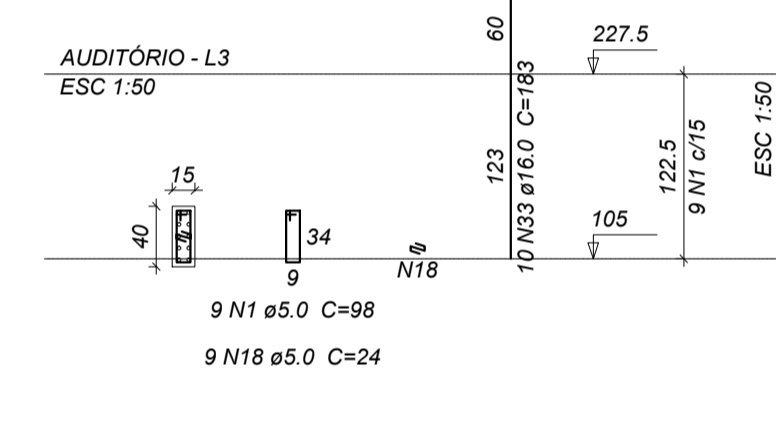
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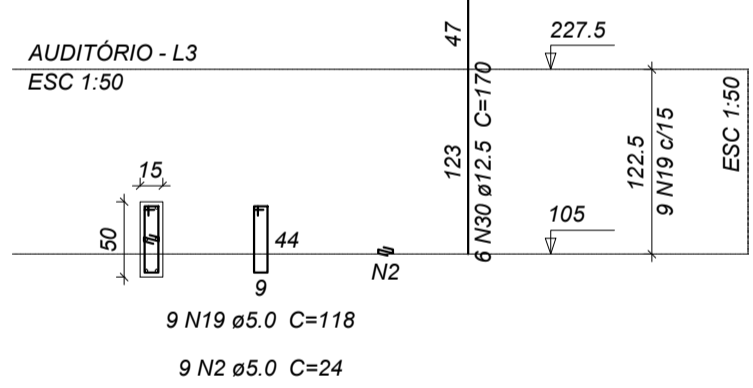
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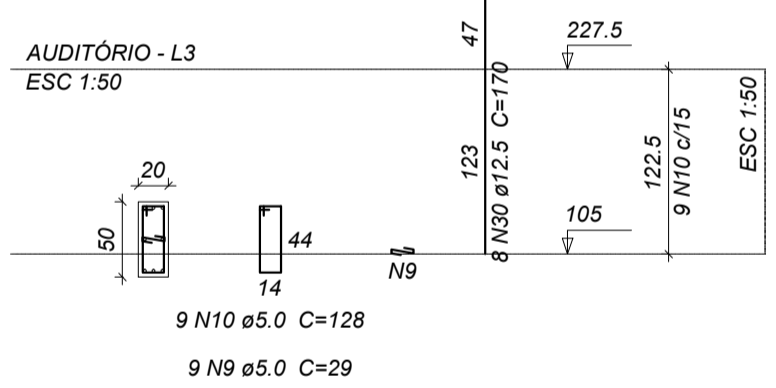
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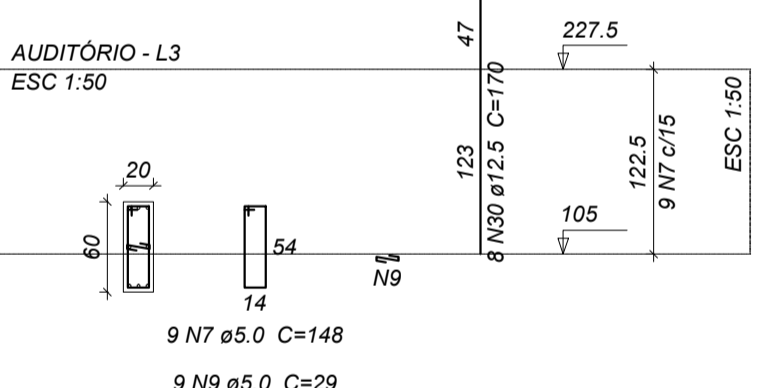
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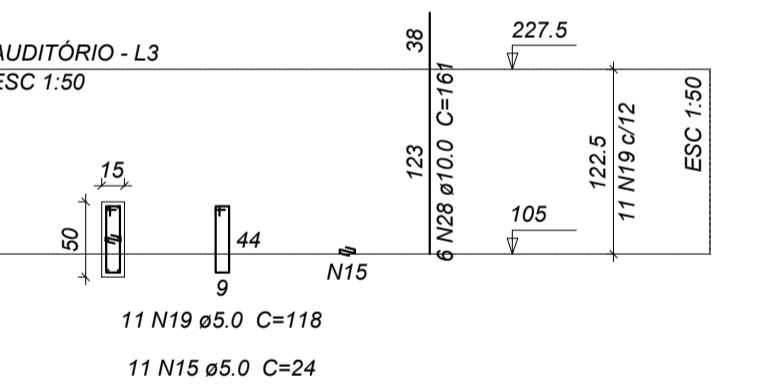
