1. DOCUMENTACIÓN TÉCNICA

Por cuanto el Contrato S.G. Ministro N° 66/2023 para la ejecución de las: ***" TRABAJO DE PAVIMENTACION ASFALTICA EN LOS DEPARTAMENTOS DE MISIONES, CORDILLERA Y CAAGUAZU – DIRECCION DE VIALIDAD – AD REFERENDUM A LA APROBACION AL CONTRATO DE PRESTAMO",*** Lote 1 progresiva 0+000 a la 18+620, adjudicado por Resolución Ministerial del MOPC N° 519/2023 y suscripto en fecha 04-05-2023, entre el MINISTERIO DE OBRAS PÚBLICAS Y COMUNICACIONES y la Empresa CONSTRUPAR S.A., contempla el derecho del Contratante de emitir Convenios Modificatorios de acuerdo a lo establecido en la Capitulo B - Cláusula 12 de los Aspectos Generales para la Contratación de Obras y ajustadas lo dispuesto en el Artículo 62 de la Ley N° 2.051/03, a introducir modificaciones en el Contrato durante la ejecución de la Obra, adecuándolas a las necesidades reales, se emite la presente DOCUMENTACIÓN TÉCNICA para la emisión del Convenio Modificatorio N° 1, de acuerdo a los siguientes términos:

2. CONCORDANCIA

La presente Documentación Técnica y Anexos para la emisión del Convenio Modificatorio Nº 1 se realiza en un todo de acuerdo con lo establecido en:

- En los Aspectos Generales para la Contratación de Obras en las siguientes cláusulas

Capítulo B
Cláusula 12. Obras o Trabajos no previstos.
Cláusula 13. Convenios modificatorios.
Capítulo C
Cláusula 1. Plazos de Ejecución.

- Artículo N° 62 "Convenios Modificatorios en Obras Públicas" de la Ley N° 2.051/03 de Contrataciones Públicas.

3. JUSTIFICACION Y ALCANCE DE LAS PRINCIPALES MODIFICACIONES PROPUESTAS.

Las modificaciones a implementarse en el Convenio Modificatorio Nº 1, se realizan a consecuencia de la revisión técnica realizada en virtud de lo establecido en el Item Nº 36 REVISION DEL DISEÑO FINAL DE INGENIERIA, el cual, conforme a lo establecido en las Especificaciones Técnicas, se realizan las verificaciones de los ítems citados a continuación:

I. Estudios Hidrológicos e Hidráulicos.

El presente ítem requiere la ejecución de un Estudio Hidrológico e Hidráulico de las cuencas afectadas geográficamente a la obra adjudicada, y cuyo resultado se remiten según Nota YSJB-104/2024, en la cual conforme MEU 6642/2024 la Contratista se hace entrega del resultado de dicho Estudio Hidrológico e Hidráulico, en el cual se verifican y se detallan los tipos y cantidades de obras de arte y de drenaje necesarias en el tramo. Dicho estudio fue analizado por la contratante, exponiendo mediante Nota D.E Nº 125/2024 que dicho informe ha sido analizado por el DATD-DV, realizando las recomendaciones pertinentes y se aprueba la ejecución de las obras de artes y de drenaje según Memorandum DATD Nº 032/24. Dicha documentación se encuentra agregada en el Anexo 1

Ing. SERGIO R. CAMUDIO BAEZ
Representante Legal

Ing. Juan Angel Rolón
Fiscal de Obra
D.V. - M.O.P.C.

II. Verificación del Calculo y Diseño del Paquete Estructural del Pavimento.

En cumplimiento de los requerimientos establecidos en este ítem, la contratista mediante Nota YSJB-108/2024 y Expediente MEU 13710/2024, la Contratista remite el Informe Técnico para la verificación del cálculo y diseño del paquete estructural del pavimento en base a las características fisiográficas y geomorfológicas del área y las condiciones de tránsito actuales. Dicho Informe fue objeto de análisis por parte de la contratante, quien a travez de Nota D.V.Nº 1606/2024, en el cual se expone el resultado del Informe Técnico de la propuesta del paquete estructural, en el mismo, el asesor técnico del MOPC indica las recomendaciones y se aprueba la ejecución de la propuesta del paquete estructural según Memorandum DPV-DV Nº 292/2024. La documentación citada se agrega al Anexo 1.

Por solicitud del MOPC según nota Nº 729/2023 se solicita la inclusión en el Convenio Modificatorio Nº 1 la implementación del Plan de Gestión Ambiental y la creación de la línea presupuestaria para la adquisición de Servicios Ambientales para dar cumplimiento al proyecto de Declaración de Impacto Ambiental por Resolución DGCCARN Nº 0531/2016 expedido por el Ministerio del Ambiente y Desarrollo Sostenible. Los mismos se presentan en el Anexo 1.

4. DESCRIPCIÓN DE LA VARIACIÓN DE LOS ÍTEMS CONTRACTUALES

Los cambios a realizarse involucran en sí la variación de las cantidades de trabajos contractuales y la incorporación de trabajos no previstos en el contrato original.

4.1 Ítems cuyas cantidades estimativas disminuyeron:

Ítem	Descripción del Bien	Unidad	Cantidad contrato	Cantidad C.M.O. N°1	DIFERENCIA
11	Riego de Imprimación	lts	309,948.52	241,315.20	-68,633.32
13	Carpeta de Concreto Asfáltico	m3	17,009.37	10,799.60	-6,209.77

4.2 Ítems cuyas cantidades estimativas aumentaron:

Ítem	Descripción del Bien	Unidad	Cantidad contrato	Cantidad C.M.O. N°1	DIFERENCIA
1	Desbroce, Despeje y Limpieza	Ha	24.96	33.52	8.56
3	Excavación No Clasificada	m3	9,751.80	15,988.99	6,237.19
4	Excavación de Bolsones	m3	14,413.86	28,412.10	13,988.24
10	Base Granular Estabilizada CBR 100%	m3	42,334.43	43,070.85	736.42
12	Riego de Liga	lts	73,026.90	74,480.00	1,453.10
17	Alcantarilla Celular Triple de H A 3,00x3,00	ml	14.00	16.00	2.00
35	Instalaciones y Servicios Especializados	Mes	24.00	29.00	5.00

Ing. Sergio Ramón BAEZ
Representante Legal

Ing. Juan Angel Rolón
Fiscal de Obra
DVP - M.O.P.C.

4.3 Ítems cuyas cantidades topeadas:

Ítem	Descripción del Bien	Unidad	Cantidad contrato	Cantidad C.M.O. N°1	DIFERENCIA
2	Remoción de Estructuras Existentes	gl	1.00	1.00	0.00
5	Excavación de Zanjas de Drenaje	m3	4,760.00	4,760.00	0.00
14	Alcantarilla Lateral Tubular Simple de H°A° D=0,80 m	ml	120.00	120.00	0.00
18	Cuneta Revestida de Hormigón	m3	31.64	31.64	0.00
19	Pórtico de Señalización	un	2.00	2.00	0.00
20	Señalización Horizontal	m2	6,703.20	6,703.20	0.00
21	Tacha Reflectiva	un	4,655.00	4,655.00	0.00
22	Tachón Reflectivo	un	250.00	250.00	0.00
23	Señalización Vertical	m2	95.79	95.79	0.00
24	Baranda Metálica de Contención Vehicular	ml	1,440.00	1,440.00	0.00
25	Alambrado	ml	500.00	500.00	0.00
26	Mojón para kilometraje	un	18.00	18.00	0.00
27	Caseta de resguardo peatonal	un	4.00	4.00	0.00
28	Iluminación en intersecciones	un	15.00	15.00	0.00
29	Traslado de columnas de servicio público	un	105.00	105.00	0.00
32	Dársena de Pesaje	un	1.00	1.00	0.00
33	Diagnóstico de Puentes Existentes	ml	45.00	45.00	0.00
34	Readecuación funcional y estructural de puentes existentes	ml	45.00	45.00	0.00
36	Revisión del Diseño Final de Ingeniería	gl	1.00	1.00	0.00
37	Movilización	gl	1.00	1.00	0.00

4.4 Ítems cuyas cantidades eliminadas:

Ítem	Descripción del Bien	Unidad	Cantidad contrato	Cantidad C.M.O. N°1	DIFERENCIA
6	Terraplén	m3	228,851.22	0.00	-228,851.22
7	Suelo Estabilizado con Cal (Talud)	m3	95,454.42	0.00	-95,454.42
8	Subrasante Mejorada CBR=20%	m3	72,006.33	0.00	-72,006.33
9	Subbase Granular Estabilizada CBR=80%	m3	43,846.38	0.00	43,846.38
15	Alcantarilla Celular Simple de H A 1,50x1,50	ml	152.00	0.00	-152.00
16	Alcantarilla Celular Doble de H A 1,50x1,50	ml	206.00	0.00	-206.00
30	Revestimiento Vegetal con Tepes	m2	173,646.01	0.00	-173,646.01
31	Protección Forestal en Áreas de Préstamo	un	16.00	0.00	-16.00

Ing. SERGIO ROMUNO BAEZ
Representante Legal

Ing. Juan Ángel Rolón
Fiscal de Obra
D.V. - M.O.P.C.

4.5 Ítems nuevos:

Ítem	Descripción del Bien	Unidad	Cantidad contrato	Cantidad C.M.O. N°1	DIFERENCIA
38	Pedraplen	m3	0.00	344,102.10	344,102.10
39	Alcantarilla Celular Simple de H°A° 1,00x1,00	ml	0.00	143.00	143.00
40	Alcantarilla Celular Doble de H°A° 1,00x1,00	ml	0.00	429.00	429.00
41	Adquisición de servicios ambientales	gl	0.00	1	1.00
42	Programa de educación ambiental y producción sostenible a la comunidad rural	gl	0.00	1	1.00

5. PLANILLA COMPARATIVA DE PRECIOS Y CÓMPUTO MÉTRICO.

En la planilla comparativa (Anexo N° 2) se puede apreciar: la planilla original, la planilla tras la revisión del proyecto y la planilla final con las modificaciones propuestas, donde se aprecia la variación del monto original de la obra de Gs. 77.203.161.628 (Guaraníes Setenta y siete mil doscientos tres millones ciento sesenta y un mil seiscientos veintiocho) IVA incluido, que en virtud del presente Convenio Modificatorio N° 1 aumenta en Gs. 15.435.266.326 (Guaraníes Quince mil cuatrocientos treinta y cinco millones doscientos sesenta y seis mil trescientos veintiseis) IVA incluido, lo cual representa un aumento del 19,99%, quedando modificado el monto contractual en Gs. 92.638.427.954 (Guaraníes Noventa y dos mil seiscientos treinta y ocho millones cuatrocientos veintisiete mil novecientos cincuenta y cuatro) IVA incluido.

6. CRONOGRAMA FISICO FINANCIERO Y CURVA DE AVANCE

Debido a que las condiciones contractuales originales han sido modificadas por las variaciones que registran las cantidades de los ítems contractuales, así como por la incorporación de los nuevos ítems en el presente Convenio Modificatorio N° 1, se adjunta el Cronograma Físico-Financiero (Anexo N° 3) y su correspondiente Curva de Avance, ajustados al presente Convenio Modificatorio.

7. PLAZO DE LA OBRA

Para la implementación del Convenio Modificatorio N° 1, el plazo contractual inicial de 24 meses, requiere de una ampliación proporcional al aumento del monto de la obra, es decir 4,8 meses adicionales al Contrato Original del Plazo de Ejecución de Obra, pudiendo este plazo ser ampliado en caso requerido por los sigtes. motivos.

- Por la diferencia de plazo normal debido al porcentaje de variaciones de las cantidades del presente Convenio Modificatorio N° 1.
- Por prórrogas de las lluvias y sus consecuencias que serán actualizadas a la fecha de culminación de la Obra.

Ing. SERGIO R. SAMUDIO BAEZ
Representante Legal

Ing. Juan Angel Rolón
Fiscal de Obra
D.V. - M.O.P.C.

