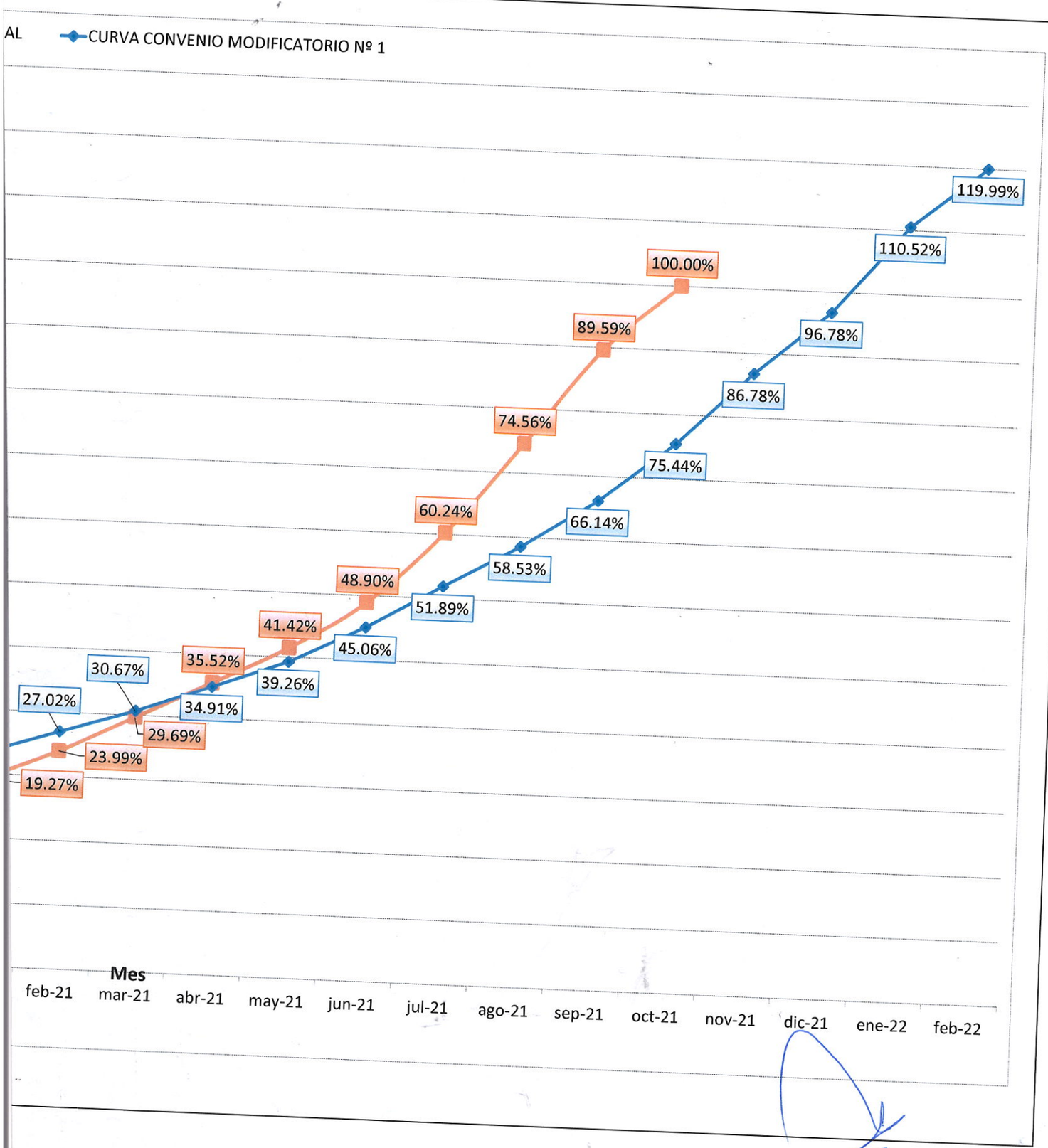
