

ALINEAMIENTO HORIZONTAL Y REPORTE DE CURVA

Desc.	Station	Spiral/Curve Data	Northing	Easting
PI	0+000		7607300.837	279312.206
	Length:	265.486	Course: N 87-26-45 W	
PI	0+265.486		7607312.668	279046.984
	Length:	180.867	Course: S 04-54-02 E	
	Delta:	97-27-16		
Tangent Data				
	0+000		7607300.837	279312.206
	0+231.305		7607311.144	279081.131
	Length:	231.305	Course: N 87-26-45 W	
Circular Curve Data				
PC	0+231.305		7607311.144	279081.131
RP			7607281.174	279079.794
PT	0+282.332		7607278.611	279049.904
	Delta:	97-27-16	Type: LEFT	
	Radius:	30.000	DOC: 190-59-09	
	Length:	51.027	Tangent: 34.181	
	Mid-Ord:	10.211	External: 15.479	
	Chord:	45.095	Course: S 43-49-37 W	
	Es:	15.479		
PI	0+429.017		7607132.462	279062.434
	Length:	160.034	Course: S 28-31-54 E	
	Delta:	23-37-52		
Tangent Data				
	0+282.332		7607278.611	279049.904
	0+387.178		7607174.148	279058.860
	Length:	104.847	Course: S 04-54-02 E	
Circular Curve Data				
PC	0+387.178		7607174.148	279058.860
RP			7607191.233	279258.129
PT	0+469.667		7607095.704	279082.419
	Delta:	23-37-52	Type: LEFT	
	Radius:	200.000	DOC: 28-38-52	
	Length:	82.488	Tangent: 41.839	
	Mid-Ord:	4.238	External: 4.329	
	Chord:	81.905	Course: S 16-42-58 E	
	Es:	4.329		

PI	0+587.862		7606991.863	279138.874
	Length:	124.657	Course:	S 59-19-18 W
	Delta:	87-51-12		

		Tangent Data		
	0+469.667		7607095.704	279082.419
	0+563.782		7607013.019	279127.372
	Length:	94.115	Course:	S 28-31-54 E

		Circular Curve Data		
PC	0+563.782		7607013.019	279127.372
RP			7607001.078	279105.408
PT	0+602.115		7606979.577	279118.163
	Delta:	87-51-12	Type:	RIGHT
	Radius:	25.000	DOC:	229-10-59
	Length:	38.333	Tangent:	24.080
	Mid-Ord:	6.994	External:	9.711
	Chord:	34.687	Course:	S 15-23-42 W
	Es:	9.711		

PI	0+702.691		7606928.261	279031.663
	Length:	104.727	Course:	N 35-24-42 W
	Delta:	85-16-00		

		Tangent Data		
	0+602.115		7606979.577	279118.163
	0+679.676		7606940.004	279051.457
	Length:	77.561	Course:	S 59-19-18 W

		Circular Curve Data		
PC	0+679.676		7606940.004	279051.457
RP			7606961.505	279038.702
PT	0+716.881		7606947.019	279018.327
	Delta:	85-16-00	Type:	RIGHT
	Radius:	25.000	DOC:	229-10-59
	Length:	37.205	Tangent:	23.016
	Mid-Ord:	6.607	External:	8.981
	Chord:	33.865	Course:	N 78-02-42 W
	Es:	8.981		

PI	0+798.592		7607013.614	278970.979
	Length:	62.282	Course:	N 54-55-54 W
	Delta:	19-31-12		

		Tangent Data		
	0+716.881		7606947.019	279018.327

Delta:	41-27-01	Type:	LEFT
Radius:	100.000	DOC:	57-17-45
Length:	72.344	Tangent:	37.837
Mid-Ord:	6.471	External:	6.919
Chord:	70.777	Course:	N 49-42-18 W
Es:	6.919		

PI	1+254.736		7607326.593	278665.882
	Length:	260.623	Course:	S 02-42-55 W
	Delta:	106-51-17		

