

Prefeitura Municipal de Nova Prata do Iguaçu

Estado do Paraná

☛ **Centro Administrativo Setembrino Thomazi**

MEMORAL DE CÁLCULO DOS QUANTITATIVOS

PAVIMENTAÇÃO ASFÁLTICA ASFALTICA

1.0 – SERVIÇOS PRELIMINARES

1.1.1. PLACA DA OBRA

RUA BOAVENTURA FAUST

01 UND

2.0 LOCAÇÃO DE PAVIMENTAÇÃO

RUA SEBASTIÃO MOISES

$50,60+0,78+2,27+100,57+1,5+46,94+51,71+1,21+2,66+31,08+23,60+0,88+3,54+8,48$
 $+24,32+44,42+34,50+20,02+26,93+133,29+0,28+56,29= 665,87m$

RUA AMOURI GALVAN

$16,65+0,18+26,39+21,92+15,60+19,38+19,22+1,46+0,79+10,86+89,92+1,24+23,66+3$
 $2,98+1,24+23,66+32,98+20,81+22,47+1,57+12,34+4,63+4,27+3,81+42,90+18,10+15,$
 $20+20,37+4,29+1,63+7,70+30,97+49,52+11,94+19,33+35,50+49,04+17,90= 674,51m$



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RUA LOURENÇO JOSÉ BERTOGLIO

21,02+20,25+15,92+20,71+19,53+1,96+15,71+12,88+19,88+19,86+19,95+20,23+9,97
+0,94+0,75+16,32+23,81+19,60+15,11+24,91+12,98+18,20+21,80+1,60+24,62+35,26
+40+1,12+2,29+8,19+20,01+19,76+20,02+12,70+18,21+1,13+19,94+20,45+15,63+20,
52+22,96= 656,88m

RUA FRANCISCO PIZATO

15,91+19,66+22,86+0,98+1,10+16,08+15,99+68,80+0,47+1,09+17,21+12,93+19,41+1
8,94+23,71+19,68+12,81+19,93+1,36+67,42+15,84+16,66+0,42+23,48+20+15,49=
465,23m

RUA VALDECIR GRAHL

5,10+7,23+24,98+21,69+1,99+2,27+20,95+18,20+30,96+20,11+10,74+15,03+17,97+1
8,89+24,42+18,15+1,38+1,31+0,81+1,23+9,91+20,07+31,25+18,02+19,87+0,76+1,77
+20,72+20,44+14,05 = 420,27m

RUA CANDIDA KALINKS

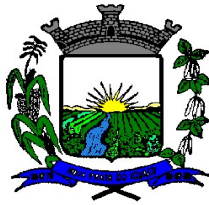
27,57+22+49,05+52,12+21,34+28,36= 200,44m

RUA NEREU OLIBONE

44,16+44,66+44,34+44,34= 177,55m

RUA JOÃO EMILIAMO RITTER

2,15+20,82+16,68+3,14+1,11+1,55+1,36+24,31+14,45+2,27+10,91+10,09+10,36+7,6
0+1,30+0,54+0,80+12,47+22,40+4,72+0,52+0,33+1,69+7,29+16,19+13,41+0,60+0,81
+4,93+17,08+20,06+1,20+0,88+1,08+3,29+22,01+13,12+3,15+0,23+0,58+0,56+1,42+



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$9,99+10,47+11,06+7,52+1,91+1,11+0,96+12,21+22,53+3,91+0,77+0,65+1,49+24,25+13,69+0,81+0,63= 423,42m$

RUA ARTUR PAGNO

$6,09+16,44+9,60+44,37+21,47+40,21+1,45+5,41+1,40+19,06+20,15+20,95+24,53+29,62+25,54+18,41+17,14+1,75+3,96+5,54+9,80+15,08+11,84+26,49+17,88+22,55+5,75+3,14+2,34+31,97+17,43+1,71+21,21+24,77+9,80+15,08+11,84+26,49+17,88+22,55+5,75+3,14+2,34+31,97+17,43+1,71+21,21+24,77+4,13+8,71+25,29+18,85+16,15+17,85= 643,60m$

RUA DOMINGOS CRISTANE

$17,43+50,39+13,52+4,40+41,60+3,52+43,80+39,35 =255,84$

RUA MARIA CRISTANE

$23,73+14,69+15,79+18,40+20,07+11,84+8,59+4,13+3,65+8,09+12,32+19,73+18,76+15,56+14,27+23,58 =233,20m$

RUA ALEXANDRE GRAHL

$7,53+5,20+9,06+13,61+113,63+5,46+5,20+6,49+2,62+5,20+12,79+82,15+8,16+5,20+28,71+20,91+49,49+37,08+5,51+4,58+2,51+3,01+5,20+12,74+16,94+23,62+16,85+24,38 = 533,83m$

RUA MATILDE SARETA

$3,94+4,23+12,12+19,73+5,54+0,49+40,09+6,15+2,96+25,13+4,36+3,52+22,13+15,82+27,41+8,33+3,94=205,89m$

RUA ANDORINHA



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$2,90+11,82+20,45+7,84+25,54+14,74+83,31+22,03+16,10+20,28+17,11+9,40+8,22+7,32+24,06+22,34+1,93+23,66+3,31+4,26+19,26+4,06+41,62+37,57+9,38+4,69+41,62+37,57+29,83+12,17+10,21+24,51= 582,82$

RUA ADELINO SEVERINO

$24,02+10,49+24,63+23,66+13,56+23,85+40,22+11,67+38,47+21,91+23,17+14,36+21,85$
 $+18,15+5,81+9,13+24,75+24,81+26,27+24,14+23,87+12,61+14,89+22,01+22,51+15,30+21,66 = 572,75m$

RUA JOSÉ ILATIO ZATA

$5,63+30,55+31,91+37,71+43,95+61,01+59,51+35,69+50,48+5,01+20,38+14,04+13,41+6,19+5,75+18,16+19,52+18,10+9,75+5,05+4,70+18,45+29,02+15+21,55+14,12+2,90+4,17+30,98+16,47+18,69+31,31= 699,21m$

4. REPERFILAGEM 3 CM

RUA SEBASTIÃO MOISES

19 estacas equidistância de 20 mm

$$(19 \times 20,00m) = 380,00 \text{ m}$$

$$(380,00m \times 8,20) = 3.116,46 \text{ m}^2$$

$$(3.116,46 \text{ m}^2 \times 0,02) = 62,32\text{m}^3$$

$$62,32\text{m}^3 \times 2,50\text{kgm}^3/T = 155,82T$$

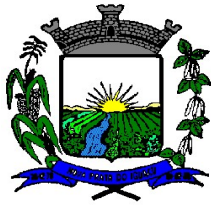
RUA AMOURI GALVAN

19 estacas equidistância de 20 mm

$$(19 \times 20,00m) + 2,45m = 382,45 \text{ m}$$

$$(382,45 \text{ m} \times 6,50) = 2.485,92 \text{ m}^2$$

$$(2.485,92 \text{ m}^2 \times 0,02) = 49,71\text{m}^3$$



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$$49,71\text{m}^3 \times 2,50\text{kgm}^3/\text{T} = 124,27\text{T}$$

RUA LOURENÇO JOSÉ BERTOGLIO

18 estacas equidistância de 20 m

$$(18 \times 20,00\text{m}) = 360,00 \text{ m}$$

$$(360,00 \text{ m} \times 8,50) = 3.060,00 \text{ m}^2$$

$$(3.060,00 \text{ m}^2 \times 0,02) = 61,20\text{m}^3$$

$$61,20\text{m}^3 \times 2,50\text{kgm}^3/\text{T} = 153,00\text{T}$$

RUA FRANCISCO PIZATO

13 estacas equidistância de 20 m

$$(13 \times 20,00\text{m}) = 260,00 \text{ m}$$

$$(260,00 \text{ m} \times 8,50) = 2.210,00 \text{ m}^2$$

$$(2.210,00 \text{ m}^2 \times 0,02) = 44,20 \text{ m}^3$$

$$44,20\text{m}^3 \times 2,50\text{kgm}^3/\text{T} = 110,50\text{T}$$

RUA VALDECIR GRAHL

13 estacas equidistância de 20 m

$$(11 \times 20,00\text{m}) + 5,58\text{m} = 225,58 \text{ m}$$

$$(225,58 \text{ m} \times 8,50) = 1.917,43 \text{ m}^2$$

$$(1.917,43 \text{ m}^2 \times 0,02) = 38,34\text{m}^3$$

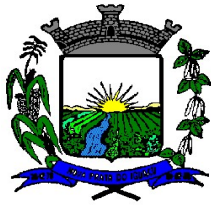
$$38,34\text{m}^3 \times 2,50\text{kgm}^3/\text{T} = 95,87\text{T}$$

