

Technical drawing of a reinforced concrete slab (P1A, P2A, P3A) showing dimensions, reinforcement details, and section views.

Top View (Plan):

- Overall dimensions: 12.05 x 14.063 x 12.05 (m).
- Reinforcement details:
 - Top reinforcement: 12 Ø 5 C14 (N11, N12, N13, N14, N15, N16, N17, N18, N19, N20, N21, N22, N23, N24, N25, N26, N27, N28, N29, N30, N31, N32, N33, N34, N35, N36, N37, N38, N39, N40, N41, N42, N43, N44, N45, N46, N47, N48, N49, N50, N51, N52, N53, N54, N55, N56, N57, N58, N59, N60, N61, N62, N63, N64, N65, N66, N67, N68, N69, N70, N71, N72, N73, N74, N75, N76, N77, N78, N79, N80, N81, N82, N83, N84, N85, N86, N87, N88, N89, N90, N91, N92, N93, N94, N95, N96, N97, N98, N99, N100, N101, N102, N103, N104, N105, N106, N107, N108, N109, N110, N111, N112, N113, N114, N115, N116, N117, N118, N119, N120, N121, N122, N123, N124, N125, N126, N127, N128, N129, N130, N131, N132, N133, N134, N135, N136, N137, N138, N139, N140, N141, N142, N143, N144, N145, N146, N147, N148, N149, N150, N151, N152, N153, N154, N155, N156, N157, N158, N159, N160, N161, N162, N163, N164, N165, N166, N167, N168, N169, N170, N171, N172, N173, N174, N175, N176, N177, N178, N179, N180, N181, N182, N183, N184, N185, N186, N187, N188, N189, N190, N191, N192, N193, N194, N195, N196, N197, N198, N199, N200, N201, N202, N203, N204, N205, N206, N207, N208, N209, N210, N211, N212, N213, N214, N215, N216, N217, N218, N219, N220, N221, N222, N223, N224, N225, N226, N227, N228, N229, N230, N231, N232, N233, N234, N235, N236, N237, N238, N239, N240, N241, N242, N243, N244, N245, N246, N247, N248, N249, N250, N251, N252, N253, N254, N255, N256, N257, N258, N259, N260, N261, N262, N263, N264, N265, N266, N267, N268, N269, N270, N271, N272, N273, N274, N275, N276, N277, N278, N279, N280, N281, N282, N283, N284, N285, N286, N287, N288, N289, N290, N291, N292, N293, N294, N295, N296, N297, N298, N299, N300, N301, N302, N303, N304, N305, N306, N307, N308, N309, N310, N311, N312, N313, N314, N315, N316, N317, N318, N319, N320, N321, N322, N323, N324, N325, N326, N327, N328, N329, N330, N331, N332, N333, N334, N335, N336, N337, N338, N339, N340, N341, N342, N343, N344, N345, N346, N347, N348, N349, N350, N351, N352, N353, N354, N355, N356, N357, N358, N359, N360, N361, N362, N363, N364, N365, N366, N367, N368, N369, N370, N371, N372, N373, N374, N375, N376, N377, N378, N379, N380, N381, N382, N383, N384, N385, N386, N387, N388, N389, N390, N391, N392, N393, N394, N395, N396, N397, N398, N399, N400, N401, N402, N403, N404, N405, N406, N407, N408, N409, N410, N411, N412, N413, N414, N415, N416, N417, N418, N419, N420, N421, N422, N423, N424, N425, N426, N427, N428, N429, N430, N431, N432, N433, N434, N435, N436, N437, N438, N439, N440, N441, N442, N443, N444, N445, N446, N447, N448, N449, N450, N451, N452, N453, N454, N455, N456, N457, N458, N459, N460, N461, N462, N463, N464, N465, N466, N467, N468, N469, N470, N471, N472, N473, N474, N475, N476, N477, N478, N479, N480, N481, N482, N483, N484, N485, N486, N487, N488, N489, N490, N491, N492, N493, N494, N495, N496, N497, N498, N499, N500, N501, N502, N503, N504, N505, N506, N507, N508, N509, N510, N511, N512, N513, N514, N515, N516, N517, N518, N519, N520, N521, N522, N523, N524, N525, N526, N527, N528, N529, N530, N531, N532, N533, N534, N535, N536, N537, N538, N539, N540, N541, N542, N543, N544, N545, N546, N547, N548, N549, N550, N551, N552, N553, N554, N555, N556, N557, N558, N559, N560, N561, N562, N563, N564, N565, N566, N567, N568, N569, N570, N571, N572, N573, N574, N575, N576, N577, N578, N579, N580, N581, N582, N583, N584, N585, N586, N587, N588, N589, N590, N591, N592, N593, N594, N595, N596, N597, N598, N599, N600, N601, N602, N603, N604, N605, N606, N607, N608, N609, N610, N611, N612, N613, N614, N615, N616, N617, N618, N619, N620, N621, N622, N623, N624, N625, N626, N627, N628, N629, N630, N631, N632, N633, N634, N635, N636, N637, N638, N639, N640, N641, N642, N643, N644, N645, N646, N647, N648, N649, N650, N651, N652, N653, N654, N655, N656, N657, N658, N659, N660, N661, N662, N663, N664, N665, N666, N667, N668, N669, N670, N671, N672, N673, N674, N675, N676, N677, N678, N679, N680, N681, N682, N683, N684, N685, N686, N687, N688, N689, N690, N691, N692, N693, N694, N695, N696, N697, N698, N699, N700, N701, N702, N703, N704, N705, N706, N707, N708, N709, N710, N711, N712, N713, N714, N715, N716, N717, N718, N719, N720, N721, N722, N723, N724, N725, N726, N727, N728, N729, N730, N731, N732, N733, N734, N735, N736, N737, N738, N739, N740, N741, N742, N743, N744, N745, N746, N747, N748, N749, N750, N751, N752, N753, N754, N755, N756, N757, N758, N759, N760, N761, N762, N763, N764, N765, N766, N767, N768, N769, N770, N771, N772, N773, N774, N775, N776, N777, N778, N779, N780, N781, N782, N783, N784, N785, N786, N787, N788, N789, N790, N791, N792, N793, N794, N795, N796, N797, N798, N799, N800, N801, N802, N803, N804, N805, N806, N807, N808, N809, N810, N811, N812, N813, N814, N815, N816, N817, N8

