

Solución vial: Estudios de Prefactibilidad, Factibilidad y Diseño Definitivos para la solución vial de la intersección de la Av. OSWALDO GUAYASAMÍN (Interoceánica), calle EUGENIO DE SANTA CRUZ Y ESPEJO y acceso a TANDA

Contratante: Empresa Pública Metropolitana de Movilidad y Obras Públicas, EPMMP

Contratista: Asociación RDS - IDROBO & ASOCIADOS

**Cuadro N° 16
CRONOGRAMA VALORADO DE TRABAJOS**

Ítem	Detalle	Unidad	Cantidad	PU	Total	Mes 1	Mes 2	Mes 3	Mes 4	Mes 5	Mes 6	Mes 7	Mes 8	Mes 9	Mes 10	Mes 11	Mes 12
MOVIMIENTO DE TIERRAS																	
303 - 2 (1)	Excavación sin clasificar	m3	9 386.3200	4.3400	40 736.6288	11 718.0000	14 322.0000	14 696.6288	---	---	---	---	---	---	---	---	---
304 - 1 (2)	Material de préstamo importado	m3	515.6000	11.5400	5 950.0240	1 731.0000	2 885.0000	1 334.0240	---	---	---	---	---	---	---	---	---
309 - 2 (2)	Transporte de material de excavación (Transporte libre 500 m) - D > 20 Km	m3-Km	262 817.0000	0.4000	105 126.8000	30 240.0046	36 960.0056	37 926.7898	---	---	---	---	---	---	---	---	---
309 - 4 (2)	Transporte de material de préstamo importado	m3/Km	12 374.5100	0.4000	4 949.8040	1 440.0128	2 400.0213	1 109.7699	---	---	---	---	---	---	---	---	---
					156 763.2568												
PAVIMENTO																	
403 - 1	Sub-base, Clase 2.	m3	1 210.1500	28.7300	34 767.6095	---	8 619.0000	12 928.5000	13 220.1095	---	---	---	---	---	---	---	---
404 - 1	Base, Clase 2	m3	2 665.2400	29.8500	79 557.4140	---	---	11 940.0000	17 910.0000	20 895.0000	28 812.4140	---	---	---	---	---	---
405 - 1 (3)	Asfalto emulsificado CSS-1h - para imprimación (1.40 lt/m²)	l	9 076.1000	1.8000	16 336.9800	---	---	2 451.8587	3 677.7881	4 290.7528	5 916.5803	---	---	---	---	---	---
405 - 2 (1)	Asfalto diluido tipo RC grado 250 paraiego de adherencia (0.45 lt/m²)	l	9 452.0400	1.4600	13 799.9784	---	---	---	2 280.7130	3 421.0695	3 877.2121	4 220.9839	---	---	---	---	---
405 - 5	Capa de rodadura de hormigón asfáltico mezclado en planta, e = 17.80 cm	m2	6 050.7300	31.6800	191 687.1264	---	---	---	31 680.0000	47 520.0000	53 856.0000	58 631.1264	---	---	---	---	---
405 - 8 (1)	Pavimento de hormigón de cemento Portland, f'c = 350 Kg/cm², tipo I	m3	2 670.9200	233.5200	623 713.2384	---	---	---	93 408.0000	140 112.0000	186 816.0000	203 377.2384	---	---	---	---	---
405 - 8 (2) a	Acero de refuerzo - juntas longitudinales de construcción: barra corrugada Ø = 12 mm, C	Kg	4 718.6300	2.1300	10 050.6819	---	---	---	1 505.2015	2 257.8022	3 010.4030	3 277.2752	---	---	---	---	---
405 - 8 (2) b	Acero de refuerzo - juntas transversales de construcción: barra pasajunt	Kg	26 264.0700	2.3700	62 245.8459	---	---	---	9 322.0083	13 983.0124	18 644.0166	20 296.8086	---	---	---	---	---
405 - 8 (2) c	Acero de refuerzo - canastillas para centrado de barra corrugada de Ø = 12 mm	Kg	4 451.5400	2.2500	10 015.9650	---	---	---	1 500.0022	2 250.0034	3 000.0045	3 265.9549	---	---	---	---	---
405 - 8 (2) d	Acero de refuerzo - canastillas para centrado de barra pasajuntas lisa de Ø = 32 mm	Kg	2 670.9200	2.2500	6 009.5700	---	---	---	900.0000	1 300.0000	1 800.0000	1 959.5700	---	---	---	---	---
405 - 9 (1)	Juntas aserradas y de construcción, incluye sellado	m	3 650.2600	12.4900	45 591.7474	---	---	---	6 827.8717	10 241.8075	13 655.7433	14 866.3250	---	---	---	---	---
405 - 9 (1) E	Juntas de aislamiento de borde, incluye sellado	m	3 472.2000	5.6400	19 583.2000	---	---	---	2 932.8034	4 399.2051	5 865.6068	6 385.5928	---	---	---	---	---
					1 113 359.3649												
OBRAS COMPLEMENTARIAS																	
301 - 3 (1)	Remoción de hormigón - bordillos y aceras	m3	270.4500	24.1600	6 534.0720	---	---	3 624.0000	2 910.0720	---	---	---	---	---	---	---	---
206 (3) E	Área encespada - Conformación vegetal de faja central	m2	1 311.3800	5.8700	7 697.8006	---	---	---	---	---	2 935.0000	2 935.0000	1 827.8006	---	---	---	---
206 (3) E	Área encespada - Protección vegetal de faja central y berma inicia	m2	1 311.3800	5.8700	7 697.8006	---	---	---	---	---	2 935.0000	2 935.0000	1 827.8006	---	---	---	---
307 - 2 (1)	Excavación y relleno para estructuras - Bordillos y aceras	m3	873.8500	9.2900	8 118.0665	---	---	---	---	---	3 095.2380	3 095.2380	1 927.5904	---	---	---	---
610 - (1)	Bordillos de hormigón, f'c = 210 Kg/cm², V = 0, 116 m³/m	m	3 123.6600	19.8400	61 973.4144	---	---	---	---	---	23 629.0833	23 629.0833	14 715.2479	---	---	---	---
610 - (2)	Aceras de hormigón, f'c = 210 Kg/cm², e = 10 cm	m2	2 491.1400	21.5300	53 634.2442	---	---	---	---	---	20 449.5433	20 449.5433	12 735.1576	---	---	---	---
					145 655.3983												
ESTRUCTURAS - DEPRIMIDO CUBIERTO - Infraestructura																	
301 - 2 E	Replanteo y nivelación con equipo topográfico	m2	686.0000	2.2200	1 522.9200	---	---	---	---	777.0000	745.9200	---	---	---	---	---	---
303 - 2 (1)	Excavación sin clasificar	m3	6 566.6900	4.3400	28 499.4346	---	---	---	---	15 190.0000	13 309.4346	---	---	---	---	---	---
309 - 2 (2)	Transporte de material de excavación (Transporte libre 500 m) - D > 20 Km	m3-Km	88 650.2700	0.4000	35 460.1080	---	---	---	---	---	18 899.9904	16 660.1176	---	---	---	---	---
606 - 1 (2)	Material filtrante, e = 0.30 m	m3	367.0000	35.8300	13 149.6100	---	---	---	---	7 166.0000	5 983.6100	---	---	---	---	---	---
503 (6) E	Hormigón no estructural de cemento Portland, Clase E, f'c = 180 Kg/cm²	m3	70.0000	144.2100	10 094.7000	---	---	---	---	4 326.3000	5 768.4000	---	---	---	---	---	---
