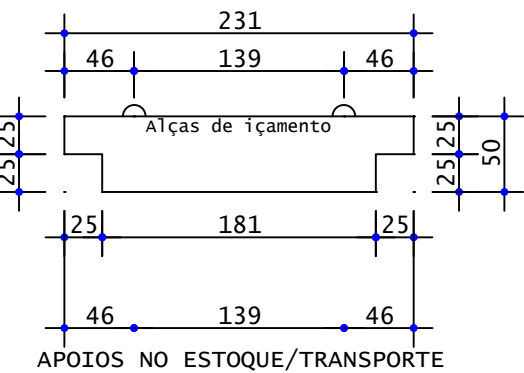
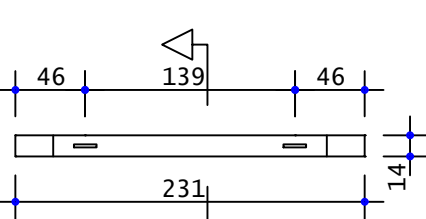


VP7

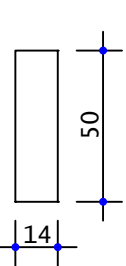
ELEVACÃO



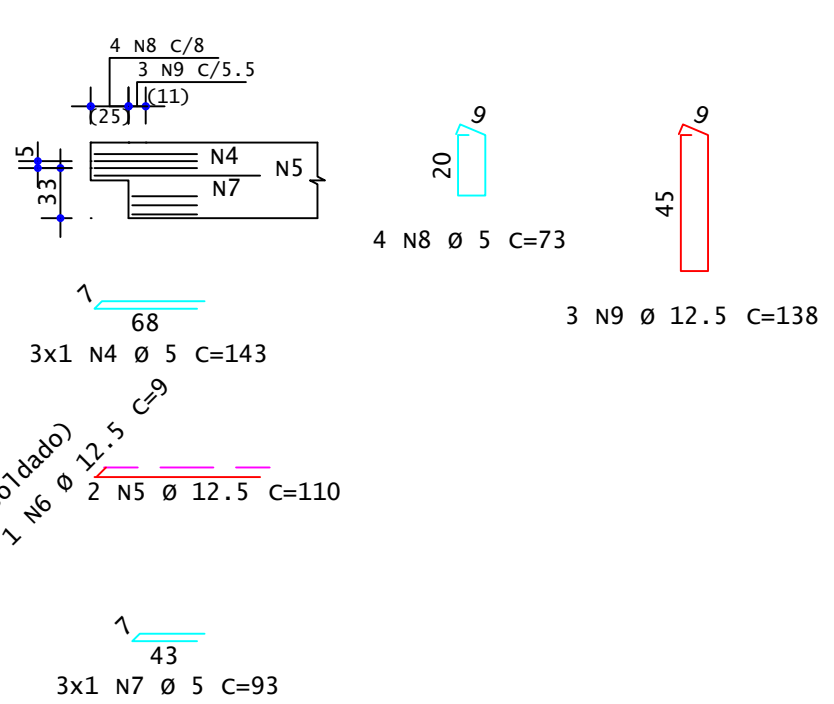
PLANTA



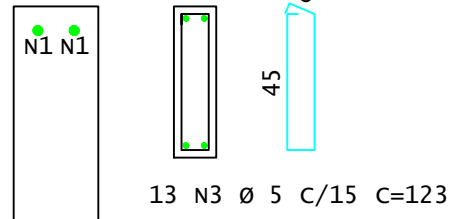
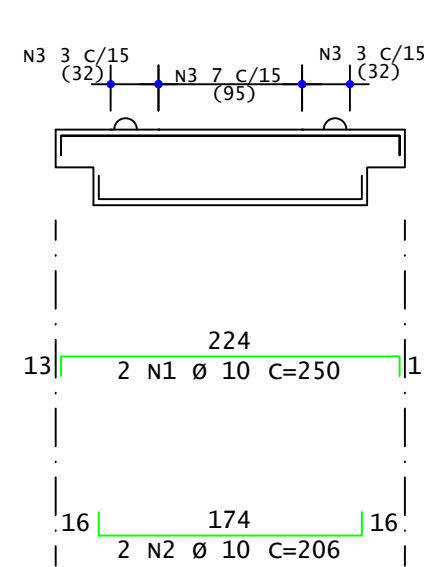
SEÇÃO