Technical drawing of a reinforced concrete slab (V417A) showing top and side views.

Top View:

- Overall dimensions: 12.05 x 15.00 m.
- Reinforcement details: 3 N2 Ø 10 C=185, 2 N1 Ø 6.3 C=430, 3 N4 Ø 10 C=154, 2 N1 Ø 6.3 C=430.
- Dimensions: 155, 108, 186, 106.

Side View:

- Slab thickness: 0.10 m.
- Reinforcement details: 3 N3 Ø 10 C=743, 2 N1 Ø 6.3 C=430, 3 N6 Ø 10 C=379, 4 N5 Ø 16 C=767.
- Dimensions: 1080, 742, 844.

Technical drawing of a bridge structure, showing a plan view and a longitudinal section.

Plan View (Top):

- Overall length: 130.10
- Dimensions and reinforcement details:
 - 13.85 C14 N10 (173)
 - 16.86.3 C23 N11 (346)
 - 13.85 C14 N10 (173)
 - 14.85 C14 N11 (108)
 - 8.6.3 C23 N10 (108)
 - 13.85 C14 N10 (173)
 - 16.86.3 C23 N11 (346)
 - 13.85 C14 N10 (173)
- Reinforcement details: 20x24, 20x16, 20x10
- Labels: V417A, V421A, V423A, V424A

Longitudinal Section (Bottom):

- Dimensions and reinforcement details:
 - 155
 - 3 N2 Ø 10 C=185
 - 108
 - 2 N1 Ø 6.3 C=430
 - 188
 - 2 N3 Ø 16 C=745
 - 146
 - 2 N1 Ø 6.3 C=430
 - 106
 - 155
 - 3 N2 Ø 10 C=185
- Reinforcement details: 20x24, 20x16, 20x10
- Labels: (costola), 1079, 735, 640, 752, 777

Technical drawing of a cable tray layout, showing a top view and a side view.