503 (2)	Hormigón estructural de cemento Portland, Clase B, f'c = 280 Kg/cm²	m3	1 042.0000	266.3500	277 536.7000	---	---	---	---	119 857.5000	157 679.2000	---	---	---	---	---	---
504 (1)	Acero de refuerzo en barras, fy = 4 200 Kg/cm²	Kg	111 123.0000	2.2200	246 693.0600	---	---	---	---	106 537.3100	140 155.7500	---	---	---	---	---	---
301 - 4.02 (1) E	Remoción de puentes de acero - Paso peatonal existente, incl. corte, desoldada, desalc	Kg	15 000.0000	2.8700	43 050.0000	---	43 050.0000	---	---	---	---	---	---	---	---	---	---
806 - 3a E	Junta impermeable - cinta de PVC de 20 cm - juntas de muros	m	69.0000	29.1400	2 010.6600	---	---	---	---	874.2000	1 136.4600	---	---	---	---	---	---
607 - (1) E	Tubería de PVC, Ø = 110 mm para drenaje - incl. geotextil NT 1600	m	170.0000	11.4800	1 951.6000	---	---	---	---	861.0000	1 090.6000	---	---	---	---	---	---
404 - 1	Base, Clase 3 - relleno de apaches laterales	m3	872.0000	28.7300	25 052.5600	---	---	---	---	14 365.0000	10 687.5600	---	---	---	---	---	---
405 - 5	Capa de rodadura de hormigón asfáltico mezclado en planta, e = 5 cm	m2	481.0000	10.7800	5 185.1800	---	---	---	---	2 964.5000	2 220.6800	---	---	---	---	---	---
806 - 3b E	Juntas transversales - losa inferior (incl. junta jeene, acero de refuerzo, aserrado y sella	m	45.6000	233.3400	10 640.3040	---	---	---	---	4 666.8000	5 973.5040	---	---	---	---	---	---
509 (1) E	Protección de taludes laterales con emulsión de copolímero de vinil acetato o similar	m2	962.2400	13.2700	12 768.9248	---	---	---	---	7 431.2000	5 337.7248	---	---	---	---	---	---
					713 615.7614												
ESTRUCTURAS - DEPRIMIDO CUBIERTO - Superestructura																	
405 - 5	Capa de rodadura de hormigón asfáltico mezclado en planta, e = 5 cm	m2	202.0000	10.7800	2 177.5600	---	---	---	---	---	---	---	2 177.5600	---	---	---	---
504 (1)	Acero de refuerzo en barras, fy = 4 200 Kg/cm²	Kg	22 384.5400	2.2200	49 693.6788	---	---	---	---	---	22 200.0000	27 493.6788	---	---	---	---	---
503 (2)	Hormigón estructural de cemento Portland, Clase B, f'c = 280 Kg/cm²	m3	172.1500	266.3500	45 852.1525	---	---	---	---	---	19 976.2500	25 875.9025	---	---	---	---	---
502 (1)	Elementos estructurales de hormigón precomprimido (Vigas L= 10.34 m, incl. hormigón	u	35.0000	2 862.5500	100 189.2500	---	---	---	---	---	42 938.2500	57 251.0000	---	---	---	---	---
704 - 1 (7)	Barandales metálicos sobre parapetos de hormigón (según detalle)	m	22.0000	247.8100	5 451.8200	---	---	---	---	---	---	5 451.8200	---	---	---	---	---
507 (2) E	Pintura de acero estructural	Kg	1 258.3300	0.1100	138.4163	---	---	---	---	---	60.5000	77.9163	---	---	---	---	---
206 (3) E	Área encespada - Conformación vegetal de faja central	m2	367.0000	5.8700	2 154.2900	---	---	---	---	---	---	---	2 154.2900	---	---	---	---
504 (2)	Acero de refuerzo de malla de alambre (malla electrosoldada 1 Ø 4 mm, c/15 cm)	m2	94.0000	3.9900	375.0600	---	---	---	---	---	---	375.0600	---	---	---	---	---
823 a E	Apoyo de neopreno, Tipo STUP, Dureza SHORE 60° - (350 * 350 * 40) mm	u	70.0000	102.7600	7 193.2000	---	---	---	---	---	3 082.8000	4 110.4000	---	---	---	---	---
610 - (4) E	Material ligero para relleno en veredas	m3	19.0000	18.3800	349.2200	---	---	---	---	---	---	---	349.2200	---	---	---	---
					213 574.6476												
ESTRUCTURAS - DEPRIMIDO ABIERTO Y VEREDAS - Infraestructura																	
301 - 2 E	Replanteo y nivelación con equipo topográfico	m2	3 056.0600	2.2200	6 784.4532	---	777.0000	1 332.0000	1 443.0000	---	---	1 443.0000	1 332.0000	457.4532	---	---	---
303 - 2 (1)	Excavación sin clasificar	m3	16 572.4600	4.3400	71 924.4764	---	8 237.2619	14 121.0205	15 297.7722	---	---	15 297.7722	14 121.0205	4 849.6291	---	---	---
309 - 2 (2)	Transporte de material de excavación (Transporte libre 500 m) - D > 20 Km	m3-Km	223 728.2100	0.4000	89 491.2840	---	---	10 249.1278	17 569.9333	19 034.0944	---	---	19 034.0944	17 569.9333	6 034.1008	---	---
404 - 1	Base, Clase 3 - relleno de apaches laterales	m3	2 557.0600	28.7300	73 464.3338	---	---	12 928.5000	20 111.0000	---	---	---	22 984.0000	17 440.8338	---	---	---
606 - 1 (2)	Material filtrante, e = 0.30 m	m3	668.3600	35.8300	23 947.3388	---	---	2 866.4000	4 299.6000	4 299.6000	---	---	4 299.6000	4 299.6000	3 882.5388	---	---
607 - (1) E	Tubería de PVC, Ø = 110 mm para drenaje - incl. geotextil NT 1600	m	561.4500	11.4800	6 445.4460	---	---	918.4000	1 377.6000	1 377.6000	---	---	1 377.6000	918.4000	475.8460	---	---
503 (6) E	Hormigón no estructural de cemento Portland, Clase E, f'c = 180 Kg/cm²	m3	636.0400	144.2100	91 723.3284	---	---	12 257.8500	14 421.0000	18 747.3000	---	---	18 747.3000	14 421.0000	13 128.8784	---	---
503 (2)	Hormigón estructural de cemento Portland, Clase B, f'c = 280 Kg/cm²	m3	3 119.0500	266.3500	830 758.9675	---	---	111 867.0000	133 175.0000	167 800.5000	---	---	167 800.5000	133 175.0000	116 940.9675	---	---
504 (1)	Acero de refuerzo en barras, fy = 4 200 Kg/cm²	Kg	311 605.0000	2.2200	691 763.1000	---	---	93 150.3188	110 893.2367	139 725.4783	---	---	139 725.4783	110 893.2367	97 375.3512	---	---
405 - 5	Capa de rodadura de hormigón asfáltico mezclado en planta, e = 5 cm	m2	2 938.4000	10.7800	31 675.9520	---	---	---	---	---	---	---	17 248.0000	14 427.9520	---	---	---