Tangent Data

	1+159.633		7607294.737	278755.492
	1+214.300		7607313.049	278703.982
	Length:	54.668	Course:	N 70-25-48 W

Circular Curve Data

PC	1+214.300		7607313.049	278703.982
RP			7607284.782	278693.933
PT	1+270.249		7607286.203	278663.967
	Delta:	106-51-17	Type:	LEFT
	Radius:	30.000	DOC:	190-59-09
	Length:	55.949	Tangent:	40.435
	Mid-Ord:	12.125	External:	20.349
	Chord:	48.186	Course:	S 56-08-34 W
	Es:	20.349		

PI	1+490.437		7607066.263	278653.536
	Length:	197.053	Course:	N 20-15-59 W
	Delta:	157-01-06		

Tangent Data

	1+270.249		7607286.203	278663.967
	1+367.457		7607189.104	278659.362
	Length:	97.208	Course:	S 02-42-55 W

Circular Curve Data

PC	1+367.457		7607189.104	278659.362
RP			7607190.288	278634.390
PT	1+435.969		7607181.629	278610.937
	Delta:	157-01-06	Type:	RIGHT
	Radius:	25.000	DOC:	229-10-59
	Length:	68.512	Tangent:	122.979
	Mid-Ord:	20.020	External:	100.495
	Chord:	48.998	Course:	S 81-13-28 W
	Es:	100.495		

PI	1+510.043		607251.117	278585.279
	Length:	221.849	Course:	N 39-03-12 W
	Delta:	18-47-12		

		Tangent Data		
	1+435.969		7607181.629	278610.937
	1+476.957		7607220.079	278596.740
	Length:	40.988	Course:	N 20-15-59 W

		Circular Curve Data		
PC	1+476.957		7607220.079	278596.740
RP			7607150.802	278409.121
PT	1+542.535		7607276.810	278564.434
	Delta:	18-47-12	Type:	LEFT
	Radius:	200.000	DOC:	28-38-52
	Length:	65.578	Tangent:	33.086
	Mid-Ord:	2.682	External:	2.718
	Chord:	65.285	Course:	N 29-39-35 W
	Es:	2.718		

PI	1+731.298		7607423.396	278445.505
	Length:	84.843	Course:	N 50-29-04 W
	Delta:	11-25-52		

		Tangent Data		
	1+542.535		7607276.810	278564.434
	1+711.281		7607407.851	278458.117
	Length:	168.745	Course:	N 39-03-12 W

		Circular Curve Data		
PC	1+711.281		7607407.851	278458.117
RP			7607281.843	278302.805
PT	1+751.183		7607436.133	278430.063
	Delta:	11-25-52	Type:	LEFT
	Radius:	200.000	DOC:	28-38-52
	Length:	39.902	Tangent:	20.018
	Mid-Ord:	0.994	External:	0.999
	Chord:	39.836	Course:	N 44-46-08 W
	Es:	0.999		

PI	1+816.008		7607477.380	278380.053
	Length:	94.235	Course:	N 41-16-54 W
	Delta:	9-12-10		

		Tangent Data		
	1+751.183		7607436.133	278430.063

Delta:	27-34-39	Type:	LEFT
Radius:	200.000	DOC:	28-38-52
Length:	96.264	Tangent:	49.083
Mid-Ord:	5.764	External:	5.935
Chord:	95.337	Course:	N 69-34-58 W
Es:	5.935		

PI	2+219.763		7607632.822	278026.390
	Length:	243.155	Course:	N 59-08-09 W
	Delta:	24-14-09		

Tangent Data

	2+066.061		7607615.080	278179.065
	2+191.851		7607629.600	278054.116
	Length:	125.789	Course:	N 83-22-18 W

Circular Curve Data

PC	2+191.851		7607629.600	278054.116
RP			7607758.731	278069.122
PT	2+246.840		7607647.141	278002.431
	Delta:	24-14-09	Type:	RIGHT
	Radius:	130.000	DOC:	44-04-25
	Length:	54.989	Tangent:	27.912
	Mid-Ord:	2.897	External:	2.963
	Chord:	54.580	Course:	N 71-15-13 W
	Es:	2.963		