RUA CANDIDA KALINKS

5 estacas equidistância de 20 m

$$(5 \times 20,00\text{m}) = 100,00 \text{ m}$$

$$(100,00 \text{ m} \times 6,00) = 600,00 \text{ m}^2$$



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$$(600,00 \text{ m}^2 \times 0,02) = 12,00\text{m}^3$$

$$12,00\text{m}^3 \times 2,50\text{kgm}^3/\text{T} = 30,00\text{T}$$

RUA NEREU OLIBONE

5 estacas equidistância de 20 mm

$$((5 \times 20,00\text{m}) + 3,37\text{m}) = 103,37 \text{ m}$$

$$(103,37 \text{ m} \times 6,50) = 671,90 \text{ m}^2$$

$$(671,90 \text{ m}^2 \times 0,02) = 13,43\text{m}^3$$

$$13,43\text{m}^3 \times 2,50\text{kgm}^3/\text{T} = 33,59\text{T}$$

RUA JOÃO EMILIAMO RITTER

13 estacas equidistância de 20 mm

$$((5 \times 20,00\text{m}) + 1,45\text{m}) = 261,45 \text{ m}$$

$$(261,45 \text{ m} \times 7,50) = 1.960,87 \text{ m}^2$$

$$(1.960,87 \text{ m}^2 \times 0,02) = 39,21\text{m}^3$$

$$39,21\text{m}^3 \times 2,50\text{kgm}^3/\text{T} = 98,04\text{T}$$

RUA ARTUR PAGNO

17 estacas equidistância de 20 mm

$$((17 \times 20,00\text{m}) + 8,37\text{m}) = 348,37 \text{ m}$$

$$(348,37 \text{ m} \times 10,00) = 3.483,70 \text{ m}^2$$

$$(3.483,70 \text{ m}^2 \times 0,02) = 69,67\text{m}^3$$

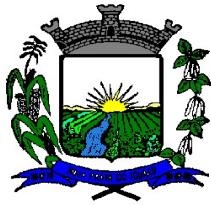
$$69,67\text{m}^3 \times 2,50\text{kgm}^3/\text{T} = 174,18\text{T}$$

RUA DOMINGOS CRISTANE

6 estacas equidistância de 20 mm

$$((6 \times 20,00\text{m}) + 7,85)) = 127,85 \text{ m}$$

$$(127,85 \text{ m} \times 6,40) = 818,24 \text{ m}^2$$



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$$(818,24 \text{ m}^2 \times 0,02) = 16,36\text{m}^3$$

$$16,36\text{m}^3 \times 2,50\text{kgm}^3/\text{T} = 40,91\text{T}$$

RUA MARIA CRISTANE

6 estacas equidistância de 20 mm

$$(6 \times 20,00\text{m}) = 120,00 \text{ m}$$

$$(120,00 \text{ m} \times 7,40) = 888,00 \text{ m}^2$$

$$(888,00 \text{ m}^2 \times 0,02) = 17,76\text{m}^3$$

$$17,76\text{m}^3 \times 2,50\text{kgm}^3/\text{T} = 44,40\text{T}$$

RUA ALEXANDRE GRAHL

14 estacas equidistância de 20 mm

$$((14 \times 20,00\text{m}) + 3,47\text{m}) = 283,47 \text{ m}$$

$$(283,47 \text{ m} \times 9,60) = 2.749,65 \text{ m}^2$$

$$(2.749,65 \text{ m}^2 \times 0,02) = 54,99\text{m}^3$$

$$54,99\text{m}^3 \times 2,50\text{kgm}^3/\text{T} = 137,48\text{T}$$

RUA MATILDE SARETA

4 estacas equidistância de 20 mm

$$((4 \times 20,00\text{m}) + 1,51\text{m}) = 81,51 \text{ m}$$

$$(81,51 \text{ m} \times 10,00) = 815,10 \text{ m}^2$$

$$(815,10 \text{ m}^2 \times 0,02) = 16,30\text{m}^2$$

$$16,30 \text{ m}^2 \times 2,50\text{kgm}^3/\text{T} = 40,75\text{T}$$

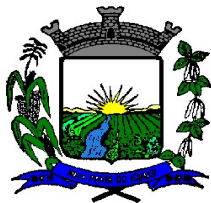
2 estacas equidistância de 20 mm

$$((2 \times 20,00\text{m}) + 2,58\text{m}) = 42,58 \text{ m}$$

$$(42,58 \text{ m} \times 5,50) = 234,19 \text{ m}^2$$

$$(234,19 \text{ m}^2 \times 0,02) = 4,68\text{m}^3$$

$$4,68\text{m}^3 \times 2,50\text{kgm}^3/\text{T} = 11,70\text{T}$$



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$$\text{TOTAL} = 40,75\text{T} + 11,70\text{T} = 52,45\text{m}^3$$

RUA ANDORINHA

14 estacas equidistância de 20 mm

$$(14 \times 20,00\text{m}) = 280,00 \text{ m}$$

$$(280,00 \text{ m} \times 6,50) = 1.820,00 \text{ m}^2$$

$$(1.820,00 \text{ m}^2 \times 0,02) = 36,40\text{m}^3$$

$$36,40\text{m}^3 \times 2,50\text{kgm}^3/\text{T} = 91,00\text{T}$$

RUA ADELINO SEVERINO

15 estacas equidistância de 20 mm

$$(15 \times 20,00\text{m}) + 4,20\text{m} = 304,20 \text{ m}$$

$$(304,20 \text{ m} \times 6,80) = 2.068,56 \text{ m}^2$$

$$(2.068,56 \text{ m}^2 \times 0,02) = 41,37 \text{ m}^3$$

$$41,37 \text{ m}^3 \times 2,50\text{kgm}^3/\text{T} = 103,42\text{T}$$

RUA JOSÉ ILATIO ZATA

18 estacas equidistância de 20 mm

$$(18 \times 20,00\text{m}) = 360,00 \text{ m}$$

$$(360,00 \text{ m} \times 8,30) = 2.988,00 \text{ m}^2$$

$$(2.988,00 \text{ m}^2 \times 0,02) = 59,76\text{m}^3$$

$$59,76\text{m}^3 \times 2,50\text{kgm}^3/\text{T} = 149,40\text{T}$$

PINTURA DE LIGAÇÃO EXCLUSIVE FORNECIMENTO RR-1C

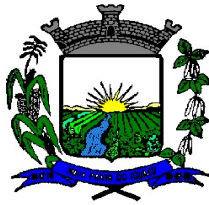
RUA SEBASTIÃO MOISES

19 estacas equidistância de 20 mm

$$(19 \times 20,00\text{m}) = 380,00 \text{ m}$$

$$(380,00\text{m} \times 8,20) = 3.116,46 \text{ m}^2 \times 2 \text{ Aplicação} = 6.232,92\text{m}^2$$

$$\text{Total} = 6.232,92\text{m}^2$$



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RUA AMOURI GALVAN

19 estacas equidistância de 20 m

$(19 \times 20,00\text{m}) + 2,45\text{m} = 382,45\text{ m}$

$(382,45\text{ m} \times 6,50) = 2.485,92\text{ m}^2 \times 2\text{ Aplicação} = 4.971,84\text{m}^2$

Total = 4.971,84m²

RUA LOURENÇO JOSÉ BERTOGLIO

18 estacas equidistância de 20 m

$(18 \times 20,00\text{m}) = 360,00\text{ m}$

$(360,00\text{ m} \times 8,50) = 3.060,00\text{ m}^2 \times 2\text{ Aplicação} = 6.120,00\text{m}^2$

RUA FRANCISCO PIZATO

13 estacas equidistância de 20 m

$(13 \times 20,00\text{m}) = 260,00\text{ m}$

$(260,24\text{ m} \times 8,50) = 2.210,00\text{ m}^2 \times 2\text{ Aplicação} = 4.420,00\text{m}^2$

RUA VALDECIR GRAHL

13 estacas equidistância de 20 m

$(11 \times 20,00\text{m}) + 5,58\text{m} = 225,58\text{ m}$

$(225,58\text{ m} \times 8,50) = 1.917,43\text{ m}^2 \times 2\text{ Aplicação} = 3.834,86\text{m}^2$

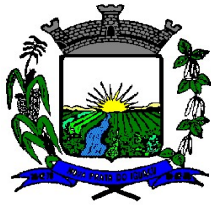
RUA CANDIDA KALINKS

5 estacas equidistância de 20 m

$(5 \times 20,00\text{m}) = 100,00\text{ m}$

$(100,00\text{ m} \times 6,00) = 600,00\text{ m}^2 \times 2\text{ Aplicação} = 1.200,00\text{m}^2$