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Contratante: Empresa Pública Metropolitana de Movilidad y Obras Públicas, EPMOP

Contratista: Asociación RDS - IDROBO & ASOCIADOS

**Cuadro N° 16
CRONOGRAMA VALORADO DE TRABAJOS**

Ítem	Detalle	Unidad	Cantidad	PU	Total	Mes 1	Mes 2	Mes 3	Mes 4	Mes 5	Mes 6	Mes 7	Mes 8	Mes 9	Mes 10	Mes 11	Mes 12
DRENAJE - Soluciones Interferencias Hidrosanitarias - Instalación Hidrante																	
02.022.4.02	Hidrante de pedestal 4" - incluy material, transporte e instalación	u	1.0000	1 789.0200	1 789.0200	---	---	---	---	---	---	---	---	1 789.0200	---	---	---
02.038.4.01	Unión de hierro dúctil, 150 mm (acero-HD-PVC) - incluy material, transporte e instalación	u	1.0000	99.0100	99.0100	---	---	---	---	---	---	---	---	99.0100	---	---	---
02.007.4.03	Válvula de compuerta de 4" - incluy material, transporte e instalación	u	1.0000	341.7900	341.7900	---	---	---	---	---	---	---	---	341.7900	---	---	---
02.017.4.01	Caja de válvula 6" - incluy material, transporte e instalación	u	1.0000	39.2900	39.2900	---	---	---	---	---	---	---	---	39.2900	---	---	---
02.018.4.67	Unión mecánica lámina de acero 4" - incluy materiales, transporte, instalación	u	3.0000	93.4800	280.4400	---	---	---	---	---	---	---	---	280.4400	---	---	---
02.025.4.128	Recubrimiento unión mecánica 04"	u	3.0000	11.5300	34.5900	---	---	---	---	---	---	---	---	34.5900	---	---	---
02.004.4.171	Zeta de acero 4" - incluy materiales, transporte, instalación	u	2.0000	79.6100	159.2200	---	---	---	---	---	---	---	---	159.2200	---	---	---
02.004.4.11	Codo acero 4" >45 - incluy materiales, transporte, instalación	u	1.0000	63.5800	63.5800	---	---	---	---	---	---	---	---	63.5800	---	---	---
02.004.4.183	Reducción Acero 04" a 06" - incluy material, transporte e instalación	u	1.0000	243.9500	243.9500	---	---	---	---	---	---	---	---	243.9500	---	---	---
					3 050.8900												
SISTEMA DE ALUMBRADO PÚBLICO - Instalaciones nuevas																	
IE - 1	MONTAJE DE TRANSFORMADOR TRIFÁSICO DE 100 KVA INCLUYE BASE DE HOR	glb	1.0000	14 371.9100	14 371.9100	---	---	---	---	---	---	---	14 371.9100	---	---	---	---
IE - 2	TABLERO DE CONTROL DE ALUMBRADO INCLUYE BASE DE HORMIGON	glb	1.0000	2 987.3200	2 987.3200	---	---	---	---	---	---	---	2 987.3200	---	---	---	---
IE - 3	TRANSICIÓN AÉREA SUBTERRÁNEA MEDIO VOLTAJE - incluy eqp protecc medio volt	glb	1.0000	25 284.1000	25 284.1000	---	---	---	---	---	---	---	25 284.1000	---	---	---	---
IE - 4	SISTEMA DE PUESTA A TIERRA PARA CELDAS DE SECCIONAMIENTO, TRANSFO	u	7.0000	1 151.0800	8 057.5600	---	---	---	---	---	---	---	4 604.3200	3 453.2400	---	---	---
IE - 5	CELDA MODULAR SF6 24 KV FUNCIÓN INTERRUPTOR AUTOMÁTICO 400 A	u	12.0000	30 321.4500	363 857.4000	---	---	---	---	---	---	---	212 250.1500	151 607.2500	---	---	---
IE - 6	CELDA MODULAR SF6 24 KV FUNCIÓN DE LÍNEA	u	4.0000	15 875.7200	63 502.8800	---	---	---	---	---	---	---	31 751.4400	31 751.4400	---	---	---
IE - 7	CELDA MODULAR SF6 24 KV FUNCIÓN PROTECCIÓN DE TRANSFORMADOR	u	1.0000	19 419.9700	19 419.9700	---	---	---	---	---	---	---	19 419.9700	---	---	---	---
IE - 8	SUMINISTRO E INSTALACIÓN DE CONDUCTOR DE AL AISLADO PARA 25 KV # 500	m	4 500.0000	47.6900	214 605.0000	---	---	---	---	---	---	---	119 225.0000	95 380.0000	---	---	---
IE - 9	SUMINISTRO E INSTALACIÓN DE CONDUCTOR DE AL AISLADO PARA 25 KV # 4/0	m	2 300.0000	27.5600	63 388.0000	---	---	---	---	---	---	---	41 340.0000	22 048.0000	---	---	---
IE - 10	SUMINISTRO E INSTALACIÓN DE CONDUCTOR DE AL TTU # 250 MCM AWG PARA	m	1 500.0000	16.3800	24 570.0000	---	---	---	---	---	---	---	14 742.0000	9 828.0000	---	---	---
IE - 11	SUMINISTRO E INSTALACIÓN DE CONDUCTOR DE AL TTU # 1/0 AWG PARA NEUTI	m	330.0000	7.0800	2 336.4000	---	---	---	---	---	---	---	1 274.4000	1 062.0000	---	---	---
IE - 12	ACOMETIDA SUBTERRÁNEA EN BAJO VOLTAJE DESDE TRANSFORMADOR DE 100	m	80.0000	24.5700	1 965.6000	---	---	---	---	---	---	---	1 228.5000	737.1000	---	---	---
IE - 13	POSTE METÁLICO GALVANIZADO, H=8.5M, ESPESOR CHAPA 4MM, DIAMETRO V/4	u	39.0000	1 838.7500	71 711.2500	---	---	---	---	---	---	---	---	71 711.2500	---	---	---
IE - 14	POSTE METÁLICO GALVANIZADO, H=8.5M, ESPESOR CHAPA 4MM, DIAMETRO V/4	u	21.0000	1 935.6800	40 649.2800	---	---	---	---	---	---	---	---	40 649.2800	---	---	---
IE - 15	Canalización subterránea con tubería de PVC 2"	m	1 320.0000	16.4400	21 700.8000	---	---	---	---	---	---	---	12 658.8000	9 042.0000	---	---	---
IE - 16	POZOS DE REVISIÓN DE 0.60X0.60X0.75 M PARA ALUMBRADO PÚBLICO	u	28.0000	343.6500	9 622.2000	---	---	---	---	---	---	---	6 185.7000	3 436.5000	---	---	---
IE - 17	LUMINARIA DE LEDS PARA ALUMBRADO VIAL DE 150W 4,000 K CON BRAZO MET	u	21.0000	703.3500	14 770.3500	---	---	---	---	---	---	---	---	14 770.3500	---	---	---