PLANILLA DE PRECIOS

LPN MOPC Nº 93/2022 PAVIMENTACION ASFALTICA EN LOS DEPARTAMENTOS MISIONES, CORDILLERA Y CAAGUAZU con ID: 419394

TRAMO: YBYRATY - SAN JUAN BAUTISTA

LOTE 1 (PROG. 0+000 - 18+620). LONG. 18,62 KM

PLANILLA DE COMPUTO METRICO Y PRESUPUESTO

Ítem	Descripción del Bien	Unidad	Cantidad contrato	Cantidad C.M.O. N°1	DIFERENCIA	Precio unitario (IVA incluído)	Precio total contrato (IVA incluído)	Precio total C.M.O. N°1 (IVA incluído)	DIFERENCIA	OBSERVACIONES
1	Desbroce, Despeje y Limpieza	Ha	24.96	33.52	8.56	₲ 9,023,046	₲ 225,215,228	₲ 302,416,410	₲ 77,201,182	
2	Remoción de Estructuras Existentes	gl	1.00	1.00	0.00	₲ 32,845,342	₲ 32,845,342	₲ 32,845,342	₲ 0	
3	Excavación No Clasificada	m3	9,751.80	15,988.99	6,237.19	₲ 19,405	₲ 189,233,679	₲ 310,266,412	₲ 121,032,733	
4	Excavación de Bolsones	m3	14,413.86	28,412.10	13,998.24	₲ 21,863	₲ 315,130,221	₲ 621,173,742	₲ 306,043,521	
5	Excavación de Zanjas de Drenaje	m3	4,760.00	4,760.00	0.00	₲ 19,405	₲ 92,367,800	₲ 92,367,800	₲ 0	
6	Terraplén	m3	228,851.22	0.00	-228,851.22	₲ 22,238	₲ 5,089,193,430	₲ 0	-₲ 5,089,193,430	
7	Suelo Estabilizado con Cal (Talud)	m3	95,454.42	0.00	-95,454.42	₲ 79,524	₲ 7,590,917,296	₲ 0	-₲ 7,590,917,296	
8	Subrasante Mejorada CBR=20%	m3	72,006.33	0.00	-72,006.33	₲ 79,524	₲ 5,726,231,387	₲ 0	-₲ 5,726,231,387	
9	Subbase Granular Estabilizada CBR=80%	m3	43,846.38	0.00	-43,846.38	₲ 193,664	₲ 8,491,465,336	₲ 0	-₲ 8,491,465,336	
10	Base Granular Estabilizada CBR=100%	m3	42,334.43	43,070.85	736.42	₲ 227,463	₲ 9,629,516,451	₲ 9,797,025,436	₲ 167,508,985	
11	Riego de Imprimación	lts	309,948.52	241,315.20	-68,633.32	₲ 8,847	₲ 2,742,114,556	₲ 2,134,915,574	-₲ 607,198,982	
12	Riego de Liga	lts	73,026.90	74,480.00	1,453.10	₲ 8,636	₲ 630,660,308	₲ 643,209,280	₲ 12,548,972	
13	Carpeta de Concreto Asfáltico	m3	17,009.37	10,799.60	-6,209.77	₲ 1,436,749	₲ 24,438,195,338	₲ 15,516,314,500	-₲ 8,921,880,838	
14	Alcantarilla Lateral Tubular Simple de H°A° D=0,80 m	ml	120.00	120.00	0.00	₲ 1,322,525	₲ 158,703,000	₲ 158,703,000	₲ 0	
15	Alcantarilla Celular Simple de H A 1,50x1,50	ml	152.00	0.00	-152.00	₲ 4,750,196	₲ 722,029,792	₲ 0	-₲ 722,029,792	
16	Alcantarilla Celular Doble de H A 1,50x1,50	ml	206.00	0.00	-206.00	₲ 7,275,298	₲ 1,498,711,388	₲ 0	-₲ 1,498,711,388	
17	Alcantarilla Celular Triple de H A 3,00x3,00	ml	14.00	16.00	2.00	₲ 33,097,507	₲ 463,365,098	₲ 529,560,112	₲ 66,195,014	
18	Cuneta Revestida de Hormigón	m3	31.64	31.64	0.00	₲ 1,000,284	₲ 31,648,986	₲ 31,648,986	₲ 0	
19	Pórtico de Señalización	un	2.00	2.00	0.00	₲ 62,808,582	₲ 125,617,164	₲ 125,617,164	₲ 0	
20	Señalización Horizontal	m2	6,703.20	6,703.20	0.00	₲ 87,692	₲ 587,817,014	₲ 587,817,014	₲ 0	
21	Tacha Reflectiva	un	4,655.00	4,655.00	0.00	₲ 20,631	₲ 96,037,305	₲ 96,037,305	₲ 0	
22	Tachón Reflectivo	un	250.00	250.00	0.00	₲ 69,915	₲ 17,478,750	₲ 17,478,750	₲ 0	
23	Señalización Vertical	m2	95.79	95.79	0.00	₲ 1,602,306	₲ 153,484,892	₲ 153,484,892	₲ 0	
24	Baranda Metálica de Contención Vehicular	ml	1,440.00	1,440.00	0.00	₲ 573,070	₲ 825,220,800	₲ 825,220,800	₲ 0	
25	Alambrado	ml	500.00	500.00	0.00	₲ 35,157	₲ 17,578,500	₲ 17,578,500	₲ 0	
26	Mojón para kilometraje	un	18.00	18.00	0.00	₲ 1,008,605	₲ 18,154,890	₲ 18,154,890	₲ 0	
27	Caseta de resguardo peatonal	un	4.00	4.00	0.00	₲ 43,041,145	₲ 172,164,580	₲ 172,164,580	₲ 0	
28	Iluminación en intersecciones	un	15.00	15.00	0.00	₲ 16,993,241	₲ 254,898,615	₲ 254,898,615	₲ 0	
29	Traslado de columnas de servicio público	un	105.00	105.00	0.00	₲ 4,448,717	₲ 467,115,285	₲ 467,115,285	₲ 0	
30	Revestimiento Vegetal con Tepes	m2	173,646.01	0.00	-173,646.01	₲ 11,036	₲ 1,916,357,366	₲ 0	-₲ 1,916,357,366	
31	Protección Forestal en Áreas de Préstamo	un	16.00	0.00	-16.00	₲ 37,946,558	₲ 607,144,928	₲ 0	-₲ 607,144,928	
32	Dársena de Pesaje	un	1.00	1.00	0.00	₲ 385,997,112	₲ 385,997,112	₲ 385,997,112	₲ 0	
33	Diagnóstico de Puentes Existentes	ml	45.00	45.00	0.00	₲ 1,260,756	₲ 56,734,020	₲ 56,734,020	₲ 0	
34	Readecuación funcional y estructural de puentes existentes	ml	45.00	45.00	0.00	₲ 5,673,403	₲ 255,303,135	₲ 255,303,135	₲ 0	
35	Instalaciones y Servicios Especializados	Mes	24.00	29.00	5.00	₲ 36,228,889	₲ 869,493,336	₲ 1,050,637,781	₲ 181,144,445	
36	Revisión del Diseño Final de Ingeniería	gl	1.00	1.00	0.00	₲ 31,518,905	₲ 31,518,905	₲ 31,518,905	₲ 0	
37	Movilización	gl	1.00	1.00	0.00	₲ 2,277,500,395	₲ 2,277,500,395	₲ 2,277,500,395	₲ 0	
ITEMS NUEVOS							0	0		
38	Pedraplen	m3	0.00	344,102.10	344,102.10	₲ 151,798	₲ 0	₲ 52,233,850,642	₲ 52,233,850,642	
39	Alcantarilla Celular Simple de H°A° 1,00x1,00	ml	0.00	143.00	143.00	₲ 3,834,850	₲ 0	₲ 548,383,501	₲ 548,383,501	
40	Alcantarilla Celular Doble de H°A° 1,00x1,00	ml	0.00	429.00	429.00	₲ 6,538,929	₲ 0	₲ 2,805,200,638	₲ 2,805,200,638	
41	Adquisición de servicios ambientales	gl	0.00	1	1.00	₲ 16,720,456	₲ 0	₲ 16,720,456	₲ 16,720,456	*Excenta de IVA*
42	Programa de educación ambiental y producción sostenible a la comunidad rural	gl	0.00	1	1.00	₲ 70,566,980	₲ 0	₲ 70,566,980	₲ 70,566,980	
						Precio Total	77,203,161,628	92,638,427,954	15,435,266,326	
								Porcentaje de aumento	19.99%	

Ing. SERGIO R. SAMUDIO BAEZ
Representante Legal

Ing. Juan Ángel Rolón
Fiscal de Obra
D.V. - M.O.P.C.

COMPUTO METRICO

Obra: LPN MOPC Nº 93/2022 PAVIMENTACION ASFALTICA EN LOS DEPARTAMENTOS MISIONES, CORDILLERA Y CAAGUAZU con ID: 419394

Lote: 1

Tramo: YBYRATY - SAN JUAN BAUTISTA

ITEMS DE CONTRATO

Item N°1	Desbroce, Despeje y Limpieza	UNIDAD	CANTIDAD TOTAL
		Ha	33.52

Progresiva		Longitud (m)	Ancho (m)	Total (Ha)	Obrservación
Inicio	Fin				
0+000	18+620	18,620	18	33.52	previsión
			Total (Ha)	33.52	

Item N°3	Excavación No Clasificada	UNIDAD	CANTIDAD TOTAL
		m3	15,988.99

Progresiva		Longitud (m)	Volumen (m3)	Total (m3)	Obrservación
Inicio	Fin				
0+000	18+620	18,620	15,989	15,988.99	Según planilla adjunta Perfil4Win
			Total (m3)	15,988.99	

Item N°4	Excavación de Bolsones	UNIDAD	CANTIDAD TOTAL
		m3	28,412.10

Progresiva		Volumen (m3)	% previsión	Total (m3)	Obrservación
Inicio	Fin				
0+000	18+620	315,690.00	9.0%	28,412.10	previsión
			Total (m3)	28,412.10	

Item N°10	Base Granular Estabilizada CBR=100%	UNIDAD	CANTIDAD TOTAL
		m3	43,070.85

Progresiva		Long. (m)	Sección (m2)	Total (m3)	Obrservación
Inicio	Fin				
0+000	18+620	18,620.00	2.31	43,070.85	
			Total (m3)	43,070.85	

Item N°11	Riego de Imprimación	UNIDAD	CANTIDAD TOTAL
		lts	241,315.20

Progresiva		Long. (m)	Ancho (m)	Tasa (lts/m2)	Total (lts)	Obrservación
Inicio	Fin					
0+000	18+620	18,620	10.80	1.20	241,315.20	
				Total (lts)	**241,315.20**	

Item N°12	Riego de Liga	UNIDAD	CANTIDAD TOTAL
		lts	74,480.00

Progresiva		Long. (m)	Ancho (m)	Tasa (lts/m2)	Total (lts)	Obrservación
Inicio	Fin					
0+000	18+620	18,620	10.00	0.40	74,480.00	
				Total (lts)	**74,480.00**	

Item N°13	Carpeta de Concreto Asfáltico	UNIDAD	CANTIDAD TOTAL
		m3	10,799.60

Progresiva		Long. (m)	Ancho (m)	Espesor (m)	Total (m3)	Obrservación
Inicio	Fin					
0+000	18+620	18,620.00	7.00	0.07	9,123.80	Calzada
0+000	18+620	18,620.00	3.00	0.03	1,675.80	Banquinas
				Total (m3)	**10,799.60**	

Item N°17	Alcantarilla Celular Triple de H A 3,00x3,00	UNIDAD	CANTIDAD TOTAL
		ml	16.00

Prog.	Cant	Tipo	Dim H	Dim V	Total (ml)	Obrservación
18,575.00	3.00	[]	3.00	3.00	16.00	
				Total (ml)	**16.00**	

	Items Nuevos			
Item N°38	Pedraplen	UNIDAD	CANTIDAD TOTAL	
		m3	344,102.10	

Progresiva		Long. (m)	Volumen (m3)	Total (m3)	Obrservación
Inicio	Fin				
0+000	18+620	18,620.00	315,690	315,690.00	Según planilla perfil 4win
0+000	18+620	18,620.00	28,412	28,412.10	reposición de bolsones
			Total (m3)	**344,102.10**	

Ing. SERGIO R. SANUDIO BAEZ
Representante Legal

Ing. Juan Angel Rolón
Fiscal de Obra
D.V. - M.O.P.C.