RUA NEREU OLIBONE



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5 estacas equidistância de 20 m

$$((5 \times 20,00\text{m}) + 3,37\text{m}) = 103,37 \text{ m}$$

$$(103,37 \text{ m} \times 6,50) = 671,90 \text{ m}^2 \times 2 \text{ Aplicação} = 1.343,80\text{m}^2$$

RUA JOÃO EMILIAMO RITTER

13 estacas equidistância de 20 m

$$((5 \times 20,00\text{m}) + 1,45\text{m}) = 261,45 \text{ m}$$

$$(261,45 \text{ m} \times 7,50) = 1.960,87 \text{ m}^2 \times 2 \text{ Aplicação} = 3.921,74\text{m}^2$$

RUA ARTUR PAGNO

17 estacas equidistância de 20 m

$$((17 \times 20,00\text{m}) + 8,37\text{m}) = 348,37 \text{ m}$$

$$(348,37 \text{ m} \times 10,00) = 3.483,70 \text{ m}^2 \times 2 \text{ Aplicação} = 6.967,40\text{m}^2$$

RUA DOMINGOS CRISTANE

6 estacas equidistância de 20 m

$$((6 \times 20,00\text{m}) + 7,85) = 127,85 \text{ m}$$

$$(127,85 \text{ m} \times 6,40) = 818,24 \text{ m}^2 \times 2 \text{ Aplicação} = 1.636,48\text{m}^2$$

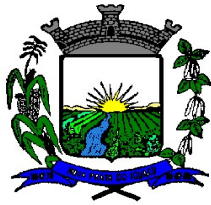
RUA MARIA CRISTANE

6 estacas equidistância de 20 m

$$(6 \times 20,00\text{m}) = 120,00 \text{ m}$$

$$(120,00 \text{ m} \times 7,40) = 888,00 \text{ m}^2 \times 2 \text{ Aplicação} = 1.777,68\text{m}^2$$

RUA ALEXANDRE GRAHL



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14 estacas equidistância de 20 mm

$$((14 \times 20,00\text{m}) + 3,47\text{m}) = 283,47 \text{ m}$$

$$(283,47 \text{ m} \times 9,60) = 2.749,65 \text{ m}^2 \times 2 \text{ Aplicação} = 4.959,30\text{m}^2$$

RUA MATILDE SARETA

4 estacas equidistância de 20 mm

$$((4 \times 20,00\text{m}) + 1,51\text{m}) = 81,51 \text{ m}$$

$$(81,51 \text{ m} \times 10,00) = 815,10 \text{ m}^2$$

2 estacas equidistância de 20 mm

$$((2 \times 20,00\text{m}) + 2,58\text{m}) = 42,58 \text{ m}$$

$$(42,58 \text{ m} \times 5,50) = 234,19 \text{ m}^2$$

$$\text{TOTAL} = 815,10 \text{ m}^2 + 234,19 \text{ m}^2 = 1.049,29\text{m}^2 \times 2 \text{ Aplicação} = 2.098,58\text{m}^2$$

RUA ANDORINHA

14 estacas equidistância de 20 mm

$$(14 \times 20,00\text{m}) = 280,00 \text{ m}$$

$$(280,00 \text{ m} \times 6,50) = 1.820,00 \text{ m}^2 \times 2 \text{ Aplicação} = 3.640,00\text{m}^2$$

RUA ADELINO SEVERINO

15 estacas equidistância de 20 mm

$$(15 \times 20,00\text{m}) + 4,20\text{m} = 304,20 \text{ m}$$

$$(304,20 \text{ m} \times 6,80) = 2.068,56 \text{ m}^2 \times 2 \text{ Aplicação} = 4.137,12\text{m}^2$$

RUA JOSÉ ILATIO ZATA

18 estacas equidistância de 20 mm

$$(18 \times 20,00\text{m}) = 360,00 \text{ m}$$

$$(360,00 \text{ m} \times 8,30) = 2.988,00 \text{ m}^2 \times 2 \text{ Aplicação} = 5.976,00\text{m}^2$$



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FORNECIMENTO RR 1C

RUA SEBASTIÃO MOISES

19 estacas equidistância de 20 mm

$$(19 \times 20,00\text{m}) = 380,00 \text{ m}$$

$$(380,00\text{m} \times 8,20) = 3.116,46 \text{ m}^2 \times 2 \text{ Aplicação} = 6.232,92\text{m}^2$$

$$\text{Total: } 6.232,92\text{m}^2 \times 0,0005\text{t/m}^2 = 3,12\text{T}$$

RUA AMOURI GALVAN

19 estacas equidistância de 20 mm

$$(19 \times 20,00\text{m}) + 2,45\text{m} = 382,45 \text{ m}$$

$$(382,45 \text{ m} \times 6,50) = 2.485,92 \text{ m}^2 \times 2 \text{ Aplicação} = 4.971,84\text{m}^2$$

$$\text{Total} = 4.971,84\text{m}^2 \times 0,0005\text{t/m}^2 = 2,49\text{T}$$

RUA LOURENÇO JOSÉ BERTOGLIO

18 estacas equidistância de 20 mm

$$(18 \times 20,00\text{m}) = 360,00 \text{ m}$$

$$(360,00 \text{ m} \times 8,50) = 3.060,00 \text{ m}^2 \times 2 \text{ Aplicação} = 6.120,00\text{m}^2$$

$$\text{Total} = 6.120,00\text{m}^2 \times 0,0005\text{t/m}^2 = 1,53\text{T}$$

RUA FRANCISCO PIZATO

13 estacas equidistância de 20 mm

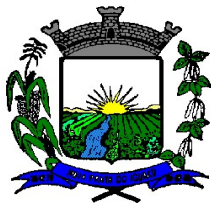
$$(13 \times 20,00\text{m}) = 260,00 \text{ m}$$

$$(260,24 \text{ m} \times 8,50) = 2.210,00 \text{ m}^2 \times 2 \text{ Aplicação} = 4.420,00\text{m}^2$$

$$\text{Total} = 4.420,00\text{m}^2 \times 0,0005\text{t/m}^2 = 2,21\text{T}$$

RUA VALDECIR GRAHL

13 estacas equidistância de 20 mm



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$$(11 \times 20,00\text{m}) + 5,58\text{m} = 225,58 \text{ m}$$

$$(225,58 \text{ m} \times 8,50) = 1.917,43 \text{ m}^2 \times 2 \text{ Aplicação} = 3.834,86\text{m}^2$$

$$\text{Total} = 3.834,86\text{m}^2 \times 0,0005/\text{m}^2 = 1,92\text{T}$$

RUA CANDIDA KALINKS

5 estacas equidistância de 20 mm

$$(5 \times 20,00\text{m}) = 100,00 \text{ m}$$

$$(100,00 \text{ m} \times 6,00) = 600,00 \text{ m}^2 \times 2 \text{ Aplicação} = 1.200,00\text{m}^2$$

$$\text{Total} = 1.200,00\text{m}^2 \times 0,0005\text{t}/\text{m}^2 = 0,30\text{T}$$

RUA NEREU OLIBONE

5 estacas equidistância de 20 mm

$$((5 \times 20,00\text{m}) + 3,37\text{m}) = 103,37 \text{ m}$$

$$(103,37 \text{ m} \times 6,50) = 671,90 \text{ m}^2 \times 2 \text{ Aplicação} = 1.343,80\text{m}^2$$

$$\text{Total} = 1.343,80\text{m}^2 \times 0,0005\text{t}/\text{m}^2 = 0,67\text{T}$$

RUA JOÃO EMILIAMO RITTER

13 estacas equidistância de 20 mm

$$((5 \times 20,00\text{m}) + 1,45\text{m}) = 261,45 \text{ m}$$

$$(261,45 \text{ m} \times 7,50) = 1.960,87 \text{ m}^2 \times 2 \text{ Aplicação} = 3.921,74\text{m}^2$$

$$\text{total} = 3.921,74\text{m}^2 \times 0,0005\text{t}/\text{m}^2 = 1,96\text{T}$$

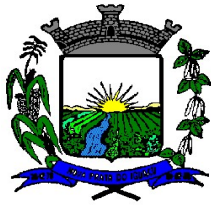
RUA ARTUR PAGNO

17 estacas equidistância de 20 mm

$$((17 \times 20,00\text{m}) + 8,37\text{m}) = 348,37 \text{ m}$$

$$(348,37 \text{ m} \times 10,00) = 3.483,70 \text{ m}^2 \times 2 \text{ Aplicação} = 6.967,40\text{m}^2$$

$$\text{Total} = 6.967,40\text{m}^2 \times 0,0005\text{t}/\text{m}^2 = 3,48\text{T}$$