IE - 18	LUMINARIA DE LEDS PARA ALUMBRADO VIAL DE 200W 4,000 K CON BRAZO MET	u	60.0000	619.8100	37 188.6000	---	---	---	---	---	---	---	---	37 188.6000	---	---	---
IE - 19	LUMINARIA DE LEDS PARA SOBREPONER EN TUNEL DE 100W 12,000 LM INCLUY	u	12.0000	1 155.5800	13 866.9600	---	---	---	---	---	---	---	---	13 866.9600	---	---	---
IE - 20	TENDIDO DE CABLE AL TTU 2X#2 AWG PARA CIRCUITOS DE ALUMBRADO PÚBLIC	m	1 980.0000	5.9000	11 682.0000	---	---	---	---	---	---	---	5 310.0000	6 372.0000	---	---	---
IE - 21	TENDIDO DE CABLE AL TTU 2X#2 AWG PARA CIRCUITOS DE ALUMBRADO PÚBLIC	m	66.0000	30.3700	2 004.4200	---	---	---	---	---	---	---	---	2 004.4200	---	---	---
IE - 22	ACOMETIDA SUBTERRÁNEA EN BAJA TENSION DESDE TRANSFORMADOR HAST	m	17.0000	9.7200	165.2400	---	---	---	---	---	---	---	---	165.2400	---	---	---
IE - 23	MATERIAL MENOR PARA AISLAMIENTO DE CABLES INCLUYE CINTAS AUTOFUND	glb	1.0000	307.2300	307.2300	---	---	---	---	---	---	---	---	307.2300	---	---	---
IE - 24	EXCAVACIÓN Y RELLENO DE ZANJA	m	1 320.0000	9.2600	12 223.2000	---	---	---	---	---	---	---	5 556.0000	6 667.2000	---	---	---
IE - 25	MANGUERA DE POLIETILENO NEGRA DE 2"	m	2 000.0000	4.0000	8 000.0000	---	---	---	---	---	---	---	3 400.0000	4 600.0000	---	---	---
IE - 26	Canalización Eléctrica EU0-OB(1X3C+2X3B+1X1A+1TR)	m	1 485.0000	111.4400	165 488.4000	---	---	---	---	---	---	---	72 436.0000	93 052.4000	---	---	---
IE - 27	POZOS DE REVISIÓN DE 1.20X1.20X1.20 M PARA MEDIO VOLTAJE	u	53.0000	844.0700	44 735.7100	---	---	---	---	---	---	---	21 101.7500	23 633.9600	---	---	---
IE - 28	POZO DE COMUNICACIONES 1,50*1,30*1,70 M	u	12.0000	1 260.6300	15 127.5600	---	---	---	---	---	---	---	6 303.1500	8 824.4100	---	---	---
IE - 29	Canalización Conectividad EU0-OB(1X1A)	m	1 540.0000	12.4900	19 234.6000	---	---	---	---	---	---	---	8 118.5000	11 116.1000	---	---	---
IE - 30	DESMONTAJE DE RED AÉREA EXISTENTE DE MEDIO Y BAJO VOLTAJE, ALUMBR	glb	1.0000	30 649.3000	30 649.3000	---	---	---	---	---	---	---	---	30 649.3000	---	---	---
					1 323 473.2400												
SISTEMA DE ALUMBRADO PÚBLICO - Interferencias																	
IE - I - 1	RETIRO DE CANALIZACIÓN Y POZOS EXISTENTES TELEFÓNICOS EN EL LADO N	m	250.0000	23.7100	5 927.5000	---	---	---	---	---	---	---	5 927.5000	---	---	---	---
IE - I - 2	INSTALACIÓN DE CANALIZACIÓN 4V-110 MM PVC TELEFONICA EXISTENTE EN EL	m	250.0000	46.8500	11 712.5000	---	---	---	---	---	---	---	---	11 712.5000	---	---	---
					17 640.0000												
SISTEMA DE ALUMBRADO PÚBLICO - Repuestos																	
IE - R - 1	POSTE METÁLICO GALVANIZADO, H=8.5M, ESPESOR CHAPA 4MM, DIAMETRO V/4	u	4.0000	1 838.7500	7 355.0000	---	---	---	---	---	---	---	---	---	7 355.0000	---	---
IE - R - 2	POSTE METÁLICO GALVANIZADO, H=8.5M, ESPESOR CHAPA 4MM, DIAMETRO V/4	u	2.0000	1 935.6800	3 871.3600	---	---	---	---	---	---	---	---	3 871.3600	---	---	---
IE - R - 3	LUMINARIA DE LEDS PARA ALUMBRADO VIAL DE 150W 4,000 K CON BRAZO MET	u	4.0000	703.3500	2 813.4000	---	---	---	---	---	---	---	---	2 813.4000	---	---	---
IE - R - 4	LUMINARIA DE LEDS PARA ALUMBRADO VIAL DE 200W 4,000 K CON BRAZO MET	u	12.0000	619.8100	7 437.7200	---	---	---	---	---	---	---	---	7 437.7200	---	---	---
IE - R - 5	LUMINARIA DE LEDS PARA SOBREPONER EN TUNEL DE 100W 12,000 LM INCLUY	u	2.0000	1 155.5800	2 311.1600	---	---	---	---	---	---	---	---	2 311.1600	---	---	---
					23 788.6400												
SISTEMA DE ALUMBRADO PÚBLICO - Cámaras de Transformación																	
503 (2)	Hormigón estructural de cemento Portland, Clase B, f'c = 240 Kg/cm²	m3	206.7500	242.2900	50 093.4575	---	---	---	---	---	---	---	50 093.4575	---	---	---	---
503 (6) E	Hormigón no estructural de cemento Portland, Clase E, f'c = 180 Kg/cm²	m3	9.7500	144.2100	1 406.0475	---	---	---	---	---	---	---	1 406.0475	---	---	---	---
504 (1)	Acero de refuerzo en barras, fy = 4 200 Kg/cm²	Kg	19 435.0000	2.2200	43 145.7000	---	---	---	---	---	---	---	43 145.7000	---	---	---	---
303 - 2 (1)	Excavación sin clasificar	m3	1 375.0000	4.3400	5 967.5000	---	---	---	---	---	---	---	5 967.5000	---	---	---	---
					100 612.7050												
CANALIZACIÓN - Instalaciones de Iluminación																	
CAN IL - 01	Canalización Eléctrica EU0-OB(4X3B+1X1A+1TR)	m	1 595.8200	98.7000	157 507.4340	---	---	---	---	---	---	---	---	98 700.0000	58 807.4340	---	---
CAN - 03	Canalización Alumbrado EU0-OB(1X1A)	m	2 000.0000	12.4900	24 980.0000	---	---	---	---	---	---	---	---	15 612.5000	9 367.5000	---	---
CAN IL-03	Pozo de Alumbrado Tipo A, 60 * 60 * 80 cm	u	6.0000	388.2900	2 329.7400	---	---	---	---	---	---	---	---	1 164.8700	1 164.8700	---	---
CAN IL-05	Pozo de Distribución Tipo C, 120 * 120 * 140 cm	u	46.0000	891.9000	41 027.4000	---	---	---	---	---	---	---	---	23 189.4000	17 838.0000	---	---
307 - 3 (1)	Excavación de zanjas - máquina	m3	1 400.0000	4.1300	5 782.0000	---	---	---	---	---	---	---	---	3 923.5000	1 858.5000	---	---
					231 626.5740												