59 (cincuenta y nueve)

COMPUTO METRICO

Obra: LPN MOPC Nº 93/2022 PAVIMENTACION ASFALTICA EN LOS DEPARTAMENTOS MISIONES, CORDILLERA Y CAAGUAZU con ID: 419394

Lote: 1

Tramo: YBYRATY - SAN JUAN BAUTISTA

Item N°39	Alcantarilla Celular Simple de H°A° 1,00x1,00	UNIDAD	CANTIDAD TOTAL
		ml	143.00

Prog.	Cant	Tipo	Dim H	Dim V	Total (ml)	Obrservación
2,200.00	1.00	[]	1.00	1.00	13.00	
2,500.00	1.00	[]	1.00	1.00	13.00	
9,500.00	1.00	[]	1.00	1.00	13.00	
9,900.00	1.00	[]	1.00	1.00	13.00	
10,700.00	1.00	[]	1.00	1.00	13.00	
12,100.00	1.00	[]	1.00	1.00	13.00	
13,100.00	1.00	[]	1.00	1.00	13.00	
16,200.00	1.00	[]	1.00	1.00	13.00	
17,200.00	1.00	[]	1.00	1.00	13.00	
17,600.00	1.00	[]	1.00	1.00	13.00	
18,300.00	1.00	[]	1.00	1.00	13.00	
				Total (ml)	**143.00**	

Item N°40	Alcantarilla Celular Doble de H°A° 1,00x1,00	UNIDAD	CANTIDAD TOTAL
		ml	429.00

Prog.	Cant	Tipo	Dim H	Dim V	Total (ml)	Obrservación
120.00	2.00	[]	1.00	1.00	13.00	
370.00	2.00	[]	1.00	1.00	13.00	
670.00	2.00	[]	1.00	1.00	13.00	
960.00	2.00	[]	1.00	1.00	13.00	
1,300.00	2.00	[]	1.00	1.00	13.00	
1,600.00	2.00	[]	1.00	1.00	13.00	
1,900.00	2.00	[]	1.00	1.00	13.00	
2,900.00	2.00	[]	1.00	1.00	13.00	
3,400.00	2.00	[]	1.00	1.00	13.00	
3,700.00	2.00	[]	1.00	1.00	13.00	
4,200.00	2.00	[]	1.00	1.00	13.00	
4,600.00	2.00	[]	1.00	1.00	13.00	
5,100.00	2.00	[]	1.00	1.00	13.00	
5,600.00	2.00	[]	1.00	1.00	13.00	
6,100.00	2.00	[]	1.00	1.00	13.00	
6,600.00	2.00	[]	1.00	1.00	13.00	

7,100.00	2.00	[]	1.00	1.00	13.00	
7,600.00	2.00	[]	1.00	1.00	13.00	
8,100.00	2.00	[]	1.00	1.00	13.00	
8,600.00	2.00	[]	1.00	1.00	13.00	
9,100.00	2.00	[]	1.00	1.00	13.00	
10,300.00	2.00	[]	1.00	1.00	13.00	
11,200.00	2.00	[]	1.00	1.00	13.00	
11,700.00	2.00	[]	1.00	1.00	13.00	
12,700.00	2.00	[]	1.00	1.00	13.00	
13,500.00	2.00	[]	1.00	1.00	13.00	
14,000.00	2.00	[]	1.00	1.00	13.00	
14,400.00	2.00	[]	1.00	1.00	13.00	
14,800.00	2.00	[]	1.00	1.00	13.00	
15,300.00	2.00	[]	1.00	1.00	13.00	
15,800.00	2.00	[]	1.00	1.00	13.00	
16,700.00	2.00	[]	1.00	1.00	13.00	
18,000.00	2.00	[]	1.00	1.00	13.00	
				Total (ml)	**429.00**	

Ing. SERGIO A. SAMUDIO BAEZ
Representante Legal

Ing. Juan Angel Rolón
Jefe
D.V. - M.O.P.C.

58 (Cincuentayocho)

58(cincuenta y ocho)

Planilla de Volumen de Movimiento de Suelo Perfil 4 Wln

Obra: CONVENIO YSJ-RAS 18,640

Tramo: -18+640.00

Tipo: Pedraplén

Volúmen: Total ⇐

Banquina Izquierda

Banquina Derecha -139 m³ 315,180 m³ 511 m³ 315,690 m³ 315,690 m³

Progresiva	Areas		Distancia	Areas Medias		Volumen		Cotas			Desbroce	Terraplen en corte	Terraplen Total	Volumen Terraplén
	Excavacion	Terraplén		Excavación	Terraplén	Excavación	Terraplén	Proyecto	Carga	Terr. Nat				
m.	m²	m²	m.	m²	m²	m³	m³	m	m	m	m³	m³	m³	m³
	-8.70		20.00	-4.35	1.47	-86.96	29.42	70.51		70.59		107.11	136.53	136.53
0+20.00		2.94	20.00		6.33		126.70	70.48		69.90			126.70	126.70
0+40.00		9.73	20.00		14.49		289.89	70.46		69.47			289.89	289.89
0+60.00		19.26	20.00		20.28		405.57	70.43		68.90			405.57	405.57
0+80.00		21.30	20.00		22.04		440.88	70.42		68.63			440.88	440.88
0+100.00		22.79	20.00		22.54		450.74	70.41		68.50			450.74	450.74
0+120.00		22.28	20.00		22.16		443.18	70.40		68.57			443.18	443.18
0+140.00		22.04	20.00		22.01		440.16	70.39		68.54			440.16	440.16
0+160.00		21.98	20.00		21.76		435.11	70.38		68.63			435.11	435.11
0+180.00		21.53	20.00		21.75		435.06	70.37		68.66			435.06	435.06
0+200.00		21.98	20.00		21.46		429.28	70.36		68.66			429.28	429.28
0+220.00		20.95	20.00		19.89		397.84	70.35		68.62			397.84	397.84
0+240.00		18.83	20.00		19.13		382.65	70.34		68.86			382.65	382.65
0+260.00		19.43	20.00		19.20		384.04	70.33		68.70			384.04	384.04
0+280.00		18.97	20.00		18.73		374.58	70.32		68.64			374.58	374.58
0+300.00		18.49	20.00		18.51		370.30	70.31		68.68			370.30	370.30
0+320.00		18.54	20.00		18.61		372.19	70.30		68.64			372.19	372.19
0+340.00		18.68	20.00		19.19		383.80	70.29		68.60			383.80	383.80
0+360.00		19.70	10.00		19.11		191.14	70.28		68.72			191.14	191.14
0+370.00		18.53	10.00		19.63		196.32	70.28		68.57			196.32	196.32
0+380.00		20.74	20.00		20.14		402.87	70.28		68.42			402.87	402.87
0+400.00		19.55	20.00		18.27		365.45	70.27		68.68			365.45	365.45
0+420.00		17.00	20.00		18.39		367.85	70.26		68.68			367.85	367.85
0+440.00		19.79	20.00		19.17		383.38	70.25		68.60			383.38	383.38
0+460.00		18.55	20.00		18.22		364.38	70.24		68.61			364.38	364.38
0+480.00		17.89	20.00		17.71		354.19	70.23		68.68			354.19	354.19
0+500.00		17.53	20.00		17.84		356.74	70.22		68.63			356.74	356.74
0+520.00		18.14	20.00		18.35		366.97	70.21		68.55			366.97	366.97
0+540.00		18.55	20.00		18.03		360.69	70.20		68.61			360.69	360.69
0+560.00		17.52	20.00		17.71		354.11	70.19		68.63			354.11	354.11
0+580.00		17.90	20.00		18.15		363.03	70.18		68.50			363.03	363.03
0+600.00		18.41	20.00		17.93		358.60	70.17		68.52			358.60	358.60
0+620.00		17.45	20.00		17.93		358.53	70.16		68.55			358.53	358.53
0+640.00		18.40	20.00		17.25		345.06	70.15		68.52			345.06	345.06
0+660.00		16.11	10.00		16.06		160.59	70.14		68.66			160.59	160.59
0+670.00		16.01	10.00		16.33		163.28	70.14		68.61			163.28	163.28
0+680.00		16.64	20.00		17.38		347.64	70.13		68.56			347.64	347.64
0+700.00		18.12	20.00		18.12		362.40	70.12		68.54			362.40	362.40
0+720.00		18.12	20.00		17.46		349.20	70.12		68.40			349.20	349.20
0+740.00		16.80	20.00		16.13		322.66	70.13		68.61			322.66	322.66
0+760.00		15.47	20.00		17.04		340.87	70.14		68.63			340.87	340.87
0+780.00		18.62	20.00		17.76		355.15	70.15		68.54			355.15	355.15
0+800.00		16.89	20.00		17.49		349.71	70.16		68.67			349.71	349.71
0+820.00		18.08	20.00		18.26		365.19	70.17		68.58			365.19	365.19
0+840.00		18.44	20.00		17.70		354.03	70.18		68.64			354.03	354.03
0+860.00		16.96	20.00		15.52		310.33	70.20		68.72			310.33	310.33
0+880.00		14.07	20.00		14.21		284.13	70.21		69.06			284.13	284.13
0+900.00		14.34	20.00		13.77		275.43	70.22		69.09			275.43	275.43
0+920.00		13.20	20.00		13.26		265.14	70.23		69.13			265.14	265.14
0+940.00		13.31	20.00		12.81		256.18	70.24		69.13			256.18	256.18
0+960.00		12.31	20.00		12.30		246.07	70.26		69.16			246.07	246.07
0+980.00		12.30	20.00		11.41		228.23	70.27		69.22			228.23	228.23
1+000.00		10.52	20.00		10.97		219.46	70.28		69.30			219.46	219.46
1+020.00		11.42	20.00		11.76		235.19	70.29		69.23			235.19	235.19
1+040.00		12.10	20.00		12.16		243.29	70.30		69.27			243.29	243.29
1+060.00		12.23	20.00		12.44		248.74	70.32		69.24			248.74	248.74
1+080.00		12.64	20.00		12.81		256.26	70.33		69.17			256.26	256.26
1+100.00		12.99	20.00		12.93		258.61	70.34		69.17			258.61	258.61
1+120.00		12.88	20.00		13.85		277.07	70.35		69.14			277.07	277.07
1+140.00		14.83	20.00		15.49		309.71	70.36		69.04			309.71	309.71
1+160.00		16.14	20.00		16.33		326.61	70.38		68.92			326.61	326.61
1+180.00		16.52	20.00		15.89		317.77	70.39		68.87			317.77	317.77
1+200.00		15.26	20.00		14.88		297.69	70.40		69.02			297.69	297.69
1+220.00		14.51	20.00		14.90		298.10	70.41		69.07			298.10	298.10
1+240.00		15.30	20.00		15.69		313.77	70.42		68.94			313.77	313.77
1+260.00		16.08	20.00		15.72		314.34	70.44		68.99			314.34	314.34
1+280.00		15.36	20.00		15.18		303.52	70.45		69.00			303.52	303.52
1+300.00		15.00	20.00		15.15		302.99	70.46		69.05			302.99	302.99
1+320.00		15.30	20.00		15.79		315.71	70.47		69.06			315.71	315.71
1+340.00		16.27	20.00		16.76		335.17	70.48		69.04			335.17	335.17
1+360.00		17.25	20.00		17.72		354.30	70.49		69.00			354.30	354.30
1+380.00		18.18	20.00		17.72		354.44	70.51		69.04			354.44	354.44
1+400.00		17.26	20.00		17.41		348.18	70.52		69.09			348.18	348.18
1+420.00		17.56	20.00		16.84		336.85	70.53		69.03			336.85	336.85
1+440.00		16.13	20.00		17.29		345.73	70.54		69.09			345.73	345.73
1+460.00		18.45	20.00		17.82		356.36	70.55		68.84			356.36	356.36
1+480.00		17.19	20.00		17.55		350.92	70.57		69.04			350.92	350.92
1+500.00		17.90	20.00		17.43		348.56	70.58		68.94			348.56	348.56
1+520.00		16.95	20.00		17.52		350.37	70.59		69.12			350.37	350.37
1+540.00		18.08	20.00		17.95		359.04	70.60		69.09			359.04	359.04

Ing. SERGIO DANIEL SAMUDIO BAEZ
Representante Legal

Ing. Juan Angel Rolón
Fiscal de Obra
D.V. - M.O.P.C.