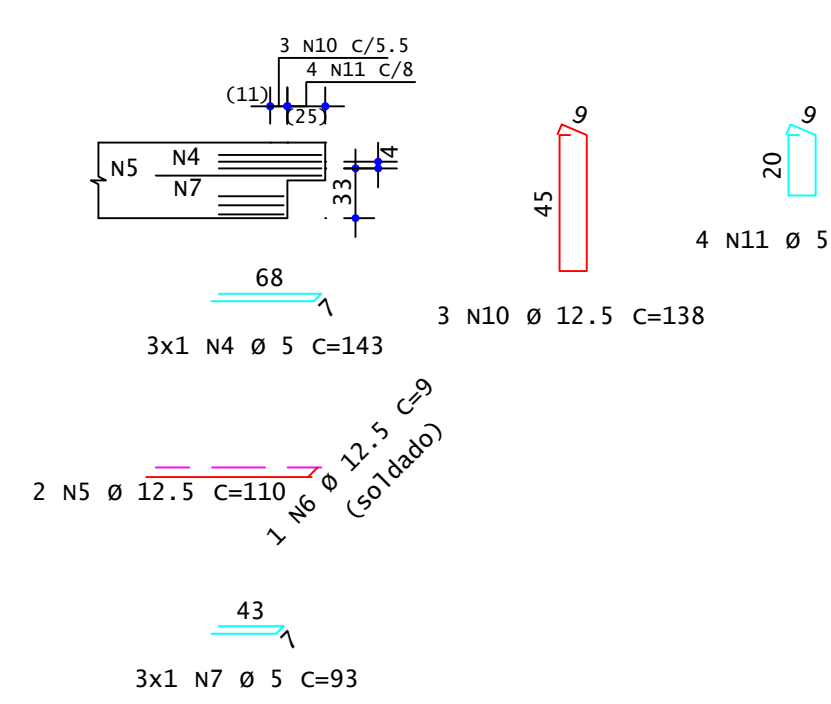
DETALHE INICIAL



VP7

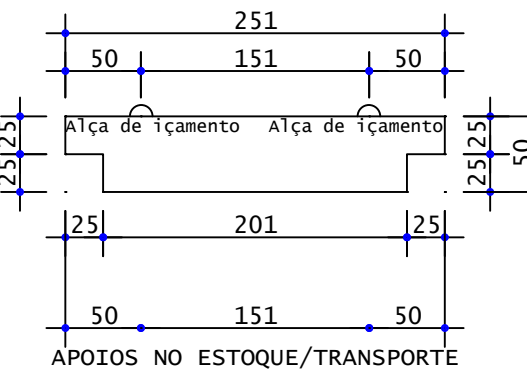


DETALHE FINAL

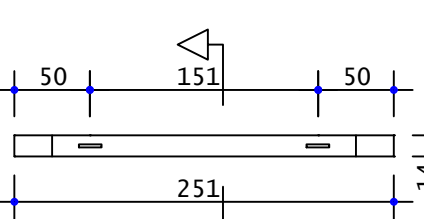


VP8

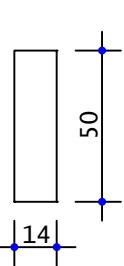
ELEVACÃO



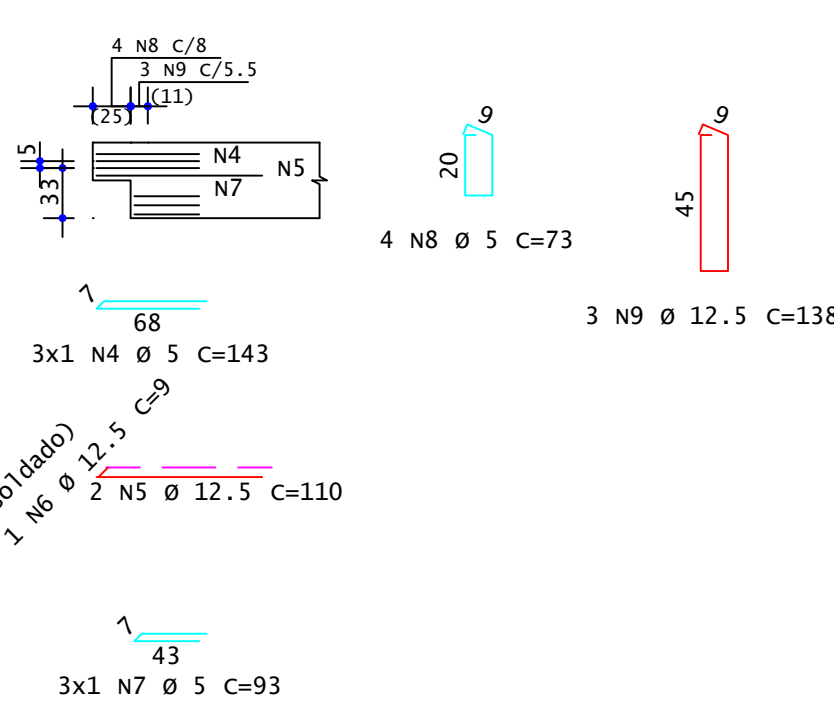
PLANTA



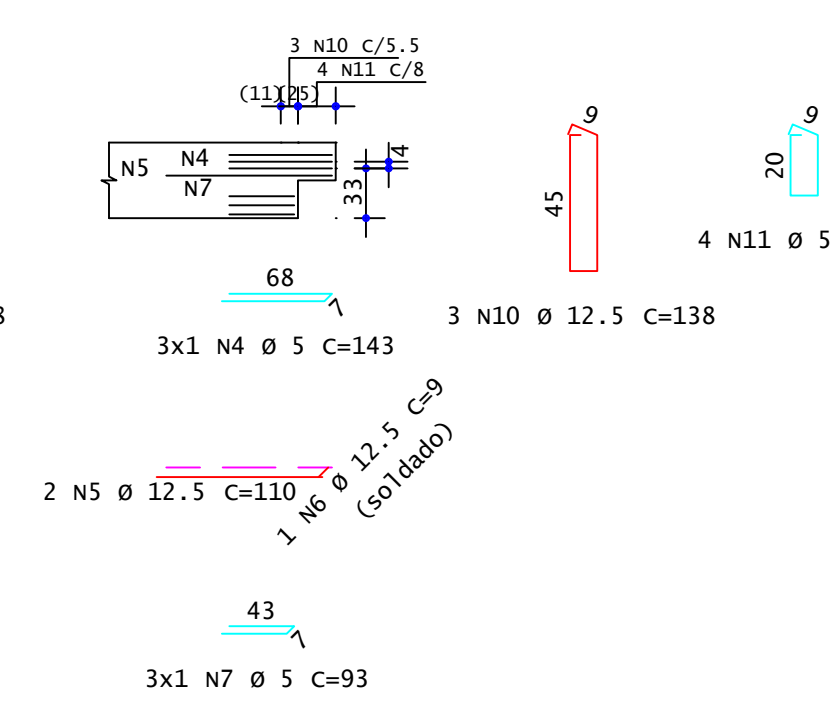
SEÇÃO



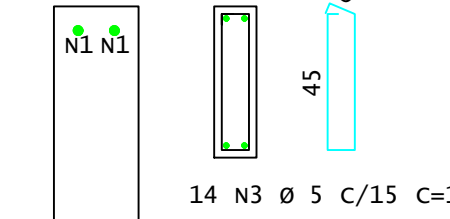
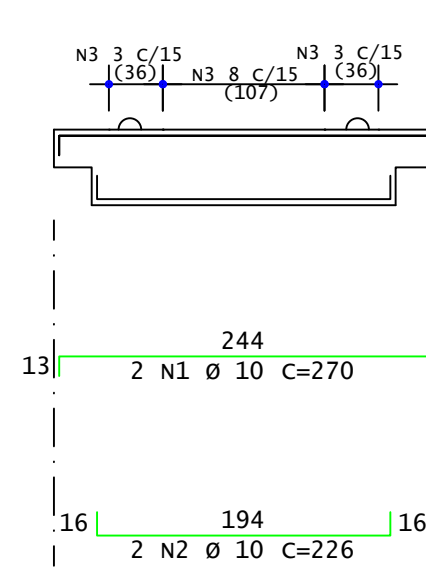
DETALHE INICIAL



DETALHE FINAL



VP8



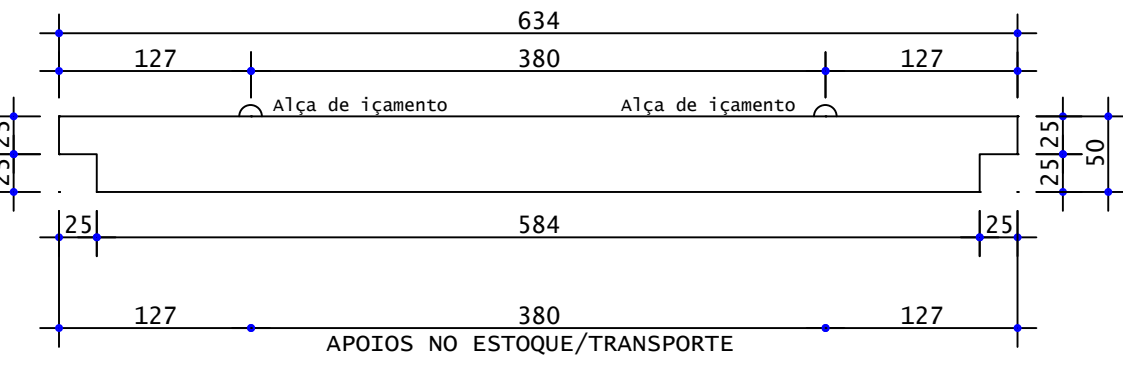
Pavimento	Quant	Volume unit (m³)	Volume total (m³)