PI	2+462.083		7607757.562	277817.670
	Length:	132.989	Course:	N 85-27-27 W
	Delta:	26-19-19		

Tangent Data

	2+246.840		7607647.141	278002.431
	2+438.700		7607745.567	277837.742
	Length:	191.860	Course:	N 59-08-09 W

Circular Curve Data

PC	2+438.700		7607745.567	277837.742
RP			7607659.728	277786.441
PT	2+484.640		7607759.414	277794.361
	Delta:	26-19-19	Type:	LEFT
	Radius:	100.000	DOC:	57-17-45
	Length:	45.940	Tangent:	23.383
	Mid-Ord:	2.627	External:	2.697
	Chord:	45.537	Course:	N 72-17-48 W
	Es:	2.697		

PI	2+594.246		7607768.094	277685.099
	Length:	86.777	Course:	S 41-04-54 W
	Delta:	53-27-39		

		Tangent Data		
	2+484.640		7607759.414	277794.361
	2+543.885		7607764.106	277735.302
	Length:	59.245	Course:	N 85-27-27 W

		Circular Curve Data		
PC	2+543.885		7607764.106	277735.302
RP			7607664.420	277727.383
PT	2+637.192		7607730.133	277652.005
	Delta:	53-27-39	Type:	LEFT
	Radius:	100.000	DOC:	57-17-45
	Length:	93.307	Tangent:	50.361
	Mid-Ord:	10.687	External:	11.965
	Chord:	89.959	Course:	S 67-48-43 W
	Es:	11.965		

PI	2+673.607		7607702.684	277628.075
	Length:	102.174	Course:	S 07-53-56 W
	Delta:	33-10-58		

		Tangent Data		
	2+637.192		7607730.133	277652.005
	2+652.751		7607718.405	277641.781
	Length:	15.559	Course:	S 41-04-54 W

		Circular Curve Data		
PC	2+652.751		7607718.405	277641.781
RP			7607672.406	277694.545
PT	2+693.291		7607682.026	277625.209
	Delta:	33-10-58	Type:	LEFT
	Radius:	70.000	DOC:	81-51-04
	Length:	40.540	Tangent:	20.856
	Mid-Ord:	2.914	External:	3.041
	Chord:	39.976	Course:	S 24-29-25 W
	Es:	3.041		

PI	2+774.608		7607601.480	277614.034
	Length:	109.997	Course:	N 55-22-48 W
	Delta:	116-43-16		

		Tangent Data		
	2+693.291		7607682.026	277625.209

2+725.919 7607649.707 277620.725
Length: 32.628 Course: S 07-53-56 W

Circular Curve Data

PC	2+725.919		7607649.707	277620.725
RP			7607653.830	277591.010
PT	2+787.034		7607629.142	277573.966
	Delta:	116-43-16	Type:	RIGHT
	Radius:	30.000	DOC:	190-59-09
	Length:	61.115	Tangent:	48.689
	Mid-Ord:	14.263	External:	27.190
	Chord:	51.082	Course:	S 66-15-34 W
	Es:	27.190		

PI 2+848.341 7607663.973 277523.514
Length: 146.239 Course: N 44-52-34 W
Delta: 10-30-14

Tangent Data

2+787.034		7607629.142	277573.966
2+829.957		7607653.528	277538.643
Length:	42.923	Course:	N 55-22-48 W

Circular Curve Data

PC	2+829.957		7607653.528	277538.643
RP			7607818.115	277652.269
PT	2+866.623		7607677.000	277510.542
	Delta:	10-30-14	Type:	RIGHT
	Radius:	200.000	DOC:	28-38-52
	Length:	36.665	Tangent:	18.384
	Mid-Ord:	0.840	External:	0.843
	Chord:	36.614	Course:	N 50-07-41 W
	Es:	0.843		