57 (cincuenta y siete)

Planilla de Volumen de Movimiento de Suelo — Perfil 4 Win

Obra: CONVENIO YSJ-RAS — 18,640

Tramo: -18+640.00

Tipo: Pedraplén

Volúmen: Total ⇐

Banquina Izquierda

Banquina Derecha

						-139 m³	315,180 m³					511 m³	315,690 m³	315,690 m³
	Areas		Distancia	Areas Medias		Volumen		Cotas						
Progresiva	Excavacion	Terraplén		Excavación	Terraplén	Excavación	Terraplén	Proyecto	Carga	Terr. Nat	Desbroce	Terraplen en corte	Terraplen Total	Volumen Terraplén
m.	m²	m²	m.	m²	m²	m³	m³	m	m	m	m³	m³	m³	m³
1+560.00		17.82	20.00		18.22		364.47	70.61		69.07			364.47	364.47
1+580.00		18.63	20.00		18.12		362.49	70.63		69.09			362.49	362.49
1+600.00		17.62	20.00		17.46		349.16	70.64		69.13			349.16	349.16
1+620.00		17.29	20.00		17.20		344.01	70.65		69.18			344.01	344.01
1+640.00		17.11	20.00		17.12		342.46	70.66		69.15			342.46	342.46
1+660.00		17.14	20.00		17.32		346.41	70.67		69.12			346.41	346.41
1+680.00		17.50	20.00		17.03		340.55	70.69		69.16			340.55	340.55
1+700.00		16.55	20.00		16.63		332.62	70.70		69.14			332.62	332.62
1+720.00		16.71	20.00		16.86		337.28	70.70		69.17			337.28	337.28
1+740.00		17.02	20.00		17.15		343.06	70.71		69.19			343.06	343.06
1+760.00		17.29	20.00		17.19		343.71	70.70		69.18			343.71	343.71
1+780.00		17.08	20.00		17.39		347.75	70.70		69.20			347.75	347.75
1+800.00		17.69	20.00		17.49		349.78	70.70		69.22			349.78	349.78
1+820.00		17.29	20.00		17.19		343.78	70.70		69.20			343.78	343.78
1+840.00		17.09	20.00		17.56		351.11	70.70		69.13			351.11	351.11
1+860.00		18.02	20.00		17.41		348.25	70.70		69.13			348.25	348.25
1+880.00		16.81	20.00		17.13		342.62	70.70		69.14			342.62	342.62
1+900.00		17.46	20.00		17.75		355.04	70.70		69.15			355.04	355.04
1+920.00		18.05	20.00		17.78		355.69	70.70		69.15			355.69	355.69
1+940.00		17.52	20.00		17.70		353.93	70.70		69.09			353.93	353.93
1+960.00		17.87	20.00		17.76		355.11	70.70		69.13			355.11	355.11
1+980.00		17.64	20.00		18.02		360.43	70.70		69.16			360.43	360.43
2+000.00		18.40	20.00		18.31		366.13	70.70		69.09			366.13	366.13
2+020.00		18.21	20.00		18.01		360.21	70.69		69.02			360.21	360.21
2+040.00		17.81	20.00		17.57		351.40	70.69		69.19			351.40	351.40
2+060.00		17.33	20.00		17.30		345.97	70.69		69.12			345.97	345.97
2+080.00		17.27	20.00		17.16		343.30	70.69		69.13			343.30	343.30
2+100.00		17.06	20.00		17.44		348.84	70.69		69.15			348.84	348.84
2+120.00		17.82	20.00		17.76		355.26	70.69		69.01			355.26	355.26
2+140.00		17.70	20.00		18.44		368.72	70.69		69.13			368.72	368.72
2+160.00		19.17	20.00		18.37		367.43	70.69		69.00			367.43	367.43
2+180.00		17.58	20.00		16.90		337.96	70.69		69.12			337.96	337.96
2+200.00		16.22	20.00		16.10		321.92	70.69		69.22			321.92	321.92
2+220.00		15.97	20.00		16.43		328.63	70.69		69.24			328.63	328.63
2+240.00		16.89	20.00		16.76		335.22	70.69		69.22			335.22	335.22
2+260.00		16.63	20.00		16.52		330.34	70.69		69.22			330.34	330.34
2+280.00		16.41	20.00		16.16		323.13	70.68		69.20			323.13	323.13
2+300.00		15.91	20.00		16.08		321.67	70.68		69.23			321.67	321.67
2+320.00		16.26	20.00		16.50		329.93	70.68		69.26			329.93	329.93
2+340.00		16.73	20.00		15.58		311.68	70.68		69.20			311.68	311.68
2+360.00		14.44	20.00		15.13		302.59	70.68		69.27			302.59	302.59
2+380.00		15.82	20.00		15.42		308.33	70.68		69.30			308.33	308.33
2+400.00		15.01	20.00		15.21		304.29	70.68		69.29			304.29	304.29
2+420.00		15.42	20.00		15.38		307.68	70.68		69.28			307.68	307.68
2+440.00		15.35	20.00		15.79		315.85	70.68		69.34			315.85	315.85
2+460.00		16.24	20.00		14.63		292.58	70.68		69.23			292.58	292.58
2+480.00		13.02	20.00		12.69		253.80	70.68		69.30			253.80	253.80
2+500.00		12.36	20.00		13.80		276.07	70.68		69.55			276.07	276.07
2+520.00		15.25	20.00		15.18		303.53	70.68		69.32			303.53	303.53
2+540.00		15.11	20.00		15.19		303.72	70.67		69.37			303.72	303.72
2+560.00		15.27	20.00		15.29		305.79	70.67		69.24			305.79	305.79
2+580.00		15.31	20.00		15.27		305.48	70.67		69.27			305.48	305.48
2+600.00		15.24	20.00		15.31		306.23	70.67		69.24			306.23	306.23
2+620.00		15.39	20.00		15.18		303.64	70.67		69.26			303.64	303.64
2+640.00		14.98	20.00		15.07		301.42	70.67		69.27			301.42	301.42
2+660.00		15.16	20.00		14.93		298.54	70.67		69.25			298.54	298.54
2+680.00		14.69	20.00		15.04		300.84	70.67		69.32			300.84	300.84
2+700.00		15.39	20.00		15.59		311.88	70.67		69.32			311.88	311.88
2+720.00		15.79	20.00		15.44		308.79	70.67		69.21			308.79	308.79
2+740.00		15.09	20.00		14.89		297.79	70.67		69.29			297.79	297.79
2+760.00		14.69	20.00		14.99		299.72	70.67		69.26			299.72	299.72
2+780.00		15.28	20.00		15.40		308.10	70.67		69.27			308.10	308.10
2+800.00		15.53	20.00		15.02		300.37	70.66		69.20			300.37	300.37
2+820.00		14.51	20.00		14.84		296.78	70.66		69.30			296.78	296.78
2+840.00		15.17	20.00		13.80		275.95	70.66		69.28			275.95	275.95
2+860.00		12.42	20.00		13.59		271.90	70.66		69.30			271.90	271.90
2+880.00		14.77	20.00		14.71		294.12	70.66		69.25			294.12	294.12
2+900.00		14.65	20.00		14.27		285.43	70.67		69.28			285.43	285.43
2+920.00		13.90	20.00		15.04		300.83	70.67		69.40			300.83	300.83
2+940.00		16.19	20.00		16.32		326.43	70.68		69.27			326.43	326.43
2+960.00		16.46	20.00		16.20		324.08	70.68		69.24			324.08	324.08
2+980.00		15.95	20.00		16.39		327.74	70.69		69.25			327.74	327.74
3+000.00		16.82	20.00		16.59		331.85	70.70		69.18			331.85	331.85
3+020.00		16.36	20.00		16.74		334.72	70.71		69.13			334.72	334.72
3+040.00		17.11	20.00		16.57		331.36	70.71		69.17			331.36	331.36
3+060.00		16.03	20.00		15.93		318.69	70.72		69.24			318.69	318.69
3+080.00		15.84	20.00		15.45		309.07	70.73		69.39			309.07	309.07
3+100.00		15.06	20.00		14.39		287.71	70.73		69.33			287.71	287.71
3+120.00		13.71	20.00		13.67		273.46	70.74		69.43			273.46	273.46
3+140.00		13.64	20.00		14.05		280.90	70.75		69.49			280.90	280.90

Ing. [illegible] SAMUDIO BAEZ
Representante Legal

Ing. Juan Angel Rolón
Fiscal de Obra
D.V. - M.O.P.C.

56(cincuenta y seis)

