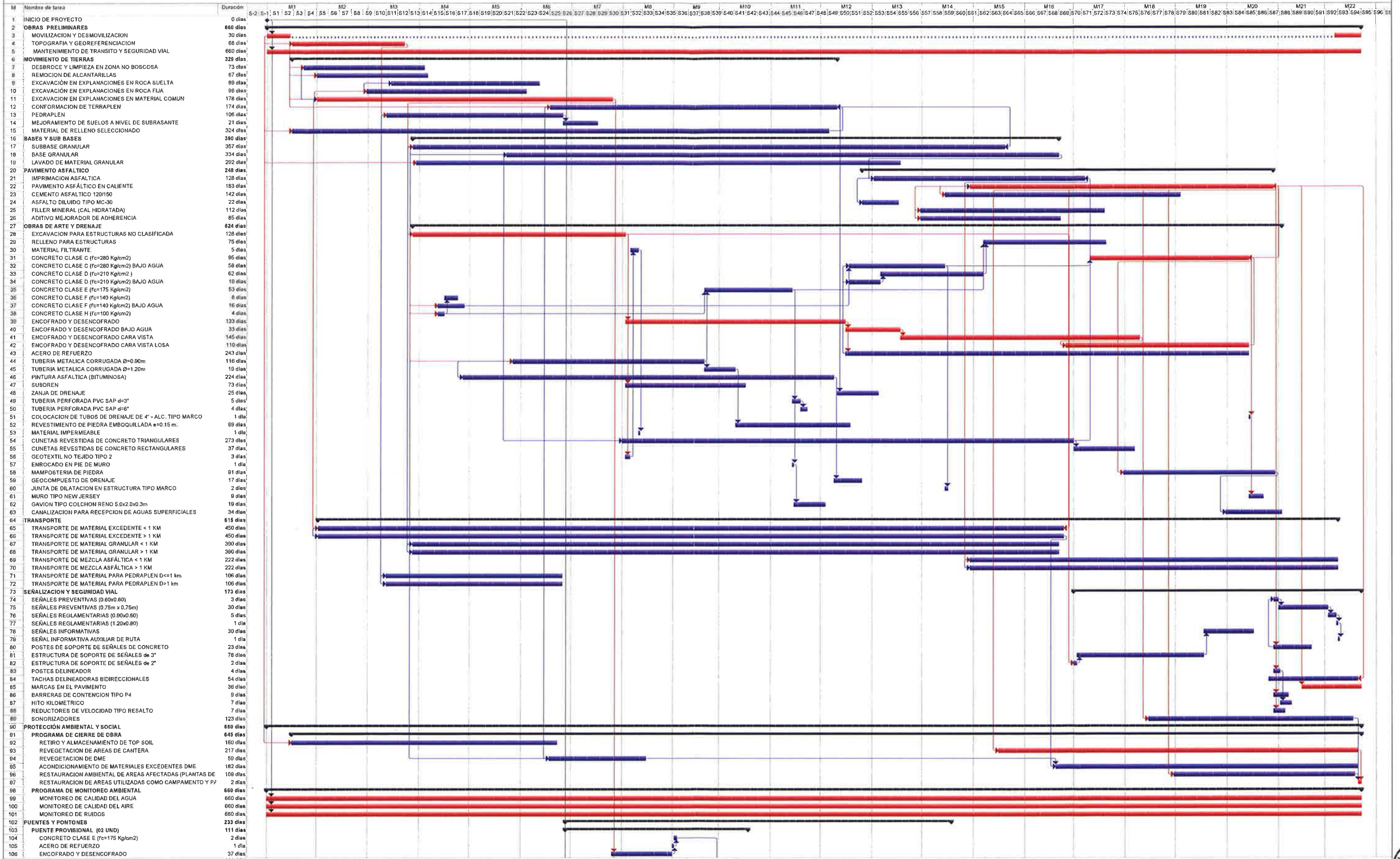


DIAGRAMA GANTT



Tarea	Resumen	Hito resumido	Tareas externas	Tarea inactiva	Tarea manual	Resumen manual	Progreso
Tarea crítica	Tarea resumida	Progreso resumido	Resumen del proyecto	Hito inactivo	Sólo duración	Sólo el comienzo	Fecha límite
Hito	Tarea crítica resumida	División	Agrupar por síntesis	Resumen inactivo	Informe de resumen manual	Sólo fin	

ESTUDIO DEFINITIVO CARRETERA DV. IMATA - OSCOLLO - NEGROMAYO

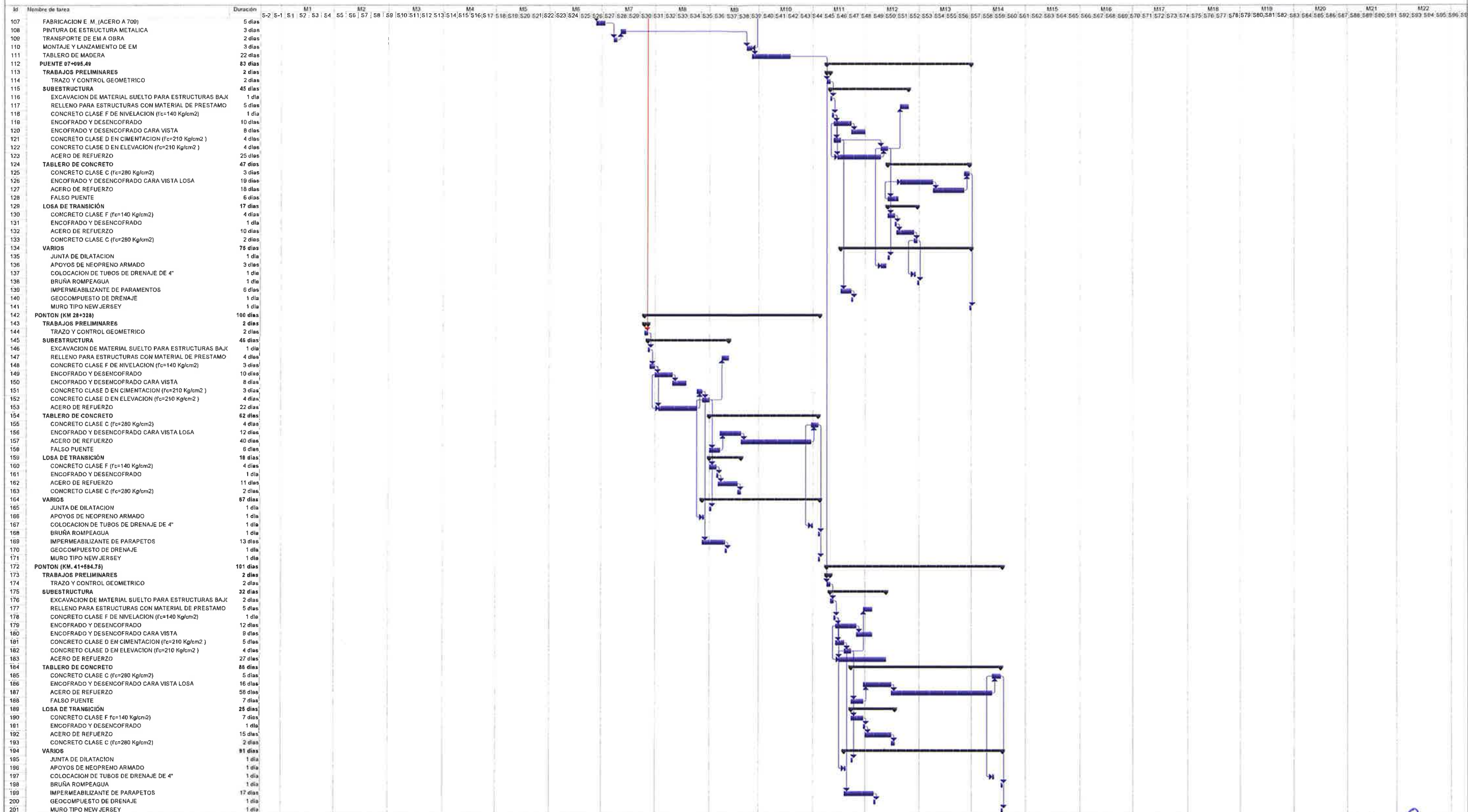
CONSORCIO VIAL SUR ANDINO

Ing. Guillermina Patricia Milla

VIAL SUR ANDINO  
Ing. F. Cano Loyola  
Área Proyecto  
DIP 00379



DIAGRAMA GANTT















CRONOGRAMA VALORIZADO DE AVANCE DE OBRA

Proyecto: ESTUDIO DEFINITIVO PARA LA REHAB. Y MEJORAMIENTO DE LA CARRETERA DV. IMATA - OSCOLLO - NEGROMAYO (KM. 00+000 - KM. 67+725.35)