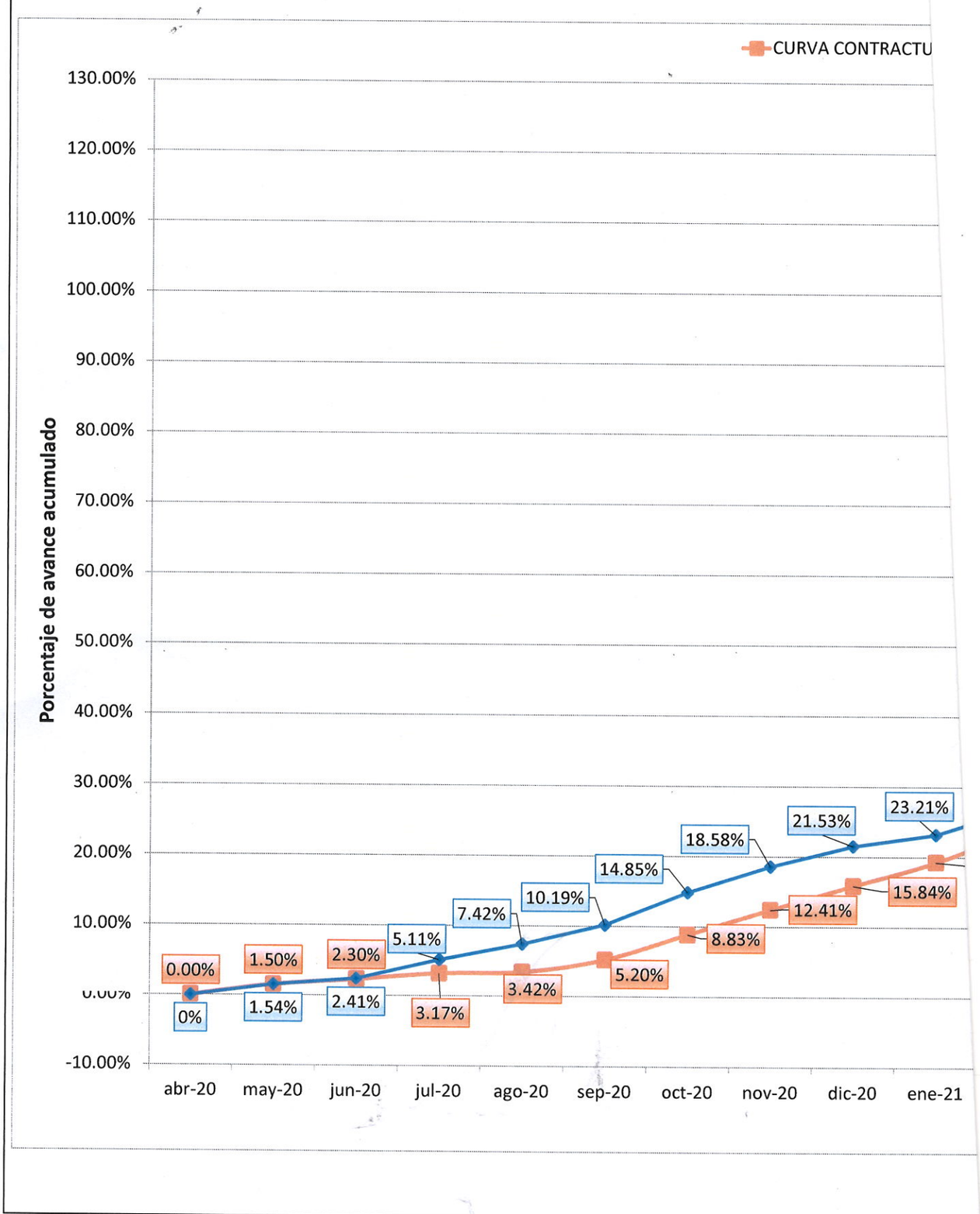
LOTE Nº 1