Planilla de Volumen de Movimiento de Suelo **Perfil 4 Win**

Obra: CONVENIO YSJ-RAS 18,640

Tramo: -18+640.00

Tipo: Pedraplén

Volúmen: Total ⇐

Banquina Izquierda

Banquina Derecha

						-139 m³	315,180 m³					511 m³	315,690 m³	315,690 m³
	Areas		Distancia	Areas Medias		Volumen		Cotas						
Progresiva	Excavacion	Terraplén		Excavación	Terraplén	Excavación	Terraplén	Proyecto	Carga	Terr. Nat	Desbroce	Terraplen en corte	Terraplen Total	Volumen Terraplén
m.	m²	m²	m.	m²	m²	m³	m³	m	m	m	m³	m³	m³	m³
3+160.00		14.45	20.00		13.93		278.64	70.76		69.42			278.64	278.64
3+180.00		13.41	20.00		13.10		262.02	70.76		69.53			262.02	262.02
3+200.00		12.79	20.00		12.70		254.06	70.77		69.67		3.26	257.33	257.33
3+220.00		12.62	20.00		16.00		319.94	70.78		69.70			319.94	319.94
3+240.00		19.38	20.00		17.53		350.55	70.78		69.40			350.55	350.55
3+260.00		15.68	20.00		15.52		310.46	70.79		69.45			310.46	310.46
3+280.00		15.37	20.00		15.24		304.71	70.80		69.40			304.71	304.71
3+300.00		15.10	20.00		14.57		291.42	70.81		69.44			291.42	291.42
3+320.00		14.04	20.00		14.15		283.06	70.81		69.57			283.06	283.06
3+340.00		14.27	20.00		14.91		298.22	70.82		69.61			298.22	298.22
3+360.00		15.55	20.00		16.39		327.74	70.83		69.45			327.74	327.74
3+380.00		17.22	20.00		16.91		338.29	70.83		69.36			338.29	338.29
3+400.00		16.61	20.00		16.73		334.62	70.84		69.39			334.62	334.62
3+420.00		16.85	20.00		16.73		334.63	70.85		69.38			334.63	334.63
3+440.00		16.61	20.00		16.93		338.62	70.86		69.47			338.62	338.62
3+460.00		17.25	20.00		17.66		353.29	70.86		69.33			353.29	353.29
3+480.00		18.08	20.00		17.74		354.89	70.87		69.30			354.89	354.89
3+500.00		17.41	20.00		17.57		351.37	70.88		69.40			351.37	351.37
3+520.00		17.73	20.00		17.05		341.01	70.88		69.40			341.01	341.01
3+540.00		16.37	20.00		16.86		337.11	70.89		69.47			337.11	337.11
3+560.00		17.34	20.00		17.30		346.06	70.90		69.39			346.06	346.06
3+580.00		17.27	20.00		18.19		363.76	70.91		69.45			363.76	363.76
3+600.00		19.11	20.00		18.79		375.74	70.91		69.31			375.74	375.74
3+620.00		18.47	20.00		18.57		371.47	70.92		69.30			371.47	371.47
3+640.00		18.68	20.00		18.58		371.59	70.93		69.33			371.59	371.59
3+660.00		18.48	20.00		18.20		364.10	70.93		69.31			364.10	364.10
3+680.00		17.93	20.00		18.23		364.57	70.94		69.36			364.57	364.57
3+700.00		18.53	20.00		18.41		368.23	70.95		69.28			368.23	368.23
3+720.00		18.30	20.00		19.02		380.47	70.96		69.37			380.47	380.47
3+740.00		19.75	20.00		19.58		391.66	70.96		69.40			391.66	391.66
3+760.00		19.42	20.00		19.74		394.83	70.97		69.30			394.83	394.83
3+780.00		20.07	20.00		18.71		374.12	70.98		69.30			374.12	374.12
3+800.00		17.34	20.00		17.86		357.21	70.98		69.39			357.21	357.21
3+820.00		18.38	20.00		18.88		377.54	70.99		69.40			377.54	377.54
3+840.00		19.38	20.00		19.05		380.90	71.00		69.30			380.90	380.90
3+860.00		18.71	20.00		19.05		381.04	71.01		69.43			381.04	381.04
3+880.00		19.39	20.00		19.49		389.89	71.01		69.40			389.89	389.89
3+900.00		19.60	20.00		19.72		394.42	71.02		69.34			394.42	394.42
3+920.00		19.84	20.00		27.74		554.82	71.02		69.37			554.82	554.82
3+940.00		35.64	20.00		27.05		541.00	71.03		69.63			541.00	541.00
3+960.00		18.46	20.00		18.82		376.34	71.03		69.40			376.34	376.34
3+980.00		19.17	20.00		19.71		394.15	71.03		69.39			394.15	394.15
4+000.00		20.24	20.00		19.12		382.44	71.03		69.50			382.44	382.44
4+020.00		18.00	20.00		18.39		367.81	71.03		69.51			367.81	367.81
4+040.00		18.78	20.00		20.68		413.62	71.04		69.50			413.62	413.62
4+060.00		22.58	20.00		20.57		411.36	71.04		68.38			411.36	411.36
4+080.00		18.55	20.00		18.93		378.67	71.04		69.35			378.67	378.67
4+100.00		19.31	20.00		18.85		376.96	71.04		69.33			376.96	376.96
4+120.00		18.38	20.00		18.40		367.99	71.04		69.41			367.99	367.99
4+140.00		18.42	20.00		18.35		367.03	71.04		69.43			367.03	367.03
4+160.00		18.29	20.00		18.34		366.79	71.05		69.48			366.79	366.79
4+180.00		18.39	20.00		18.71		374.18	71.05		69.44			374.18	374.18
4+200.00		19.03	20.00		18.48		369.53	71.05		69.45			369.53	369.53
4+220.00		17.93	20.00		16.42		328.36	71.05		69.47			328.36	328.36
4+240.00		14.91	20.00		15.69		313.80	71.05		69.83			313.80	313.80
4+260.00		16.47	20.00		17.38		347.65	71.06		69.66			347.65	347.65
4+280.00		18.29	20.00		18.26		365.21	71.06		69.37			365.21	365.21
4+300.00		18.23	20.00		17.98		359.62	71.06		69.52			359.62	359.62
4+320.00		17.73	20.00		17.36		347.19	71.06		69.53			347.19	347.19
4+340.00		16.99	20.00		17.34		346.80	71.06		69.55			346.80	346.80
4+360.00		17.70	20.00		18.08		361.55	71.06		69.54			361.55	361.55
4+380.00		18.46	20.00		20.73		414.69	71.07		69.42			414.69	414.69
4+400.00		23.01	20.00		20.97		419.43	71.07		69.42			419.43	419.43
4+420.00		18.93	20.00		18.22		364.34	71.07		69.42			364.34	364.34
4+440.00		17.50	20.00		17.83		356.53	71.07		69.55			356.53	356.53
4+460.00		18.15	20.00		17.59		351.72	71.07		69.40			351.72	351.72
4+480.00		17.02	20.00		17.41		348.30	71.07		69.50			348.30	348.30
4+500.00		17.81	20.00		17.47		349.30	71.08		69.35			349.30	349.30
4+520.00		17.12	20.00		17.12		342.48	71.08		69.56			342.48	342.48
4+540.00		17.13	20.00		16.73		334.53	71.08		69.54			334.53	334.53
4+560.00		16.33	20.00		15.96		319.15	71.08		69.63			319.15	319.15
4+580.00		15.59	20.00		15.76		315.24	71.08		69.78			315.24	315.24
4+600.00		15.93	20.00		17.01		340.27	71.08		69.66			340.27	340.27
4+620.00		18.09	20.00		17.00		340.03	71.09		69.68			340.03	340.03
4+640.00		15.91	20.00		15.69		313.80	71.09		69.76			313.80	313.80
4+660.00		15.47	20.00		14.71		294.26	71.09		69.65			294.26	294.26
4+680.00		13.96	20.00		14.48		289.65	71.09		69.87			289.65	289.65
4+700.00		15.01	20.00		15.48		309.52	71.09		69.78			309.52	309.52
4+720.00		15.94	20.00		16.04		320.76	71.10		69.63			320.76	320.76
4+740.00		16.13	20.00		16.25		325.07	71.10		69.72			325.07	325.07

Ing. SAMUDIO BAEZ
Representante Legal

Ing. Juan Angel Rolón
Fiscal de Obra
D.V. - M.O.P.C.

55(cincuenta y cinco)

Planilla de Volumen de Movimiento de Suelo Perfil 4 Win

Obra: CONVENIO YSJ-RAS 18,640

Tramo: -18+640.00

Tipo: Pedraplén

Volúmen: Total ⇐

Banquina Izquierda

Banquina Derecha

						-139 m³	315,180 m³					511 m³	315,690 m³	315,690 m³
	Areas		Distancia	Areas Medias		Volumen		Cotas						
Progresiva	Excavacion	Terraplén		Excavación	Terraplén	Excavación	Terraplén	Proyecto	Carga	Terr. Nat	Desbroce	Terraplen en corte	Terraplen Total	Volumen Terraplén
m.	m²	m²	m.	m²	m²	m³	m³	m	m	m	m³	m³	m³	m³
4+760.00		16.37	20.00		16.25		325.06	71.10		69.70			325.06	325.06
4+780.00		16.13	20.00		15.87		317.46	71.10		69.61			317.46	317.46
4+800.00		15.62	20.00		14.41		288.18	71.10		69.74			288.18	288.18
4+820.00		13.20	20.00		14.22		284.30	71.10		69.92			284.30	284.30
4+840.00		15.23	20.00		15.60		311.94	71.11		69.69			311.94	311.94
4+860.00		15.97	20.00		15.78		315.62	71.11		69.72			315.62	315.62
4+880.00		15.60	20.00		14.61		292.12	71.11		69.73			292.12	292.12
4+900.00		13.62	20.00		13.75		274.99	71.11		69.92			274.99	274.99
4+920.00		13.88	20.00		14.30		286.05	71.11		69.89			286.05	286.05
4+940.00		14.72	20.00		15.32		306.39	71.11		69.83			306.39	306.39
4+960.00		15.92	20.00		16.08		321.70	71.12		69.74			321.70	321.70
4+980.00		16.25	20.00		15.90		317.92	71.12		69.62			317.92	317.92
5+000.00		15.54	20.00		15.60		312.06	71.12		69.79			312.06	312.06
5+020.00		15.67	20.00		15.77		315.49	71.12		69.75			315.49	315.49
5+040.00		15.88	20.00		15.48		309.57	71.12		69.72			309.57	309.57
5+060.00		15.08	20.00		14.63		292.53	71.12		69.80			292.53	292.53
5+080.00		14.18	20.00		13.50		269.97	71.13		69.91			269.97	269.97
5+100.00		12.82	20.00		13.83		276.60	71.13		70.02			276.60	276.60
5+120.00		14.84	20.00		15.09		301.75	71.13		69.86			301.75	301.75
5+140.00		15.34	20.00		15.38		307.61	71.13		69.75			307.61	307.61
5+160.00		15.43	20.00		15.17		303.33	71.13		69.80			303.33	303.33
5+180.00		14.91	20.00		14.68		293.64	71.14		69.75			293.64	293.64
5+200.00		14.46	20.00		14.39		287.80	71.14		69.85			287.80	287.80
5+220.00		14.32	20.00		14.51		290.15	71.14		69.83			290.15	290.15
5+240.00		14.69	20.00		14.52		290.36	71.14		69.73			290.36	290.36
5+260.00		14.35	20.00		14.16		283.13	71.15		69.76			283.13	283.13
5+280.00		13.97	20.00		13.58		271.64	71.15		69.85			271.64	271.64
5+300.00		13.20	20.00		13.19		263.78	71.15		69.98			263.78	263.78
5+320.00		13.18	20.00		13.34		266.73	71.15		69.94			266.73	266.73
5+340.00		13.49	20.00		13.14		262.87	71.16		69.80			262.87	262.87
5+360.00		12.80	20.00		12.96		259.21	71.16		69.98			259.21	259.21
5+380.00		13.13	20.00		12.68		253.68	71.16		69.95			253.68	253.68
5+400.00		12.24	20.00		12.59		251.82	71.16		69.99			251.82	251.82
5+420.00		12.94	20.00		12.78		255.57	71.16		70.00			255.57	255.57
5+440.00		12.62	20.00		12.95		259.07	71.17		70.00			259.07	259.07
5+460.00		13.29	20.00		13.65		273.03	71.17		69.96			273.03	273.03
5+480.00		14.01	20.00		13.77		275.43	71.17		69.90			275.43	275.43
5+500.00		13.53	20.00		13.27		265.46	71.17		69.92			265.46	265.46
5+520.00		13.02	20.00		13.05		260.94	71.18		69.96			260.94	260.94
5+540.00		13.08	20.00		12.88		257.63	71.18		69.85			257.63	257.63
5+560.00		12.68	20.00		13.35		266.90	71.18		69.85			266.90	266.90
5+580.00		14.01	20.00		13.63		272.59	71.18		69.89			272.59	272.59
5+600.00		13.25	20.00		13.87		277.32	71.19		69.90			277.32	277.32
5+620.00		14.48	20.00		14.06		281.10	71.19		69.73			281.10	281.10
5+640.00		13.63	20.00		13.11		262.13	71.19		69.92			262.13	262.13
5+660.00		12.58	20.00		12.49		249.87	71.19		70.02			249.87	249.87
5+680.00		12.41	20.00		12.95		259.06	71.20		70.10			259.06	259.06
5+700.00		13.50	20.00		13.15		263.09	71.20		69.98			263.09	263.09
5+720.00		12.81	20.00		12.97		259.31	71.20		70.01			259.31	259.31
5+740.00		13.12	20.00		13.78		275.52	71.20		70.00			275.52	275.52
5+760.00		14.43	20.00		14.19		283.73	71.21		69.90			283.73	283.73
5+780.00		13.94	20.00		13.98		279.58	71.21		69.88			279.58	279.58
5+800.00		14.01	20.00		13.94		278.72	71.21		69.89			278.72	278.72
5+820.00		13.86	20.00		14.42		288.41	71.21		69.99			288.41	288.41
5+840.00		14.98	20.00		13.77		275.48	71.22		69.88			275.48	275.48
5+860.00		12.56	20.00		13.54		270.71	71.22		69.90			270.71	270.71
5+880.00		14.51	20.00		14.95		299.02	71.22		69.89			299.02	299.02
5+900.00		15.40	20.00		15.03		300.70	71.22		69.93			300.70	300.70
5+920.00		14.67	20.00		15.29		305.78	71.23		69.97			305.78	305.78
5+940.00		15.90	20.00		15.87		317.50	71.23		69.89			317.50	317.50
5+960.00		15.85	20.00		15.12		302.41	71.23		69.93			302.41	302.41
5+980.00		14.40	20.00		14.21		284.13	71.23		69.97			284.13	284.13
6+000.00		14.02	20.00		13.74		274.86	71.24		69.90			274.86	274.86
6+020.00		13.47	20.00		13.85		276.92	71.24		70.01			276.92	276.92
6+040.00		14.22	20.00		14.55		290.99	71.24		69.92			290.99	290.99
6+060.00		14.87	20.00		14.72		294.42	71.24		69.83			294.42	294.42
6+080.00		14.57	20.00		13.86		277.24	71.24		69.82			277.24	277.24
6+100.00		13.16	20.00		14.16		283.20	71.25		69.88			283.20	283.20
6+120.00		15.16	20.00		14.49		289.75	71.25		69.82			289.75	289.75
6+140.00		13.81	20.00		14.29		285.88	71.25		69.91			285.88	285.88
6+160.00		14.78	20.00		14.91		298.25	71.25		69.80			298.25	298.25
6+180.00		15.05	20.00		15.48		309.66	71.26		69.82			309.66	309.66
6+200.00		15.92	20.00		15.35		307.09	71.26		69.63			307.09	307.09
6+220.00		14.79	20.00		14.54		290.80	71.26		69.58			290.80	290.80
6+240.00		14.29	20.00		14.09		281.77	71.26		69.88			281.77	281.77
6+260.00		13.89	20.00		13.60		271.92	71.27		69.74			271.92	271.92
6+280.00		13.30	20.00		13.98		279.62	71.27		69.82			279.62	279.62
6+300.00		14.66	20.00		13.70		274.06	71.27		69.76			274.06	274.06
6+320.00		12.75	20.00		13.30		265.91	71.27		70.00			265.91	265.91
6+340.00		13.85	20.00		13.62		272.38	71.28		69.83			272.38	272.38

Ing. Rodolfo R. SANTIDRIÁN PÉREZ
Representante

Ing. Juan Angel Rolón
Fiscal de Obra
D.V. - M.O.P.C.