RUA DOMINGOS CRISTANE

6 estacas equidistância de 20 m

$$((6 \times 20,00\text{m}) + 7,85) = 127,85 \text{ m}$$

$$(127,85 \text{ m} \times 6,40) = 818,24 \text{ m}^2 \times 2 \text{ Aplicação} = 1.636,48\text{m}^2$$

$$\text{Total} = 1.636,48\text{m}^2 \times 0,0005\text{t/m}^2 = 0,82\text{T}$$

RUA MARIA CRISTANE

6 estacas equidistância de 20 m

$$(6 \times 20,00\text{m}) = 120,00 \text{ m}$$

$$(120,00 \text{ m} \times 7,40) = 888,00 \text{ m}^2 \times 2 \text{ Aplicação} = 1.777,68\text{m}^2$$

$$\text{Total} = 1.777,68\text{m}^2 \times 0,0005\text{t/m}^2 = 0,89\text{T}$$

RUA ALEXANDRE GRAHL

14 estacas equidistância de 20 m

$$((14 \times 20,00\text{m}) + 3,47\text{m}) = 283,47 \text{ m}$$

$$(283,47 \text{ m} \times 9,60) = 2.749,65 \text{ m}^2 \times 2 \text{ Aplicação} = 4.959,30\text{m}^2$$

$$\text{Total} = 4.959,30\text{m}^2 \times 0,0005\text{t/m}^2 = 2,48\text{T}$$

RUA MATILDE SARETA

4 estacas equidistância de 20 m

$$((4 \times 20,00\text{m}) + 1,51\text{m}) = 81,51 \text{ m}$$

$$(81,51 \text{ m} \times 10,00) = 815,10 \text{ m}^2 \times 2 \text{ Aplicação} = 1.630,20\text{m}^2$$

$$(1.630,20\text{m}^2 \times 0,0005 \text{ t/m}) = 0,81\text{T}$$

2 estacas equidistância de 20 m

$$((2 \times 20,00\text{m}) + 2,58\text{m}) = 42,58 \text{ m}$$

$$(42,58 \text{ m} \times 5,50) = 234,19 \text{ m}^2 \times 2 \text{ Aplicação} = 468,38\text{m}^2$$

$$(468,38\text{m}^2 \times 0,0005) = 0,23 \text{ T}$$



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$$\text{TOTAL} = 081\text{T} + 0,23\text{T} = 1,05\text{T}$$

RUA ANDORINHA

14 estacas equidistância de 20 m

$$(14 \times 20,00\text{m}) = 280,00 \text{ m}$$

$$(280,00 \text{ m} \times 6,50) = 1.820,00 \text{ m}^2 \times 2 \text{ Aplicação} = 3.640,00\text{m}^2$$

$$(3.640,00\text{m}^2 \times 0,0005) = 1,82 \text{ T}$$

RUA ADELINO SEVERINO

15 estacas equidistância de 20 m

$$(15 \times 20,00\text{m}) + 4,20\text{m} = 304,20 \text{ m}$$

$$(304,20 \text{ m} \times 6,80) = 2.068,56 \text{ m}^2 \times 2 \text{ Aplicação} = 4.137,12\text{m}^2$$

$$(4.137,12\text{m}^2 \times 0,0005 \text{ t/m}) = 2,07\text{T}$$

RUA JOSÉ ILATIO ZATA

18 estacas equidistância de 20 m

$$(18 \times 20,00\text{m}) = 360,00 \text{ m}$$

$$(360,00 \text{ m} \times 8,30) = 2.988,00 \text{ m}^2 \times 2 \text{ Aplicação} = 5.976,00\text{m}^2$$

$$(5.976,00\text{m}^2 \times 0,0005 \text{ t/m}) = 2,99\text{T}$$

CBUQ

RUA SEBASTIÃO MOISES

19 estacas equidistância de 20 m

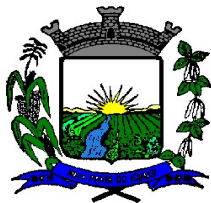
$$(19 \times 20,00\text{m}) = 380,00 \text{ m}$$

$$(380,00\text{m} \times 8,20) = 3.116,00 \text{ m}^3$$

$$3.116,00 \text{ m}^2 \times 0,03\text{m} = 93,48\text{m}^3$$

$$93,48\text{m}^3 \times 2,556\text{kgm}^3/\text{T} = 239,86\text{T}$$

RUA AMOURI GALVAN



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19 estacas equidistância de 20 m

$(19 \times 20,00\text{m}) + 2,45\text{m} = 382,45 \text{ m}$

$(382,45 \text{ m} \times 6,50) = 2.485,92 \text{ m}^3$

$2.485,92 \text{ m}^3 \times 0,03\text{m} = 74,57\text{m}^3$

$74,57\text{m}^3 \times 2,556\text{kgm}^3/\text{T} = 190,60\text{T}$

RUA LOURENÇO JOSÉ BERTOGLIO

18 estacas equidistância de 20 m

$(18 \times 20,00\text{m}) = 360,00 \text{ m}$

$(360,00 \text{ m} \times 8,50) = 3.060,00 \text{ m}^2$

$3.060,00 \text{ m}^2 \times 0,03\text{m} = 91,80\text{m}^3$

$91,80\text{m}^3 \times 2,556\text{kgm}^3/\text{T} = 234,64\text{T}$

RUA FRANCISCO PIZATO

13 estacas equidistância de 20 m

$(13 \times 20,00\text{m}) = 260,00 \text{ m}$

$(260,24 \text{ m} \times 8,50) = 2.210,00 \text{ m}^2$

$2.210,00 \text{ m}^2 \times 0,03\text{m} = 66,30\text{m}^3$

$66,30\text{m}^3 \times 2,556\text{kgm}^3/\text{T} = 169,46\text{T}$

RUA VALDECIR GRAHL

13 estacas equidistância de 20 m

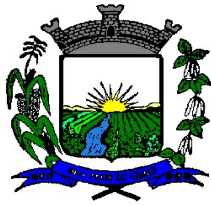
$(11 \times 20,00\text{m}) + 5,58\text{m} = 225,58 \text{ m}$

$(225,58 \text{ m} \times 8,50) = 1.917,43 \text{ m}^2$

$1.917,43 \text{ m}^2 \times 0,03\text{m} = 57,52\text{m}^3$

$57,52\text{m}^3 \times 2,556\text{kgm}^3/\text{T} = 147,02\text{T}$

RUA CANDIDA KALINKS



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Estado do Paraná

☛ **Centro Administrativo Setembrino Thomazi**

5 estacas equidistância de 20 m

$$(5 \times 20,00\text{m}) = 100,00 \text{ m}$$

$$(100,00 \text{ m} \times 6,00) = 600,00 \text{ m}^2$$

$$600,00 \text{ m}^2 \times 0,03 = 18,00\text{m}^3$$

$$18,00\text{m}^3 \times 2,556\text{kgm}^3/\text{T} = 46,00\text{T}$$

RUA NEREU OLIBONE

5 estacas equidistância de 20 m

$$((5 \times 20,00\text{m}) + 3,37\text{m}) = 103,37 \text{ m}$$

$$(103,37 \text{ m} \times 6,50) = 671,90 \text{ m}^2$$

$$671,90 \text{ m}^2 \times 0,03\text{m} = 20,15\text{m}^3$$

$$20,15\text{m}^3 \times 2,556\text{kgm}^3/\text{T} = 51,50\text{T}$$

RUA JOÃO EMILIAMO RITTER

13 estacas equidistância de 20 m

$$((5 \times 20,00\text{m}) + 1,45\text{m}) = 261,45 \text{ m}$$

$$(261,45 \text{ m} \times 7,50) = 1.960,87 \text{ m}^2$$

$$(1.960,87 \text{ m}^2 \times 0,03) = 58,82\text{m}^3$$

$$58,82\text{m}^3 \times 2,556\text{kgm}^3/\text{T} = 150,34\text{T}$$

RUA ARTUR PAGNO

17 estacas equidistância de 20 m

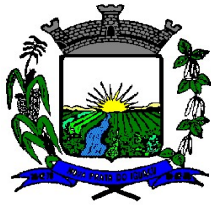
$$((17 \times 20,00\text{m}) + 8,37\text{m}) = 348,37 \text{ m}$$

$$(348,37 \text{ m} \times 10,00) = 3.483,70 \text{ m}^2$$

$$3.483,70 \text{ m}^2 \times 0,03\text{m} = 104,51\text{T}$$

$$104,51\text{T} \times 2,556\text{kgm}^3/\text{T} = 267,12\text{T}$$

RUA DOMINGOS CRISTANE



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☛ **Centro Administrativo Setembrino Thomazi**