Solución vial: Estudios de Prefactibilidad, Factibilidad y Diseño Definitivos para la solución vial de la intersección de la Av. OSWALDO GUAYASAMÍN (Interoceánica), calle EUGENIO DE SANTA CRUZ Y ESPEJO y acceso a TANDA

Contratante: Empresa Pública Metropolitana de Movilidad y Obras Públicas, EPMOP

Contratista: Asociación RDS - IDROBO & ASOCIADOS

**Cuadro N° 16
CRONOGRAMA VALORADO DE TRABAJOS**

Ítem	Detalle	Unidad	Cantidad	PU	Total	Mes 1	Mes 2	Mes 3	Mes 4	Mes 5	Mes 6	Mes 7	Mes 8	Mes 9	Mes 10	Mes 11	Mes 12	
CANALIZACIÓN - Instalaciones de Conectividad																		
CAN - 02	Canalización Conectividad EU0-OB(2X3B+1X1B)	m	1 598.2600	65.9100	105 341.3166	---	---	---	---	---	---	---	---	---	105 341.3166	---	---	---
IE - 29	Canalización Conectividad EU0-OB(1X1A)	m	1 000.0000	12.4900	12 490.0000	---	---	---	---	---	---	---	---	---	12 490.0000	---	---	---
CAN - 09	Pozo de Comunicaciones 150 *130 * 170 cm	u	41.0000	1 260.6300	51 685.8300	---	---	---	---	---	---	---	---	---	51 685.8300	---	---	---
307 - 3 (1) c	Excavación de zanjas - máquina	m3	1 300.0000	4.1300	5 369.0000	---	---	---	---	---	---	---	---	---	5 369.0000	---	---	---
CAN CON-05	Poste proyectado de hormigón de 9 m	u	2.0000	361.6900	723.3800	---	---	---	---	---	---	---	---	---	723.3800	---	---	---
					175 609.5266													
SEÑALIZACIÓN - Horizontal																		
705 - (1) a	Marcas de pavimento (Termoplástica): Línea de PARE (ancho 0.40 m para velocidades	m	41.3400	12.0000	496.0800	---	---	---	---	---	---	---	---	---	---	198.0000	---	298.0800
705 - (1) b	Marcas de pavimento (Termoplástica): Línea de CEDA EL PASO (ancho 0.40 m para vel	m	54.9000	5.9900	328.8510	---	---	---	---	---	---	---	---	---	---	131.7800	---	197.0710
705 - (1) c	Marcas de pavimento (Termoplástica): Línea de DETENCIÓN (ancho 0,20 m * 0.60 m pi	m	148.7200	3.1500	468.4680	---	---	---	---	---	---	---	---	---	---	189.0000	---	279.4680
705 - (1) d	Marcas de pavimento (Termoplástica): Línea de CRUCE CEBRA (ancho 0,45 m, L = var	m	70.2600	13.4500	944.9970	---	---	---	---	---	---	---	---	---	---	376.6000	---	568.3970
705 - (1) e	Marcas de pavimento (Termoplástica): Línea de CRUCE CONTROLADO POR SEMÁFC	m	139.4900	7.5000	1 046.1750	---	---	---	---	---	---	---	---	---	---	412.5000	---	633.6750
705 - (1) f	Marcas de pavimento (Termoplástica): Línea DOBLE CONTINUA (ancho 0.15 m, L = va	m	815.8200	8.5300	6 958.9446	---	---	---	---	---	---	---	---	---	---	2 772.2500	---	4 186.6946
705 - (1) g	Marcas de pavimento (Termoplástica): Línea de SEPARACIÓN DE CARRILES DE CIRCU	m	1 092.8500	1.4700	1 606.4895	---	---	---	---	---	---	---	---	---	---	639.4500	---	967.0395
705 - (1) h	Marcas de pavimento (Termoplástica): Línea de SEPARACIÓN DE CARRIL CONTINUA	m	94.4000	4.4900	423.8560	---	---	---	---	---	---	---	---	---	---	170.6200	---	253.2360
705 - (1) i	Marcas de pavimento (Termoplástica): Línea de CONTINUIDAD O GUIA (ancho 0.15 m,	m	489.4500	1.4700	719.4915	---	---	---	---	---	---	---	---	---	---	286.6500	---	432.8415
705 - (1) j	Marcas de pavimento (Termoplástica): Línea de BORDE DE CALZADA CONTINUA (an	m	2 195.6800	4.4900	9 858.6032	---	---	---	---	---	---	---	---	---	---	4 041.0000	---	5 817.6032
705 - (1) k	Marcas de pavimento (Termoplástica): Línea de CONTORNO PARA CHEVRÓN (ancho	m	811.9000	4.4900	3 645.4310	---	---	---	---	---	---	---	---	---	---	1 459.2500	---	2 186.1810
705 - (1) l	Marcas de pavimento (Termoplástica): CHEVRONES (0.90 - 1.80 m, L = variable) Blanc	m	199.3700	27.1700	5 416.8829	---	---	---	---	---	---	---	---	---	---	2 173.6000	---	3 243.2829
705 - (3) a	Marcas de pavimento FLECHAS (Termoplástica): FLECHA DE FRENTE, Blanca	u	15.0000	68.2300	1 023.4500	---	---	---	---	---	---	---	---	---	---	409.3800	---	614.0700
705 - (3) b	Marcas de pavimento FLECHAS (Termoplástica): FLECHA DE FRENTE, Blanca *	u	25.0000	45.7900	1 144.7500	---	---	---	---	---	---	---	---	---	---	457.9000	---	686.8500
705 - (3) c	Marcas de pavimento FLECHAS (Termoplástica): FLECHA DE FRENTE + VIRAJE IZQUI	u	2.0000	125.9200	251.8400	---	---	---	---	---	---	---	---	---	---	125.9200	---	125.9200
705 - (3) d	Marcas de pavimento FLECHAS (Termoplástica): FLECHA DE FRENTE + VIRAJE IZQUI	u	11.0000	95.8100	1 053.9100	---	---	---	---	---	---	---	---	---	---	479.0500	---	574.8600
705 - (3) e	Marcas de pavimento FLECHAS (Termoplástica): FLECHA DE VIRAJE IZQUIERDO O I	u	4.0000	89.6900	358.7600	---	---	---	---	---	---	---	---	---	---	179.3800	---	179.3800
705 - (3) e	Marcas de pavimento FLECHAS (Termoplástica): FLECHA DE VIRAJE IZQUIERDO O I	u	4.0000	56.1200	224.4800	---	---	---	---	---	---	---	---	---	---	112.2400	---	112.2400
705 - (3) h	Marcas de pavimento FLECHAS (Termoplástica): FLECHA DE INCORPORACIÓN, Blar	u	8.0000	57.3900	459.1200	---	---	---	---	---	---	---	---	---	---	172.1700	---	286.9500
705 - (3) g	Marcas de pavimento FLECHAS (Termoplástica): FLECHA DE VIRAJE EN "U"	u	5.0000	101.4900	507.4500	---	---	---	---	---	---	---	---	---	---	202.9800	---	304.4700
705 - (3) h	Marcas de pavimento (Termoplástica): PARADA DE BUS (Líneas y símbolo)	u	3.0000	275.7100	827.1300	---	---	---	---	---	---	---	---	---	---	275.7100	---	551.4200
705 - (3) i	Marcas de pavimento (Termoplástica): CRUCE PEATONAL (pictograma y flechas)	u	11.0000	94.2600	1 036.8600	---	---	---	---	---	---	---	---	---	---	377.0400	---	659.8200