Top View:

- Tray dimensions: 10 Ø 6.3 C=770, 17 Ø 6.3 C=723, 13 Ø 6.3 C=725, 14 Ø 6.3 C=724, 14 Ø 6.3 C=725, 14 Ø 6.3 C=724, 2 Ø 6.3 C=770, 16 Ø 6.3 C=723, 13 Ø 6.3 C=724.
- Cable runs:
 - 5 N2 Ø 20 C=414 (2 Ø 2x4C)
 - 2 N1 Ø 6.3 C=325
 - 1 N3 Ø 16 C=530
 - 4 N4 Ø 16 (1 Ø 2x4C) C=770
 - 2 N5 Ø 6.3 C=430
 - 2x4 N15 Ø 8 C=786 (costa)
 - 1 N8 Ø 10 C=639
 - 2 N7 Ø 20 C=890
 - 2x1 N16 Ø 8 C=1096 (costa)
 - 3 N9 Ø 10 C=413
 - 1 N11 Ø 20 C=637
 - 2 N10 Ø 20 C=704
 - 3x1 N12 Ø 16 C=770

Side View:

- Tray profile dimensions: 10 Ø 6.3 C=770, 17 Ø 6.3 C=723, 13 Ø 6.3 C=725, 14 Ø 6.3 C=724, 14 Ø 6.3 C=725, 14 Ø 6.3 C=724, 2 Ø 6.3 C=770, 16 Ø 6.3 C=723, 13 Ø 6.3 C=724.
- Labels: V418A, V420A, P20A, P17A, V423A.

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Technical drawing of a reinforced concrete slab (P9A to P12A) showing dimensions, reinforcement details, and section markers A-A and B-B.

Section A-A (Top View):

- Overall width: 30.20
- Reinforcement details:
 - 32 Ø 6.3 C=200 N° (640)
 - 15 Ø 6.3 C=200 N° (935)
 - 9 Ø 6.3 C=18 N° (162)
 - 24 Ø 6.3 C=200 N° (1800)
- Section markers: A-A

Section B-B (Side View):

- Overall length: 27.75
- Reinforcement details:
 - 4 N2 Ø 16 C=306 (1 Ø 2ACAM)
 - 2 N1 Ø 6.3 C=230
 - 4 N3 Ø 20 C=881 (1 Ø 2ACAM)
 - 2 N4 Ø 6.3 C=245
 - 3 N5 Ø 20 C=375
 - 2x4 N11 Ø 8 C=744 (costola)
 - 2x4 N10 Ø 8 C=1072 (costola)
 - 3 N7 Ø 12.5 C=376
 - 2 N6 Ø 20 C=815
 - 2 N8 Ø 20 C=819
- Section markers: B-B

V408A_{14X40}

Technical drawing of a beam (V415A and V418A) showing dimensions and cross-sections.

Top View Dimensions:

- Total length: $17.0 + 0.5 + 20.0 = 37.5$
- Central section: 20.0
- Spacing: 3.0 between 12.5 sections

CORTE A (Cross-sections):

- Top cross-section: 2.0×8.0
- Bottom cross-section: 1.0×12.5

Bottom View Dimensions:

- Total length: 357
- Central section: $2 \text{ N2 } \varnothing 8 \text{ C}=397$
- Spacing: $3 \text{ N2 } \varnothing 12.5 \text{ C}=407$

1. UNIDADES EM CENTÍMETROS, NÍVEIS EM METROS, EXCETO NO INDICADO O CONTRÁRIO;
2. ESTE PROJETO ATENDE AS ESPECIFICAÇÕES DA NORMA NBR-6118-2014;
3. AS ARMADURAS DEVEM ESTAR LIMPAS, DE ACORDO COM O QUE SE ESTABELEÇA NAS NORMAS DE EXECUÇÃO, COM AS ARMADURAS DEVEM SER PROTEGIDAS DE ACORDO COM O PROJETO, UTILIZANDO-SE DE POSICIONADORES E ESPACADORES ADEQUADOS, GARANTINDO OS COBRIMENTOS;
4. AÇOS: $PREV(f_y \geq 500MPa)$ / $CA50(f_y \geq 600MPa)$;
5. PREVER INSETS METÁLICOS PARA FIXAÇÃO DA ESTRUTURA METÁLICA, NOS ELEMENTOS PERTINENTES (VER PROJETO DE ESTRUTURA METÁLICA);
6. DEMAIS CONSIDERAÇÕES VIDE PLANILHA DE FORMAS;
7. TODAS AS MEDIDAS E DIMENSÕES DEVEM SER CONFERIDAS NA OBRA.

COBRIMENTOS MÍNIMOS	
ELEMENTOS	VALORES (cm)
VIGAS E PILARES	2,5
LAJES	2,0
FUNDAÇÕES	2,5

The floor plan shows a large rectangular building with several rooms. A red hatched area is located in the lower-left quadrant, adjacent to a large room with a desk and chair. The plan also shows a central corridor, a large room with a desk and chair, and a room with a desk and chair. The red hatched area is located in the lower-left quadrant, adjacent to a large room with a desk and chair.

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