Primeiro Lance(1x)	1	0.144	0.144
Térreo(1x)	1	0.144	0.144
TOTAIS	2		0.288

ACO	POS	BIT	QUANT	COMPRIMENTO UNIT	TOTAL
		mm		cm	cm
VP8 (X2)					
50A	1	10	2	270	540
50A	2	10	2	226	452
60A	3	5	14	123	1722
60A	4	5	6	143	858
50A	5	12.5	4	110	440
50A	6	12.5	2	9	18
60A	7	5	6	93	558
60A	8	5	4	73	292
50A	9	12.5	3	138	414
50A	10	12.5	3	138	414
60A	11	5	4	73	292

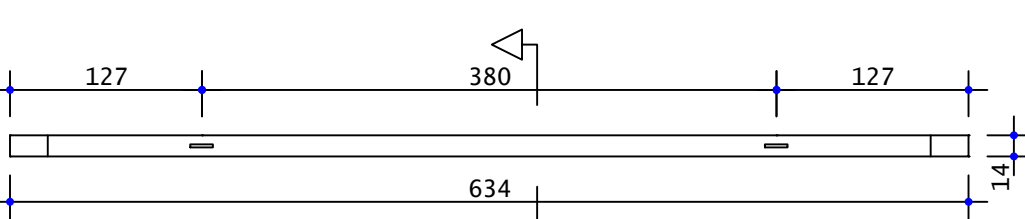
RESUMO DE AÇO			
ACO	BIT	COMPR	PESO
	mm	m	kgf
60A	5	37	6
50A	10	10	6
50A	12.5	13	12
Peso Total	60A =		6 kgf
Peso Total	50A =		19 kgf