6 estacas equidistância de 20 m
 $((6 \times 20,00\text{m}) + 7,85)) = 127,85 \text{ m}$
 $(127,85 \text{ m} \times 6,40) = 818,24 \text{ m}^2$
 $818,24 \text{ m}^2 \times 0,03\text{m} = 24,54\text{T}$
 $24,54\text{T} \times 2,556\text{kgm}^3/\text{T} = 62,72\text{T}$

RUA MARIA CRISTANE

6 estacas equidistância de 20 m
 $(6 \times 20,00\text{m}) = 120,00 \text{ m}$
 $(120,00 \text{ m} \times 7,40) = 888,00 \text{ m}^2$
 $888,00 \text{ m}^2 \times 0,03\text{m} = 26,64\text{T}$
 $26,64\text{T} \times 2,556\text{kgm}^3/\text{T} = 68,09\text{T}$

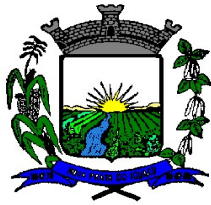
RUA ALEXANDRE GRAHL

14 estacas equidistância de 20 m
 $((14 \times 20,00\text{m}) + 3,47\text{m}) = 283,47 \text{ m}$
 $(283,47 \text{ m} \times 9,60) = 2.749,65 \text{ m}^2$
 $2.749,65 \text{ m}^2 \times 0,03\text{m} = 82,48\text{m}^3$
 $82,48\text{m}^3 \times 2,556\text{kgm}^3/\text{T} = 210,81\text{T}$

RUA MATILDE SARETA

4 estacas equidistância de 20 m
 $((4 \times 20,00\text{m}) + 1,51\text{m}) = 81,51 \text{ m}$
 $(81,51 \text{ m} \times 10,00) = 815,10 \text{ m}^2$
 $(815,10 \text{ m}^2 \times 0,03) = 24,45\text{m}^2$
 $24,45\text{m}^2 \times 2,556\text{kgm}^3/\text{T} = 65,49\text{T}$

2 estacas equidistância de 20 mm



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$$((2 \times 20,00\text{m}) + 2,58\text{m}) = 42,58 \text{ m}$$

$$(42,58 \text{ m} \times 5,50) = 234,19 \text{ m}^2$$

$$(234,19 \text{ m}^2 \times 0,03) = 7,02\text{m}^3$$

$$7,02\text{m}^3 \times 2,556\text{kgm}^3/\text{T} = 17,94\text{T}$$

$$\text{TOTAL} = 62,49\text{T} + 17,94\text{T} = 80,43\text{T}$$

RUA ANDORINHA

14 estacas equidistância de 20 mm

$$(14 \times 20,00\text{m}) = 280,00 \text{ m}$$

$$(280,00 \text{ m} \times 6,50) = 1.820,00 \text{ m}^2$$

$$(1.820,00 \text{ m}^2 \times 0,03\text{m}) = 54,60\text{m}^3$$

$$54,60\text{m}^3 \times 2,556\text{kgm}^3/\text{T} = 139,55\text{T}$$

RUA ADELINO SEVERINO

15 estacas equidistância de 20 mm

$$(15 \times 20,00\text{m}) + 4,20\text{m} = 304,20 \text{ m}$$

$$(304,20 \text{ m} \times 6,80) = 2.068,56 \text{ m}^2$$

$$(2.068,56 \text{ m}^2 \times 0,03 \text{ m}) = 62,05 \text{ m}^3$$

$$62,05\text{m}^3 \times 2,556\text{kgm}^3/\text{T} = 158,59\text{T}$$

RUA JOSÉ ILATIO ZATA

18 estacas equidistância de 20 mm

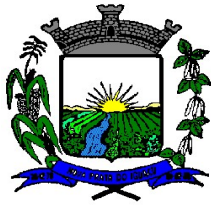
$$(18 \times 20,00\text{m}) = 360,00 \text{ m}$$

$$(360,00 \text{ m} \times 8,30) = 2.988,00 \text{ m}^2$$

$$(2.988,00 \text{ m}^2 \times 0,03 \text{ m}) = 89,64\text{m}^3$$

$$89,64\text{m}^3 \times 2,556\text{kgm}^3/\text{T} = 229,11\text{T}$$

CAP 50/70



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RUA SEBASTIÃO MOISES

19 estacas equidistância de 20 m

$$(19 \times 20,00\text{m}) = 380,00 \text{ m}$$

$$(380,00\text{m} \times 8,20) = 3.116,00 \text{ m}^3$$

$$3.116,00 \text{ m}^2 \times 0,03\text{m} = 93,48\text{m}^3$$

$$93,48\text{m}^3 \times 2,556\text{kgm}^3/\text{T} = 239,86\text{T}$$

$$239,86\text{T} \times 0,0530\text{T} = 127,12 \text{ T}$$

RUA AMOURI GALVAN

19 estacas equidistância de 20 m

$$(19 \times 20,00\text{m}) + 2,45\text{m} = 382,45 \text{ m}$$

$$(382,45 \text{ m} \times 6,50) = 2.485,92 \text{ m}^3$$

$$2.485,92 \text{ m}^3 \times 0,03\text{m} = 74,57\text{m}^3$$

$$74,57\text{m}^3 \times 2,556\text{kgm}^3/\text{T} = 190,60\text{T}$$

$$190,60\text{T} \times 0,0530\text{T} = 10,10 \text{ T}$$

RUA LOURENÇO JOSÉ BERTOGLIO

18 estacas equidistância de 20 m

$$(18 \times 20,00\text{m}) = 360,00 \text{ m}$$

$$(360,00 \text{ m} \times 8,50) = 3.060,00 \text{ m}^2$$

$$3.060,00 \text{ m}^2 \times 0,03\text{m} = 91,80\text{m}^3$$

$$91,80\text{m}^3 \times 2,556\text{kgm}^3/\text{T} = 234,64\text{T}$$

$$234,64\text{T} \times 0,0530\text{T} = 12,44\text{T}$$

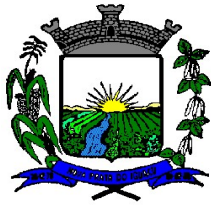
RUA FRANCISCO PIZATO

13 estacas equidistância de 20 m

$$(13 \times 20,00\text{m}) = 260,00 \text{ m}$$

$$(260,24 \text{ m} \times 8,50) = 2.210,00 \text{ m}^2$$

$$2.210,00 \text{ m}^2 \times 0,03\text{m} = 66,30\text{m}^3$$



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$$66,30\text{m}^3 \times 2,556\text{kgm}^3/\text{T} = 169,46\text{T}$$

$$169,46\text{T} \times 0,0530\text{T} = 8,98\text{T}$$

RUA VALDECIR GRAHL

13 estacas equidistância de 20 m

$$(11 \times 20,00\text{m}) + 5,58\text{m} = 225,58 \text{ m}$$

$$(225,58 \text{ m} \times 8,50) = 1.917,43 \text{ m}^2$$

$$1.917,43 \text{ m}^2 \times 0,03\text{m} = 57,52\text{m}^3$$

$$57,52\text{m}^3 \times 2,556\text{kgm}^3/\text{T} = 147,02\text{T}$$

$$147,02\text{T} \times 0,0530\text{T} = 7,79\text{T}$$

RUA CANDIDA KALINKS

5 estacas equidistância de 20 m

$$(5 \times 20,00\text{m}) = 100,00 \text{ m}$$

$$(100,00 \text{ m} \times 6,00) = 600,00 \text{ m}^2$$

$$600,00 \text{ m}^2 \times 0,03 = 18,00\text{m}^3$$

$$18,00\text{m}^3 \times 2,556\text{kgm}^3/\text{T} = 46,00\text{T}$$

$$46,00\text{T} \times 0,0530\text{T} = 2,44\text{T}$$

RUA NEREU OLIBONE

5 estacas equidistância de 20 m

$$((5 \times 20,00\text{m}) + 3,37\text{m}) = 103,37 \text{ m}$$

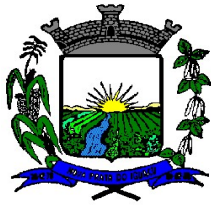
$$(103,37 \text{ m} \times 6,50) = 671,90 \text{ m}^2$$

$$671,90 \text{ m}^2 \times 0,03\text{m} = 20,15\text{m}^3$$

$$20,15\text{m}^3 \times 2,556\text{kgm}^3/\text{T} = 51,50\text{T}$$

$$51,50\text{T} \times 0,0530\text{T} = 2,73\text{T}$$

RUA JOÃO EMILIAMO RITTER



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13 estacas equidistância de 20 mm