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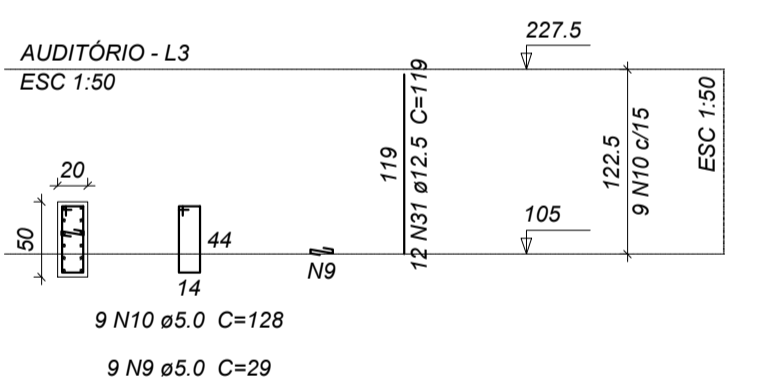
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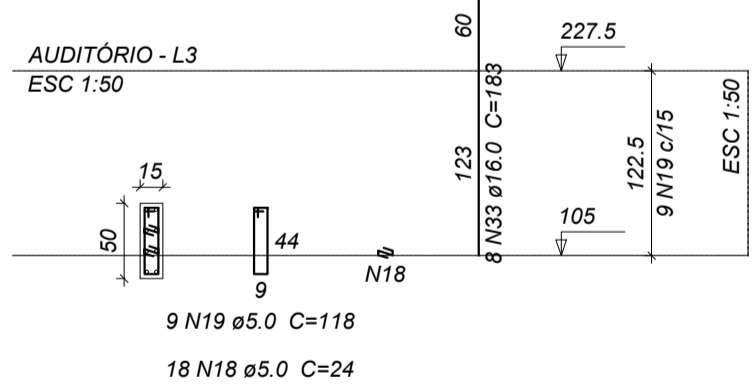
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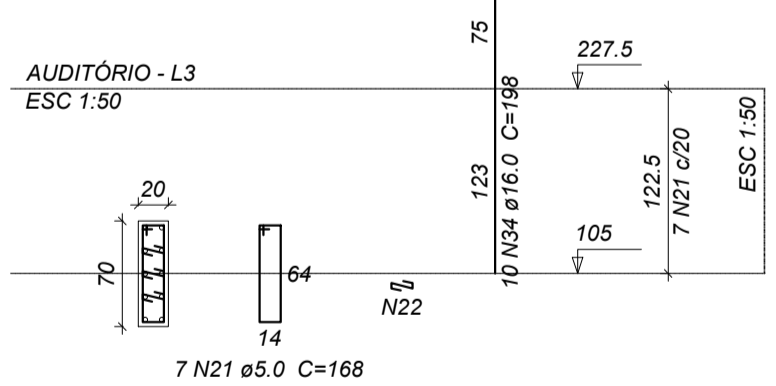
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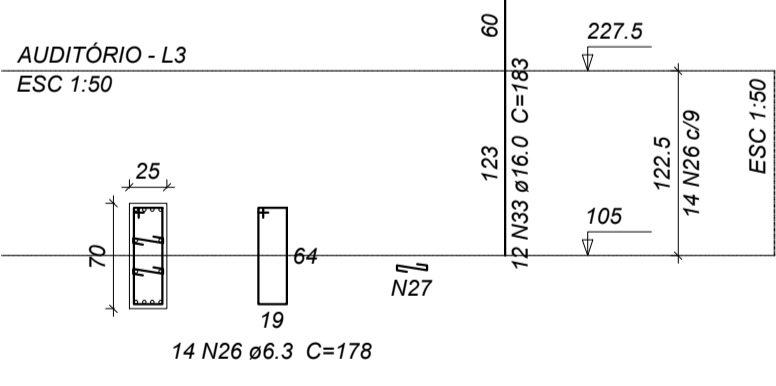
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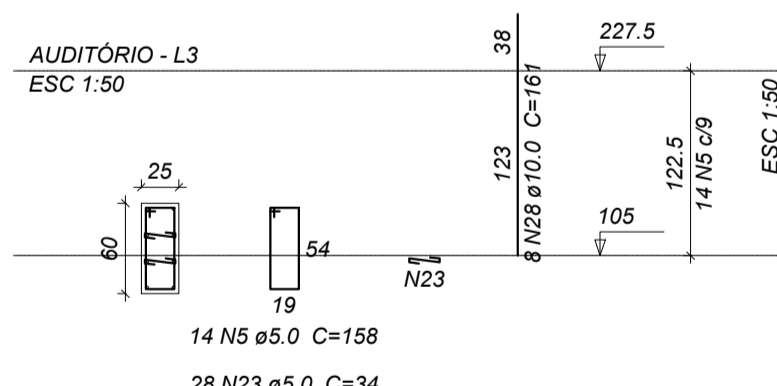
P86