705 - (4) a	Marcas sobresalidas de pavimento MSP (TACHAS) REFLECTIVAS UNIDIRECCIONAL	u	499.0000	7.0100	3 497.9900	---	---	---	---	---	---	---	---	---	---	1 402.0000	---	2 095.9900
705 - (4) b	Marcas sobresalidas de pavimento MSP (TACHAS) REFLECTIVAS UNIDIRECCIONAL	u	101.0000	7.0100	708.0100	---	---	---	---	---	---	---	---	---	---	280.4000	---	427.6100
					43 008.0197													
SEÑALIZACIÓN - Vertical																		
707 - 4 (1)	Pórticos para señalización de carretera - L = 9.20 m, en bandera	u	5.0000	6 425.0200	32 125.1000	---	---	---	---	---	---	---	---	---	---	19 275.0600	---	12 850.0400
707 - 4 (1) E	Reubicación de pórticos existentes	u	2.0000	2 486.2100	4 972.4200	---	---	---	---	---	---	---	---	---	---	2 486.2100	---	2 486.2100
707 - 4 (2) a	Mensaje total en un pórtico: Placa informativa (1.75 * 2.00) m, ASTM D4956, Tipo XI	u	1.0000	772.4600	772.4600	---	---	---	---	---	---	---	---	---	---	772.4600	---	772.4600
707 - 4 (2) b	Mensaje total en un pórtico: Placa informativa (3.47 * 1.75) m, ASTM D4956, Tipo XI	u	1.0000	1 304.5200	1 304.5200	---	---	---	---	---	---	---	---	---	---	1 304.5200	---	1 304.5200
707 - 4 (2) c	Mensaje total en un pórtico: Placa informativa (2.82 * 1.75) m, ASTM D4956, Tipo XI	u	3.0000	1 069.7300	3 209.1900	---	---	---	---	---	---	---	---	---	---	1 069.7300	---	2 139.4600
707 - 4 (2) d	Mensaje total en un pórtico: Placa informativa (2.47 * 1.75) m, ASTM D4956, Tipo XI	u	2.0000	1 026.1400	2 052.2800	---	---	---	---	---	---	---	---	---	---	1 026.1400	---	1 026.1400
707 - 4 (2) e	Mensaje total en un pórtico: Placa informativa (3.41 * 1.75) m, ASTM D4956, Tipo XI	u	1.0000	1 290.6700	1 290.6700	---	---	---	---	---	---	---	---	---	---	1 290.6700	---	1 290.6700
707 - 4 (2) f	Mensaje total en un pórtico: Placa informativa (2.74 * 2.35) m, ASTM D4956, Tipo XI	u	1.0000	1 379.9800	1 379.9800	---	---	---	---	---	---	---	---	---	---	1 379.9800	---	1 379.9800
708 - 5 (1) a	Señales al lado de la carretera - Placa regulatoria de PARE (octagonal inscrito) - (0.75 *	u	2.0000	170.3000	340.6000	---	---	---	---	---	---	---	---	---	---	---	---	340.6000
708 - 5 (1) b	Señales al lado de la carretera - Placa regulatoria de CEDA EL PASO (triangular) - (0.90	u	7.0000	151.7700	1 062.3900	---	---	---	---	---	---	---	---	---	---	---	---	1 062.3900
708 - 5 (1) c	Señales al lado de la carretera - Placa restrictiva de VELOCIDAD MÁXIMA (0.75 * 0.75)	u	2.0000	173.1700	346.3400	---	---	---	---	---	---	---	---	---	---	---	---	346.3400
708 - 5 (1) d	Señales al lado de la carretera - Placa restrictiva de ALTURA MÁXIMA (0.90 * 0.90) m, f	u	2.0000	215.1600	430.3200	---	---	---	---	---	---	---	---	---	---	---	---	430.3200
708 - 5 (1) e	Señales al lado de la carretera - Placa regulatoria PARADA DE BUS (0.60 * 0.80) m, Re	u	3.0000	159.1100	477.3300	---	---	---	---	---	---	---	---	---	---	---	---	477.3300
708 - 5 (1) f	Señales al lado de la carretera - Placa preventiva VARIAS (0.75 * 0.75) m - Reflectividad	u	5.0000	173.1700	865.8500	---	---	---	---	---	---	---	---	---	---	---	---	865.8500
708 - 5 (1) g	Señales al lado de la carretera - Placa preventiva auxiliar de distancia (0.75 * 0.45) m, R	u	1.0000	137.5900	137.5900	---	---	---	---	---	---	---	---	---	---	---	---	137.5900
708 - 5 (1) h	Señales al lado de la carretera - Placa informativa sobre POSTES A UN LADO DE LA CA	u	1.0000	660.9800	660.9800	---	---	---	---	---	---	---	---	---	---	---	---	660.9800
708 - 5 (1) i	Señales al lado de la carretera: Placa informativa sobre POSTES A UN LADO DE LA CA	u	1.0000	359.2600	359.2600	---	---	---	---	---	---	---	---	---	---	---	---	359.2600
708 - 5 (1) j	Señales al lado de la carretera: Delineador de peligro OBSTRUCCIÓN EN LA VÍA (0.40	u	5.0000	140.3700	701.8500	---	---	---	---	---	---	---	---	---	---	---	---	701.8500
708 - 5 (1) k	Señales al lado de la carretera: Delineador de peligro ALINEAMIENTO HORIZONTAL (f	u	2.0000	184.0300	368.0600	---	---	---	---	---	---	---	---	---	---	---	---	368.0600
712 - (1) E	Bolardos plásticos (Ø = 90 mm, L = 80 cm)	u	65.0000	35.3700	2 299.0500	---	---	---	---	---	---	---	---	---	---	---	---	2 299.0500
					55 156.2400													
SEMAFORIZACIÓN - Obra civil para semaforización																		
706 - (1) a	Basamento de Báculo - (0.80*0.80*0.80) m - incluy excavación y desalojo	u	4.0000	456.4600	1 825.8400	---	---	---	---	---	---	---	---	---	---	1 825.8400	---	---
706 - (1) b	Basamento de columna vehicular y peatonal - (0.60*0.60*0.60) m - incluy excavación y de	u	17.0000	277.1700	4 711.8900	---	---	---	---	---	---	---	---	---	---	2 771.7000	---	1 940.1900
706 - (1) d	Basamento de columnas CDV - (0.70*0.70*0.70) m - incluy excavación y desalojo	u	5.0000	371.8500	1 859.2500	---	---	---	---	---	---	---	---	---	---	1 487.4000	---	371.8500
706 - (3) a	Ductos de acera o calzada - 4 vías	m	152.0000	97.6900	14 848.8800	---	---	---	---	---	---	---	---	---	---	7 815.2000	---	7 033.6800
706 - (3) b	Ductos de acera o calzada - 1 vía	m	187.0000	63.1800	11 814.6600	---	---	---	---	---	---	---	---	---	---	5 054.4000	---	6 760.2600
706 - (4)	Pozo de revisión semaforica - (0.80*0.80*0.80) m - incluy tapa y cerco hierro dúctil	u	13.0000	583.5400	7 586.0200	---	---	---	---	---	---	---	---	---	---	4 668.3200	---	2 917.7000
					42 646.5400													