$$((5 \times 20,00\text{m}) + 1,45\text{m}) = 261,45 \text{ m}$$

$$(261,45 \text{ m} \times 7,50) = 1.960,87 \text{ m}^2$$

$$(1.960,87 \text{ m}^2 \times 0,03) = 58,82\text{m}^3$$

$$58,82\text{m}^3 \times 2,556\text{kgm}^3/\text{T} = 150,34\text{T}$$

$$150,34\text{T} \times 0,0530\text{T} = 7,97 \text{ T}$$

RUA ARTUR PAGNO

17 estacas equidistância de 20 mm

$$((17 \times 20,00\text{m}) + 8,37\text{m}) = 348,37 \text{ m}$$

$$(348,37 \text{ m} \times 10,00) = 3.483,70 \text{ m}^2$$

$$3.483,70 \text{ m}^2 \times 0,03\text{m} = 104,51\text{T}$$

$$104,51\text{T} \times 2,556\text{kgm}^3/\text{T} = 267,12\text{T}$$

$$267,12\text{T} \times 0,0530\text{T} = 14,16\text{T}$$

RUA DOMINGOS CRISTANE

6 estacas equidistância de 20 mm

$$((6 \times 20,00\text{m}) + 7,85)) = 127,85 \text{ m}$$

$$(127,85 \text{ m} \times 6,40) = 818,24 \text{ m}^2$$

$$818,24 \text{ m}^2 \times 0,03\text{m} = 24,54\text{T}$$

$$24,54\text{T} \times 2,556\text{kgm}^3/\text{T} = 62,72\text{T}$$

$$62,72\text{T} \times 0,0530\text{T} = 3,32\text{T}$$

RUA MARIA CRISTANE

6 estacas equidistância de 20 mm

$$(6 \times 20,00\text{m}) = 120,00 \text{ m}$$

$$(120,00 \text{ m} \times 7,40) = 888,00 \text{ m}^2$$

$$888,00 \text{ m}^2 \times 0,03\text{m} = 26,64\text{T}$$

$$26,64\text{T} \times 2,556\text{kgm}^3/\text{T} = 68,09\text{T}$$



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$$68,09T \times 0,0530T = 3,61T$$

RUA ALEXANDRE GRAHL

14 estacas equidistância de 20 m

$$((14 \times 20,00m) + 3,47m) = 283,47 \text{ m}$$

$$(283,47 \text{ m} \times 9,60) = 2.749,65 \text{ m}^2$$

$$2.749,65 \text{ m}^2 \times 0,03m = 82,48m^3$$

$$82,48m^3 \times 2,556kgm^3/T = 210,81T$$

$$210,81T \times 0,0530T = 11,17 \text{ T}$$

RUA MATILDE SARETA

4 estacas equidistância de 20 m

$$((4 \times 20,00m) + 1,51m) = 81,51 \text{ m}$$

$$(81,51 \text{ m} \times 10,00) = 815,10 \text{ m}^2$$

$$(815,10 \text{ m}^2 \times 0,03) = 24,45m^2$$

$$24,45m^2 \times 2,556kgm^3/T = 65,49T$$

$$65,49T \times 0,0530T = 3,47 \text{ T}$$

2 estacas equidistância de 20 m

$$((2 \times 20,00m) + 2,58m) = 42,58 \text{ m}$$

$$(42,58 \text{ m} \times 5,50) = 234,19 \text{ m}^2$$

$$(234,19 \text{ m}^2 \times 0,03) = 7,02m^3$$

$$7,02m^3 \times 2,556kgm^3/T = 17,94T$$

$$17,94T \times 0,0530T = 0,95 \text{ T}$$

$$TOTAL = 3,47T + 0,95T = 4,26m^3$$

RUA ANDORINHA

14 estacas equidistância de 20 m

$$(14 \times 20,00m) = 280,00 \text{ m}$$



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$$(280,00 \text{ m} \times 6,50) = 1.820,00 \text{ m}^2$$

$$(1.820,00 \text{ m}^2 \times 0,03 \text{ m}) = 54,60 \text{ m}^3$$

$$54,60 \text{ m}^3 \times 2,556 \text{ kgm}^3/\text{T} = 139,55 \text{ T}$$

$$139,55 \text{ T} \times 0,0530 \text{ T} = 7,40 \text{ T}$$

RUA ADELINO SEVERINO

15 estacas equidistância de 20 mm

$$(15 \times 20,00 \text{ m}) + 4,20 \text{ m} = 304,20 \text{ m}$$

$$(304,20 \text{ m} \times 6,80) = 2.068,56 \text{ m}^2$$

$$(2.068,56 \text{ m}^2 \times 0,03 \text{ m}) = 62,05 \text{ m}^3$$

$$62,05 \text{ m}^3 \times 2,556 \text{ kgm}^3/\text{T} = 158,59 \text{ T}$$

$$158,59 \text{ T} \times 0,0530 \text{ T} = 8,41 \text{ T}$$

RUA JOSÉ ILATIO ZATA

18 estacas equidistância de 20 mm

$$(18 \times 20,00 \text{ m}) = 360,00 \text{ m}$$

$$(360,00 \text{ m} \times 8,30) = 2.988,00 \text{ m}^2$$

$$(2.988,00 \text{ m}^2 \times 0,03 \text{ m}) = 89,64 \text{ m}^3$$

$$89,64 \text{ m}^3 \times 2,556 \text{ kgm}^3/\text{T} = 229,11 \text{ T}$$

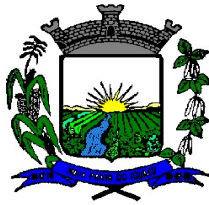
$$229,11 \text{ T} \times 0,0530 \text{ T} = 12,14 \text{ T}$$

MEIO FIO COM SARGEJA DER TIPO “2” PRÉ MOLDADO

RUA SEBASTIÃO MOISES

$$50,60 + 0,78 + 2,27 + 100,57 + 1,5 + 46,94 + 51,71 + 1,21 + 2,66 + 31,08 + 23,60 + 0,88 + 3,54 + 8,48 \\ + 24,32 + 44,42 + 34,50 + 20,02 + 26,93 + 133,29 + 0,28 + 56,29 = 665,87 \text{ m}$$

RUA AMOURI GALVAN



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16,65+0,18+26,39+21,92+15,60+19,38+19,22+1,46+0,79+10,86+89,92+1,24+23,66+3
2,98+1,24+23,66+32,98+20,81+22,47+1,57+12,34+4,63+4,27+3,81+42,90+18,10+15,
20+20,37+4,29+1,63+7,70+30,97+49,52+11,94+19,33+35,50+49,04+17,90= 674,51m

RUA LOURENÇO JOSÉ BERTOGLIO

21,02+20,25+15,92+20,71+19,53+1,96+15,71+12,88+19,88+19,86+19,95+20,23+9,97
+0,94+0,75+16,32+23,81+19,60+15,11+24,91+12,98+18,20+21,80+1,60+24,62+35,26
+40+1,12+2,29+8,19+20,01+19,76+20,02+12,70+18,21+1,13+19,94+20,45+15,63+20,
52+22,96= 656,88m

RUA FRANCISCO PIZATO

15,91+19,66+22,86+0,98+1,10+16,08+15,99+68,80+0,47+1,09+17,21+12,93+19,41+1
8,94+23,71+19,68+12,81+19,93+1,36+67,42+15,84+16,66+0,42+23,48+20+15,49=
465,23m

RUA VALDECIR GRAHL

5,10+7,23+24,98+21,69+1,99+2,27+20,95+18,20+30,96+20,11+10,74+15,03+17,97+1
8,89+24,42+18,15+1,38+1,31+0,81+1,23+9,91+20,07+31,25+18,02+19,87+0,76+1,77
+20,72+20,44+14,05 = 420,27m

RUA CANDIDA KALINKS

27,57+22+49,05+52,12+21,34+28,36= 200,44m

RUA NEREU OLIBONE

44,16+44,66+44,34+44,34= 177,55m



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RUA JOÃO EMILIAMO RITTER

$2,15+20,82+16,68+3,14+1,11+1,55+1,36+24,31+14,45+2,27+10,91+10,09+10,36+7,60+1,30+0,54+0,80+12,47+22,40+4,72+0,52+0,33+1,69+7,29+16,19+13,41+0,60+0,81+4,93+17,08+20,06+1,20+0,88+1,08+3,29+22,01+13,12+3,15+0,23+0,58+0,56+1,42+9,99+10,47+11,06+7,52+1,91+1,11+0,96+12,21+22,53+3,91+0,77+0,65+1,49+24,25+13,69+0,81+0,63= 423,42m$