VP9

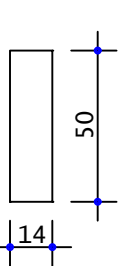
ELEVACÃO



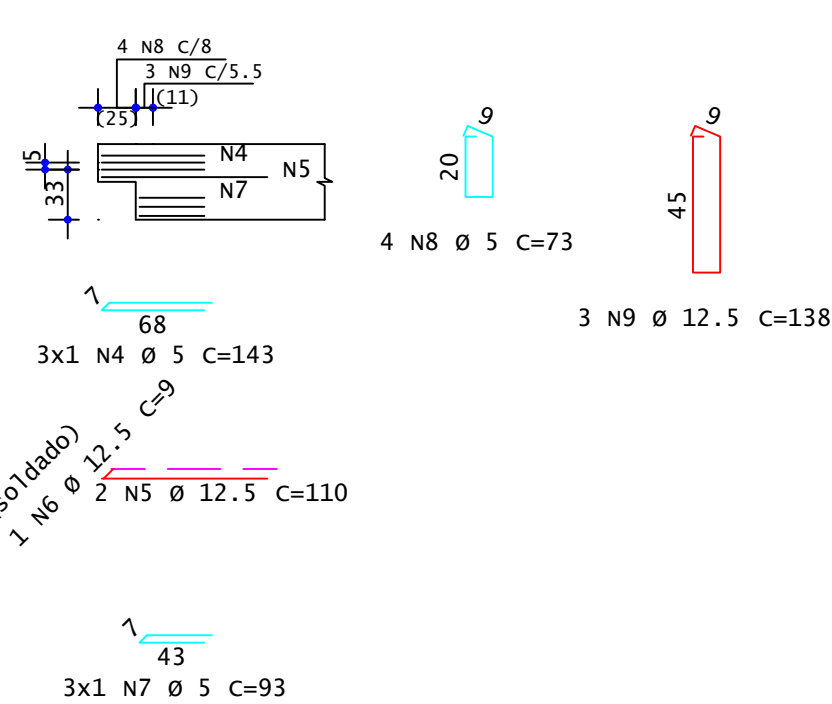
PLANTA



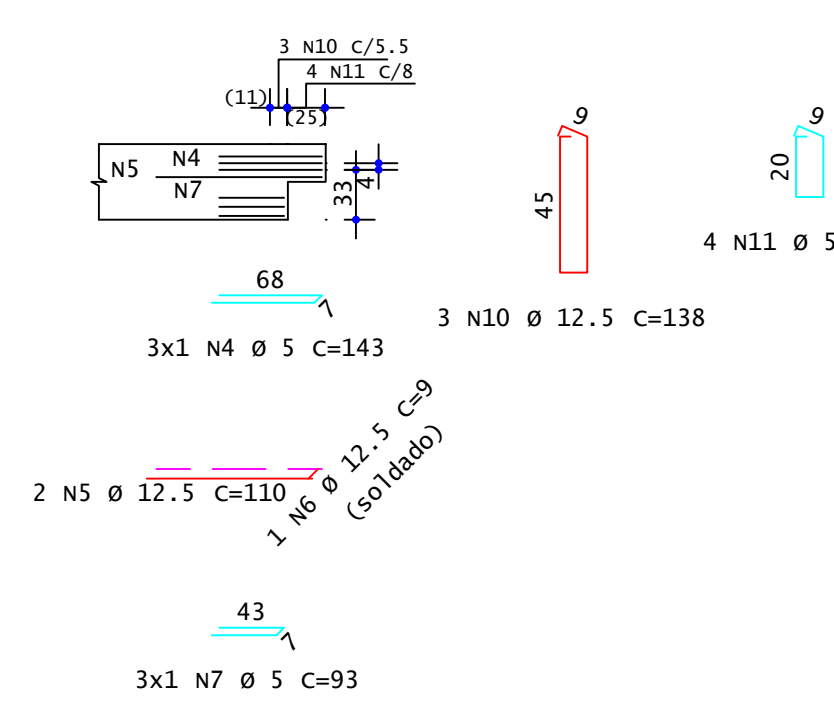
SEÇÃO



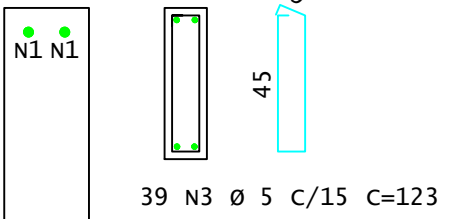
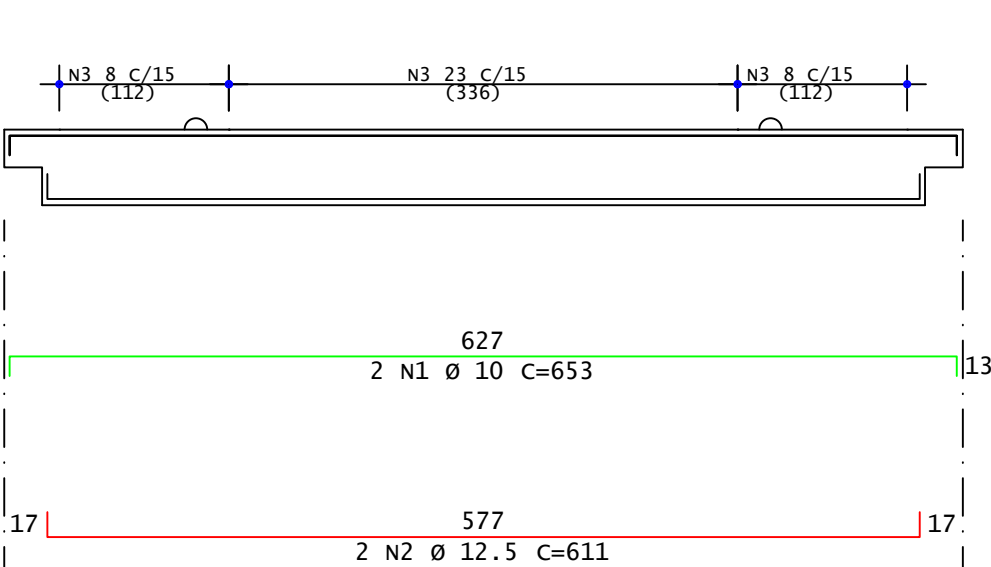
DETALHE INICIAL