086

Item	Descripcion	Unid	Metrado	Precio	Parcial	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	Total	
1022	SUBESTRUCTURA																												
1022.A	EXCAVACION DE MATERIAL SUELTO PARA ESTRUCTURAS BAJO AGUA	m3	296.23	9.40	2,784.56							2,784.56																	2,784.56
1022.B	RELLENO PARA ESTRUCTURAS CON MATERIAL DE PRESTAMO	m3	190.13	52.88	10,054.07																								10,054.07
1022.D	CONCRETO CLASE F DE NIVELACION (f'c=140 Kg/cm2)	m3	50.67	367.09	18,600.45							18,600.45																	18,600.45
1022.E	ENCOFRADO Y DESENCOFRADO	m2	126.21	53.36	6,734.57																								6,734.57
1022.F	ENCOFRADO Y DESENCOFRADO CARA VISTA	m2	85.65	86.71	7,426.71							7,426.71																	7,426.71
1022.G	CONCRETO CLASE D EN CIMENTACION (f'c=210 Kg/cm2)	m3	53.76	426.97	22,953.91																								22,953.91
1022.H	CONCRETO CLASE D EN ELEVACION (f'c=210 Kg/cm2)	m3	54.88	426.97	23,432.11																								23,432.11
1022.I	ACERO DE REFUERZO	kg	5,256.28	4.28	22,496.88																								22,496.88
1023	TABLERO DE CONCRETO																												
1023.A	CONCRETO CLASE C (f'c=280 Kg/cm2)	m3	55.69	474.53	26,426.58																								26,426.58
1023.B	ENCOFRADO Y DESENCOFRADO CARA VISTA LOSA	m2	133.45	86.71	11,571.45																								11,571.45
1023.C	ACERO DE REFUERZO	kg	9,881.54	4.28	42,292.99																								42,292.99
1023.D	FALSO PUENTE	m	10.80	1,273.21	13,750.67																								13,750.67
1024	LOSA DE TRANSICIÓN																												
1024.A	CONCRETO CLASE F (f'c=140 Kg/cm2)	m3	7.15	367.09	2,624.69																								0.00
1024.B	ENCOFRADO Y DESENCOFRADO	m2	5.24	53.36	279.61																								279.61
1024.C	ACERO DE REFUERZO	kg	2,662.01	4.28	11,393.40																								11,393.40
1024.D	CONCRETO CLASE C (f'c=280 Kg/cm2)	m3	18.82	474.53	8,930.65																								8,930.65
1025	VARIOS																												
1025.A	JUNTA DE DILATACION	m	22.75	290.49	6,608.65																								0.00
1025.B	APOYOS DE NEOPRENO ARMADO	dm3	26.25	48.46	1,272.08																								6,608.65
1025.C	COLOCACION DE TUBOS DE DRENAJE DE 4"	und	2.00	27.06	54.12																								1,272.08
1025.D	BRUÑA ROMPEAGUA	m	21.60	11.40	246.24																								54.12
1025.E	IMPERMEABILIZANTE DE PARAPETOS	m2	244.62	11.67	2,854.72																								246.24
1025.F	GEOCOMPUESTO DE DRENAJE	m2	44.95	71.36	3,207.63																								2,854.72
1025.G	MURO TIPO NEW JERSEY	m	32.16	334.96	10,772.31																								3,207.63
1030	PONTON (KM. 41+584.75)																												
1031	TRABAJOS PRELIMINARES																												
1031.A	TRAZO Y CONTROL GEOMETRICO	m2	656.85	2.66	1,747.22																								10,772.31
1032	SUBESTRUCTURA																												
1032.A	EXCAVACION DE MATERIAL SUELTO PARA ESTRUCTURAS BAJO AGUA	m3	361.82	9.40	3,401.11																								1,747.22
1032.B	RELLENO PARA ESTRUCTURAS CON MATERIAL DE PRESTAMO	m3	241.95	52.88	12,794.32																								3,401.11
1032.D	CONCRETO CLASE F DE NIVELACION (f'c=140 Kg/cm2)	m3	10.01	367.09	3,674.57																								12,794.32
1032.E	ENCOFRADO Y DESENCOFRADO	m2	157.65	53.36	8,412.20																								3,674.57
1032.F	ENCOFRADO Y DESENCOFRADO CARA VISTA	m2	102.85	86.71	8,918.12																								8,412.20
1032.G	CONCRETO CLASE D EN CIMENTACION (f'c=210 Kg/cm2)	m3	73.49	426.97	31,378.03																								8,918.12
1032.H	CONCRETO CLASE D EN ELEVACION (f'c=210 Kg/cm2)	m3	68.95	426.97	29,439.58																								31,378.03
1032.I	ACERO DE REFUERZO	kg	6,573.32	4.28	28,133.81																								29,439.58
1033	TABLERO DE CONCRETO																												
1033.A	CONCRETO CLASE C (f'c=280 Kg/cm2)	m3	76.02	474.53	36,073.77																								28,133.81
1033.B	ENCOFRADO Y DESENCOFRADO CARA VISTA LOSA	m2	180.42	86.71	15,644.22																								36,073.77
1033.C	ACERO DE REFUERZO	kg	14,375.85	4.28	61,527.78																								15,644.22
1033.D	FALSO PUENTE	m	12.55	1,273.21	15,978.79																								61,527.78
1034	LOSA DE TRANSICIÓN																												
1034.A	CONCRETO CLASE F (f'c=140 Kg/cm2)	m3	11.23	367.09	4,122.42																								15,978.79
1034.B	ENCOFRADO Y DESENCOFRADO	m2	7.47	53.36	398.60																								4,122.42
1034.C	ACERO DE REFUERZO	kg	3,658.68	4.28	15,659.15																								398.60
1034.D	CONCRETO CLASE C (f'c=280 Kg/cm2)	m3	29.55	474.53	14,022.36																								15,659.15
1035	VARIOS																												
1035.A	JUNTA DE DILATACION	m	31.28	290.49	9,086.53																								14,022.36
1035.B	APOYOS DE NEOPRENO ARMADO	dm3	26.25	50.61	1,328.51																								9,086.53
1035.C	COLOCACION DE TUBOS DE DRENAJE DE 4"	und	2.00	27.06	54.12																								1,328.51
1035.D	BRUÑA ROMPEAGUA	m	25.24	11.40	287.74																								54.12
1035.E	IMPERMEABILIZANTE DE PARAPETOS	m2	338.47	11.67	3,926.60																								287.74
1035.F	GEOCOMPUESTO DE DRENAJE	m2	54.43	71.36	3,884.12																								3,926.60
1035.G	MURO TIPO NEW JERSEY	m	35.10	334.96	11,757.10																								3,884.12
	<b>COSTO DIRECTO</b>				132,040,932.46	982,592.43	2,278,203.38	3,512,492.68	5,766,335.67	5,982,740.35	6,369,747.83	6,064,770.94	7,217,324.24	6,522,111.63	6,766,850.45	6,122,444.59	5,288,390.00	5,951,943.78	10,620,624.98	14,366,163.94	12,308,138.03	9,367,541.36	7,984,207.03	3					