RUA ARTUR PAGNO

$6,09+16,44+9,60+44,37+21,47+40,21+1,45+5,41+1,40+19,06+20,15+20,95+24,53+29,62+25,54+18,41+17,14+1,75+3,96+5,54+9,80+15,08+11,84+26,49+17,88+22,55+5,75+3,14+2,34+31,97+17,43+1,71+21,21+24,77+9,80+15,08+11,84+26,49+17,88+22,55+5,75+3,14+2,34+31,97+17,43+1,71+21,21+24,77+4,13+8,71+25,29+18,85+16,15+17,85= 643,60m$

RUA MARIA CRISTANE

$23,73+14,69+15,79+18,40+20,07+11,84+8,59+4,13+3,65+8,09+12,32+19,73+18,76+15,56+14,27+23,58 =233,20m$

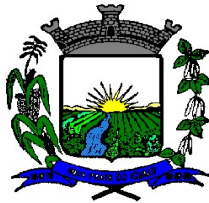
RUA ALEXANDRE GRAHL

$7,53+5,20+9,06+13,61+113,63+5,46+5,20+6,49+2,62+5,20+12,79+82,15+8,16+5,20+28,71+20,91+49,49+37,08+5,51+4,58+2,51+3,01+5,20+12,74+16,94+23,62+16,85+24,38 = 533,83m$

RUA MATILDE SARETA

$3,94+4,23+12,12+19,73+5,54+0,49+40,09+6,15+2,96+25,13+4,36+3,52+22,13+15,82+27,41+8,33+3,94=205,89m$

RUA ANDORINHA



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$2,90+11,82+20,45+7,84+25,54+14,74+83,31+22,03+16,10+20,28+17,11+9,40+8,22+7,32+24,06+22,34+1,93+23,66+3,31+4,26+19,26+4,06+41,62+37,57+9,38+4,69+41,62+37,57+29,83+12,17+10,21+24,51= 582,82$

RUA ADELINO SEVERINO

$24,02+10,49+24,63+23,66+13,56+23,85+40,22+11,67+38,47+21,91+23,17+14,36+21,85$
 $+18,15+5,81+9,13+24,75+24,81+26,27+24,14+23,87+12,61+14,89+22,01+22,51+15,30+21,66 = 572,75m$

RUA JOSÉ ILATIO ZATA

$5,63+30,55+31,91+37,71+43,95+61,01+59,51+35,69+50,48+5,01+20,38+14,04+13,41+6,19+5,75+18,16+19,52+18,10+9,75+5,05+4,70+18,45+29,02+15+21,55+14,12+2,90+4,17+30,98+16,47+18,69+31,31= 699,21m$

REGULARIZAÇÃO E COMPACTAÇÃO PARA ASSENTAMENTO DE CALÇADAS

RUA MARIA CRISTANE

6 estacas equidistância de 20 m

$(6 \times 20,00m) = 120,00 \text{ m}$

$(120,00 \text{ m} \times 1,50) = 180,00 \text{ m}^2$

Total = 180,00 m²

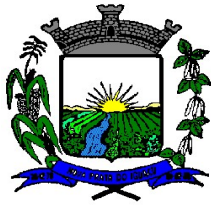
RUA ALEXANDRE GRAHL

14 estacas equidistância de 20 m

$((14 \times 20,00m) + 3,47m) = 283,47 \text{ m}$

$(283,47 \text{ m} \times 3,00) = 850,41 \text{ m}^2$

Total = 850,41 m²



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RUA MATILDE SARETA

4 estacas equidistância de 20 m

$$((4 \times 20,00\text{m}) + 1,51\text{m}) = 81,51 \text{ m}$$

$$(81,51 \text{ m} \times 3,00) = 244,53 \text{ m}^2$$

RUA ANDORINHA

14 estacas equidistância de 20 m

$$(14 \times 20,00\text{m}) = 280,00 \text{ m}$$

$$(280,00\text{m} \times 4,00) = 1.120,00\text{m}^2$$

RUA ADELINO SEVERINO

15 estacas equidistância de 20 m

$$(15 \times 20,00\text{m}) + 4,20\text{m} = 304,20 \text{ m}$$

$$(304,20 \text{ m} \times 4,00) = 1.216,00\text{m}^2$$

RUA JOSÉ ILATÍO ZATA

18 estacas equidistância de 20 m

$$(18 \times 20,00\text{m}) = 360,00 \text{ m}$$

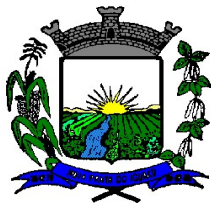
$$(360,00 \text{ m} \times 5,00) = 1.800,00 \text{ m}^2$$

COU BLOKET E=6CM - COM COLCHÃO DE AREIA

RUA MARIA CRISTANE

$$120,00 \text{ m} \times 1,00 = 120,00 \text{ m}^2$$

$$\text{Total} = 120,00 \text{ m}^2$$



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RUA ALEXANDRE GRAHL

$$(283,47 \text{ m} \times 2,00) = 566,94 \text{ m}^2$$

$$\text{Total} = 850,41 \text{ m}^2$$

RUA MATILDE SARETA

$$((4 \times 20,00\text{m}) + 1,51\text{m}) = 81,51 \text{ m}$$

$$(81,51 \text{ m} \times 2,00) = 163,02 \text{ m}^2$$

RUA ANDORINHA

$$(14 \times 20,00\text{m}) = 280,00 \text{ m}$$

$$(280,00\text{M} \times 3,40) = 952,00\text{m}^2$$

RUA ADELINO SEVERINO

$$(15 \times 20,00\text{m}) + 4,20\text{m} = 304,20 \text{ m}$$

$$(304,20 \text{ m} \times 3,40) = 1.034,28\text{m}^2$$

RUA JOSÉ ILATIO ZATA

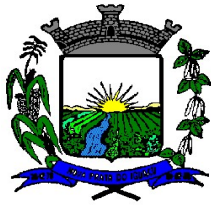
18 estacas equidistância de 20 mm

$$(18 \times 20,00\text{m}) = 360,00 \text{ m}$$

$$(360,00 \text{ m} \times 4,00) = 1.440,00 \text{ m}^2$$

PAVER COLORIDO

RUA MARIA CRISTANE



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$$120,00 \text{ m} \times 0,30 = 36,00 \text{ m}^2$$

$$\text{Total} = 36,00 \text{ m}^2$$

RUA ALEXANDRE GRAHL

$$(283,47 \text{ m} \times 0,60) = 170,08 \text{ m}^2$$

$$\text{Total} = 170,08 \text{ m}^2$$

RUA MATILDE SARETA

$$((4 \times 20,00\text{m}) + 1,51\text{m}) = 81,51 \text{ m}$$

$$(81,51 \text{ m} \times 0,60) = 163,02 \text{ m}^2$$

RUA ANDORINHA

$$(14 \times 20,00\text{m}) = 280,00 \text{ m}$$

$$(280,00\text{M} \times 0,60) = 168,00\text{m}^2$$

RUA ADELINO SEVERINO

$$(15 \times 20,00\text{m}) + 4,20\text{m} = 304,20 \text{ m}$$

$$(304,20 \text{ m} \times 0,60) = 182,52\text{m}^2$$

RUA JOSÉ ILATIO ZATA

18 estacas equidistância de 20 mm

$$(18 \times 20,00\text{m}) = 360,00 \text{ m}$$

$$(360,00 \text{ m} \times 0,60) = 216,00 \text{ m}^2$$

**ASSENTAMENTO DE GUIA (MEIO-FIO FINCADINHA) CONCRETO PRÉ-FABRICADO,
DIMENSÕES 80X8X8X25 CM**



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RUA MARIA CRISTANE

$25,56+1427+15,57+18,76+16,06+10,15+5,20+7,95 = 111,52\text{m}$

RUA ALEXANDRE GRAHL

$7,53+5,20+9,06+13,61+113,63+5,46+5,20+6,49+2,62+5,20+12,79+82,15+8,16+5,20+28,71+20,91+49,49+37,08+5,51+4,58+2,51+3,01+5,20+12,74+16,94+23,62+16,85+24,38 = 533,83\text{m}$

RUA MATILDE SARETA

$2,00+4,93+5,20+31,55+26,07+3,51+5,20+2,82+5,20+14,64+15,82+27,41+5,20+4,49=154,08\text{m}$

RUA ANDORINHA

$2,90+11,82+20,45+7,84+25,54+14,74+83,31+22,03+16,10+20,28+17,11+9,40+8,22+7,32+24,06+22,34+1,93+23,66+3,31+4,26+19,26+4,06+41,62+37,57+9,38+4,69+41,62+37,57+29,83+12,17+10,21+24,51= 582,82$