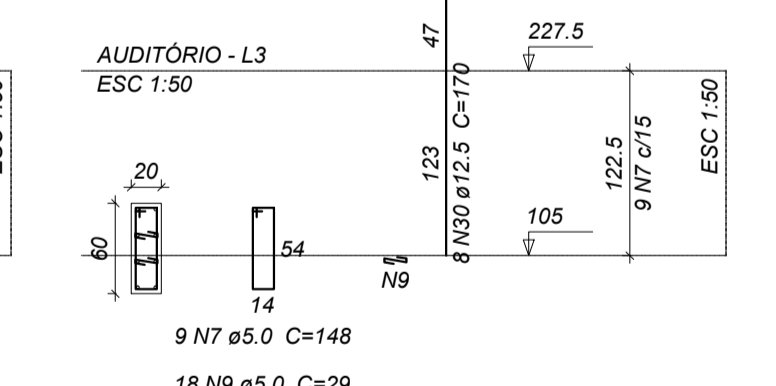
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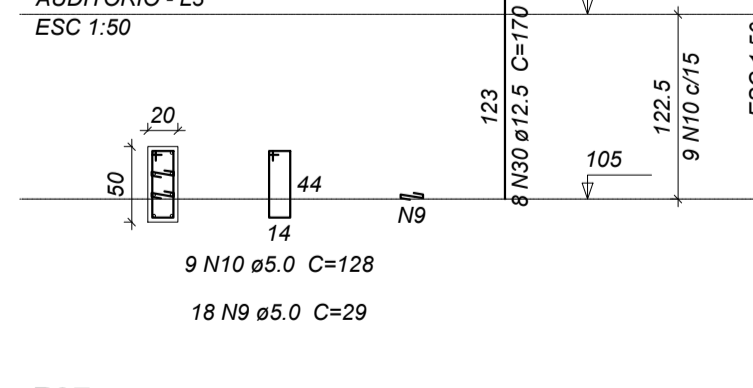
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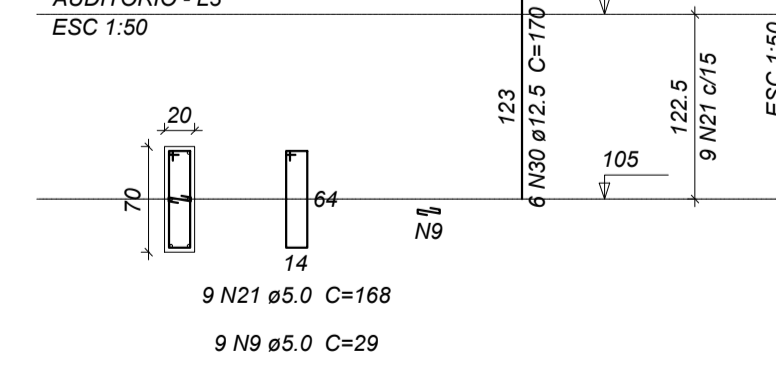
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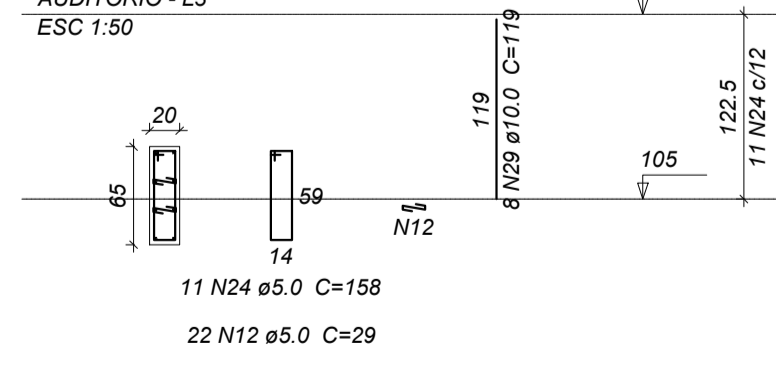
P98