DETALHE FINAL



VP9



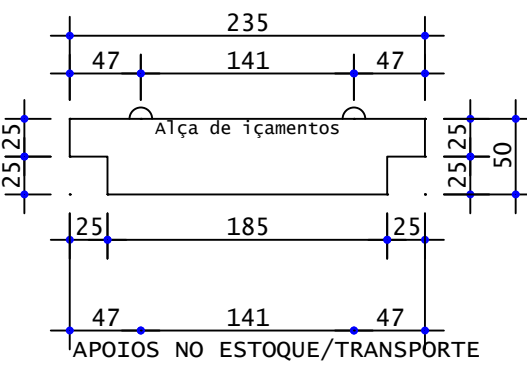
Pavimento	Quant	Volume unit	Volume total
Primeiro Lance(1x)	1	0.426	0.426
Térreo(1x)	1	0.426	0.426
TOTAIS	2		0.853

ACO	POS	BIT	QUANT	COMPRIMENTO UNIT	TOTAL
		mm		cm	cm
VP9 (X2)					
50A	1	10	4	611	2612
50A	2	12.5	4	611	2444
60A	3	5	78	123	9594
60A	4	5	12	143	1716
50A	5	12.5	8	110	880
50A	6	12.5	4	9	36
60A	7	5	12	93	1116
60A	8	5	8	73	584
50A	9	12.5	6	138	828
50A	10	12.5	6	138	828
60A	11	5	8	73	584

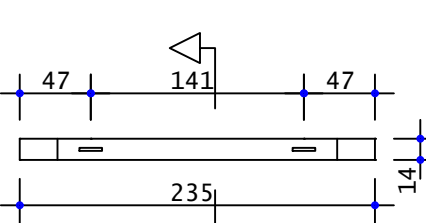
RESUMO DE AÇO			
ACO	BIT	COMPR	PESO
	mm	m	kgf
60A	5	136	21
50A	10	26	16
50A	12.5	50	48
Peso Total	60A =		21 kgf
Peso Total	50A =		64 kgf

VP10

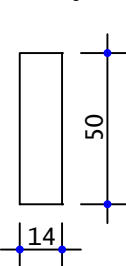
ELEVACÃO



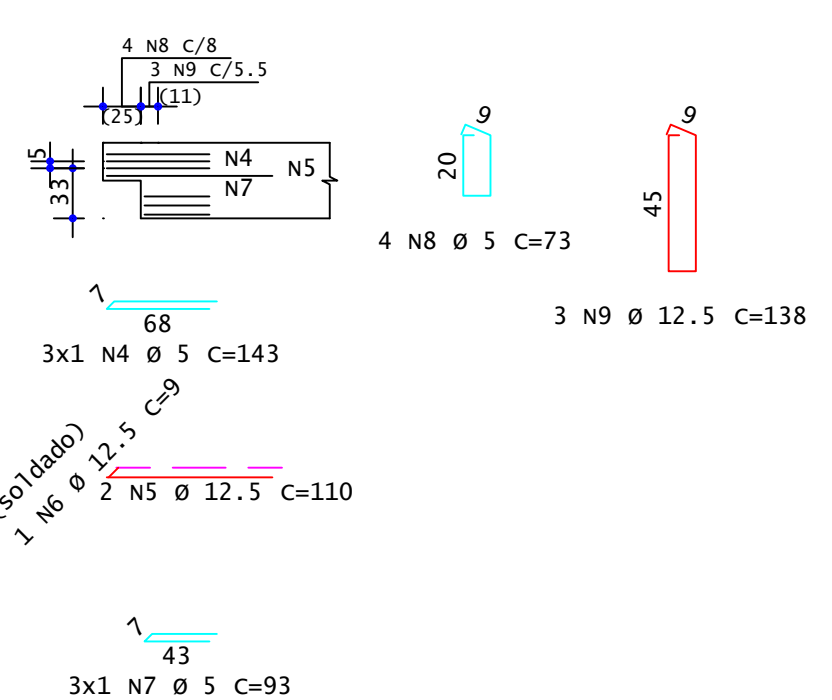
PLANTA



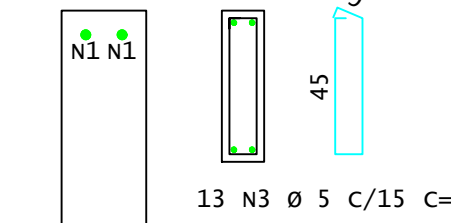
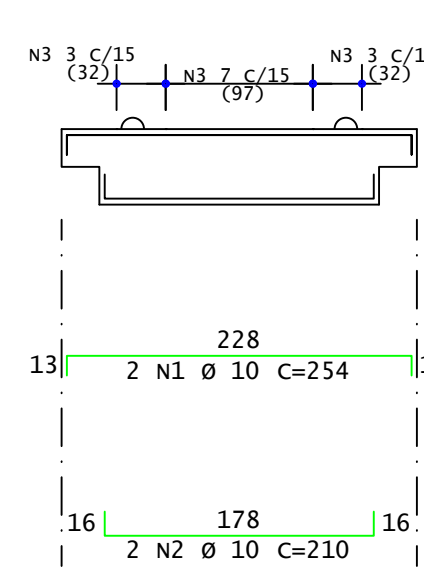
SEÇÃO