PI 2+994.478 7607767.603 277420.331
Length: 149.754 Course: S 62-59-49 W
Delta: 72-07-36

Tangent Data

2+866.623		7607677.000	277510.542
2+914.372		7607710.837	277476.852
Length:	47.749	Course:	N 44-52-34 W

Circular Curve Data

PC	2+914.372		7607710.837	277476.852
RP			7607633.224	277398.902
PT	3+052.845		7607731.232	277348.958

Delta:	72-07-36	Type:	LEFT
Radius:	110.000	DOC:	52-05-13
Length:	138.473	Tangent:	80.106
Mid-Ord:	21.080	External:	26.077
Chord:	129.510	Course:	N 80-56-22 W
Es:	26.077		

PI	3+122.493		7607699.609	277286.903
	Length:	146.179	Course:	S 34-38-10 W
	Delta:	28-21-40		

Tangent Data

	3+052.845		7607731.232	277348.958
	3+084.592		7607716.818	277320.672
	Length:	31.746	Course:	S 62-59-49 W

Circular Curve Data

PC	3+084.592		7607716.818	277320.672
RP			7607583.170	277388.778
PT	3+158.841		7607668.425	277265.361
	Delta:	28-21-40	Type:	LEFT
	Radius:	150.000	DOC:	38-11-50
	Length:	74.249	Tangent:	37.901
	Mid-Ord:	4.571	External:	4.714
	Chord:	73.493	Course:	S 48-49-00 W
	Es:	4.714		

PI	3+267.118		7607579.336	277203.820
	Length:	193.224	Course:	N 25-14-58 W
	Delta:	120-06-52		

Tangent Data

	3+158.841		7607668.425	277265.361
	3+215.037		7607622.188	277233.421
	Length:	56.196	Course:	S 34-38-10 W

Circular Curve Data

PC	3+215.037		7607622.188	277233.421
RP			7607639.238	277208.738
PT	3+277.928		7607626.442	277181.604
	Delta:	120-06-52	Type:	RIGHT
	Radius:	30.000	DOC:	190-59-09
	Length:	62.892	Tangent:	52.081
	Mid-Ord:	15.026	External:	30.104
	Chord:	51.991	Course:	N 85-18-24 W
	Es:	30.104		

PI	3+419.071		7607754.099	277121.398
	Length:	204.272	Course:	N 84-41-58 W
	Delta:	59-27-00		

		Tangent Data		
	3+277.928		7607626.442	277181.604
	3+356.265		7607697.293	277148.189
	Length:	78.336	Course:	N 25-14-58 W

		Circular Curve Data		
PC	3+356.265		7607697.293	277148.189
RP			7607650.372	277048.699
PT	3+470.400		7607759.901	277058.860
	Delta:	59-27-00	Type:	LEFT
	Radius:	110.000	DOC:	52-05-13
	Length:	114.136	Tangent:	62.806
	Mid-Ord:	14.474	External:	16.667
	Chord:	109.084	Course:	N 54-58-28 W
	Es:	16.667		

PI	3+611.866		7607772.970	276917.999
	Length:	251.622	Course:	S 57-04-49 W
	Delta:	38-13-13		

		Tangent Data		
	3+470.400		7607759.901	277058.860
	3+542.571		7607766.568	276986.999
	Length:	72.170	Course:	N 84-41-58 W

		Circular Curve Data		
PC	3+542.571		7607766.568	276986.999
RP			7607567.424	276968.523
PT	3+675.984		7607735.310	276859.830
	Delta:	38-13-13	Type:	LEFT
	Radius:	200.000	DOC:	28-38-52
	Length:	133.414	Tangent:	69.296
	Mid-Ord:	11.022	External:	11.665
	Chord:	130.954	Course:	S 76-11-25 W
	Es:	11.665		

PRESUPUESTO POR ÍTEMS Y GENERAL DE LA VIVIENDA MEJORADA
(En Bolivianos)