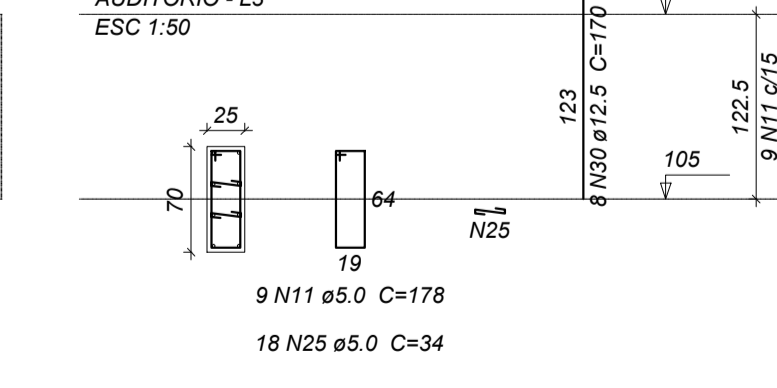
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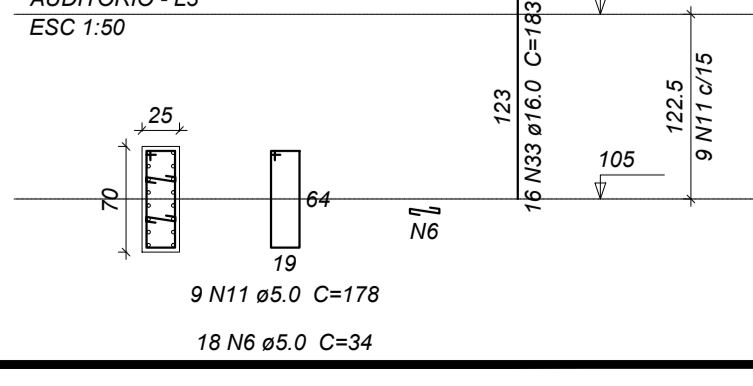
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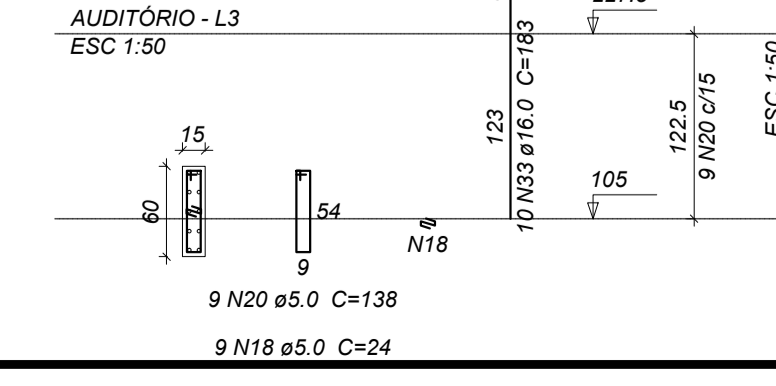
P103