54 (cincuenta y cuatro)

Planilla de Volumen de Movimiento de Suelo — Perfil 4 Win

Obra: CONVENIO YSJ-RAS — 18,640

Tramo: -18+640,00

Tipo: Pedraplén

Volúmen: Total ⇐

Banquina Izquierda

Banquina Derecha

Progresiva m.	Areas Excavacion m²	Areas Terraplén m²	Distancia m.	Areas Medias Excavación m²	Areas Medias Terraplén m²	Volumen Excavación m³	Volumen Terraplén m³	Cotas Proyecto m	Cotas Carga m	Cotas Terr. Nat m	Desbroce m³	Terraplen en corte m³	Terraplen Total m³	Volumen Terraplén m³
						-139 m³	315,180 m³					511 m³	315,690 m³	315,690 m³
6+360.00		13.39	20.00		12.80		256.06	71.28		69.98			256.06	256.06
6+380.00		12.21	20.00		12.42		248.31	71.28		69.89			248.31	248.31
6+400.00		12.62	20.00		12.74		254.76	71.28		69.92			254.76	254.76
6+420.00		12.86	20.00		12.56		251.29	71.29		69.80			251.29	251.29
6+440.00		12.27	20.00		11.72		234.38	71.29		69.90			234.38	234.38
6+460.00		11.17	20.00		11.43		228.67	71.29		69.79		2.01	230.68	230.68
6+480.00		11.70	20.00		11.23		224.65	71.30		69.76		4.74	229.38	229.38
6+500.00		10.77	20.00		11.15		223.03	71.30		69.82		4.66	227.69	227.69
6+520.00		11.54	20.00		11.45		229.05	71.31		69.83		1.75	230.79	230.79
6+540.00		11.37	20.00		12.44		248.78	71.32		69.92		0.96	249.74	249.74
6+560.00		13.51	20.00		13.14		262.75	71.33		69.90		0.95	263.70	263.70
6+580.00		12.77	20.00		12.26		245.21	71.34		69.96			245.21	245.21
6+600.00		11.76	20.00		11.45		229.01	71.35		69.94			229.01	229.01
6+620.00		11.15	20.00		11.24		224.77	71.36		69.98			224.77	224.77
6+640.00		11.33	20.00		11.28		225.64	71.37		69.96			225.64	225.64
6+660.00		11.23	20.00		11.34		226.89	71.38		69.85			226.89	226.89
6+680.00		11.46	20.00		11.43		228.66	71.39		69.86			228.66	228.66
6+700.00		11.41	20.00		11.36		227.24	71.40		69.85			227.24	227.24
6+720.00		11.31	20.00		10.63		212.50	71.41		69.97			212.50	212.50
6+740.00		9.94	20.00		10.23		204.66	71.42		69.90		10.69	215.35	215.35
6+760.00		10.53	20.00		10.08		201.53	71.43		70.09		9.64	211.17	211.17
6+780.00		9.62	20.00		10.10		201.98	71.44		70.05		4.82	206.80	206.80
6+800.00		10.57	20.00		10.19		203.70	71.44		69.99		0.31	204.01	204.01
6+820.00		9.80	20.00		10.66		213.25	71.45		70.02		0.92	214.16	214.16
6+840.00		11.53	20.00		9.80		196.05	71.46		70.03		5.49	201.55	201.55
6+860.00		8.08	20.00		7.78		155.63	71.48		70.09		9.07	164.70	164.70
6+880.00		7.49	20.00		7.54		150.74	71.51		70.30		9.44	160.17	160.17
6+900.00		7.59	20.00		7.57		151.47	71.56		70.29		10.79	162.26	162.26
6+920.00		7.56	20.00		7.33		146.68	71.62		70.34		14.21	160.89	160.89
6+940.00		7.11	20.00		7.33		146.51	71.69		70.42		13.29	159.80	159.80
6+960.00		7.54	20.00		7.98		159.69	71.75		70.64		9.47	169.16	169.16
6+980.00		8.43	20.00		8.55		170.91	71.82		70.73		5.52	176.44	176.44
7+000.00		8.66	20.00		9.97		199.40	71.88		70.85		1.19	200.59	200.59
7+020.00		11.28	20.00		10.40		207.94	71.95		70.82		0.59	208.53	208.53
7+040.00		9.52	20.00		11.18		223.62	72.01		70.87		0.42	224.04	224.04
7+060.00		12.84	20.00		11.91		238.23	72.07		70.92		1.42	239.65	239.65
7+080.00		10.98	20.00		9.42		188.36	72.14		71.05		3.67	192.02	192.02
7+100.00		7.86	20.00		7.68		153.63	72.20		71.12		7.51	161.14	161.14
7+120.00		7.51	20.00		7.82		156.45	72.27		71.06		8.21	164.66	164.66
7+140.00		8.14	20.00		7.57		151.48	72.33		71.28		9.30	160.77	160.77
7+160.00		7.01	20.00		6.94		138.79	72.40		71.56		14.83	153.62	153.62
7+180.00		6.87	20.00		7.26		145.13	72.46		71.69		9.02	154.15	154.15
7+200.00		7.64	20.00		7.88		157.66	72.53		71.68			157.66	157.66
7+220.00		8.12	20.00		8.01		160.28	72.59		71.70			160.28	160.28
7+240.00		7.90	20.00		8.25		164.92	72.65		71.84		3.63	168.55	168.55
7+260.00		8.59	20.00		8.46		169.15	72.72		71.91			169.15	169.15
7+280.00		8.33	20.00		8.84		176.75	72.78		71.87			176.75	176.75
7+300.00		9.35	20.00		9.48		189.51	72.85		71.81			189.51	189.51
7+320.00		9.60	20.00		9.23		184.65	72.91		71.91			184.65	184.65
7+340.00		8.86	20.00		8.90		177.96	72.98		72.04			177.96	177.96
7+360.00		8.93	20.00		9.56		191.30	73.04		72.15			191.30	191.30
7+380.00		10.20	20.00		10.35		207.04	73.10		72.15			207.04	207.04
7+400.00		10.51	20.00		10.89		217.82	73.17		72.15			217.82	217.82
7+420.00		11.27	20.00		11.53		230.60	73.23		72.10			230.60	230.60
7+440.00		11.79	20.00		12.09		241.89	73.30		72.10			241.89	241.89
7+460.00		12.40	20.00		13.28		265.66	73.36		72.13			265.66	265.66
7+480.00		14.16	20.00		14.72		294.31	73.43		72.09			294.31	294.31
7+500.00		15.27	20.00		15.79		315.80	73.49		72.15			315.80	315.80
7+520.00		16.31	20.00		16.19		323.73	73.50		72.09			323.73	323.73
7+540.00		16.06	20.00		15.92		318.35	73.50		72.15			318.35	318.35
7+560.00		15.77	20.00		15.90		318.05	73.51		72.18			318.05	318.05
7+580.00		16.03	20.00		16.63		332.52	73.51		72.09			332.52	332.52
7+600.00		17.22	20.00		17.10		342.02	73.52		72.02			342.02	342.02
7+620.00		16.98	20.00		17.95		359.06	73.53		72.05			359.06	359.06
7+640.00		18.92	20.00		18.81		376.12	73.53		72.00			376.12	376.12
7+660.00		18.69	20.00		18.88		377.61	73.54		71.97			377.61	377.61
7+680.00		19.07	20.00		19.20		383.95	73.55		71.96			383.95	383.95
7+700.00		19.32	20.00		19.27		385.30	73.55		71.96			385.30	385.30
7+720.00		19.21	20.00		19.40		388.04	73.56		72.02			388.04	388.04
7+740.00		19.59	20.00		19.81		396.25	73.56		72.03			396.25	396.25
7+760.00		20.03	20.00		19.88		397.61	73.57		72.02			397.61	397.61
7+780.00		19.73	20.00		19.43		388.67	73.58		72.05			388.67	388.67
7+800.00		19.14	20.00		19.08		381.65	73.58		72.05			381.65	381.65
7+820.00		19.03	20.00		19.40		388.06	73.59		72.10			388.06	388.06
7+840.00		19.78	20.00		19.34		386.78	73.60		72.10			386.78	386.78
7+860.00		18.90	20.00		19.22		384.47	73.60		72.10			384.47	384.47
7+880.00		19.55	20.00		19.61		392.28	73.61		72.05			392.28	392.28
7+900.00		19.68	20.00		19.65		392.95	73.61		72.05			392.95	392.95
7+920.00		19.61	20.00		19.71		394.19	73.62		71.96			394.19	394.19
7+940.00		19.81	20.00		19.65		392.59	73.63		72.02			392.59	392.59

Ing. Juan Angel Rolón
Fiscal de Obra
D.V. - M.O.P.C.