Nº ITEM	DESCRIPCION	Unid.	Cant.	Precio Unitario	Costo Total
1	REPLANTEO	m2	36,66	2,39	87,62
2	EXCAVACIÓN MANUAL DE 0 A 1 M TERRENO SEMIDURO	m3	11,20	32,51	364,11
3	ZAPATA 60x60x40 cm DE H° C° 50% PIEDRA fc= 180 kg/cm2	m3	0,58	380,33	220,59
4	CIMIENTO 40x30 cm DE H° C° 60 % PIEDRA fc=180 kg/cm2	m3	3,73	390,40	1456,19
5	SOBRECIMIENTO 15x20 cm DE H° C° 30% PIEDRA fc= 180 kg/cm2	m3	0,93	551,25	512,66
6	IMPERMEABILIZACIÓN DE SOBRECIMENTOS	m2	4,67	27,02	126,18
7	ESTRUCTURA METÁLICA / CUBIERTA DE CALAMINA N° 28 INCLUYE 4 COLUMNAS L=2,90mt	m2	41,02	310,19	12723,99
8	MURO ZOGUILLO DE LADRILLO 6 H e = 12 cm	m2	64,53	102,25	6598,19
9	EMPEDRADO+CONTRAPISO DE H° 1:3:4 e=5cm	m2	31,42	85,06	2672,59
10	REVESTIMIENTO DE H° S° PARA COLUMNA fc=180 kg/cm2	m3	0,40	454,98	181,99
11	REBOQUE INTERIOR DE ESTUCO SOBRE MURO DE LADRILLO	m2	80,00	49,39	3951,20
12	POZO ABSORBENTE	pza	1,00	658,70	658,70
13	PROV E INSTALACIÓN DESAGUE SANITARIO COCINA	pto	1,00	145,05	145,05
14	PROV E INSTALACIÓN DESAGUE SANITARIO BAÑO	pto	1,00	334,09	334,09
15	PROV E INSTALACIÓN AGUA POTABLE BAÑO	pto	1,00	374,00	374,00
16	PROV E INSTALACIÓN AGUA POTABLE COCINA	pto	1,00	88,33	88,33
17	PROV Y COLOC JUEGO DE BAÑO INCLUYE GRIFERIA	pza	1,00	1.280,82	1.280,82
18	PROV Y COLOC DUCHA ELÉCTRICA	pza	1,00	373,39	373,39
19	PROV Y COLOC LAVAPLATOS DE UNA BACHA SIN ESCURRIDERA	pza	1,00	560,22	560,22
20	CAMARA DE INSPECCIÓN DE LADRILLO 60 x 60 cm	pza	1,00	609,79	609,79
21	PROV Y COLOC TUVERIA DE 4" PARA DESAGUE AL POZO	mL	7,50	29,94	224,55
22	PROV. E INSTALACIÓN TABLERO DE DISTRIBUCIÓN	pto	1,00	464,68	464,68
23	PROV Y COLOC. DE TOMACORRIENTES	pto	4,00	142,04	568,16
24	PROV Y COLOC DE INTERRUPTOR	pto	5,00	174,53	872,65
25	PROV. Y COLOC. PUERTA PLACA TIPO P2 DE 2,00 x 0,90 mt	pza	2,00	953,50	1907,00
26	PROV Y COLOC. PUERTA PLACA TIPO P1 DE 2,00 x 0,70 mts	pza	1,00	799,62	799,62
27	PROV. Y COLOC. VENTANA DE MADERA TIPO V1 DE 0,6 X 0,60 mts	pza	1,00	310,72	310,72
28	PROV Y COLOC. VENTANA DE MADERA TIPO V2 DE 1,00 X 1,00 mts	pza	3,00	548,37	1645,11
29	RETIRO DE ESCOMBROS Y LIMPIEZA	glb	1,00	81,25	81,25
30	VALOR DE LA TIERRA CONSTRUIDA	m2	36,66	0,18	6,42
					40199,87