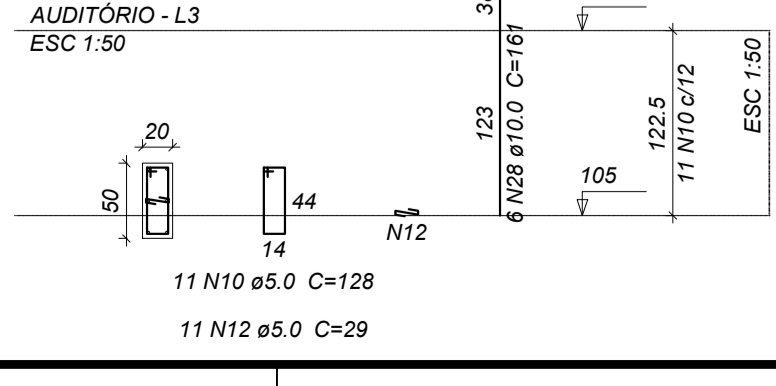
P97



P77



P53



Relação do aço

5xP14	2xP15	P17
P19	P20	P21
3xP22	4xP23	3xP29
P30	3xP32	P33
2xP34	P36	P38
5xP39	P40	5xP42
P48	2xP49	P50
P53	P62	P63
P66	P68	P69
P77	P82	P86
P90	P92	P96
P97	P98	2xP100
P102	P103	

AÇO	N	DIAM	Q	C.TOTAL (cm)	C.TOTAL (kg)
CA60	1	5.0	109	98	10682
	2	5.0	162	24	3888
	3	5.0	14	208	2912
	4	5.0	133	29	3857
	5	5.0	30	158	4740
	6	5.0	115	34	3910
	7	5.0	25	148	3700
	8	5.0	42	108	4536
	9	5.0	126	29	3654
	10	5.0	115	128	14720
	11	5.0	45	178	8010
	12	5.0	99	29	2871
	13	5.0	105	78	8190
	14	5.0	7	619	4333
	15	5.0	66	24	1584
	16	5.0	11	88	968
	17	5.0	11	98	1078
	18	5.0	36	24	964
	19	5.0	29	118	3422
	20	5.0	9	138	1242
	21	5.0	25	168	4200
	22	5.0	21	28	588
	23	5.0	28	34	952
	24	5.0	11	158	1738
	25	5.0	18	34	612
	26	6.3	27	178	4806
	27	6.3	54	35	1890
	28	10.0	106	161	17066
	29	10.0	8	119	952
	30	12.5	182	170	30940
	31	12.5	12	119	1428
	32	16.0	60	119	7140
	33	16.0	110	183	20130
	34	16.0	10	198	1980
	35	20.0	34	198	6732

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO (kg)
CA50	6.3	67	76.4
	10.0	180.2	111.1
	12.5	323.7	311.8
	16.0	292.5	461.7
	20.0	67.4	166
CA60	5.0	972.6	149.9
PESO TOTAL			
CA50		1067	
CA60		149.9	