CRONOGRAMA DE UTILIZACION DE MATERIALES

Item	Descripcion	Presupuestado \$/.	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11
1.00	ACCESORIOS	32,299.72	0.00	0.00	149.26	2,254.33	2,331.15	2,254.33	2,331.15	2,331.15	2,105.06	2,331.15	2,512.39
2.00	ACCESORIOS	7,510.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	174.21	137.95	0.00	2,073.69
3.00	ACERO CORRUGADO Fy=4200 Kg/cm2 GRADO 60	1,521,508.40	63.96	132.18	93.79	0.00	0.00	0.00	0.00	14,518.08	15,899.09	20,469.94	24,105.20
4.00	ACERO ESTRUCTURAL GRADO 50	28,782.72	0.00	0.00	0.00	0.00	0.00	17,273.32	11,509.41	0.00	0.00	0.00	0.00
5.00	ACETILENO	1,175.76	0.00	0.00	0.00	0.00	0.00	704.97	470.30	0.00	0.00	0.00	0.00
6.00	ADITIVO CURADOR DE CONCRETO	80,272.69	14.45	29.86	21.19	1,802.63	0.00	0.00	188.36	3,602.06	4,665.04	8,197.80	7,046.89
7.00	ADITIVO INCORPORADOR DE AIRE	34,261.54	6.23	12.88	9.14	777.05	0.00	0.00	84.50	1,544.68	2,010.61	3,533.58	3,021.34
8.00	ADITIVO MEJORADOR DE ADHERENCIA	7,146,733.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9.00	ALAMBRE NEGRO # 16	79,009.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	754.40	809.38	1,064.84	1,229.50
10.00	ALAMBRE NEGRO # 8	21,555.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,619.44	2,466.33	2,625.54	2,857.44
11.00	ALCANTARILLA TMC D=36"	919,646.87	0.00	0.00	0.00	0.00	39,636.78	237,820.68	245,729.64	245,729.64	150,730.12	0.00	0.00
12.00	ALCANTARILLA TMC D=48"	145,181.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	68,772.65	76,409.22	0.00
13.00	ANGULO DE ACERO 1"x3/8"x3/16"	410.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	125.92	0.00	173.13
14.00	ANGULO DE ACERO 4"x4"x1/2"x6m	8,965.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,747.51	0.00	3,777.67
15.00	ASFALTO DILUIDO MC-30	1,936,472.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16.00	BARRENO 7/8" X 5'	1,057,845.19	6,442.31	15,088.00	64,738.41	59,833.17	64,322.24	32,331.27	28,429.71	48,352.54	45,926.80	51,824.20	43,447.57
17.00	CABLE DE ACERO de 3/8"	122.18	0.00	0.00	0.00	0.00	0.00	0.00	61.09	0.00	61.09	0.00	0.00
18.00	CAL HIDRATADA	2,617,490.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19.00	CEMENTO ASFALTICO PEN 120/150	22,862,774.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.00	CEMENTO PORTLAND TIPO I (42.5 Kg)	3,390,644.36	563.32	1,164.17	826.08	70,480.11	0.00	0.00	7,641.46	144,503.01	185,691.83	325,886.37	283,994.25
21.00	CLAVO PARA ESTACADO	3,332.27	1,572.66	346.92	816.97	595.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.00	CLAVOS CON CABEZA PROMEDIO	26,543.86	3.33	6.88	4.89	0.00	0.00	0.00	55.21	3,212.66	3,005.81	3,220.16	3,589.11
23.00	COLORO	83.87	0.02	0.04	0.03	2.38	0.00	0.00	0.25	3.96	5.22	9.14	7.79
24.00	COLCHON ANTISOCAVANTE 5.0x2.0x0.3m (10x12/3.4)	22,730.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19,139.98
25.00	DESMOLDADOR PARA ENCOFRADO	330,330.07	0.00	0.00	0.00	0.00	0.00	0.00	95.33	41,319.69	38,578.54	41,546.37	44,847.27
26.00	DINAMITA	609,995.17	6,219.89	13,864.26	40,480.18	33,171.91	35,697.92	17,514.60	15,263.67	27,468.54	26,146.91	29,504.39	24,735.41
27.00	DISCO DE DESBASTE 1/4" X 7"	172.96	0.00	0.00	0.00	0.00	0.00	103.78	69.18	0.00	0.00	0.00	0.00
28.00	FIBRA DE VIDRIO DE 4 MM. ACABADO	25,978.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29.00	FULMINANTE	125,511.31	1,580.42	3,471.60	8,696.52	6,747.68	7,261.51	3,562.74	3,104.87	5,587.53	5,318.70	6,001.66	5,031.57
30.00	GEOCOMPUESTO DE DRENAJE	77,050.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,960.58	0.00	2,278.12
31.00	GEOTEXTIL NO TEJIDO CLASE 2	167,952.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	68,498.88	63,298.98	36,154.35	0.00
32.00	GRASAS, FILTROS, ETC.	8,789.38	1.05	2.15	1.53	832.52	0.00	0.00	14.13	225.52	297.80	520.46	442.81
33.00	GUARDAVIA (BARRERAS DE CONTENCIÓN)	17,573.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34.00	GUIA DE SEGURIDAD	134,740.08	1,696.63	3,726.87	9,335.97	7,243.83	7,795.45	3,824.71	3,333.17	5,998.38	5,709.78	6,442.96	5,401.54
35.00	IMPRIMANTE ASFALTICO (RC-250)	3,829.15	0.00	0.00	0.00	54.62	422.28	408.55	422.28	439.41	419.94	422.28	1,108.36
36.00	LAMINA REFLECTANTE A.I. AMARILLA	14,081.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37.00	LAMINA REFLECTANTE ALTA INTENSIDAD	37,512.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38.00	LIJA PARA CONCRETO	272.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39.00	MADERA TORNILLO	411,408.59	138.42	286.06	202.99	0.00	0.00	70.22	449.34	37,204.07	48,109.91	53,501.47	51,578.41
40.00	MANTENIMIENTO DE TRANSITO Y SEGURIDAD VIAL	1,558,007.44	70,889.39	73,226.41	73,226.41	70,889.39	73,226.41	70,889.39	73,226.41	73,226.41	66,066.42	73,226.41	70,889.39
41.00	MATERIA ORGANICA	102,262.19	0.00	0.00	0.00	0.00	0.00	4,756.40	11,343.68	5,488.32	0.00	0.00	0.00
42.00	MICROESFERAS DE VIDRIO	148,645.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43.00	MONITOREO DE CALIDAD DE AGUA EN OBRA	14,520.00	660.00	660.00	660.00	660.00	660.00	660.00	660.00	660.00	660.00	660.00	660.00
44.00	MONITOREO DE CALIDAD DE AIRE	71,016.00	3,231.23	3,337.75	3,337.75	3,231.23	3,337.75	3,231.23	3,337.75	3,337.75	3,011.08	3,337.75	3,231.23
45.00	NEOPRENO PARA APOYOS + INSERTOS METALICOS	4,021.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	882.00	0.00	0.00	882.00
46.00	NEOPRENO TIPO PANAL	5,507.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,688.02	0.00	2,320.93
47.00	OXIGENO	701.37	0.00	0.00	0.00	0.00	0.00	420.82	280.55	0.00	0.00	0.00	0.00





CRONOGRAMA DE UTILIZACION DE MATERIALES													
Item	Descripcion	Presupuestado \$/.	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11
48.00	PEGAMENTO EPOXICO UNIVERSAL	28,615.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49.00	PERFIL "T" 1 1/2" x 3/16"	10,577.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50.00	PERNO 1/2" x 7"	641.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	116.61	524.88	0.00
51.00	PERNO 3/4" x 9"	585.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	106.48	479.23	0.00
52.00	PERNOS 3/8" X 8" +2A+T	2,749.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53.00	PERNOS 5/8" X 14" +2A+T	242.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54.00	PERNOS, TUERCAS Y ARANDELAS	3,330.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55.00	PETROLEO DIESEL 2	3,429,963.56	11.87	24.53	17.40	1,539.52	0.00	0.00	161.01	2,569.74	3,393.33	5,930.39	5,045.70
56.00	PINTURA ANTICORROSIVA	1,810.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
57.00	PINTURA ANTICORROSIVA ZINC INORGANICO	552.58	0.00	0.00	0.00	0.00	0.00	0.00	552.52	0.00	0.00	0.00	0.00
58.00	PINTURA BITUMINOSA	56,400.43	0.00	0.00	0.00	804.44	6,219.81	6,017.58	6,219.81	6,472.17	6,185.40	6,219.81	16,325.35
59.00	PINTURA ESMALTE	4,828.65	114.99	237.65	168.62	0.00	0.00	0.00	204.01	0.00	0.00	0.00	460.15
60.00	PINTURA ESMALTE EPOXICA	4,832.77	0.00	0.00	0.00	0.00	0.00	0.00	4,833.73	0.00	0.00	0.00	0.00
61.00	PINTURA ESMALTE POLIURETANO	3,253.15	0.00	0.00	0.00	0.00	0.00	0.00	3,253.15	0.00	0.00	0.00	0.00
62.00	PINTURA IMPRIMANTE	1,769.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
63.00	PINTURA PARA TRAFICO	106,313.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
64.00	PLANCHA DE ACERO , ESP= 1/16"	105.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
65.00	PLANCHA DE FIERRO	467.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
66.00	PLANCHA TIPO TECNOPOR 1.2x2.4 e=1"	31.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.87	2.59	2.87	2.78
67.00	PLANCHA TIPO TECNOPOR DE 1.2 x 2.4m e=1cm	4,621.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	501.74	453.15	501.74	485.40
68.00	PLANCHA TIPO TECNOPOR DE 1.2x2.4x0.02	6,030.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	226.29
69.00	PLATINA 2" X 1/8"	1,759.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70.00	PLATINA DE FIERRO 3/16" X 3"	1,341.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
71.00	POSTE DE ACERO DE 1.80m x 6mm P/GUARDAVIA	13,880.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72.00	SELLANTE DE CAUCHO LIQUIDO O SIMILAR	140,113.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23,328.91	0.00	34,477.08
73.00	SELLANTE TERMOPLASTICO (SIKAFLEX 2C NS 6 SIM	72,036.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6,914.74	6,245.18	6,914.74	6,689.52
74.00	SEMILLA FORESTAL	41,808.95	0.00	0.00	0.00	0.00	0.00	1,944.65	4,637.84	2,243.91	0.00	0.00	0.00
75.00	SOLDADURA AWS E6011	7,153.49	0.00	0.00	0.00	0.00	0.00	2,263.05	1,508.70	0.00	695.76	0.00	92.31
76.00	SOLVENTE XIOL	5,550.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77.00	TACHAS DELINEADORAS BIDIRECCIONALES	69,682.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78.00	TERMINAL DE GUARDAVIA T-1	288.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79.00	TERMINAL DE GUARDAVIA T-2	392.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80.00	THINNER	181.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81.00	TINTA SERIGRAFICA	7,094.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82.00	TRIPLAY 4' x 8' x 19mm	268,904.63	85.59	176.87	125.51	0.00	0.00	0.00	71.15	29,277.65	27,634.29	28,956.92	32,052.51
83.00	TUBERIA PERFORADA PVC SAP 3"	4,470.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,470.16
84.00	TUBERIA PVC SAP 6" PERFORADA	8,492.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8,492.69
85.00	TUBERIA PVC SAP 8" PERFORADA	846,781.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	320,929.78	310,855.72	177,064.70	1,072.47
86.00	TUBERIA PVC SAP D=4"	573.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	38.24	0.00
87.00	TUBO DE ACERO 2"	217.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88.00	TUBO DE ACERO 3"	14,680.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
89.00	TUBO PVC-SAP AGUA D=3/8"	263.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL		50,988,623.13	93,295.74	115,795.10	202,912.63	260,920.51	240,911.29	406,052.26	429,543.34	1,106,594.92	1,125,444.49	973,523.56	720,275.39
% AVANCE			0.18%	0.23%	0.40%	0.51%	0.47%	0.80%	0.84%	2.17%	2.21%	1.91%	1.41%
% AVANCE ACUMULADO			0.18%	0.41%	0.81%	1.32%	1.79%	2.59%	3.43%	5.60%	7.81%	9.72%	11.13%