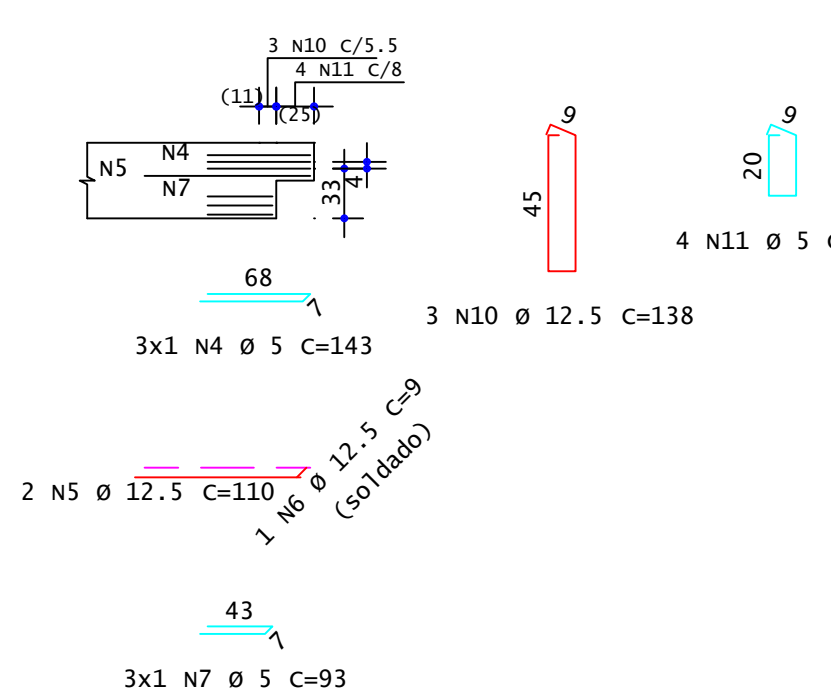
DETALHE INICIAL



VP10

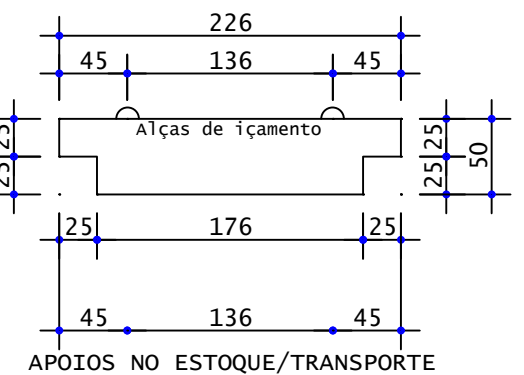


DETALHE FINAL

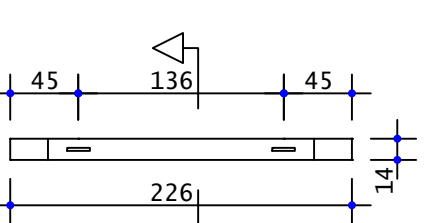


VP11

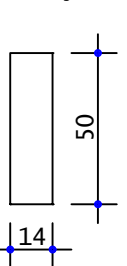
ELEVACÃO



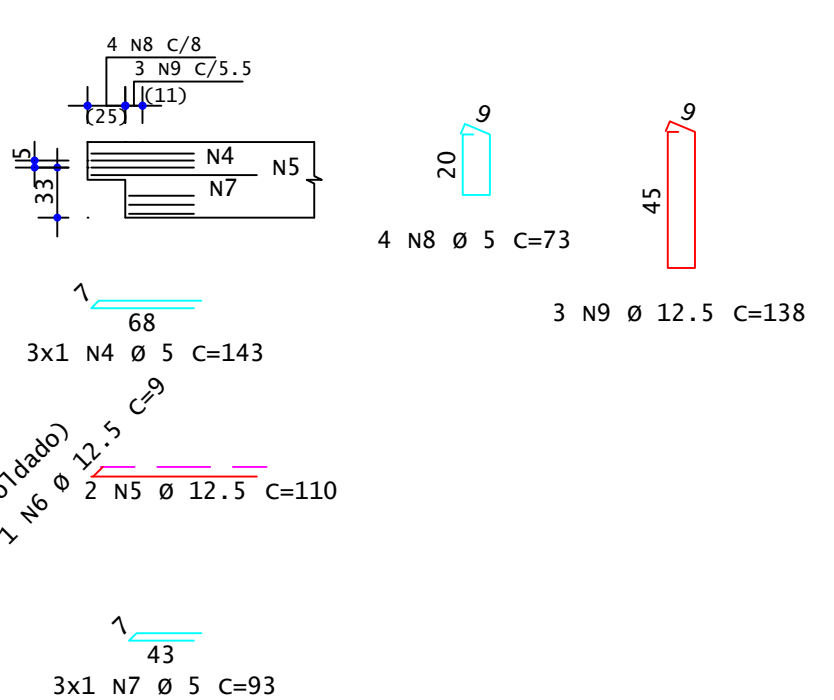
PLANTA



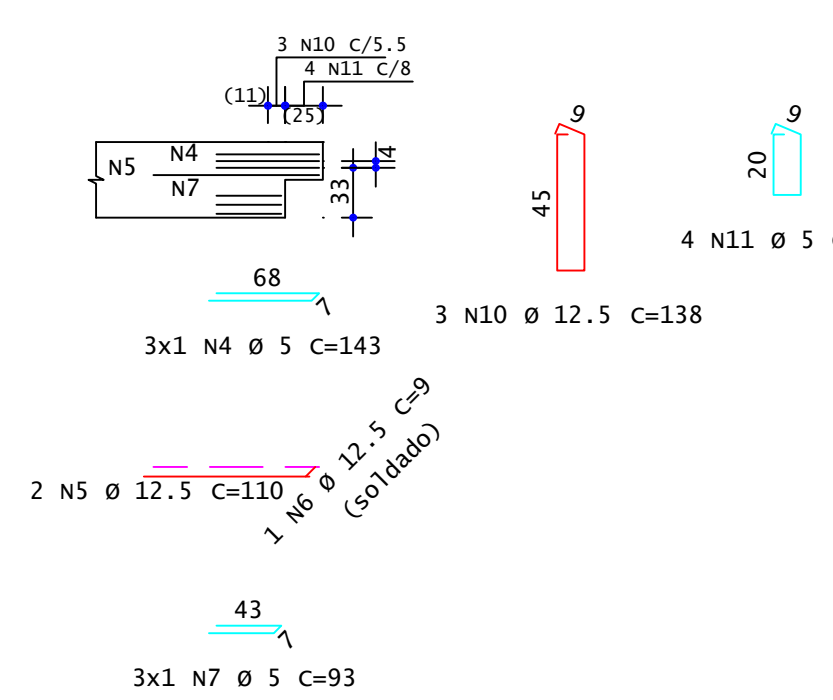
SEÇÃO



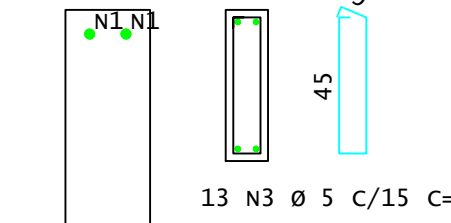
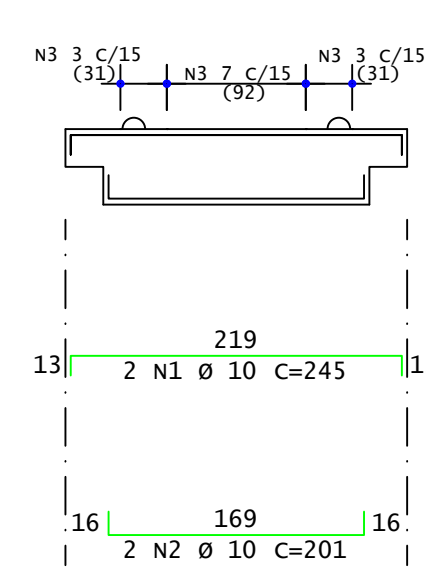
DETALHE INICIAL



DETALHE FINAL



VP11



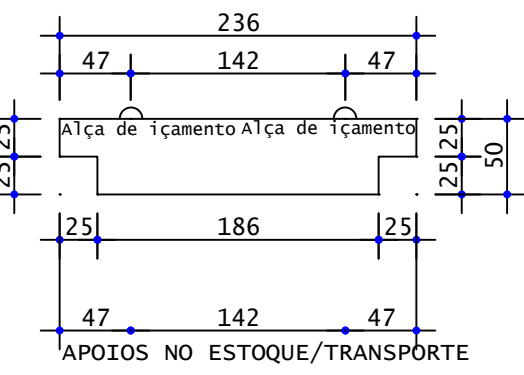
Pavimento	Quant	Volume unit (m³)	Volume total (m³)
Primeiro Lance(1x)	2	0.141	0.281
Térreo(1x)	2	0.141	0.281
TOTAIS	4		0.563

ACO	POS	BIT	QUANT	COMPRIMENTO UNIT	TOTAL
		mm		cm	cm
VP11 (X4)					
50A	1	10	8	245	1960
50A	2	10	8	201	1608
60A	3	5	52	123	6396
60A	4	5	24	143	3432
50A	5	12.5	16	110	1760
50A	6	12.5	8	9	72
60A	7	5	24	93	2232
60A	8	5	16	73	1168
50A	9	12.5	12	138	1656
50A	10	12.5	12	138	1656
60A	11	5	16	73	1168

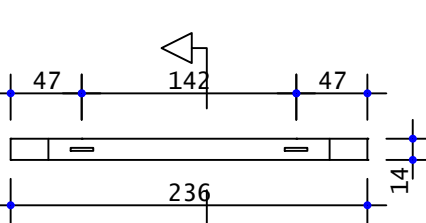
RESUMO DE AÇO			
ACO	BIT	COMPR	PESO
	mm	m	kgf
60A	5	144	22
50A	10	36	22
50A	12.5	51	50
Peso Total	60A =		22 kgf
Peso Total	50A =		72 kgf