Vol. de concreto total (C-25) = 10.56 m³
Área de forma total = 111.58 m²

NOTAS GERAIS

- DIMENSÕES EM CENTÍMETRO. ELEVAÇÕES EM METRO E BITOLAS DOS FERROS EM MILÍMETROS EXCETO INDICAÇÃO CONTRÁRIA.
- TENSÃO PARA O CONCRETO:
CONCRETO ESTRUTURAL fck=25 MPa
CONCRETO MAGRO fck=10 MPa
- AÇO CASO, fyk=5000 kgf/cm²
CA60, fyk=6000 kgf/cm²
- EXECUTAR PASSAGENS PARA TUBULAÇÕES DE ÁGUA, ESGOTO E ELETRICIDADE. NÃO SERÁ PERMITIDO NENHUMA TUBULAÇÃO DENTRO DOS ELEMENTOS ESTRUTURAIS, EXCETO AS PREVISTAS EM PROJETO.
- REALIZAR ENSAIOS DE COMPRESSÃO EM CORPO DE PROVA PARA ASSEGURAR A RESISTÊNCIA FINAL DO CONCRETO.
- DIMENSÃO MÁXIMA DO AGREGADO RECOMENDADA DE 19mm.
- DOSAGEM DO CONCRETO: PARA EVITAR SEGREGAÇÃO, DEVEM SER CONSIDERADAS AS PROPRIEDADES: ESTABILIDADE - EXSUDAÇÃO E SEGREGAÇÃO MOBILIDADE - VISCOSIDADE, COESÃO E ÂNGULO DE ATRITO INTERNO COMPACTIDADE - DENSIDADE NECESSITANDO, PORTANTO, DE UM ESTUDO EM FUNÇÃO DOS MATERIAIS A SEREM UTILIZADOS.
- CURA DO CONCRETO: FUNÇÃO DO TIPO DE CIMENTO UTILIZADO E DA EXPOSIÇÃO AOS INTemperismos. A CURA DEVE SER DE:
7 DIAS PARA CONCRETO COM CIMENTO PORTLAND
10 DIAS PARA CONCRETO COM CIMENTO ALTO FORNO
28 DIAS PARA CONCRETO COM CIMENTO POZOLÂNICO
CONSERVAR ÚMIDAS AS PARTES CONCRETADAS DURANTE O TEMPO DE CURA
- COBRIMENTO MÍNIMO DAS ARMADURAS:
VIGAS e PILARES = 3,0cm
LAJES = 2,5cm
O RECOBRIMENTO DEVERÁ SER GARANTIDO COM O USO DE ESPAÇADORES
- FATOR ÁGUA/CIMENTO DO CONCRETO: AC ≤ 0,60
- CONFRONTAR AS MEDIDAS DO PROJETO ESTRUTURAL COM O PROJETO ARQUITETÔNICO.
- EM CASO DE DÚVIDAS CONSULTAR O CALCULISTA.

RAIO DE CURVATURA DAS BARRAS	CONCRETO ADOTADO
	fck = 25 MPa
phi R (cm)	fci=fck+1,65 x
12.5 10	$\left\{ \begin{array}{l} 4 \text{ MPa} \\ 5.5 \text{ MPa} \\ 7 \text{ MPa} \end{array} \right.$
16.0 12	
20.0 15	
25.0 19	
DE ACORDO COM O ITEM 8.3.1.2 DA NBR-6118	

ATUALIZAÇÃO:

Nº.	DESCRIÇÃO	RESP.	DATA
05			
04			
03			
02			
01			

ASSINATURA DO PROPRIETÁRIO DO PROJETO ASSINATURA DO AUTOR DO PROJETO

CARIMBOS P.M.P.B. SECRETARIA DE PLANEJAMENTO URBANO E SAÚDE PÚBLICA

MUNICÍPIO DE PATO BRANCO
Secretaria de Planejamento Urbano

OBRA: TEATRO MUNICIPAL NAURA RIGON

ESPECIFICAÇÃO: ESTRUTURAL

ÁREA TOTAL: 12.184,95 m²
ESCALA: Indefinida

DATA: 04/05/2019
DESENHO: 39/61

PROPRIETÁRIO: Município de Pato Branco
CNPJ: 76.995.448/0001-94

PROJETO: 01

COORDENADOR: TONI
03 x 14

ENDEREÇO DA OBRA: Jacuizé, 400, Bairro Paranaíba, Pato Branco - PR

VERBA: ALIQUOTAÇÃO