			CRONOGRAMA DE UTILIZACION DE MATERIALES											
Item	Descripcion	Presupuestado \$/.	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	TOTAL
1.00	ACCESORIOS	32,299.72	2,658.08	1,559.56	400.69	1,260.14	1,783.98	1,610.39	1,492.23	1,542.31	1,392.99	0.00	0.00	32,300.32
2.00	ACCESORIOS	7,510.96	5,124.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7,510.40
3.00	ACERO CORRUGADO Fy=4200 Kg/cm2 GRADO 60	1,521,508.40	115,530.94	186,162.00	153,903.57	142,629.65	138,046.73	216,031.60	165,875.92	165,555.17	121,208.63	29,609.51	11,672.43	1,521,508.40
4.00	ACERO ESTRUCTURAL GRADO 50	28,782.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28,782.72
5.00	ACETILENO	1,175.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,175.27
6.00	ADITIVO CURADOR DE CONCRETO	80,272.69	6,576.42	10,922.22	10,282.58	4,118.78	2,969.68	4,991.78	4,654.94	4,715.89	3,494.81	1,361.08	616.23	80,272.69
7.00	ADITIVO INCORPORADOR DE AIRE	34,261.54	2,807.27	4,624.57	4,344.03	1,759.61	1,280.13	2,104.94	1,986.92	2,018.74	1,492.44	582.78	263.41	34,264.85
8.00	ADITIVO MEJORADOR DE ADHERENCIA	7,146,733.74	0.00	84,331.47	2,606,414.29	2,606,805.75	1,849,182.23	0.00	0.00	0.00	0.00	0.00	0.00	7,146,733.74
9.00	ALAMBRE NEGRO # 16	79,009.72	5,989.59	9,673.56	7,998.47	7,411.48	7,173.35	11,225.67	8,619.43	8,613.94	6,312.15	1,527.42	606.53	79,009.72
10.00	ALAMBRE NEGRO # 8	21,555.35	1,815.22	675.27	601.14	562.72	613.06	3,759.96	1,163.83	537.45	789.81	404.83	57.35	21,549.40
11.00	ALCANTARILLA TMC D=36"	919,646.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	919,646.87
12.00	ALCANTARILLA TMC D=48"	145,181.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	145,181.87
13.00	ANGULO DE ACERO 1"x3/8"x3/16"	410.88	111.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	410.85
14.00	ANGULO DE ACERO 4"x4"x1/2"x6m	8,965.37	2,439.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8,964.73
15.00	ASFALTO DILUIDO MC-30	1,936,472.66	528,076.09	1,408,396.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,936,472.66
16.00	BARRENO 7/8" X 5'	1,057,845.19	40,979.77	48,358.69	52,087.93	96,546.49	83,673.75	71,278.48	68,170.69	70,074.16	62,062.39	2,712.31	1,164.33	1,057,845.19
17.00	CABLE DE ACERO de 3/8"	122.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	122.18
18.00	CAL HIDRATADA	2,617,490.64	0.00	23,295.66	724,521.41	724,521.41	701,225.75	443,926.41	0.00	0.00	0.00	0.00	0.00	2,617,490.64
19.00	CEMENTO ASFALTICO PEN 120/150	22,862,774.02	0.00	0.00	2,736,674.05	4,990,943.57	4,830,904.15	4,990,943.57	4,830,904.15	482,404.53	0.00	0.00	0.00	22,862,774.04
20.00	CEMENTO PORTLAND TIPO I (42.5 Kg)	3,390,644.36	277,028.22	470,803.98	437,092.96	166,519.21	117,849.96	221,089.59	212,196.78	217,856.88	157,930.18	62,491.23	29,034.77	3,390,644.36
21.00	CLAVO PARA ESTACADO	3,332.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3,332.27
22.00	CLAVOS CON CABEZA PROMEDIO	26,543.86	2,205.28	828.21	737.29	690.17	751.90	4,611.48	1,427.41	659.17	968.68	496.52	70.33	26,544.49
23.00	COLORO	83.87	6.87	10.96	10.46	4.49	3.32	4.97	4.42	4.37	3.33	1.30	0.56	83.88
24.00	COLCHON ANTISOCAVANTE 5.0x2.0x0.3m (10x12/3.4)	22,730.66	3,588.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22,728.87
25.00	DESMOLDADOR PARA ENCOFRADO	330,330.07	28,108.11	10,067.72	8,576.83	7,777.49	8,429.56	57,250.60	17,005.75	7,385.17	12,028.31	6,405.93	907.39	330,330.07
26.00	DINAMITA	609,995.17	23,330.43	27,531.42	29,654.52	54,965.54	47,636.89	40,574.93	38,805.72	39,891.58	35,283.44	1,539.78	713.25	609,995.17
27.00	DISCO DE DESBASTE 1/4" X 7"	172.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	172.96
28.00	FIBRA DE VIDRIO DE 4 MM. ACABADO	25,978.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.90	480.86	7,929.45	17,550.28	25,978.50
29.00	FULMINANTE	125,511.31	4,745.78	5,600.33	6,032.19	11,180.85	9,690.08	8,253.57	7,893.69	8,124.74	7,177.21	313.22	134.84	125,511.31
30.00	GEOCOMPUESTO DE DRENAJE	77,050.30	72,811.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	77,050.14
31.00	GEOTEXTIL NO TEJIDO CLASE 2	167,952.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	167,952.21
32.00	GRASAS, FILTROS, ETC.	8,789.38	1,587.02	2,137.23	1,204.24	254.92	188.86	282.58	251.78	249.87	189.97	73.71	31.73	8,789.86
33.00	GUARDAVIA (BARRERAS DE CONTENCIÓN)	17,573.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5,857.43	11,716.61	0.00	17,574.03
34.00	GUIA DE SEGURIDAD	134,740.08	5,094.73	6,012.11	6,475.74	12,002.98	10,402.59	8,860.45	8,485.04	8,711.22	7,704.94	336.25	144.75	134,740.08
35.00	IMPRIMANTE ASFALTICO (RC-250)	3,829.15	131.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3,829.16
36.00	LAMINA REFLECTANTE A.I. AMARILLA	14,081.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	973.15	12,239.78	868.41	14,081.35
37.00	LAMINA REFLECTANTE ALTA INTENSIDAD	37,512.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31.06	35.49	0.00	37,446.00	37,512.54
38.00	LIJA PARA CONCRETO	272.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	18.79	199.89	53.00	272.25
39.00	MADERA TORNILLO	411,408.59	40,025.66	12,835.65	14,694.16	14,095.58	15,598.22	64,841.06	24,042.13	13,701.10	13,607.35	5,638.29	788.51	411,408.59
40.00	MANTENIMIENTO DE TRANSITO Y SEGURIDAD VIAL	1,558,007.44	73,226.41	69,946.57	73,226.41	73,226.41	70,889.39	73,226.41	70,889.39	73,226.41	73,226.41	66,059.56	51,881.68	1,558,007.44
41.00	MATERIA ORGANICA	102,262.19	0.00	0.00	0.00	5,945.49	11,148.81	11,527.97	11,148.81	11,527.97	11,527.97	10,406.63	7,437.92	102,259.96
42.00	MICROESFERAS DE VIDRIO	148,645.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	57,808.36	90,837.47	148,645.83
43.00	MONITOREO DE CALIDAD DE AGUA EN OBRA	14,520.00	660.00	660.00	660.00	660.00	660.00	660.00	660.00	660.00	660.00	660.00	660.00	14,520.00
44.00	MONITOREO DE CALIDAD DE AIRE	71,016.00	3,337.75	3,231.23	3,337.75	3,337.75	3,231.23	3,337.75	3,231.23	3,337.75	3,337.75	3,011.08	2,322.23	71,016.00
45.00	NEOPRENO PARA APOYOS + INSERTOS METALICOS	4,021.92	2,257.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,021.93
46.00	NEOPRENO TIPO PANAL	5,507.87	1,498.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5,507.77
47.00	OXIGENO	701.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	701.37

CONSORCIO VIAL SUR ANDINO  
 Ing. Carlos F. Torres Milla  
 Responsable de Estudios y Presupuestos

CONSORCIO VIAL SUR ANDINO  
 Ing. Pedro F. Cano Loyola  
 Responsable de Proyecto  
 CIP 60378