C.I.V.S.A.
Ing. Isacio E. Vallejos A.
Representante Legal

TRAMO: Bella Vista Norte – Pastoril – Cu

CURVA D



Anexo II

CRONOGRAMA DE TRABAJO Y CURVA FISICO - FINANCIERA

ntesiño, Departamento de Amambay/Concepción
RO - CONVENIO MODIFICATORIO Nº 1
1

MESES														
MES 9	MES 10	MES 11	MES 12	MES 13	MES 14	MES 15	MES 16	MES 17	MES 18	MES 19	MES 20	MES 21	MES 22	TOTAL
ene-21	feb-21	mar-21	abr-21	may-21	jun-21	jul-21	ago-21	sep-21	oct-21	nov-21	dic-21	ene-22	18-feb-22	
10.92%	5.27%	16.53%	16.53%											100.00%
		14.62%	14.62%	14.62%	12.20%									87.60%
24.51%		22.35%	22.35%	22.35%										100.00%
11.90%		41.13%	41.13%	41.13%	41.13%	41.13%	41.13%	211.18%	204.15%	204.15%				891.52%
3.48%	8.42%	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%	3.52%					78.05%
	10.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%							100.00%
	1.93%	6.00%	6.00%	6.00%	6.00%									74.91%
9.00%						2.01%	2.01%	2.01%	2.01%					60.46%
						8.22%	8.22%	8.22%	8.22%					53.42%
0.51%	2.93%	5.00%	10.00%	10.00%	10.00%	20.00%	20.00%	20.00%	29.20%					136.00%
	3.45%	5.00%	5.00%	5.00%	10.00%	10.00%	10.00%	13.00%	15.00%	17.00%	22.94%			123.33%
4.12%	1.09%	5.00%	5.00%	5.00%	10.00%	10.00%	10.00%	15.00%	20.00%	20.00%	25.68%			130.89%
														0.00%
														0.00%
														0.00%
										20.00%	10.00%	40.00%	30.00%	100.00%
										20.00%	10.00%	40.00%	30.00%	100.00%
		5.00%	5.00%	5.00%	10.00%	15.00%	15.00%	20.00%	21.80%					100.00%
		10.00%	10.00%	10.00%	10.00%	10.00%	5.00%	0.95%						112.74%
		3.85%												96.15%
		2.39%												85.71%
2.38%														85.71%
9.80%		15.00%	15.00%	15.00%	15.00%	9.36%								112.50%
		10.00%	9.60%											81.05%
			6.51%	6.51%	6.51%	9.77%	9.77%	9.77%	16.28%					65.12%
				20.00%	20.00%	15.00%	15.00%	17.00%	17.29%					140.00%
														84.21%
				10.00%	10.00%	15.00%	15.00%	20.00%	20.00%					90.00%
								0.33%						94.44%
					30.00%	30.00%	14.29%							74.29%
				10.00%	15.00%	15.00%	15.00%	23.00%	23.00%	23.68%				124.68%
			40.00%	50.00%	60.00%	60.00%	60.00%	53.00%	53.00%	54.38%				430.38%
										25.00%	25.00%	25.00%	25.00%	100.00%
							10.00%	20.00%	20.00%	20.00%	30.00%			100.00%
											30.00%	90.40%		120.40%
											30.00%	70.00%		100.00%
											30.00%	70.00%		100.00%
										28.69%	38.69%	48.69%	18.69%	134.75%
											30.00%	60.00%	10.00%	100.00%
											20.00%	50.00%	30.00%	100.00%
											20.00%	50.00%	30.00%	100.00%
5.88%	5.88%	5.88%	5.88%	5.88%	5.88%	5.88%	5.88%	5.88%	5.88%					100.00%
5.56%	5.56%	5.56%	5.56%	5.56%	5.56%	5.56%	5.56%	5.56%	5.56%					100.00%
														100.00%