Ing. SERGIO R. SANDIDO BAEZ
Representante Legal

Planilla de Volumen de Movimiento de Suelo — Perfil 4 Win

Obra: CONVENIO YSJ-RAS — 18,640

Tramo: -18+640.00

Tipo: Pedraplén

Volúmen: Total ⇐

Banquina Izquierda

Banquina Derecha

						-139 m³	315,180 m³					511 m³	315,690 m³	315,690 m³
	Areas		Distancia	Areas Medias		Volumen		Cotas						
Progresiva	Excavacion	Terraplén		Excavación	Terraplén	Excavación	Terraplén	Proyecto	Carga	Terr. Nat	Desbroce	Terraplen en corte	Terraplen Total	Volumen Terraplén
m.	m²	m³	m.	m²	m²	m³	m³	m	m	m	m³	m³	m³	m³
7+960.00		19.45	20.00		19.56		391.19	73.63		72.00			391.19	391.19
7+980.00		19.67	20.00		19.75		395.06	73.64		72.05			395.06	395.06
8+000.00		19.84	20.00		19.83		396.67	73.64		72.05			396.67	396.67
8+020.00		19.83	20.00		19.46		389.23	73.65		72.10			389.23	389.23
8+040.00		19.10	20.00		19.02		380.36	73.66		72.14			380.36	380.36
8+060.00		18.94	20.00		18.85		376.98	73.66		72.15			376.98	376.98
8+080.00		18.76	20.00		19.02		380.41	73.67		72.10			380.41	380.41
8+100.00		19.28	20.00		19.04		380.89	73.68		72.14			380.89	380.89
8+120.00		18.81	20.00		18.70		373.94	73.68		72.15			373.94	373.94
8+140.00		18.59	20.00		18.91		378.18	73.69		72.18			378.18	378.18
8+160.00		19.23	20.00		19.22		384.34	73.69		72.20			384.34	384.34
8+180.00		19.20	20.00		18.93		378.57	73.70		72.19			378.57	378.57
8+200.00		18.65	20.00		18.84		376.86	73.71		72.23			376.86	376.86
8+220.00		19.03	20.00		19.00		380.04	73.71		72.24			380.04	380.04
8+240.00		18.97	20.00		18.83		376.54	73.72		72.30			376.54	376.54
8+260.00		18.68	20.00		18.97		379.39	73.72		72.26			379.39	379.39
8+280.00		19.26	20.00		19.36		387.30	73.73		72.21			387.30	387.30
8+300.00		19.47	20.00		19.40		388.06	73.74		72.12			388.06	388.06
8+320.00		19.33	20.00		19.93		398.70	73.74		72.19			398.70	398.70
8+340.00		20.54	20.00		20.46		409.22	73.75		72.15			409.22	409.22
8+360.00		20.39	20.00		21.03		420.64	73.76		72.20			420.64	420.64
8+380.00		21.68	20.00		22.20		443.93	73.76		72.07			443.93	443.93
8+400.00		22.71	20.00		22.38		447.64	73.77		72.01			447.64	447.64
8+420.00		22.05	20.00		21.41		428.20	73.77		71.90			428.20	428.20
8+440.00		20.77	20.00		20.03		400.56	73.78		72.09			400.56	400.56
8+460.00		19.29	20.00		19.99		399.82	73.78		72.22			399.82	399.82
8+480.00		20.70	20.00		20.49		409.83	73.78		72.09			409.83	409.83
8+500.00		20.29	20.00		19.97		399.38	73.79		72.10			399.38	399.38
8+520.00		19.65	20.00		19.64		392.76	73.79		72.08			392.76	392.76
8+540.00		19.62	20.00		20.15		402.96	73.79		72.15			402.96	402.96
8+560.00		20.67	20.00		19.75		395.05	73.80		72.15			395.05	395.05
8+580.00		18.83	20.00		18.42		368.49	73.80		72.23			368.49	368.49
8+600.00		18.02	20.00		18.28		365.58	73.80		72.27			365.58	365.58
8+620.00		18.54	20.00		18.17		363.40	73.81		72.25			363.40	363.40
8+640.00		17.80	20.00		18.92		378.49	73.81		72.30			378.49	378.49
8+660.00		20.05	20.00		19.94		398.73	73.81		72.15			398.73	398.73
8+680.00		19.82	20.00		20.24		404.72	73.82		72.20			404.72	404.72
8+700.00		20.65	20.00		20.60		411.91	73.82		72.15			411.91	411.91
8+720.00		20.54	20.00		19.85		396.97	73.82		72.10			396.97	396.97
8+740.00		19.16	20.00		18.94		378.72	73.83		72.25			378.72	378.72
8+760.00		18.72	20.00		18.92		378.49	73.83		72.29			378.49	378.49
8+780.00		19.13	20.00		19.14		382.77	73.84		72.20			382.77	382.77
8+800.00		19.15	20.00		19.43		388.61	73.84		72.18			388.61	388.61
8+820.00		19.72	20.00		19.12		382.35	73.84		72.14			382.35	382.35
8+840.00		18.52	20.00		18.63		372.70	73.85		72.20			372.70	372.70
8+860.00		18.75	20.00		18.67		373.40	73.85		72.20			373.40	373.40
8+880.00		18.59	20.00		18.24		364.79	73.85		72.15			364.79	364.79
8+900.00		17.89	20.00		17.78		355.56	73.86		72.22			355.56	355.56
8+920.00		17.67	20.00		17.51		350.27	73.86		72.15			350.27	350.27
8+940.00		17.36	20.00		17.62		352.36	73.86		72.25			352.36	352.36
8+960.00		17.88	20.00		17.62		352.32	73.87		72.33			352.32	352.32
8+980.00		17.36	20.00		16.04		320.83	73.87		72.45			320.83	320.83
9+000.00		14.73	20.00		15.21		304.16	73.87		72.50			304.16	304.16
9+020.00		15.69	20.00		15.78		315.51	73.88		72.33			315.51	315.51
9+040.00		15.86	20.00		15.39		307.89	73.88		72.29			307.89	307.89
9+060.00		14.93	20.00		15.35		306.99	73.88		72.29			306.99	306.99
9+080.00		15.77	20.00		15.78		315.65	73.89		72.14			315.65	315.65
9+100.00		15.79	20.00		15.46		309.25	73.89		72.16			309.25	309.25
9+120.00		15.13	20.00		15.30		306.05	73.90		72.16			306.05	306.05
9+140.00		15.47	20.00		15.51		310.14	73.90		72.11			310.14	310.14
9+160.00		15.54	20.00		15.51		310.28	73.90		72.13			310.28	310.28
9+180.00		15.49	20.00		15.25		305.06	73.91		72.14			305.06	305.06
9+200.00		15.02	20.00		14.50		289.97	73.91		72.12			289.97	289.97
9+220.00		13.98	20.00		14.32		286.34	73.91		72.33			286.34	286.34
9+240.00		14.65	20.00		14.44		288.85	73.92		72.54			288.85	288.85
9+260.00		14.23	20.00		14.53		290.61	73.92		72.35			290.61	290.61
9+280.00		14.83	20.00		14.89		297.77	73.92		72.27			297.77	297.77
9+300.00		14.95	20.00		14.96		299.22	73.93		72.25			299.22	299.22
9+320.00		14.97	20.00		15.03		300.62	73.93		72.19			300.62	300.62
9+340.00		15.09	20.00		15.17		303.44	73.93		72.36			303.44	303.44
9+360.00		15.26	20.00		14.67		293.32	73.94		72.23			293.32	293.32
9+380.00		14.08	20.00		15.07		301.40	73.94		72.20			301.40	301.40
9+400.00		16.06	20.00		15.61		312.11	73.94		72.13			312.11	312.11
9+420.00		15.15	20.00		15.47		309.49	73.95		72.26			309.49	309.49
9+440.00		15.80	20.00		15.43		308.68	73.95		72.24			308.68	308.68
9+460.00		15.07	20.00		15.78		315.56	73.96		72.22			315.56	315.56
9+480.00		16.49	20.00		15.79		315.76	73.96		72.37			315.76	315.76
9+500.00		15.09	20.00		15.03		300.60	73.96		72.21			300.60	300.60
9+520.00		14.97	20.00		14.85		296.95	73.97		72.30			296.95	296.95
9+540.00		14.72	20.00		14.87		297.44	73.97		72.13			297.44	297.44

Ing. SERGIO [illegible] CAMUDIO BAEZ
Representante Legal

Ing. Juan [illegible] Rolón
Fi[illegible]l de Obra
D[illegible] M.O.P.C.

52 (cincuenta y dos)

Planilla de Volumen de Movimiento de Suelo — **Perfil 4 Win**

Obra: CONVENIO YSJ-RAS — 18,640

Tramo: -18+640.00

Tipo: **Pedraplén**

Volúmen: **Total** ⇐

Banquina Izquierda

Banquina Derecha

						-139 m³	315,180 m³					511 m³	315,690 m³	315,690 m³
	Areas		Distancia	Areas Medias		Volumen		Cotas						
Progresiva	Excavacion	Terraplén		Excavación	Terraplén	Excavación	Terraplén	Proyecto	Carga	Terr. Nat	Desbroce	Terraplen en corte	Terraplen Total	Volumen Terraplén
m.	m²	m²	m.	m²	m²	m³	m³	m	m	m	m³	m³	m³	m³
9+560.00		15.02	20.00		14.86		297.26	73.97		72.19			297.26	297.26
9+580.00		14.70	20.00		14.53		290.50	73.98		72.23			290.50	290.50
9+600.00		14.35	20.00		14.52		290.43	73.98		72.35			290.43	290.43
9+620.00		14.70	20.00		14.72		294.41	73.98		72.26			294.41	294.41
9+640.00		14.74	20.00		14.96		299.15	73.99		72.28			299.15	299.15
9+660.00		15.17	20.00		14.88		297.65	73.99		72.23			297.65	297.65
9+680.00		14.59	20.00		14.45		288.92	73.99		72.31			288.92	288.92
9+700.00		14.30	20.00		14.43		288.51	74.00		72.28			288.51	288.51
9+720.00		14.55	20.00		14.90		297.94	74.00		72.24			297.94	297.94
9+740.00		15.24	20.00		15.06		301.22	74.00		72.24			301.22	301.22
9+760.00		14.88	20.00		14.77		295.49	74.01		72.34			295.49	295.49
9+780.00		14.67	20.00		14.79		295.77	74.01		72.30			295.77	295.77
9+800.00		14.91	20.00		14.86		297.15	74.02		72.27			297.15	297.15
9+820.00		14.81	20.00		14.71		294.21	74.02		72.32			294.21	294.21
9+840.00		14.61	20.00		14.19		283.72	74.02		72.33			283.72	283.72
9+860.00		13.76	20.00		14.52		290.37	74.03		72.52			290.37	290.37
9+880.00		15.28	20.00		14.06		281.25	74.03		72.48			281.25	281.25
9+900.00		12.85	20.00		13.27		265.44	74.03		72.45			265.44	265.44
9+920.00		13.70	20.00		14.24		284.83	74.04		72.50			284.83	284.83
9+940.00		14.78	20.00		14.59		291.81	74.04		72.42			291.81	291.81
9+960.00		14.40	20.00		14.67		293.47	74.04		72.44			293.47	293.47
9+980.00		14.95	20.00		15.27		305.50	74.05		72.40			305.50	305.50
10+000.00		15.60	20.00		15.62		312.47	74.05		72.33			312.47	312.47
10+020.00		15.65	20.00		15.48		309.65	74.05		72.42			309.65	309.65
10+040.00		15.32	20.00		15.38		307.64	74.06		72.46			307.64	307.64
10+060.00		15.45	20.00		15.89		317.81	74.06		72.35			317.81	317.81
10+080.00		16.33	20.00		16.46		329.18	74.06		72.28			329.18	329.18
10+100.00		16.58	20.00		16.24		324.85	74.07		72.29			324.85	324.85
10+120.00		15.90	20.00		17.01		340.24	74.07		72.39			340.24	340.24
10+140.00		18.12	20.00		17.09		341.83	74.08		72.40			341.83	341.83
10+160.00		16.06	20.00		16.24		324.75	74.08		72.50			324.75	324.75
10+180.00		16.42	20.00		16.40		327.99	74.08		72.38			327.99	327.99
10+200.00		16.38	20.00		16.21		324.19	74.09		72.38			324.19	324.19
10+220.00		16.04	20.00		16.57		331.47	74.09		72.42			331.47	331.47
10+240.00		17.11	20.00		16.64		332.84	74.09		72.40			332.84	332.84
10+260.00		16.17	20.00		15.80		316.08	74.10		72.50			316.08	316.08
10+280.00		15.44	20.00		15.89		317.81	74.10		72.61			317.81	317.81
10+300.00		16.35	20.00		16.63		332.54	74.10		72.59			332.54	332.54
10+320.00		16.91	20.00		16.42		328.36	74.11		72.53			328.36	328.36
10+340.00		15.93	20.00		15.88		317.54	74.11		72.62			317.54	317.54
10+360.00		15.83	20.00		15.94		318.88	74.11		72.64			318.88	318.88
10+380.00		16.06	20.00		16.23		324.60	74.12		72.60			324.60	324.60
10+400.00		16.40	20.00		16.65		333.06	74.12		72.63			333.06	333.06
10+420.00		16.91	20.00		16.64		332.90	74.12		72.65			332.90	332.90
10+440.00		16.38	20.00		16.80		336.05	74.13		72.62			336.05	336.05
10+460.00		17.22	20.00		16.56		331.28	74.13		72.63			331.28	331.28
10+480.00		15.91	20.00		15.72		314.41	74.14		72.65			314.41	314.41
10+500.00		15.53	20.00		15.95		318.98	74.14		72.77			318.98	318.98
10+520.00		16.36	20.00		16.52		330.33	74.14		72.70			330.33	330.33
10+540.00		16.67	20.00		16.43		328.60	74.15		72.72			328.60	328.60
10+560.00		16.19	20.00		16.28		325.54	74.15		72.71			325.54	325.54
10+580.00		16.36	20.00		16.77		335.40	74.15		72.69			335.40	335.40
10+600.00		17.18	20.00		16.83		336.62	74.16		72.63			336.62	336.62
10+620.00		16.49	20.00		16.60		332.07	74.16		72.75			332.07	332.07
10+640.00		16.72	20.00		17.18		343.58	74.16		72.71			343.58	343.58
10+660.00		17.64	20.00		17.37		347.32	74.17		72.65			347.32	347.32
10+680.00		17.09	20.00		17.27		345.47	74.17		72.68			345.47	345.47
10+700.00		17.45	20.00		17.25		344.94	74.17		72.68			344.94	344.94
10+720.00		17.04	20.00		16.91		338.28	74.18		72.68			338.28	338.28
10+740.00		16.79	20.00		16.85		336.92	74.18		72.70			336.92	336.92
10+760.00		16.91	20.00		15.98		319.59	74.18		72.75			319.59	319.59
10+780.00		15.05	20.00		15.84		316.71	74.19		72.73			316.71	316.71
10+800.00		16.62	20.00		16.60		331.97	74.19		72.66			331.97	331.97
10+820.00		16.58	20.00		16.65		332.92	74.20		72.69			332.92	332.92
10+840.00		16.71	20.00		16.29		325.88	74.20		72.71			325.88	325.88
10+860.00		15.88	20.00		12.86		257.11	74.20		72.83			257.11	257.11
10+880.00		9.84	20.00		12.27		245.43	74.21		73.27			245.43	245.43
10+900.00		14.71	20.00		15.03		300.56	74.21		72.86			300.56	300.56
10+920.00		15.35	20.00		15.44		308.88	74.21		72.82			308.88	308.88
10+940.00		15.54	20.00		16.13		322.59	74.22		72.88			322.59	322.59
10+960.00		16.72	20.00		17.21		344.15	74.22		72.82			344.15	344.15
10+980.00		17.70	20.00		17.23		344.64	74.22		72.65			344.64	344.64
11+000.00		16.77	20.00		16.90		338.09	74.23		72.77			338.09	338.09
11+020.00		17.04	20.00		17.18		343.53	74.23		72.72			343.53	343.53
11+040.00		17.31	20.00		17.06		341.13	74.23		72.72			341.13	341.13
11+060.00		16.80	20.00		17.02		340.37	74.24		72.75			340.37	340.37
11+080.00		17.24	20.00		17.13		342.67	74.24		72.75			342.67	342.67
11+100.00		17.03	20.00		16.80		335.99	74.24		72.76			335.99	335.99
11+120.00		16.57	20.00		16.93		338.56	74.25		72.80			338.56	338.56
11+140.00		17.29	20.00		17.12		342.34	74.25		72.72			342.34	342.34