			CRONOGRAMA DE UTILIZACION DE MATERIALES											
Item	Descripcion	Presupuestado \$/.	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	TOTAL
48.00	PEGAMENTO EPOXICO UNIVERSAL	28,615.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3,252.24	14,806.20	10,556.24	28,614.68
49.00	PERFIL "T" 1 1/2" x 3/16"	10,577.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10,577.45	10,577.45
50.00	PERNO 1/2" x 7"	641.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	641.49
51.00	PERNO 3/4" x 9"	585.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	585.72
52.00	PERNOS 3/8" X 8" +2A+T	2,749.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	75.00	797.52	1,874.37	2,746.90
53.00	PERNOS 5/8" X 14" +2A+T	242.64	0.00	0.00	0.00	0.00	0.00	95.55	93.86	53.19	0.00	0.00	0.00	242.60
54.00	PERNOS, TUERCAS Y ARANDELAS	3,330.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,110.25	2,220.83	0.00	3,331.08
55.00	PETROLEO DIESEL 2	3,429,963.56	4,458.16	7,115.26	43,586.09	574,723.10	555,404.88	575,038.24	556,121.74	574,665.56	518,955.80	839.74	361.50	3,429,963.56
56.00	PINTURA ANTICORROSIVA	1,810.20	0.00	0.00	0.00	0.00	0.00	712.97	700.32	396.91	0.00	0.00	0.00	1,810.20
57.00	PINTURA ANTICORROSIVA ZINC INORGANICO	552.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	552.52
58.00	PINTURA BITUMINOSA	56,400.43	1,936.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	56,400.54
59.00	PINTURA ESMALTE	4,828.65	0.00	0.00	0.00	0.00	0.00	459.30	451.15	256.07	354.80	1,495.48	626.32	4,828.54
60.00	PINTURA ESMALTE EPOXICA	4,832.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,833.73
61.00	PINTURA ESMALTE POLIURETANO	3,253.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3,253.15
62.00	PINTURA IMPRIMANTE	1,769.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	316.03	1,218.06	235.56	1,769.79
63.00	PINTURA PARA TRAFICO	106,313.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.89	41,401.00	64,881.36	106,313.25
64.00	PLANCHA DE ACERO , ESP= 1/16"	105.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	78.81	26.27	0.00	105.08
65.00	PLANCHA DE FIERRO	467.50	0.00	0.00	0.00	0.00	0.00	184.13	180.86	102.50	0.00	0.00	0.00	467.49
66.00	PLANCHA TIPO TECNOPOR 1.2x2.4 e=1"	31.81	2.87	2.78	2.87	2.87	2.78	0.98	0.89	1.36	1.36	1.23	0.74	31.82
67.00	PLANCHA TIPO TECNOPOR DE 1.2 x 2.4m e=1cm	4,621.31	501.74	485.40	501.74	501.74	485.40	171.43	33.19	0.00	0.00	0.00	0.00	4,622.64
68.00	PLANCHA TIPO TECNOPOR DE 1.2x2.4x0.02	6,030.88	0.00	245.27	2,737.02	0.00	0.00	0.00	0.00	0.00	2,822.31	0.00	0.00	6,030.88
69.00	PLATINA 2" X 1/8"	1,759.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.48	110.12	1,343.36	304.45	1,759.49
70.00	PLATINA DE FIERRO 3/16" X 3"	1,341.20	0.00	0.00	0.00	0.00	0.00	528.25	518.87	294.07	0.00	0.00	0.00	1,341.19
71.00	POSTE DE ACERO DE 1.80m x 6mm P/GUARDAVIA	13,880.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,626.35	9,254.09	0.00	13,880.44
72.00	SELLANTE DE CAUCHO LIQUIDO O SIMILAR	140,113.00	20,714.13	2,602.59	29,044.44	0.00	0.00	0.00	0.00	0.00	29,948.77	0.00	0.00	140,115.92
73.00	SELLANTE TERMOPLASTICO (SIKAFLEX 2C NS ó SIM	72,036.50	6,914.74	6,689.52	6,914.74	6,914.74	6,689.52	2,365.46	1,543.54	2,102.74	2,102.74	1,899.14	1,135.47	72,036.50
74.00	SEMILLA FORESTAL	41,808.95	0.00	0.00	0.00	2,430.81	4,558.13	4,713.14	4,558.13	4,713.14	4,713.14	4,254.64	3,040.86	41,808.37
75.00	SOLDADURA AWS E6011	7,153.49	59.62	0.00	0.00	0.00	0.00	890.87	875.05	496.43	13.83	146.26	111.57	7,153.46
76.00	SOLVENTE XILOL	5,550.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	71.51	2,306.28	3,172.23	5,550.17
77.00	TACHAS DELINEADORAS BIDIRECCIONALES	69,682.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7,741.68	36,130.16	25,810.25	69,682.09
78.00	TERMINAL DE GUARDAVIA T-1	288.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	95.87	191.76	0.00	287.63
79.00	TERMINAL DE GUARDAVIA T-2	392.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	130.52	261.07	0.00	391.59
80.00	THINNER	181.33	0.00	0.00	0.00	0.00	0.00	71.41	70.14	39.75	0.00	0.00	0.00	181.30
81.00	TINTA SERIGRAFICA	7,094.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.50	339.91	5,833.09	923.42	7,098.92
82.00	TRIPLAY 4' x 8' x 19mm	268,904.63	21,399.78	9,293.11	9,996.53	9,572.87	10,559.21	48,178.50	17,049.44	9,271.26	10,113.27	4,464.79	625.38	268,904.63
83.00	TUBERIA PERFORADA PVC SAP 3"	4,470.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,470.16
84.00	TUBERIA PVC SAP 6" PERFORADA	8,492.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8,492.69
85.00	TUBERIA PVC SAP 8" PERFORADA	846,781.69	36,859.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	846,781.69
86.00	TUBERIA PVC SAP D=4"	573.60	38.24	0.00	38.24	0.00	0.00	0.00	0.00	0.00	458.89	0.00	0.00	573.62
87.00	TUBO DE ACERO 2"	217.06	0.00	0.00	0.00	0.00	0.00	217.11	0.00	0.00	0.00	0.00	0.00	217.11
88.00	TUBO DE ACERO 3"	14,680.85	0.00	0.00	0.00	0.00	0.00	5,602.24	5,794.56	3,284.12	0.00	0.00	0.00	14,680.93
89.00	TUBO PVC-SAP AGUA D=3/8"	263.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	34.30	228.77	0.00	263.07
<b>TOTAL</b>		<b>50,988,623.13</b>	<b>1,344,638.51</b>	<b>2,414,098.89</b>	<b>6,971,752.37</b>	<b>9,521,366.62</b>	<b>8,491,033.52</b>	<b>6,879,623.75</b>	<b>6,066,902.01</b>	<b>1,716,529.33</b>	<b>1,115,262.82</b>	<b>412,645.24</b>	<b>379,500.59</b>	<b>50,988,622.89</b>
% AVANCE			2.64%	4.73%	13.67%	18.67%	16.65%	13.49%	11.90%	3.37%	2.19%	0.81%	0.74%	100.00%
% AVANCE ACUMULADO			13.77%	18.50%	32.17%	50.84%	67.49%	80.98%	92.88%	96.25%	98.44%	99.25%	99.99%	100.00%



CRONOGRAMA DE UTILIZACION DE MANO DE OBRA

Item	Descripción	Presupuestado S/.	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11
1.00	CAPATAZ	1,526,304.59	13,566.35	36,892.77	46,373.90	62,239.23	67,132.26	87,165.66	97,273.18	146,090.16	136,424.00	130,463.59	108,981.00
2.00	OPERARIO	1,281,059.45	2,079.85	6,050.60	9,798.79	24,002.25	24,263.62	23,026.00	27,155.69	73,721.33	76,829.08	93,165.08	97,440.24
3.00	OFICIAL	1,795,995.01	14,073.12	40,100.32	55,226.61	64,235.02	59,843.95	58,864.92	55,571.21	126,666.04	119,903.59	134,984.46	127,380.47
4.00	PEON	8,916,270.34	89,422.42	208,251.03	261,460.09	334,697.46	351,125.94	426,016.22	468,004.60	890,948.90	824,921.68	782,875.86	631,973.69
5.00	BONIFICACION POR TRABAJOS BAJO EL AQ	12,326.32	-	-	-	1,484.60	-	-	29.96	-	-	-	67.49
6.00	AYUDANTE DE TOPOGRAFIA	19,834.42	4,223.88	8,729.22	6,194.13	-	-	-	315.85	-	-	-	371.38
7.00	AYUDANTE DE NIVELADOR	19,834.42	4,223.88	8,708.87	6,194.13	-	-	-	315.85	-	-	-	371.38
8.00	NIVELADOR	8,421.35	1,763.07	3,643.61	2,585.45	-	-	-	131.84	-	-	-	297.38
9.00	TECNICO SOLDADOR	2,010.71	-	-	-	-	-	723.86	482.57	-	804.28	-	-
10.00	TOPOGRAFO	10,950.61	2,292.58	4,737.93	3,361.96	-	-	-	171.43	-	-	-	386.68
11.00	TECNICO CALDERERO	653.65	-	-	-	-	-	-	392.19	261.46	-	-	-
12.00	TECNICO (C. CALIDAD)	1,089.43	-	-	-	-	-	-	392.19	261.46	435.78	-	-
13.00	CORTADOR	1,206.43	-	-	-	-	-	723.86	482.57	-	-	-	-
	<b>TOTAL</b>	<b>13,595,956.73</b>	<b>131,645.14</b>	<b>317,114.35</b>	<b>391,195.08</b>	<b>486,658.56</b>	<b>502,365.77</b>	<b>596,520.50</b>	<b>650,719.13</b>	<b>1,237,949.34</b>	<b>1,159,318.41</b>	<b>1,141,488.99</b>	<b>967,269.70</b>
	% AVANCE		0.97%	2.33%	2.88%	3.58%	3.69%	4.39%	4.79%	9.11%	8.53%	8.40%	7.11%
	% AVANCE ACUMULADO		0.97%	3.30%	6.18%	9.76%	13.45%	17.84%	22.63%	31.74%	40.27%	48.67%	55.78%