1.67%	3.81%	3.66%	4.23%	4.35%	5.80%	6.83%	6.64%	7.61%	9.30%	11.34%	10.00%	13.74%	9.48%
23.21%	27.02%	30.67%	34.91%	39.26%	45.06%	51.89%	58.53%	66.14%	75.44%	86.78%	96.78%	110.52%	119.99%

C.I.V.S.A.
Ing. Isacio E. Vallejos A.
Representante Legal

TRAMO: Bella Vista Norte – Pastoril – Curusu Eva – Pue

CRONOGRAMA DE AVANCE FISICO-FINANCI

LOTE N

ITEM	DESCRIPCION	INCID %	INICIO	MES 1	MES 2	MES 3	MES 4	MES 5	MES 6	MES 7	MES 8
			abr-20	may-20	jun-20	jul-20	ago-20	sep-20	oct-20	nov-20	dic-20
1	**COMPONENTE MOVIMIENTO DE SUELO**										
1.1	Desbosque, Desbroce y Despeje	0.73%			4.75%	2.31%	11.82%	17.78%	8.10%	6.00%	
1.2	Excavación no Clasificada	0.53%				3.72%	0.88%	11.92%	15.01%		
1.3	Excavación de Bolsones	0.48%				6.97%		1.47%			
1.4	Excavación de Zanjas de Drenaje	0.48%				13.39%					
1.5	Terraplenes	23.49%				5.09%	5.34%	6.29%	9.20%	7.84%	4.19%
2	**REMOCIONES Y TRASLADOS**										
2.1	Remoción de Obras de Arte	0.08%				20.00%	5.00%	5.00%	30.00%		
2.2	Traslado de Alambrados	0.51%				2.10%		7.45%	13.58%	25.85%	
2.3	Traslado de Cañerias de Agua	0.21%					15.43%	28.00%			
2.4	Traslado de Columnas electricas	0.16%						20.55%			
3	**COMPONENTE VIAL**										
3.1	Sub-Base de Suelo Cemento RC≥ 15kg/cm2	15.50%							3.18%	3.76%	1.43%
3.2	Base Piedra Triturada 90/10 (CBR 100%)	26.47%								2.25%	4.69%
3.3	Imprimación Asfáltica	5.61%									
3.4	Tratamiento superficial triple en calzada	0.00%									
3.5	Banquina de Suelo	0.00%									
3.6	Dren de Banquina	0.00%									
3.7	Carpeta de concreto asfáltico e = 4cm en calzada-banquina	28.01%									
3.8	Riego de liga	2.37%									
4	**COMPONENTE OBRAS DE DRENAJE**										
4.1	Relleno Granular	0.12%						3.20%			