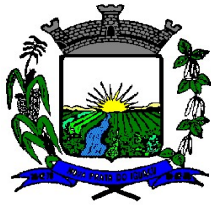
RUA ADELINO SEVERINO

$24,02+10,49+24,63+23,66+13,56+23,85+40,22+11,67+38,47+21,91+23,17+14,36+21,85+18,15+5,81+9,13+24,75+24,81+26,27+24,14+23,87+12,61+14,89+22,01+22,51+15,30+21,66 = 572,75\text{m}$

RUA JOSÉ ILATIO ZATA

$5,63+30,55+31,91+37,71+43,95+61,01+59,51+35,69+50,48+5,01+20,38+14,04+13,41+6,19+5,75+18,16+19,52+18,10+9,75+5,05+4,70+18,45+29,02+15+21,55+14,12+2,90+4,17+30,98+16,47+18,69+31,31= 699,21\text{m}$

FAIXA DE SINALIZAÇÃO



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RUA SEBASTIÃO MOISES

19 estacas equidistância de 20 m

$(19 \times 20,00\text{m}) = 380,00 \text{ m}$

$380 \times 0,10 = 38,00 \text{ m}^2$

Faixa de pedestre = $16,08\text{m} \times 7 = 112,56$

Total = $150,56\text{m}^2$

RUA AMOURI GALVAN

19 estacas equidistância de 20 m

$(19 \times 20,00\text{m}) + 2,45\text{m} = 382,45 \text{ m}$

$(382,45 \text{ m} \times 0,10) = 38,24 \text{ m}^2$

Faixa de pedestre = $16,08\text{m} \times 7 = 112,56$

Total = $150,80\text{m}^2$

RUA LOURENÇO JOSÉ BERTOGLIO

18 estacas equidistância de 20 m

$(18 \times 20,00\text{m}) = 360,00 \text{ m}$

$(360,00 \text{ m} \times 0,10\text{m}) = 36,00\text{m}^2$

Faixa de pedestre = $16,08\text{m} \times 6 \text{ und} = 96,48 \text{ m}^2$

Total = $132,48\text{m}^2$

RUA FRANCISCO PIZATO

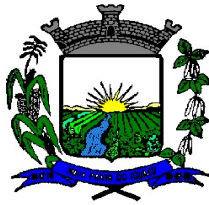
13 estacas equidistância de 20 m

$(13 \times 20,00\text{m}) = 260,00 \text{ m}$

$(260,00 \text{ m} \times 0,10\text{m}) = 26,00\text{m}^2$

Faixa de pedestre = $16,08\text{m} \times 4 \text{ und} = 64,32 \text{ m}^2$

Total = $90,32\text{m}^2$



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RUA VALDECIR GRAHL

13 estacas equidistância de 20 m

$(11 \times 20,00\text{m}) + 5,58\text{m} = 225,58 \text{ m}$

$(225,58 \text{ m} \times 0,10\text{m}) = 22,55\text{m}^2$

Faixa de pedestre = $16,08\text{m} \times 4 \text{ und} = 64,32 \text{ m}^2$

Total = $86,87\text{m}^2$

RUA CANDIDA KALINKS

5 estacas equidistância de 20 m

$(5 \times 20,00\text{m}) = 100,00 \text{ m}$

$(100,00 \text{ m} \times 0,10\text{m}) = 10,00 \text{ m}^2$

Total = $10,00\text{m}^2$

RUA NEREU OLIBONE

5 estacas equidistância de 20 m

$((5 \times 20,00\text{m}) + 3,37\text{m}) = 103,37 \text{ m}$

$(103,37 \text{ m} \times 0,10\text{m}) = 10,33 \text{ m}^2$

Faixa de pedestre = $16,08\text{m} \times 2 \text{ und} = 32,16 \text{ m}^2$

Total = $42,49\text{m}^2$

RUA JOÃO EMILIAMO RITTER

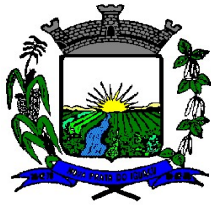
13 estacas equidistância de 20 m

$((5 \times 20,00\text{m}) + 1,45\text{m}) = 261,45 \text{ m}$

$(261,45 \text{ m} \times 0,10\text{m}) = 26,14 \text{ m}^2$

Faixa de pedestre = $16,08\text{m} \times 9 \text{ und} = 144,72 \text{ m}^2$

Total = $170,86\text{m}^2$



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RUA ARTUR PAGNO

17 estacas equidistância de 20 m

$$((17 \times 20,00\text{m}) + 8,37\text{m}) = 348,37 \text{ m}$$

$$(348,37 \text{ m} \times 0,10\text{m}) = 34,83 \text{ m}^2$$

$$\text{Faixa de pedestre} = 16,08\text{m} \times 8 \text{ und} = 128,64 \text{ m}^2$$

$$\text{Total} = 163,47\text{m}^2$$

RUA DOMINGOS CRISTANE

6 estacas equidistância de 20 m

$$((6 \times 20,00\text{m}) + 7,85) = 127,85 \text{ m}$$

$$(127,85 \text{ m} \times 0,10 \text{ m}) = 12,78\text{m}^2$$

$$\text{Faixa de pedestre} = 16,08\text{m} \times 1 \text{ und} = 16,08 \text{ m}^2$$

$$\text{Total} = 28,86\text{m}^2$$

RUA MARIA CRISTANE

6 estacas equidistância de 20 m

$$(6 \times 20,00\text{m}) = 120,00 \text{ m}$$

$$(120,00 \text{ m} \times 0,10 \text{ m}) = 12,00\text{m}^2$$

$$\text{Faixa de pedestre} = 16,08\text{m} \times 1 \text{ und} = 16,08 \text{ m}^2$$

$$\text{Total} = 28,08\text{m}^2$$

RUA ALEXANDRE GRAHL

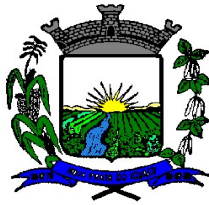
14 estacas equidistância de 20 m

$$((14 \times 20,00\text{m}) + 3,47\text{m}) = 283,47 \text{ m}$$

$$(283,47 \text{ m} \times 0,10 \text{ m}) = 28,34\text{m}^2$$

$$\text{Faixa de pedestre} = 16,08\text{m} \times 3 \text{ und} = 48,24 \text{ m}^2$$

$$\text{Total} = 76,58\text{m}^2$$



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RUA MATILDE SARETA

4 estacas equidistância de 20 m

$$((4 \times 20,00\text{m}) + 1,51\text{m}) = 81,51 \text{ m}$$

$$(81,51 \text{ m} \times 0,10 \text{ m}) = 8,15\text{m}^2$$

2 estacas equidistância de 20 m

$$((2 \times 20,00\text{m}) + 2,58\text{m}) = 42,58 \text{ m}$$

$$(42,58 \text{ m} \times 0,10 \text{ m}) = 4,25\text{m}^2$$

$$\text{Total} = 8,15\text{m}^2 + 4,25\text{m}^2 = 12,40\text{m}^2$$

$$\text{Faixa de pedestre} = 16,08\text{m} \times 3 \text{ und} = 48,24 \text{ m}^2$$

$$\text{Total} = 60,64\text{m}^2$$

RUA ANDORINHA

14 estacas equidistância de 20 m

$$(14 \times 20,00\text{m}) = 280,00 \text{ m}$$

$$(280,00\text{m} \times 0,10) = 28,00\text{m}^2$$

$$\text{Faixa de pedestre} = 16,08\text{m} \times 4 \text{ und} = 64,32 \text{ m}^2$$

$$\text{Total} = 92,32\text{m}^2$$

RUA ADELINO SEVERINO

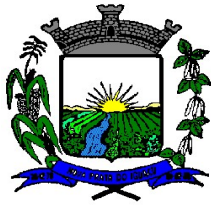
15 estacas equidistância de 20 m

$$(15 \times 20,00\text{m}) + 4,20\text{m} = 304,20 \text{ m}$$

$$(304,20 \text{ m} \times 0,10) = 30,42\text{m}^2$$

$$\text{Faixa de pedestre} = 16,08\text{m} \times 7 \text{ und} = 112,56 \text{ m}^2$$

$$\text{Total} = 142,98\text{m}^2$$



Prefeitura Municipal de Nova Prata do Iguaçu

Estado do Paraná

« **Centro Administrativo Setembrino Thomazi**»

RUA JOSÉ ILATIO ZATA

18 estacas equidistância de 20 m

$(18 \times 20,00\text{m}) = 360,00 \text{ m}$

$(360,00 \text{ m} \times 0,10) = 36,00 \text{ m}^2$

Faixa de pedestre = $16,08\text{m} \times 6 \text{ und} = 96,48 \text{ m}^2$

Total = $132,48\text{m}^2$

CLEUZA CASTRO DE JESUS
ENGENHEIRA CIVIL/AGRICULTORA
CREA SC 45.442/D