CRONOGRAMA DE UTILIZACION DE MANO DE OBRA														
Item	Descripcion	Presupuestado S/.	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	TOTAL
1.00	CAPATAZ	1,526,304.59	77,930.26	71,951.00	73,963.51	85,959.60	66,343.83	57,841.11	44,847.85	47,210.77	42,618.52	14,732.67	10,075.96	1,526,077.17
2.00	OPERARIO	1,281,059.45	86,203.45	87,786.69	78,973.38	67,887.28	63,939.90	130,859.97	89,283.98	79,466.71	72,829.90	43,615.09	22,750.67	1,281,129.54
3.00	OFICIAL	1,795,995.01	110,919.46	115,350.86	105,427.92	109,584.19	96,878.35	136,023.54	86,608.98	78,535.73	67,681.81	21,485.98	10,703.68	1,796,050.18
4.00	PEON	8,916,270.34	433,418.17	397,007.13	399,118.81	492,812.77	452,926.43	438,233.79	289,741.37	279,168.89	263,344.27	126,721.18	74,362.68	8,916,553.39
5.00	BONIFICACION POR TRABAJOS BAJO EL AC	12,326.32	4,118.01	5,014.05	1,602.39	-	-	-	-	-	-	-	-	12,316.50
6.00	AYUDANTE DE TOPOGRAFIA	19,834.42	-	-	-	-	-	-	-	-	-	-	-	19,834.45
7.00	AYUDANTE DE NIVELADOR	19,834.42	-	-	-	-	-	-	-	-	-	-	-	19,814.11
8.00	NIVELADOR	8,421.35	-	-	-	-	-	-	-	-	-	-	-	8,421.35
9.00	TECNICO SOLDADOR	2,010.71	-	-	-	-	-	-	-	-	-	-	-	2,010.70
10.00	TOPOGRAFO	10,950.61	-	-	-	-	-	-	-	-	-	-	-	10,950.58
11.00	TECNICO CALDERERO	653.65	-	-	-	-	-	-	-	-	-	-	-	653.65
12.00	TECNICO (C. CALIDAD)	1,089.43	-	-	-	-	-	-	-	-	-	-	-	1,089.44
13.00	CORTADOR	1,206.43	-	-	-	-	-	-	-	-	-	-	-	1,206.43
TOTAL		13,595,956.73	712,589.34	677,109.71	659,086.00	756,243.85	680,088.50	762,958.41	510,482.19	484,382.10	446,474.51	206,554.92	117,893.00	13,596,107.49
% AVANCE			5.24%	4.98%	4.85%	5.56%	5.00%	5.61%	3.75%	3.56%	3.28%	1.52%	0.87%	100.00%
% AVANCE ACUMULADO			61.02%	66.00%	70.85%	76.41%	81.41%	87.02%	90.77%	94.33%	97.61%	99.13%	100.00%	100.00%



CONSORCIO VIAL SUR ANDINO  
 Ing. Juan Carlos Flores Nilla  
 Director General

CONSORCIO VIAL SUR ANDINO  
 Ing. Pedro F. Cano Loyola  
 Director de Proyecto  
 OP 53375



ESTUDIO DEFINITIVO PARA LA REHAB. Y MEJORAMIENTO DE LA CARRETERA DV. IMATA - OSCOLLO - NEGROMAYO (KM. 00+000 - KM. 67+950)

CRONOGRAMA DE UTILIZACION DE EQUIPO														
Item	Descripcion	Cantidad	P. Unit.	Presupuesto S/.	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10
1.00	ANDAMIO	404.19	0.48	194.01										
2.00	CAMION CISTERNA 4X2 (AGUA) 2,000 GAL.	7,916.06	128.96	1,020,855.59	1	1	1	3	4	4	5	5	5	5
3.00	CAMION IMPRIMADOR 6x2 178-210HP 2000 GLS.	1,030.10	134.15	138,188.26										
4.00	CAMION VOLQUETE 6X4, 15 M3	93,597.52	258.04	24,151,904.89		17	22	30	30	30	30	30	30	30
5.00	CAMIONETA PICK UP 4X2 84 HP	340.50	47.11	16,041.12										
6.00	CARGADOR SOBRE LLANTAS 125-155 HP 3.0 YD3	67,073.61	170.08	11,407,879.84	13	13	13	13	13	13	13	13	13	13
7.00	CHANCAD. PRIM.SECUND. 5 FAJAS 75HP 46-70 TON	6,481.32	126.36	818,979.29	1	1	1	1	1	1	1	2	2	2
8.00	CHANCADORA TERCIARIA 60 TON/HORA	1,714.41	360.00	617,187.31				1	1	1	1	1	1	1
9.00	COMPACTADOR VIBRATORIO TIPO PLANCHA 7 HP	19,040.68	22.95	436,983.59					5	5	5	5	5	5
10.00	COMPRESORA NEUMATICA 196 HP, 600-690 PCM	4,691.92	170.75	801,144.91	1	1	1	1	2	2	2	2	1	1
11.00	COMPRESORA NEUMATICA 250-330 PCM, 87 HP	1,277.46	77.01	98,377.16			1	1	1	1	1	1		
12.00	CORTADORA DE PAVIMENTO	4.12	4.71	19.39										
13.00	EQUIPO DE ARENADO	14.44	25.00	360.88										
14.00	EQUIPO DE CORTE	71.87	2.51	180.40						1	1		1	
15.00	EQUIPO DE PINTAR AIRLESS	43.31	21.54	932.80										
16.00	ESTACION TOTAL CON TRES PRISMAS	570.94	15.00	8,564.08	1	1	1				1			
17.00	EXCAVADORA SOBRE ORUGA 115 - 165 HP	21,631.43	214.42	4,638,210.60	5	5	5	5	5	5	5	5	5	5
18.00	FAJA TRANSPORTADORA DE 18" X 40'	19,360.87	5.64	109,195.30		1	1	4	4	6	6	7	7	7
19.00	GATAS HIDRAULICA DE 20 TN.	113.60	10.00	1,136.00						1	1		1	
20.00	GRUA HIAB S/CAMION DE 5 TON.	168.50	128.00	21,568.51							1		1	
21.00	GRUPO ELECTROGENO DE 116 HP 75 KW.	4,171.89	139.38	581,478.13									1	
22.00	GRUPO ELECTROGENO DE 140 HP 90 KW.	18,537.49	154.57	2,865,339.30		1	1	5	5	7	7	8	7	8
23.00	GRUPO ELECTROGENO DE 230HP, 150 KW.	3,796.64	172.83	656,173.83										
24.00	HERRAMIENTAS MANUALES			631,332.81										
25.00	LAVADORA DE AGREGADOS	891.03	75.00	66,826.99			1	1	1	1	1	1	1	1
26.00	MAQUINA PARA PINTAR MARCAS EN PAVIMENTO	284.27	21.54	6,123.22										
27.00	MARTILLO NEUMATICO 29 Kg.	19,249.05	3.89	74,878.80	2	3	3	3	8	8	8	8	4	4
28.00	MEZCLADORA DE CONCRETO 18HP 11-12P3	7,519.01	9.56	71,881.71	1	1	1	1	1	2	2	2	2	2
29.00	MINICARGADOR 70 HP	1,103.38	65.42	72,183.08										
30.00	MONITOREO DE RUIDOS	160.00	25.00	4,000.00	7	7	7	8	7	7	7	8	7	7
31.00	MONTACARGAS 80 HP 5TON	34.08	25.33	863.25						1	1			
32.00	MOTOBOMBA 34 HP D=8"	6,661.61	63.79	424,943.90				1	3	2	2	2	2	2
33.00	MOTONIVELADORA DE 145-150 HP	12,047.68	187.97	2,264,602.39		3	3	3	3	3	3	3	3	3
34.00	MOTOSOLDADORA DE 250 AMP.	73.84	15.00	1,107.60							1		1	
35.00	MOVILIZACION Y DESMOV.DE EQUIPOS	1.00	1,798,291.85	1,798,291.85	1	1	1	1	1	1	1	1	1	1
36.00	NIVEL TOPOGRAFICO	570.94	3.18	1,815.59	1	1	1				1			
37.00	PAVIMENTADORA DE 69 HP	1,601.61	128.73	206,175.45										
38.00	PLANTA DE ASFALTO EN CALIENTE 60-115 TON/HR	2,082.23	478.50	996,348.92										
39.00	RETROEXCAVADORA S/LLANTAS 58 HP	2,988.21	98.42	294,099.50			1	1	1	1	1	1	1	1
40.00	RODILLO LISO VIBRAT.MANUAL 10.8 hp	2,525.87	30.87	77,973.62								2	2	2
41.00	RODILLO LISO VIBRATORIO AUTOPROPULSADO 101-135HP 10-12T	12,323.46	146.08	1,800,210.44		2	3	3	3	3	3	3	3	3
42.00	RODILLO NEUMATICO 135 HP 9-20 ton	1,601.61	125.18	200,489.73										
43.00	RODILLO TANDEM de 111-130 HP 9 A 11 TN.	1,601.61	130.00	208,209.50										
44.00	SOLDADORA ELECTRICA TRIFASICA DE 400A	865.46	10.77	9,320.98							1		1	
45.00	TECLE DE 5 TON.	113.60	8.75	994.00							2		2	
46.00	TIRFOR DE 5 TON.	45.44	5.00	227.20							1		1	
47.00	TRACTOR DE TIRO DE 80 HP	4,812.96	67.41	324,441.83										
48.00	TRACTOR SOBRE ORUGA DE 140-160 HP	21,214.48	243.06	5,156,390.46	5	5	5	5	5	5	5	5	5	5
49.00	TRACTOR SOBRE ORUGA DE 190-240 HP	12,070.16	289.79	3,497,812.22		4	4	4	4	4	4	4	4	4
50.00	VIBRADOR DE CONCRETO 4 HP 2.40"	7,519.01	5.38	40,452.26	1	1	1	1	1	2	2	2	2	2
51.00	ZARANDA ESTATICA	35,428.40	3.92	138,879.34	7	7	7	7	7	7	7	7	7	7
52.00	ZARANDA VIBRATORIA 4" X 6" X 14	12,879.55	49.86	642,174.45			1	5	5	5	5	5	5	5