4.2	ATHºAº 1 Ø 1,00 m	1.24%				4.16%	7.84%	6.01%	19.94%	4.96%	13.88%
4.3	ATHºAº 2 Ø 1,00 m	0.15%					37.51%	54.80%			
4.4	ATHºAº 1 Ø 1,20 m	0.08%						83.32%			
4.5	ATHºAº 2 Ø 1,20 m	0.13%					83.33%				
4.6	ACHºAº 1x1,0x1,0m	0.63%				15.69%	7.84%			5.88%	3.92%
4.7	ACHºAº 2x1,0x1,0m	0.38%					19.07%	18.01%		10.59%	13.78%
4.8	ACHºAº 1x1,5x1,5m	0.12%									
4.9	ACHºAº 2x1,5x1,5m	0.81%				14.29%	8.57%	7.14%	5.71%		
4.10	ACHºAº 4 x 1,50x1,50 m	0.34%							84.21%		
4.11	ACHºAº 3x2,0x2,0m	0.35%									
4.12	ACHºAº 5 x 2,50x2,50 m	0.76%							70.59%		23.53%
4.13	ACHºAº 3 x 3,00x3,00m	0.52%									
4.14	Cunetas Revestidas de Hormigon	1.60%									
4.15	Disipadores de Energía	0.07%									
4.16	Cordon cuneta	0.17%									
4.17	Paso de ganado	0.31%									
5	**COMPONENTE OBRAS COMPLEMENTARIAS**										
5.1	Señalización Vertical	0.21%									
5.2	Señalización horizontal	0.70%									
5.3	Defensas Metálicas	0.05%									
5.4	Cobertura de Cesped	1.09%									
5.5	Protección de Áreas de Préstamos	0.42%									
5.6	Tachas Retroreflectivas	0.40%									
5.7	Tachones Retroreflectivas	0.01%									
5.8	Medidas de protección ambiental directa (ETAG´S) 0,8%	0.80%			5.88%	5.88%	5.88%	5.88%	5.88%	5.88%	5.88%
5.9	Instalaciones y Servicios Especiallzados	0.89%		5.56%	5.56%	5.56%	5.56%	5.56%	5.56%	5.56%	5.56%
6	**COMPONENTE MOVILIZACION**										
6.1	Movilización y Desmovilización	2.97%		50.00%	25.00%	25.00%					
	TOTALES	**119.99%**									
PORCENTAJES MENSUALES DE AVANCE			**0.00%**	**1.54%**	**0.87%**	**2.70%**	**2.31%**	**2.77%**	**4.66%**	**3.73%**	**2.96%**
PORCENTAJES MENSUALES DE AVANCE ACUMULADOS			**0.00%**	**1.54%**	**2.41%**	**5.11%**	**7.42%**	**10.19%**	**14.85%**	**18.58%**	**21.53%**

