

| Nome | Seção (cm) | X (cm)   | Y (cm)   | Pilar           |                 |           |           |         | Fundação |             |             |             |             | Bloco |        |        |                |
|------|------------|----------|----------|-----------------|-----------------|-----------|-----------|---------|----------|-------------|-------------|-------------|-------------|-------|--------|--------|----------------|
|      |            |          |          | Carga Máx. (kN) | Carga Mín. (kN) | Mx (kN.m) | My (kN.m) | Fx (kN) | Fy (kN)  | Lado B (cm) | Lado H (cm) | h0 / ha (m) | h1 / hb (m) | ne    | Estaca | ca (m) | Base tub. (cm) |
| P1   | 20x20      | -10.00   | -10.00   | 10              | 7               | 1         | 1         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P2   | 20x20      | -321.83  | -101.47  | 11              | 10              | 2         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P3   | 20x20      | -633.98  | -189.77  | 11              | 10              | 3         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P4   | 20x20      | -946.13  | -278.07  | 11              | 10              | 3         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P5   | 20x20      | -10.00   | -258.75  | 10              | 8               | 1         | 1         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P6   | 20x20      | -1258.28 | -366.42  | 11              | 10              | 3         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P7   | 20x20      | -1571.13 | -454.92  | 11              | 10              | 3         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P8   | 20x20      | -1883.98 | -543.47  | 11              | 10              | 3         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P9   | 20x20      | -10.00   | -507.45  | 9               | 8               | 1         | 2         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P10  | 20x20      | -2196.83 | -631.97  | 11              | 10              | 2         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P11  | 20x20      | -2509.66 | -720.50  | 12              | 10              | 1         | 1         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P12  | 20x20      | -10.00   | -756.15  | 10              | 8               | 1         | 1         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P13  | 20x20      | -10.00   | -1004.90 | 11              | 8               | 1         | 1         | 2       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P14  | 20x20      | 377.50   | -1004.90 | 13              | 11              | 2         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P15  | 20x20      | 765.00   | -1004.90 | 12              | 11              | 3         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P16  | 20x20      | 1152.50  | -1004.90 | 12              | 11              | 3         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P17  | 20x20      | 1540.00  | -1004.90 | 12              | 11              | 3         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P18  | 20x20      | 1927.50  | -1004.90 | 12              | 11              | 3         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P19  | 20x20      | 2315.00  | -1004.90 | 12              | 11              | 3         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P20  | 20x20      | 2702.50  | -1004.90 | 12              | 11              | 2         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P21  | 20x20      | 3090.00  | -1004.90 | 13              | 10              | 2         | 1         | 2       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P22  | 20x20      | -2487.02 | -1112.12 | 13              | 12              | 1         | 2         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P23  | 20x20      | 3090.00  | -1413.05 | 13              | 12              | 2         | 1         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P24  | 20x20      | -2462.60 | -1501.29 | 8               | 6               | 1         | 2         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P25  | 20x20      | 3090.00  | -1831.20 | 12              | 10              | 1         | 1         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P26  | 20x20      | 3354.49  | -1969.54 | 10              | 9               | 2         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P27  | 20x20      | -2423.84 | -2120.05 | 8               | 5               | 1         | 2         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P28  | 20x20      | 3619.08  | -2101.81 | 10              | 9               | 2         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P29  | 20x20      | 3883.68  | -2234.01 | 10              | 9               | 3         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P30  | 20x20      | 4148.23  | -2366.26 | 10              | 9               | 2         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P31  | 20x20      | -2402.48 | -2461.03 | 12              | 10              | 1         | 2         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P32  | 20x20      | 4412.83  | -2498.47 | 10              | 9               | 2         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P33  | 20x20      | 4677.39  | -2630.69 | 10              | 9               | 2         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P34  | 20x20      | -2381.09 | -2802.00 | 11              | 10              | 1         | 2         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P35  | 20x20      | 4941.98  | -2762.96 | 10              | 9               | 2         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P36  | 20x20      | 5206.58  | -2895.16 | 7               | 5               | 2         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P37  | 20x20      | 5474.89  | -3029.24 | 7               | 5               | 2         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P38  | 20x20      | -2359.74 | -3143.00 | 12              | 10              | 1         | 2         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P39  | 20x20      | 5725.98  | -3154.71 | 10              | 9               | 2         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P40  | 20x20      | 5977.05  | -3280.18 | 10              | 9               | 3         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P41  | 20x20      | -330.75  | -3358.85 | 10              | 8               | 1         | 1         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P42  | 20x20      | -2338.35 | -3483.99 | 10              | 8               | 1         | 1         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P43  | 20x20      | -2089.98 | -3468.45 | 9               | 8               | 2         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P44  | 20x20      | -1841.60 | -3452.84 | 9               | 8               | 3         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P45  | 20x20      | -1593.25 | -3437.29 | 9               | 8               | 3         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P46  | 20x20      | -1344.85 | -3421.74 | 9               | 8               | 3         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P47  | 20x20      | -1091.30 | -3406.69 | 9               | 8               | 3         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P48  | 20x20      | -837.90  | -3389.98 | 9               | 8               | 3         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P49  | 20x20      | -584.40  | -3374.09 | 10              | 8               | 2         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P50  | 20x20      | 6228.08  | -3405.66 | 10              | 9               | 2         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P51  | 20x20      | 4924.93  | -3492.21 | 7               | 4               | 2         | 2         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P52  | 20x20      | 6479.17  | -3531.07 | 7               | 5               | 2         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P53  | 20x20      | -329.45  | -3714.50 | 12              | 11              | 1         | 2         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P54  | 20x20      | 4818.94  | -3704.34 | 9               | 8               | 1         | 1         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P55  | 20x20      | 4540.00  | -3919.90 | 6               | 3               | 2         | 1         | 1       | 1        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P56  | 20x20      | 4707.40  | -3919.90 | 10              | 5               | 1         | 1         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P57  | 20x20      | -328.08  | -4070.13 | 11              | 10              | 1         | 2         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P58  | 20x20      | -327.69  | -4415.78 | 12              | 10              | 1         | 2         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P59  | 20x20      | -325.40  | -4761.45 | 8               | 6               | 1         | 2         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P60  | 20x20      | -322.55  | -5441.45 | 8               | 6               | 1         | 2         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P61  | 20x20      | -322.55  | -5799.05 | 12              | 11              | 1         | 2         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |
| P62  | 20x20      | -322.55  | -6156.70 | 8               | 6               | 1         | 2         | 1       | 2        | 50          | 50          | 1.00        | 0.46        | 1     | R30    | -1.45  |                |

| Localção no eixo X |                      | Localção no eixo Y |                                             |
|--------------------|----------------------|--------------------|---------------------------------------------|
| Coordenadas (cm)   | Nome                 | Coordenadas (cm)   | Nome                                        |
| -2509.66           | P11                  | -10.00             | P1                                          |
| -2487.02           | P22                  | -101.47            | P2                                          |
| -2462.60           | P24                  | -189.77            | P3                                          |
| -2423.84           | P27                  | -258.75            | P5                                          |
| -2402.48           | P31                  | -278.07            | P4                                          |
| -2381.09           | P34                  | -366.42            | P6                                          |
| -2359.74           | P38                  | -454.92            | P7                                          |
| -2338.35           | P42                  | -507.45            | P9                                          |
| -2196.83           | P10                  | -543.47            | P8                                          |
| -2089.98           | P43                  | -631.97            | P10                                         |
| -1883.98           | P8                   | -720.50            | P11                                         |
| -1841.60           | P44                  | -756.15            | P12                                         |
| -1593.25           | P45                  | -1004.90           | P13, P14, P15, P16, P17, P18, P19, P20, P21 |
| -1571.13           | P7                   | -1112.12           | P22                                         |
| -1344.85           | P46                  | -1413.05           | P23                                         |
| -1258.28           | P6                   | -1501.29           | P24                                         |
| -1091.30           | P47                  | -1831.20           | P25                                         |
| -946.13            | P4                   | -1969.54           | P26                                         |
| -837.90            | P48                  | -2101.81           | P28                                         |
| -633.98            | P3                   | -2120.05           | P27                                         |
| -584.40            | P49                  | -2234.01           | P29                                         |
| -330.75            | P41                  | -2366.26           | P30                                         |
| -329.45            | P53                  | -2461.03           | P31                                         |
| -328.08            | P57                  | -2498.47           | P32                                         |
| -327.69            | P58                  | -2630.69           | P33                                         |
| -325.40            | P59                  | -2762.96           | P35                                         |
| -322.55            | P60, P61, P62        | -2802.00           | P34                                         |
| -321.83            | P2                   | -2895.16           | P36                                         |
| -10.00             | P1, P5, P9, P12, P13 | -3029.24           | P37                                         |
| 377.50             | P14                  | -3143.00           | P38                                         |
| 765.00             | P15                  | -3154.71           | P39                                         |
| 1152.50            | P16                  | -3280.18           | P40                                         |
| 1540.00            | P17                  | -3358.85           | P41                                         |
| 1927.50            | P18                  | -3374.09           | P49                                         |
| 2315.00            | P19                  | -3389.98           | P48                                         |
| 2702.50            | P20                  | -3405.66           | P50                                         |
| 3090.00            | P21, P23, P25        | -3406.69           | P47                                         |
| 3354.49            | P26                  | -3421.74           | P46                                         |
| 3619.08            | P28                  | -3437.29           | P45                                         |
| 3883.68            | P29                  | -3452.84           | P44                                         |
| 4148.23            | P30                  | -3468.45           | P43                                         |
| 4412.83            | P32                  | -3483.99           | P42                                         |
| 4540.00            | P55                  | -3492.21           | P51                                         |
| 4779.39            | P33                  | -3531.07           | P52                                         |
| 4707.40            | P56                  | -3704.34           | P54                                         |
| 4818.94            | P54                  | -3714.50           | P53                                         |
| 4924.93            | P51                  | -3919.90           | P55, P56                                    |
| 4941.98            | P35                  | -4070.13           | P57                                         |
| 5206.58            | P36                  | -4415.78           | P58                                         |
| 5474.89            | P37                  | -4761.45           | P59                                         |
| 5725.98            | P39                  | -5441.45           | P60                                         |
| 5977.05            | P40                  | -5799.05           | P61                                         |
| 6228.08            | P50                  | -6156.70           | P62                                         |
| 6479.17            | P52                  |                    |                                             |