CONSORCIO VIAL SUR ANDINO

*P. J. - J.*  
 Ing. Pedro F. Cano Loyola  
 Jefe de Proyecto  
 CIP 6227/9

CONSORCIO VIAL SUR ANDINO

*CF*  
 Ing. Carolina Flores Milla  
 Jefe de Proyecto  
 CIP 6227/9

ESTUDIO DEFINITIVO PARA LA REHAB. Y MEJORAMIENTO DE LA CARRETERA

Item	Descripción	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22
1.00	ANDAMIO	2	2										
2.00	CAMION CISTERNA 4X2 (AGUA) 2,000 GAL.	5	5	5	5	5	5	2	2	2	2	2	2
3.00	CAMION IMPRIMADOR 6x2 178-210HP 2000 GLS.				1	1	1	1	1	1	1		
4.00	CAMION VOLQUETE 6X4, 15 M3	30	30	30	30	30	30	8	8	8	6	5	3
5.00	CAMIONETA PICK UP 4X2 84 HP									1	1	1	1
6.00	CARGADOR SOBRE LLANTAS 125-155 HP 3.0 YD3	13	13	13	13	13	13	13	13	2	2	2	1
7.00	CHANCAD. PRIM.SECUND. 5 FAJAS 75HP 46-70 TON	2	2	2	2	2	2	2	1	1	1	1	1
8.00	CHANCADORA TERCIARIA 60 TON/HORA	1	1	1	1								
9.00	COMPACTADOR VIBRATORIO TIPO PLANCHA 7 HP	5	5	5	5	5	5	5	5	5	5		
10.00	COMPRESORA NEUMATICA 196 HP, 600-690 PCM	1	1	1	1	1	1	1	1	1			
11.00	COMPRESORA NEUMATICA 250-330 PCM, 87 HP												
12.00	CORTADORA DE PAVIMENTO										1	1	
13.00	EQUIPO DE ARENADO												
14.00	EQUIPO DE CORTE	1	1										
15.00	EQUIPO DE PINTAR AIRLESS												
16.00	ESTACION TOTAL CON TRES PRISMAS	1											
17.00	EXCAVADORA SOBRE ORUGA 115 - 165 HP	5	5	5	5	5	5	5	5	5	5	5	
18.00	FAJA TRANSPORTADORA DE 18" X 40'	7	7	7	8	10	7	6	6	6			
19.00	GATAS HIDRAULICA DE 20 TN.												
20.00	GRUA HIAB S/CAMION DE 5 TON.												1
21.00	GRUPO ELECTROGENO DE 116 HP 75 KW.	2	2	1	2	2	2	2	2	2	2		
22.00	GRUPO ELECTROGENO DE 140 HP 90 KW.	8	8	8	8	11	8	7	6	6	6		
23.00	GRUPO ELECTROGENO DE 230HP, 150 KW.		1	1	1	1	1	1	1	1	1	1	1
24.00	HERRAMIENTAS MANUALES												
25.00	LAVADORA DE AGREGADOS	1	1	1									
26.00	MAQUINA PARA PINTAR MARCAS EN PAVIMENTO											1	1
27.00	MARTILLO NEUMATICO 29 Kg.	4	4	4	4	4	4	4	4	4	4	4	4
28.00	MEZCLADORA DE CONCRETO 18HP 11-12P3	2	2	2	2	2	2	2	2	2	2	1	1
29.00	MINICARGADOR 70 HP			1	1	1	1	1			1		
30.00	MONITOREO DE RUIDOS	7	8	7	7	7	8	7	7	7	8	7	8
31.00	MONTACARGAS 80 HP 5TON												
32.00	MOTOBOMBA 34 HP D=8"	2	3	3	2	2	2	2	2				
33.00	MOTONIVELADORA DE 145-150 HP	3	3	3	3	3	3	3	3	3	3	1	1
34.00	MOTOSOLDADORA DE 250 AMP.												
35.00	MOVILIZACION Y DESMOV.DE EQUIPOS	1	1	1	1	1	1	1	1	1	1	1	1
36.00	NIVEL TOPOGRAFICO	1											
37.00	PAVIMENTADORA DE 69 HP				1	1	1	1	1	1	1		
38.00	PLANTA DE ASFALTO EN CALIENTE 60-115 TON/HR				1	1	1	1	1	1	1		
39.00	RETROEXCAVADORA S/LLANTAS 58 HP	1	1	1	1	1	1	1	1	1			
40.00	RODILLO LISO VIBRAT.MANUAL 10.8 hp	2	2			1	1	1					
41.00	RODILLO LISO VIBRATORIO AUTOPROPULSADO 101-135HP 10-12T	3	3	3	3	3	3	3	3	3	3	3	3
42.00	RODILLO NEUMATICO 135 HP 9-20 ton				1	1	1	1	1	1	1		
43.00	RODILLO TANDEM de 111-130 HP 9 A 11 TN.				1	1	1	1	1	1	1		
44.00	SOLDADORA ELECTRICA TRIFASICA DE 400A	1	1									1	1
45.00	TECLE DE 5 TON.												
46.00	TIRFOR DE 5 TON.												
47.00	TRACTOR DE TIRO DE 80 HP				1	1	1	1	1	2	2	2	2
48.00	TRACTOR SOBRE ORUGA DE 140-160 HP	5	5	5	5	5	5	5	5	5	5	3	3
49.00	TRACTOR SOBRE ORUGA DE 190-240 HP	4	3	3	2	2	2	2	2	2	2		
50.00	VIBRADOR DE CONCRETO 4 HP 2.40"	2	2	2	2	2	2	2	2	2	2	1	1
51.00	ZARANDA ESTATICA	7	7	7	7	7	7	7	7	7	7	7	
52.00	ZARANDA VIBRATORIA 4" X 6" X 14	5	5	5	5	5	5	3	3	3	3		