ATO - CONVENIO MODIFICATORIO N° 1
rusu Eva – Puentesiño, Departamento de
Concepción.

+000 A PROGRESIVA 35+000

OBRA ACTUALIZADA					
CANTIDAD C.M. N° 1	Cantidad Adicional Sobre Contractual	Variación Cantidad Porcentual Sobre Contractual	Costo Total C.M. N°1		Variación Costo Porcentual Sobre Contractual
			Costo Total	Diferencia	
62.08	0.00	0.00%	491.244.317.00	0.00	0.00%
16.000.00	-2.264.69	-12.40%	359.056.000.00	-50.821.908.00	-0.08%
12.000.00	0.00	0.00%	323.880.000.00	0.00	0.00%
11.875.08	10.543.08	791.52%	320.508.368.00	284.557.688.00	0.42%
453.933.29	-127.657.71	-21.95%	15.794.154.892.00	-4.441.722.362.00	-6.60%
1.00	0.00	0.00%	56.974.206.00	0.00	0.00%
11.252.50	-3.767.50	-25.08%	345.024.155.00	-115.519.085.00	-0.17%
2.116.00	-1.384.00	-39.54%	140.466.428.00	-91.874.072.00	-0.14%
39.00	-34.00	-46.58%	108.318.405.00	-94.431.430.00	-0.14%
70.350.00	18.621.04	36.00%	10.426.643.850.00	2.759.842.959.00	4.10%
60.350.00	11.417.20	23.33%	17.798.240.950.00	3.367.126.372.00	5.01%
320.250.00	75.586.00	30.89%	3.770.623.500.00	889.949.564.00	1.32%
0.00	-244.664.00	-100.00%	0.00	-7.572.106.136.00	-11.26%
0.00	-61.515.52	-100.00%	0.00	-2.488.364.300.00	-3.70%
0.00	-2.152.50	-100.00%	0.00	-163.633.050.00	-0.24%
12.600.00	12.600.00	100.00%	18.837.904.442.00	18.837.904.442.00	28.01%
320.250.00	320.250.00	100.00%	1.594.593.071.00	1.594.593.071.00	2.37%
300.09	0.00	0.00%	82.945.776.00	0.00	0.00%
354.00	40.00	12.74%	837.246.108.00	94.604.080.00	0.14%
25.00	-1.00	-3.85%	104.142.750.00	-4.165.710.00	-0.01%
12.00	-2.00	-14.29%	51.757.416.00	-8.626.236.00	-0.01%
12.00	-2.00	-14.29%	86.524.596.00	-14.420.766.00	-0.02%
153.00	17.00	12.50%	425.932.875.00	47.325.875.00	0.07%
62.00	-14.50	-18.95%	256.786.702.00	-60.054.955.00	-0.09%
14.00	-7.50	-34.88%	82.041.666.00	-43.950.893.00	-0.07%
70.00	20.00	40.00%	541.763.460.00	154.789.560.00	0.23%
16.00	-3.00	-15.79%	231.965.936.00	-43.493.613.00	-0.06%
18.00	-2.00	-10.00%	237.233.664.00	-26.359.296.00	-0.04%
17.00	-1.00	-5.56%	508.336.244.00	-29.902.132.00	-0.04%
13.00	-4.50	-25.71%	348.949.133.00	-120.790.085.00	-0.18%
1.150.54	227.74	24.68%	1.076.008.795.00	212.986.856.00	0.32%
48.59	37.30	330.38%	47.312.617.00	36.319.420.00	0.05%
620.00	620.00	100.00%	114.364.580.00	114.364.580.00	0.17%
1.00	1.00	100.00%	208.536.173.00	208.536.173.00	0.31%
77.43	13.12	20.40%	140.738.859.00	23.847.267.00	0.04%
10.622.50	0.00	0.00%	473.593.540.00	0.00	0.00%
160.00	0.00	0.00%	35.757.280.00	0.00	0.00%
97.252.00	25.080.00	34.75%	736.294.892.00	189.880.680.00	0.28%
4.050.46	0.00	0.00%	282.223.901.00	0.00	0.00%
5.833.33	0.00	0.00%	270.310.679.00	0.00	0.00%
44.44	0.00	0.00%	7.764.957.00	0.00	0.00%
1.00	0.00	0.00%	540.128.691.00	0.00	0.00%
1.00	0.00	0.00%	601.053.759.00	0.00	0.00%
1.00	0.00	0.00%	1.998.653.017.00	0.00	0.00%
			80.696.000.650.00	**13.446.392.558.00**	**19.99%**
					19.99%