VP12

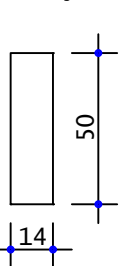
ELEVACÃO



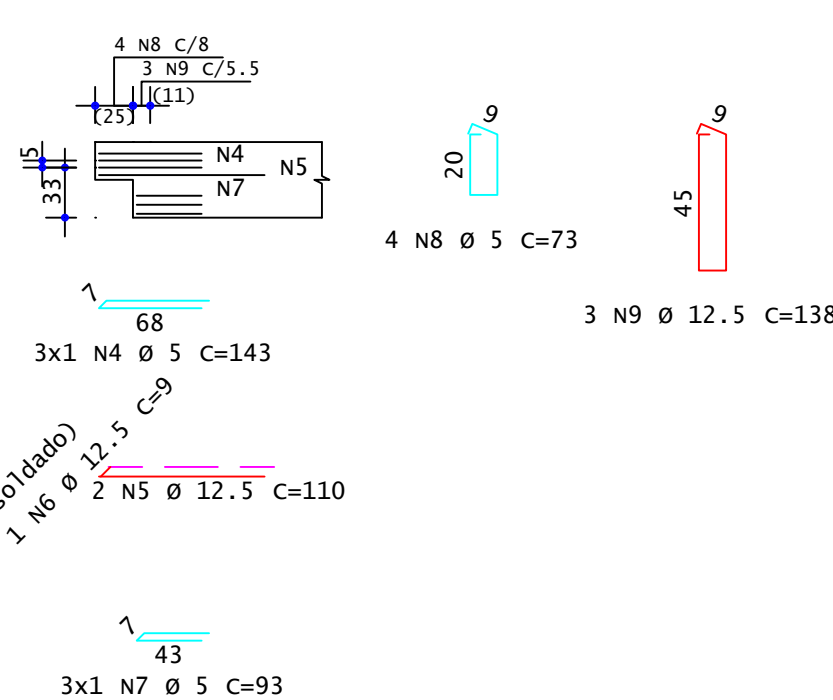
PLANTA



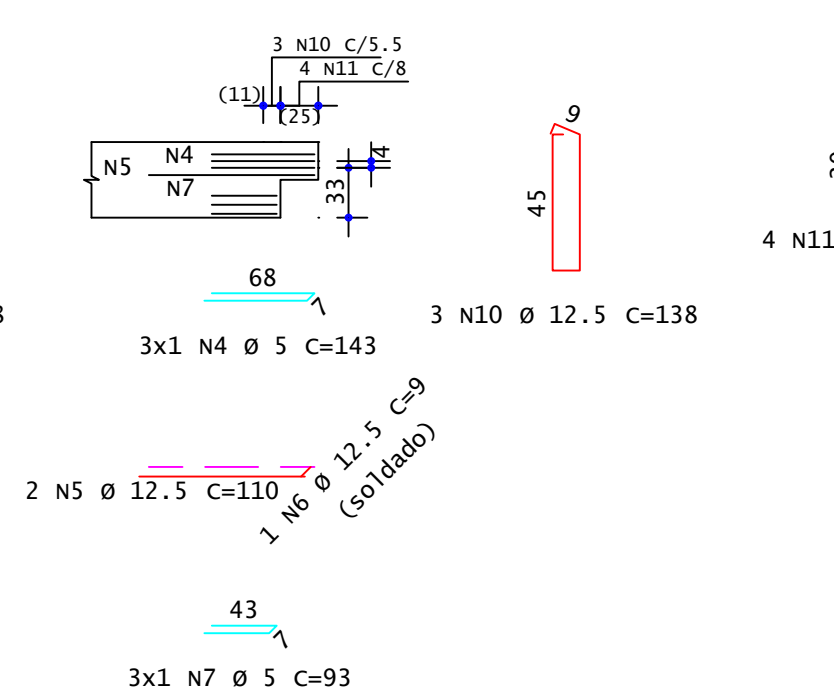
SEÇÃO



DETALHE INICIAL



DETALHE FINAL



Pavimento	Quant	Volume unit	Volume total
Primeiro Lance(1x)	2	0.148	0.295
Térreo(1x)	2	0.148	0.295
TOTAIS	4		0.591

ACO	POS	BIT	QUANT	COMPRIMENTO UNIT	TOTAL
		mm		cm	cm
VP12 (X4)					
50A	1	10	8	255	2040
50A	2	10	8	211	1688
60A	3	5	52	123	6396
60A	4	5	24	143	3432
50A	5	12.5	16	110	1760
50A	6	12.5	8	9	72
60A	7	5	24	93	2232
60A	8	5	16	73	1168
50A	9	12.5	12	138	1656
50A	10	12.5	12	138	1656
60A	11	5	16	73	1168

RESUMO DE AÇO			
ACO	BIT	COMPR	PESO
	mm	m	kgf
60A	5	144	22
50A	10	37	23
50A	12.5	51	50
Peso Total	60A =		22 kgf
Peso Total	50A =		73 kgf

É PROIBIDA A REPRODUÇÃO DESTA PROJETO, SEM A AUTORIZAÇÃO DO AUTOR
LEIS Nº 5194 DE 24/12/1966 E Nº 9610 DE 18/02/98



KOLF SERVIÇOS DE ENGENHARIA
CNPJ: 07.555.412/0001-37
RUA FREDERICO, 5555, SALA 1
CHOPINZINHO - PR - 85560-000
(46) 9900-2448
GABRIEL@KOLFERRA.ENG.BR

GINÁSIO EMEF PERSEVERANÇA

RUA DAS GRAFIAS, 160, BAIRRO ARAUCÁRIA, MARMELEIRO - PR. CEP 85615-000

PROJETO: DES. LUIZ

PROJETO ESTRUTURAL - PRÉ MOLDADO

CONTEÚDO DA PRANCHA: DETALHAMENTO VIGAS; DATA: OUT/2025

FOLHA: 11/16

REVISÃO: 01