Solución vial: Estudios de Prefactibilidad, Factibilidad y Diseño Definitivos para la solución vial de la intersección de la Av. OSWALDO GUAYASAMÍN (Interoceánica), calle EUGENIO DE SANTA CRUZ Y ESPEJO y acceso a TANDA

Contratante: Empresa Pública Metropolitana de Movilidad y Obras Públicas, EPMMP

Contratista: Asociación RDS - IDROBO & ASOCIADOS

**Cuadro N° 16
CRONOGRAMA VALORADO DE TRABAJOS**

Ítem	Detalle	Unidad	Cantidad	PU	Total	Mes 1	Mes 2	Mes 3	Mes 4	Mes 5	Mes 6	Mes 7	Mes 8	Mes 9	Mes 10	Mes 11	Mes 12
SEMAFORIZACIÓN - Reguladores de semáforos y cámaras																	
706 - (12)	Semáforos de policarbonato de 3 módulos 3/200 - paso de VEHÍCULOS	u	1.0000	20 729.7600	20 729.7600	---	---	---	---	---	---	---	---	---	---	---	20 729.7600
706 - (13)	Camara CCTV - Cámara de supervisión de circuito cerrado de televisión	u	1.0000	4 868.2700	4 868.2700	---	---	---	---	---	---	---	---	---	---	---	4 868.2700
706 - (14)	Cámara de video TRAFICAM	u	6.0000	2 322.1800	13 933.0800	---	---	---	---	---	---	---	---	---	---	---	13 933.0800
					39 531.1100												
SEMAFORIZACIÓN - Semáforos y Módulos LED - pulsadores																	
706 - (15) a	Semáforos de policarbonato de 3 módulos 3/200 - paso de VEHÍCULOS	u	8.0000	526.3600	4 210.8800	---	---	---	---	---	---	---	---	---	---	---	4 210.8800
706 - (15) b	Semáforos de policarbonato de 3 módulos 3/200 - FLECHA paso de VEHÍCULOS	u	1.0000	492.8800	492.8800	---	---	---	---	---	---	---	---	---	---	---	492.8800
706 - (15) c	Semáforos de policarbonato de 3 módulos 1/300 rojo + 2/200 - paso de VEHÍCULOS	u	4.0000	553.7600	2 215.0400	---	---	---	---	---	---	---	---	---	---	---	2 215.0400
706 - (15) d	Semáforos de policarbonato de 3 módulos 1/300 rojo + 2/200 - FLECHA paso de VEHÍC	u	1.0000	526.0800	526.0800	---	---	---	---	---	---	---	---	---	---	---	526.0800
706 - (16)	Semáforos de policarbonato peatonales 2 módulos 2/200 cuadrados - paso de PEATON	u	14.0000	512.7000	7 177.8000	---	---	---	---	---	---	---	---	---	---	---	7 177.8000
706 - (17)	Pulsadores peatonales	u	6.0000	312.1700	1 873.0200	---	---	---	---	---	---	---	---	---	---	---	1 873.0200
					16 495.7000												
SEMAFORIZACIÓN - Postes, báculos y accesorios																	
706 - (18)	Báculo troncoconico completo de acero galvanizado	u	4.0000	925.3500	3 701.4000	---	---	---	---	---	---	---	---	---	---	---	3 701.4000
706 - (19)	Extensión de báculo	u	1.0000	127.3700	127.3700	---	---	---	---	---	---	---	---	---	---	---	127.3700
706 - (20)	Soporte sencillo para fijación de semáforos - en columna o de báculo	u	28.0000	110.2200	3 086.1600	---	---	---	---	---	---	---	---	---	---	---	3 086.1600
706 - (21)	Columna VEHÍCULAR de acero galvanizado - Ø = 110 mm, h = 3.00 m	u	7.0000	503.3800	3 523.6600	---	---	---	---	---	---	---	---	---	---	---	3 523.6600
706 - (22)	Columna PEATONAL de acero galvanizado - Ø = 110 mm, h = 2.40 m	u	7.0000	478.5800	3 350.0600	---	---	---	---	---	---	---	---	---	---	---	3 350.0600
706 - (23)	Columna para CVD - h = 6.40 m, incl. extensión de 5 m	u	6.0000	824.5700	4 947.4200	---	---	---	---	---	---	---	---	---	---	---	4 947.4200
706 - (24)	Poste de hormigón para CCTV - L = 14 m	u	1.0000	846.4900	846.4900	---	---	---	---	---	---	---	---	---	---	---	846.4900
					19 582.5600												
SEMAFORIZACIÓN - Cables eléctricos y de datos																	
706 - (25)	Varilla de cobre para puesta a tierra - 1.80 m 16 mm	u	11.0000	63.5900	699.4900	---	---	---	---	---	---	---	---	---	---	---	699.4900
706 - (26)	Conductor de cobre N° 4*14 AWG - flexible carcaza plástica	m	530.0000	4.8900	2 591.7000	---	---	---	---	---	---	---	---	---	---	---	2 591.7000