CONSORCIO VIAL SUR ANDINO

*[Firma]*  
 Ing. Pedro F. Cano Loyola  
 Jefe de Proyecto  
 CIP 83375

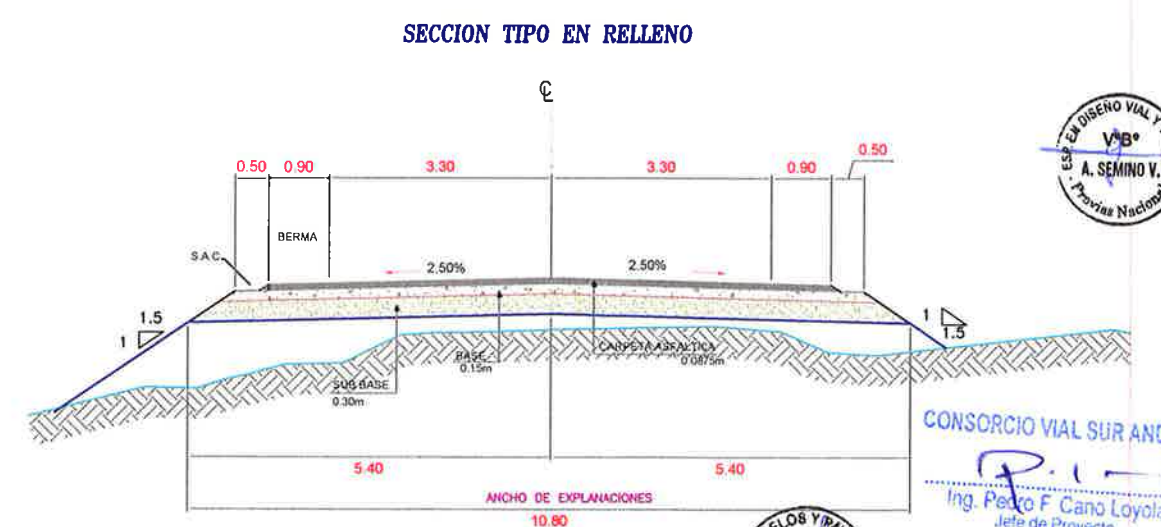
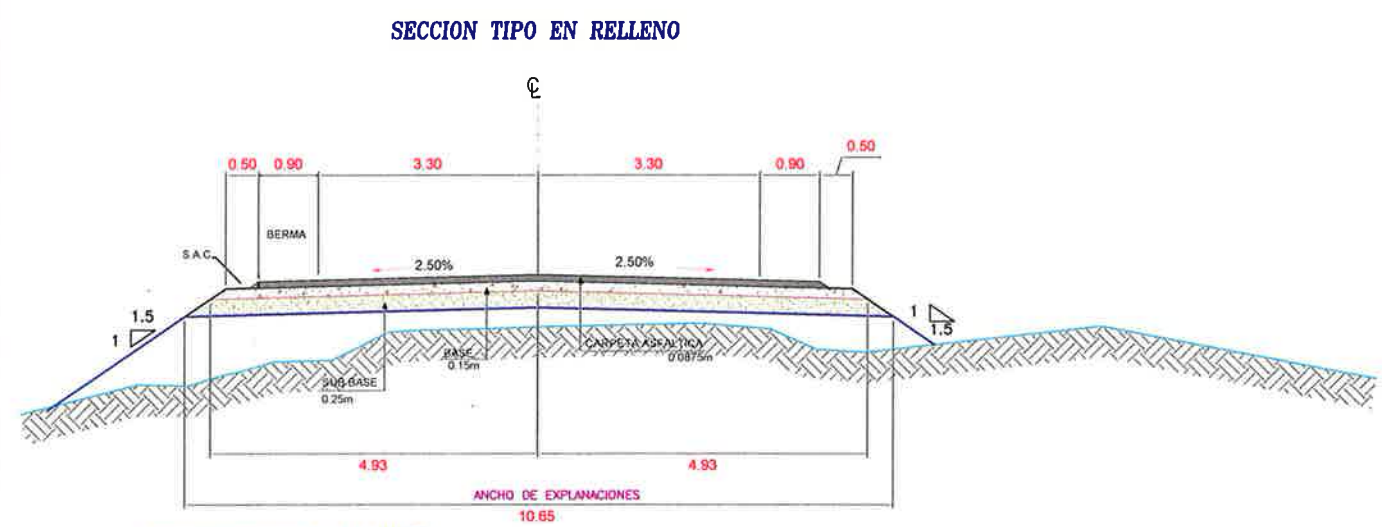
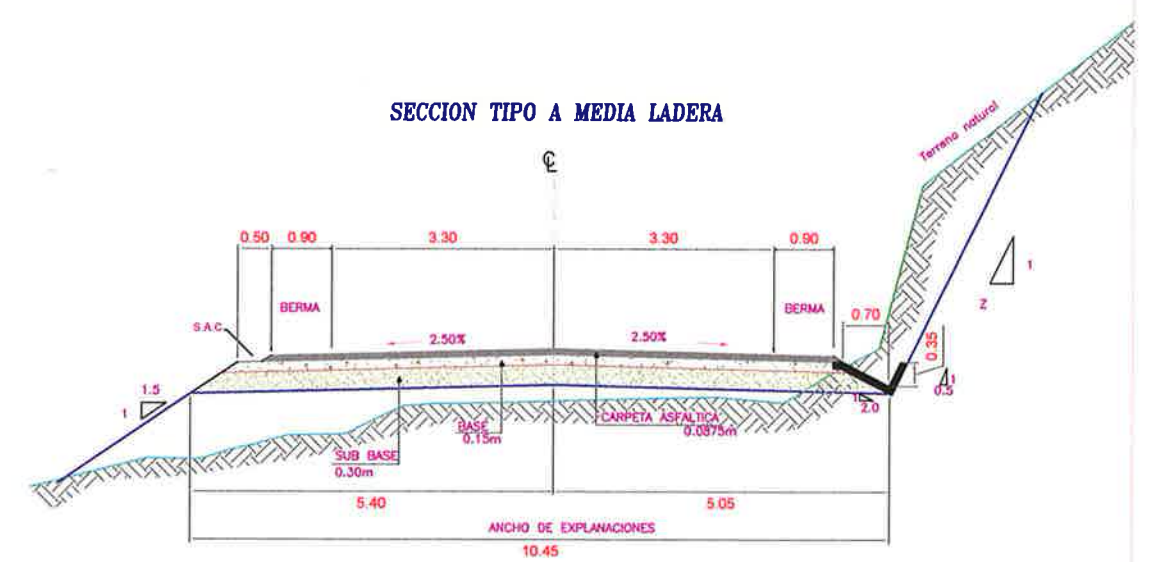
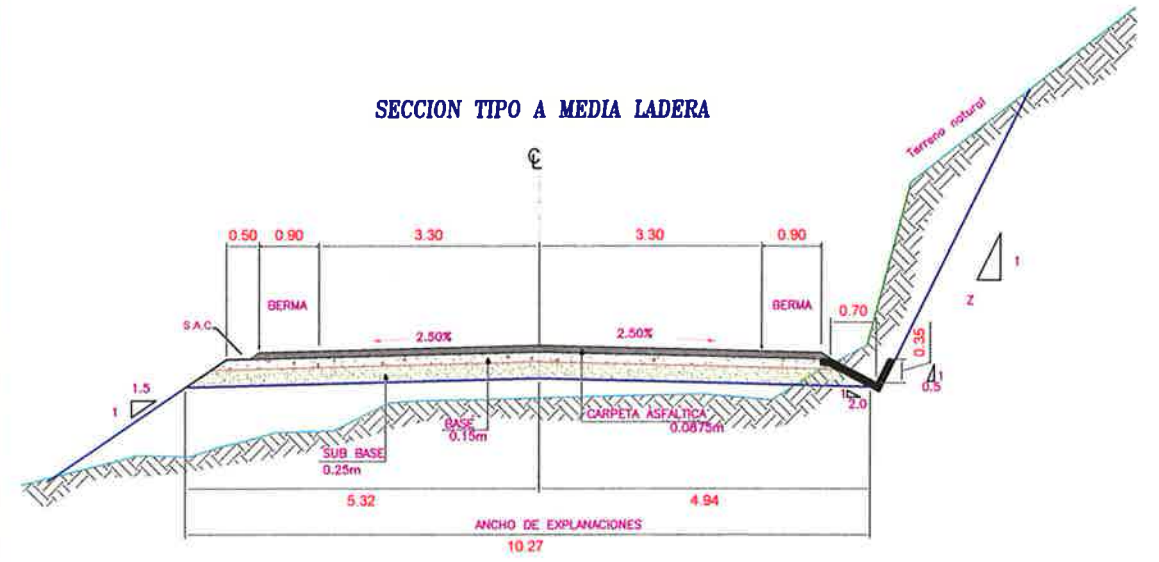
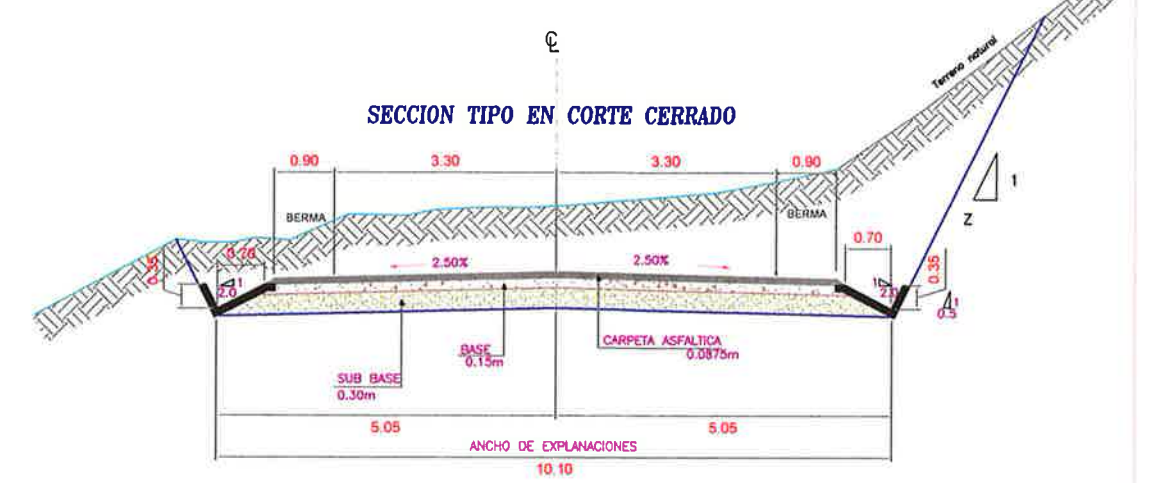
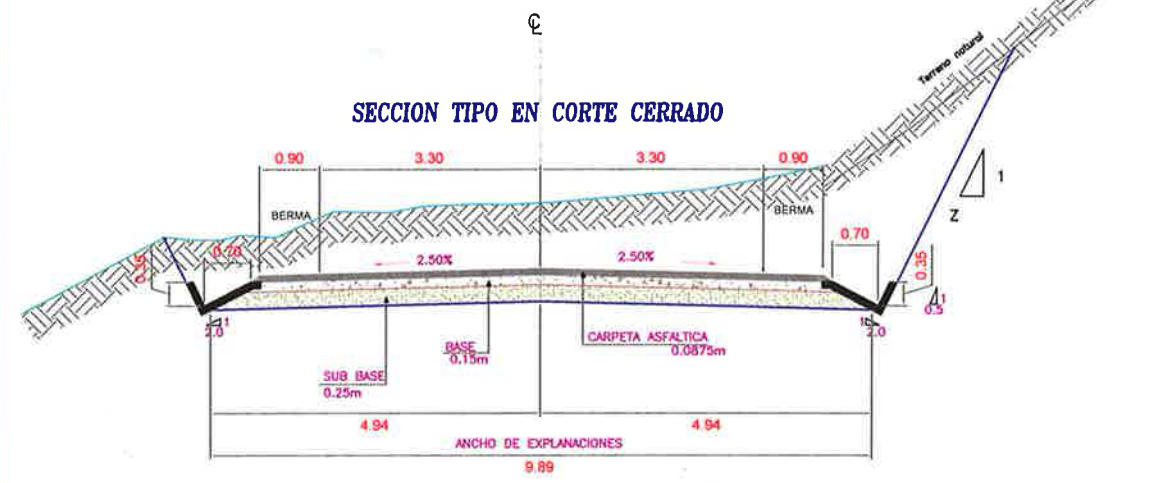
CONSORCIO VIAL SUR ANDINO

*[Firma]*  
 Ing. Pedro F. Cano Loyola  
 Jefe de Proyecto  
 CIP 83375



**SECCION TIPICA: TRAMOS**  
 TRAMO : KM 00+000 AL KM 14+250  
 TRAMO : KM 19+000 AL KM 19+750  
 TRAMO : KM 21+000 AL KM 66+750

**SECCION TIPICA: TRAMOS**  
 TRAMO: KM 14+250 AL KM 19+000  
 TRAMO: KM 19+750 AL KM 21+000  
 TRAMO: KM 66+750 AL KM 67+725.35



CONSORCIO VIAL SUR ANDINO  
 Ing. Pedro F. Cano Loyola  
 Jefe de Proyecto  
 CIP 83275



Consultor:  
**CONSORCIO VIAL SUR ANDINO**  
 (I H ASESORES Y CONSULTORES S A C Y DREMC CONSULTORES S A I)

Jefe de Estudio: Ing. Pedro Cano Loyola  
 Especialista: Ing. Carlos Urquiaga Navarro  
 Dibujo: R.A.L.

ESTUDIO DEFINITIVO  
 PARA EL MEJORAMIENTO Y REHABILITACION DE LA CARRETERA  
 DV. IMATA - OSCOLLO - NEGROMAYO

**SECCION TIPICA**

ESCALA: S/E  
 FECHA: JULIO / 2011  
 N° PLANO: SET-01