



| 19                                  |        | RELAÇÃO DO AÇO |           |      |     |      |  |
|-------------------------------------|--------|----------------|-----------|------|-----|------|--|
| V101                                | V102   |                |           |      |     | V103 |  |
| V104                                | V105   |                |           |      |     | V106 |  |
| N                                   | DIAM   | Q              | CUT       |      |     | V107 |  |
| (mm)                                | (mm)   | (cm)           | (cm)      |      |     | V108 |  |
| CA60                                | 1      | 5,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 2      | 5,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 3      | 5,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 4      | 5,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 5      | 5,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 6      | 5,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 7      | 5,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 8      | 5,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 9      | 5,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 10     | 5,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 11     | 5,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 12     | 5,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 13     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 14     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 15     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 16     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 17     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 18     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 19     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 20     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 21     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 22     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 23     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 24     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 25     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 26     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 27     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 28     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 29     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 30     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 31     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 32     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 33     | 8,0            | 4,0       | 11,7 | 2   |      |  |
|                                     | 34     | 8,0            | 4,0       | 11,7 | 2   |      |  |
|                                     | 35     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 36     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 37     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 38     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 39     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 40     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 41     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 42     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 43     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 44     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 45     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 46     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 47     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 48     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 49     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 50     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 51     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 52     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 53     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 54     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 55     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 56     | 8,0            | 1,0       | 4,7  | 2   |      |  |
|                                     | 57     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 58     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 59     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 60     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 61     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 62     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 63     | 4,3            | 4,3       | 1,7  | 2   |      |  |
|                                     | 64     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 65     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 66     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 67     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 68     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 69     | 8,0            | 2,0       | 9,81 | 2   |      |  |
|                                     | 70     | 7,0            | 1,0       | 2,9  | 2   |      |  |
|                                     | 71     | 7,0            | 1,0       | 2,9  | 2   |      |  |
|                                     | 72     | 7,0            | 1,0       | 2,9  | 2   |      |  |
|                                     | 73     | 7,0            | 1,0       | 2,9  | 2   |      |  |
|                                     | 74     | 7,0            | 1,0       | 2,9  | 2   |      |  |
|                                     | 75     | 7,0            | 1,0       | 2,9  | 2   |      |  |
|                                     | 76     | 7,0            | 1,0       | 2,9  | 2   |      |  |
|                                     | 77     | 7,0            | 1,0       | 2,9  | 2   |      |  |
|                                     | 78     | 7,0            | 1,0       | 2,9  | 2   |      |  |
|                                     | 79     | 7,0            | 1,0       | 2,9  | 2   |      |  |
|                                     | 80     | 10,0           | 1,0       | 2,9  | 2   |      |  |
|                                     | 81     | 10,0           | 1,0       | 2,9  | 2   |      |  |
| RESUMO DO AÇO                       |        |                |           |      |     |      |  |
| CA50                                | DIAM   | (mm)           | C (TOTAL) |      | PRE |      |  |
|                                     | 8,0    | 471,6          |           |      |     |      |  |
|                                     | 10,0   | 117,7          |           |      |     |      |  |
| CA60                                | 5,0    | 757,1          |           |      |     |      |  |
| PESO TOTAL                          |        |                |           |      |     |      |  |
| CA50                                | 297,3  |                |           |      |     |      |  |
| CA60                                | 1167,7 |                |           |      |     |      |  |
| Volume de concreto (C=30) = 6,39 m³ |        |                |           |      |     |      |  |

NOTAS

Momento Fletor Máxima: 20KN.m

## LEGENDA

ARTICULAÇÃO

| 1                                                               | REVISÃO DA PROFUNDIDADE DA LISTA | 05/07/22 | MRC   | MCR      |
|-----------------------------------------------------------------|----------------------------------|----------|-------|----------|
| 0                                                               | EMISSÃO INICIAL                  | 26/05/22 | MRC   | MCR      |
| REV.                                                            | DESCRIÇÃO                        | DATA     | EXEC. | VER.     |
| <b>CONSÓRCIO QUANTA / TETRIS / FLEX</b><br>CONTRATO Nº 006/2022 |                                  | EXEC.    | MRC   | 26/05/22 |
|                                                                 |                                  | DES.     | MCR   | 26/05/22 |
|                                                                 |                                  | VER.     | MRC   | 26/05/22 |



**SECRETARIA MUNICIPAL DE DESENVOLVIMENTO ECONÔMICO**  
**COMPLEXO EDUCACIONAL - BONSUCESSO - APOIO EDUCACIONAL**  
**PROJETO EXECUTIVO ESTRUTURAL**  
DESCRIÇÃO: VIGA (TÉRREO) / CORTES

|       |                                                                                  |                 |                                   |         |       |
|-------|----------------------------------------------------------------------------------|-----------------|-----------------------------------|---------|-------|
| LOCAL | ESTRADA DE BONSUCESSO - BAIRRO BONSUCESSO, 2º DISTRITO (BACAXÁ) - SAQUAREMA - RJ | ARQ. ELETRÔNICO | SQ_06012_BONSUCESSO_AE_PE_EST_R01 |         |       |
| Nº    | PD004-SBP004                                                                     | ESCALA INDICADA | DATA                              | FRANCHA |       |
|       |                                                                                  |                 | JULHO/2022                        |         | 02/07 |