706 - (27)	Conductor de cobre N°8 desnudo - (Tierra)	m	120.0000	3.7000	444.0000	---	---	---	---	---	---	---	---	---	---	---	444.0000
706 - (28)	Conductor de cobre N° 3*10 AWG - flexible (acometida)	m	20.0000	5.1400	102.8000	---	---	---	---	---	---	---	---	---	---	---	102.8000
706 - (29)	Conductor de cobre N° 3*14 AWG - flexible concentrico - CCTV	m	200.0000	5.0200	1 004.0000	---	---	---	---	---	---	---	---	---	---	---	1 004.0000
706 - (30)	Cable de datos - 2 pares EAPSP 0.9 mm	m	500.0000	6.0200	3 010.0000	---	---	---	---	---	---	---	---	---	---	---	3 010.0000
706 - (31)	Cable FTP blindado - CAT 6	m	30.0000	2.4600	73.8000	---	---	---	---	---	---	---	---	---	---	---	73.8000
706 - (32)	Sistema de protección de descargas atmosféricas -	glb	1.0000	463.4700	463.4700	---	---	---	---	---	---	---	---	---	---	---	463.4700
					8 389.2600												
RUBROS AMBIENTALES: Implementación del PMA																	
205 - (1)	Agua para control de polvo	m3	1 434.5100	7.4000	10 615.3740	740.0000	1 480.0000	1 480.0000	1 480.0000	740.0000	740.0000	1 480.0000	1 480.0000	995.3740	---	---	---
220 - (6) E / PRC1	Comunicados de Prensa Escrita	u	2.0000	348.0500	696.1000	696.1000	---	---	---	---	---	---	---	---	---	---	---
220 - (5) E	Comunicados Radiales	u	100.0000	43.7700	4 377.0000	656.5500	437.7000	437.7000	437.7000	437.7000	437.7000	218.8500	218.8500	218.8500	218.8500	218.8500	437.7000
220 - (1)	Charlas de concientización - Talleres	u	4.0000	140.6600	562.6400	140.6600	---	---	140.6600	---	---	140.6600	---	---	---	140.6600	---
220 - (2)	Charlas de adiestramiento (Seguridad Laboral y Salud Ocupacional)	u	3.0000	140.6600	421.9800	140.6600	---	---	---	---	140.6600	---	---	---	140.6600	---	---
708 - 5 (1) a, b, c	Señal preventiva (vallas móviles) - 1.20 * 0.60	u	7.0000	148.9200	1 042.4400	595.6800	---	446.7600	---	---	---	---	---	---	---	---	---
708 - 5 (1) d, e, f	Señal preventiva (vallas móviles) - 0.60 * 0.60	u	9.0000	102.3600	921.2400	409.4400	---	307.0800	---	204.7200	---	---	---	---	---	---	---
PMS1	Monitoreo material particulado (PM2,5 y PM10) 24 h	u	1.0000	153.8100	153.8100	---	153.8100	---	---	---	---	---	---	---	---	---	---
PMS2	Monitoreo de aire ambiente (CO2, NO2, SO2, O3) 24 h	u	1.0000	121.5900	121.5900	---	---	121.5900	---	---	---	---	---	---	---	---	---
PMS3	Monitoreo de ruido	u	1.0000	93.3200	93.3200	---	---	---	93.3200	---	---	---	---	---	---	---	---
206 (3) E	Área encespada	m2	1 198.0000	5.8700	7 032.2600	---	---	---	---	---	---	---	---	---	2 348.0000	2 348.0000	2 336.2600
206 (2) E	Área plantada (Árboles o arbustos) - h = 2.50 m	u	60.0000	35.3300	2 119.8000	---	---	---	---	---	---	---	---	1 059.9000	1 059.9000	---	---
					28 157.5540												
					Subtotal US \$:	7 189 461.8080											
EXPROPIACIONES																	
EXP - 1	Expropiaciones: Terreno, Construcciones, Cerramientos, etc.	glb	1.0000	790 186.7700	790 186.7700	790 186.7700	---	---	---	---	---	---	---	---	---	---	---
					Total US \$:	7 979 648.5780											

Avance Parcial	[US \$]	838 694.8774	374 683.9396	419 348.5967	678 613.5909	743 574.4433	805 109.9616	876 212.1886	1 420 850.1831	1 300 068.0165	292 201.8806	72 260.0100	158 030.8897
Porcentaje de Avance Parcial	[%]	10.5104	4.6955	5.2552	8.5043	9.3184	10.0895	10.9806	17.8059	16.2923	3.6618	0.9056	1.9804
Avance Acumulado	[US \$]	838 694.8774	1 213 378.8170	1 632 727.4137	2 311 341.0046	3 054 915.4479	3 860 025.4095	4 736 237.5981	6 157 087.7812	7 457 155.7977	7 749 357.6783	7 821 617.6883	7 979 648.5780
Porcentaje de Avance Acumulad	[%]	10.5104	15.2059	20.4611	28.9654	38.2838	48.3734	59.3540	77.1599	93.4522	97.1140	98.0196	100.0000

Fecha Informe: noviembre, 2023