C.I.V.S.A.
Ing. Isacio E. Vallejos A.
Representante Legal

PRESUPUESTO COMPARATIVO CONTR

TRAMO: Bella Vista Norte – Pastoril – Cu

Amambay/C

LOTE N° 1 - PROGRESIVA 0+

CONTRATISTA: CONSTRUCTORA ISACIO VALLEJOS S.A. (CIVSA)			CANTIDAD CONTRACTUAL		
ÍTEM N°	DESCRIPCIÓN	Unidad	Cantidad	Precio Unitario	Total
ITEM 1	MOVIMIENTO DE SUELOS				
1.1	Desbosque, Desbroce y Despeje	ha	62.08	7.913.085	491.244.317.00
1.2	Excavación no Clasificada	m3	18.264.69	22.441	409.877.908.00
1.3	Excavación de Bolsones	m3	12.000.00	26.990	323.880.000.00
1.4	Excavación de Zanjas de Drenaje	m3	1.332.00	26.990	35.950.680.00
1.5	Terraplenes	m3	581.591.00	34.794	20.235.877.254.00
ITEM 2	REMOCIONES Y TRASLADOS				
2.1	Remoción de Obras de Arte	gl	1.00	56.974.206	56.974.206.00
2.2	Traslado de Alambrados	m	15.020.00	30.662	460.543.240.00
2.3	Traslado de Cañerias de Agua	m	3.500.00	66.383	232.340.500.00
2.4	Traslado de Columnas electricas	un	73.00	2.777.395	202.749.835.00
ITEM 3	COMPONENTE VIAL				
3.1	Sub-Base de Suelo Cemento RC≥ 15kg/cm2 - e=20cm	m3	51.728.96	148.211	7.666.800.891.00
3.2	Base Piedra Triturada 90/10 (CBR 100%) - e=20cm	m3	48.932.80	294.917	14.431.114.578.00
3.3	Imprimación Asfáltica	m2	244.664.00	11.774	2.880.673.936.00
3.4	Tratamiento superficial triple en calzada	m2	244.664.00	30.949	7.572.106.136.00
3.5	Banquina de Suelo	m3	61.515.52	40.451	2.488.364.300.00
3.6	Dren de Banquina	ml	2.152.50	76.020	163.633.050.00
3.7	Carpeta de concreto asfáltico e = 4cm en calzada-banquina	m3	0.00	1.495.072	0.00
3.8	Riego de liga	m2	0.00	4.979	0.00
ITEM 4	COMPONENTE OBRAS DE DRENAJE				
4.1	Relleno Granular	m3	300.09	276.403	82.945.776.00
4.2	ATHºAº 1 Ø 1,00 m	ml	314.00	2.365.102	742.642.028.00
4.3	ATHºAº 2 Ø 1,00 m	ml	26.00	4.165.710	108.308.460.00
4.4	ATHºAº 1 Ø 1,20 m	ml	14.00	4.313.118	60.383.652.00
4.5	ATHºAº 2 Ø 1,20 m	ml	14.00	7.210.383	100.945.362.00
4.6	ACHºAº 1x1,0x1,0m	ml	136.00	2.783.875	378.607.000.00
4.7	ACHºAº 2x1,0x1,0m	ml	76.50	4.141.721	316.841.657.00
4.8	ACHºAº 1x1,5x1,5m	ml	21.50	5.860.119	125.992.559.00
4.9	ACHºAº 2x1,5x1,5m	ml	50.00	7.739.478	386.973.900.00
4.10	ACHºAº 4 x 1,50x1,50 m	ml	19.00	14.497.871	275.459.549.00
4.11	ACHºAº 3x2,0x2,0m	ml	20.00	13.179.648	263.592.960.00
4.12	ACHºAº 5 x 2,50x2,50 m	ml	18.00	29.902.132	538.238.376.00
4.13	ACHºAº 3 x 3,00x3,00m	ml	17.50	26.842.241	469.739.218.00
4.14	Cunetas Revestidas de Hormigon	m3	922.80	935.221	863.021.939.00
4.15	Disipadores de Energía	m3	11.29	973.711	10.993.197.00
4.16	Cordon cuneta	ml	0.00	184.459	0.00
4.17	Paso de ganado	gl	0.00	208.536.173	0.00
ITEM 5	COMPONENTE OBRAS COMPLEMENTARIAS			208.536.173	
5.1	Señalización Vertical	m2	64.31	1.817.627	116.891.592.00
5.2	Señalización horizontal	m2	10.622.50	44.584	473.593.540.00
5.3	Defensas Metálicas	m	160.00	223.483	35.757.280.00
5.4	Cobertura de Cesped	m2	72.172.00	7.571	546.414.212.00
5.5	Protección de Áreas de Préstamos	m	4.050.46	69.677	282.223.901.00
5.6	Tachas Retroreflectivas	Un	5.833.33	46.339	270.310.679.00
5.7	Tachones Retroreflectivas	Un	44.44	174.729	7.764.957.00
5.8	Medidas de protección ambiental directa (ETAG´S) 0,8%	Gl	1.00	540.128.691	540.128.691.00
5.9	Instalaciones y Servicios Especiallzados	Gl	1.00	601.053.759	601.053.759.00
ITEM 6	COMPONENTE MOVILIZACION				
6.1	Movilización y Desmovilización	Gl	1.00	1.998.653.017	1.998.653.017.00
Total IVA Incluido					67.249.608.092.00
Variación Total en %					