Ing. Juan Angel Rolón
Fiscal de Obra
D.V. - M.O.P.C.

51 (cincuenta y uno)

Planilla de Volumen de Movimiento de Suelo — Perfil 4 Win

Obra: CONVENIO YSJ-RAS — 18,640

Tramo: -18+640.00

Tipo: **Pedraplén**

Volúmen: Total ⇐

Banquina Izquierda

Banquina Derecha

						-139 m³	315,180 m³					511 m³	315,690 m³	315,690 m³
	Areas		Distancia	Areas Medias		Volumen		Cotas						
Progresiva	Excavacion	Terraplén		Excavación	Terraplén	Excavación	Terraplén	Proyecto	Carga	Terr. Nat	Desbroce	Terraplen en corte	Terraplen Total	Volumen Terraplén
m.	m²	m²	m.	m²	m²	m³	m³	m	m	m	m³	m³	m³	m³
11+160.00		16.95	20.00		17.15		343.02	74.26		72.76			343.02	343.02
11+180.00		17.35	20.00		17.02		340.32	74.26		72.80			340.32	340.32
11+200.00		16.68	20.00		16.44		328.75	74.26		72.80			328.75	328.75
11+220.00		16.20	20.00		16.35		326.98	74.27		72.86			326.98	326.98
11+240.00		16.50	20.00		16.67		333.46	74.27		72.86			333.46	333.46
11+260.00		16.84	20.00		17.00		340.09	74.27		72.83			340.09	340.09
11+280.00		17.16	20.00		17.67		353.33	74.28		72.84			353.33	353.33
11+300.00		18.17	20.00		18.56		371.21	74.28		72.78			371.21	371.21
11+320.00		18.95	20.00		18.23		364.56	74.28		72.65			364.56	364.56
11+340.00		17.50	20.00		17.47		349.31	74.29		72.82			349.31	349.31
11+360.00		17.43	20.00		16.10		321.96	74.29		72.81			321.96	321.96
11+380.00		14.77	20.00		15.70		314.05	74.30		73.00			314.05	314.05
11+400.00		16.64	20.00		17.25		344.99	74.31		72.88			344.99	344.99
11+420.00		17.86	20.00		17.73		354.58	74.31		72.79			354.58	354.58
11+440.00		17.59	20.00		17.85		357.02	74.32		72.87			357.02	357.02
11+460.00		18.11	20.00		18.27		365.34	74.33		72.85			365.34	365.34
11+480.00		18.43	20.00		18.41		368.19	74.33		72.80			368.19	368.19
11+500.00		18.39	20.00		18.47		369.46	74.34		72.80			369.46	369.46
11+520.00		18.55	20.00		18.79		375.87	74.35		72.83			375.87	375.87
11+540.00		19.03	20.00		15.54		310.82	74.36		72.84			310.82	310.82
11+560.00		12.05	20.00		15.91		318.18	74.36		72.84			318.18	318.18
11+580.00		19.77	20.00		19.68		393.67	74.37		72.78			393.67	393.67
11+600.00		19.60	20.00		19.65		392.94	74.38		72.77			392.94	392.94
11+620.00		19.70	20.00		18.57		371.35	74.38		72.71			371.35	371.35
11+640.00		17.44	20.00		18.44		368.76	74.39		72.93			368.76	368.76
11+660.00		19.44	20.00		19.58		391.55	74.40		72.79			391.55	391.55
11+680.00		19.72	20.00		19.51		390.27	74.40		72.84			390.27	390.27
11+700.00		19.31	20.00		19.48		389.57	74.41		72.81			389.57	389.57
11+720.00		19.65	20.00		19.89		397.73	74.42		72.76			397.73	397.73
11+740.00		20.13	20.00		20.12		402.43	74.42		72.80			402.43	402.43
11+760.00		20.12	20.00		20.48		409.61	74.43		72.80			409.61	409.61
11+780.00		20.84	20.00		22.38		447.64	74.44		72.79			447.64	447.64
11+800.00		23.92	20.00		22.26		445.18	74.44		72.08			445.18	445.18
11+820.00		20.60	20.00		20.62		412.49	74.45		72.80			412.49	412.49
11+840.00		20.65	20.00		20.62		412.36	74.46		72.76			412.36	412.36
11+860.00		20.59	20.00		20.65		412.93	74.46		72.78			412.93	412.93
11+880.00		20.71	20.00		20.55		411.09	74.47		72.76			411.09	411.09
11+900.00		20.40	20.00		21.12		422.45	74.48		72.83			422.45	422.45
11+920.00		21.84	20.00		22.05		440.98	74.49		72.72			440.98	440.98
11+940.00		22.25	20.00		21.20		424.10	74.49		72.72			424.10	424.10
11+960.00		20.16	20.00		20.32		406.47	74.50		72.84			406.47	406.47
11+980.00		20.49	20.00		21.88		437.61	74.49		72.90			437.61	437.61
12+000.00		23.27	20.00		22.96		459.26	74.48		72.70			459.26	459.26
12+020.00		22.66	20.00		22.59		451.74	74.46		72.70			451.74	451.74
12+040.00		22.52	20.00		22.30		445.95	74.45		72.72			445.95	445.95
12+060.00		22.08	20.00		21.98		439.50	74.43		72.72			439.50	439.50
12+080.00		21.87	20.00		20.75		415.01	74.42		72.57			415.01	415.01
12+100.00		19.63	20.00		20.03		400.61	74.40		72.80			400.61	400.61
12+120.00		20.43	20.00		20.69		413.83	74.39		72.73			413.83	413.83
12+140.00		20.95	20.00		20.54		410.83	74.37		72.80			410.83	410.83
12+160.00		20.13	20.00		19.68		393.58	74.35		72.80			393.58	393.58
12+180.00		19.22	20.00		19.28		385.65	74.34		72.85			385.65	385.65
12+200.00		19.34	20.00		19.53		390.59	74.32		72.83			390.59	390.59
12+220.00		19.72	20.00		19.46		389.30	74.31		72.79			389.30	389.30
12+240.00		19.21	20.00		19.53		390.69	74.29		72.79			390.69	390.69
12+260.00		19.86	20.00		19.75		395.01	74.28		72.76			395.01	395.01
12+280.00		19.64	20.00		19.71		394.20	74.26		72.72			394.20	394.20
12+300.00		19.78	20.00		19.39		387.88	74.25		72.70			387.88	387.88
12+320.00		19.01	20.00		19.14		382.75	74.23		72.70			382.75	382.75
12+340.00		19.26	20.00		19.03		380.54	74.21		72.70			380.54	380.54
12+360.00		18.79	20.00		17.01		340.28	74.20		72.72			340.28	340.28
12+380.00		15.24	20.00		15.26		305.22	74.18		72.94			305.22	305.22
12+400.00		15.28	20.00		17.10		341.91	74.17		72.86			341.91	341.91
12+420.00		18.91	20.00		19.00		380.02	74.15		72.72			380.02	380.02
12+440.00		19.09	20.00	-0.10	15.84	-2.02	316.88	74.14		72.62			316.88	316.88
12+460.00	-0.20	12.59	20.00	-0.10	16.02	-2.02	320.45	74.12		72.65			320.45	320.45
12+480.00		19.45	20.00		18.93		378.55	74.11		72.57			378.55	378.55
12+500.00		18.40	20.00		18.05		360.92	74.09		72.63			360.92	360.92
12+520.00		17.69	20.00		19.24		384.73	74.07		72.62			384.73	384.73
12+540.00		20.79	20.00		22.34		446.86	74.06		72.55			446.86	446.86
12+560.00		23.90	20.00		19.95		399.02	74.04		71.76			399.02	399.02
12+580.00		16.00	20.00		16.20		324.01	74.03		72.60			324.01	324.01
12+600.00		16.40	20.00		16.25		325.04	74.01		72.61			325.04	325.04
12+620.00		16.10	20.00		16.05		321.09	74.00		72.70			321.09	321.09
12+640.00		16.01	20.00		15.73		314.67	73.98		72.62			314.67	314.67
12+660.00		15.46	20.00		15.16		303.26	73.97		72.65			303.26	303.26
12+680.00		14.86	20.00		14.97		299.36	73.95		72.70			299.36	299.36
12+700.00		15.07	20.00		15.19		303.72	73.93		72.60			303.72	303.72
12+720.00		15.30	20.00		14.73		294.62	73.92		72.58			294.62	294.62
12+740.00		14.16	20.00		13.93		278.69	73.90		72.68			278.69	278.69

Ing. [illegible] BAEZ — Representante Legal

Ing. Juan Angel Rolón — Fisc. Obra — D.V. — D.P.C.

50(cincuenta)

Planilla de Volumen de Movimiento de Suelo — Perfil 4 Win

Obra: CONVENIO YSJ-RAS — 18,640

Tramo: -18+640.00

Tipo: Pedraplén

Volúmen: Total ⇐

Banquina Izquierda

Banquina Derecha

Progresiva m.	Areas Excavacion m²	Areas Terraplén m²	Distancia m.	Areas Medias Excavación m²	Areas Medias Terraplén m²	Volumen Excavación m³ (-139 m³)	Volumen Terraplén m³ (315,180 m³)	Cotas Proyecto m	Cotas Carga m	Cotas Terr. Nat m	Desbroce m³ (511 m³)	Terraplen en corte m³	Terraplen Total m³ (315,690 m³)	Volumen Terraplén m³ (315,690 m³)
12+760.00		13.71	20.00		13.44		268.71	73.89		72.62			268.71	268.71
12+780.00		13.16	20.00		13.45		268.98	73.87		72.76			268.98	268.98
12+800.00		13.73	20.00		13.58		271.53	73.86		72.65			271.53	271.53
12+820.00		13.42	20.00		13.43		268.51	73.84		72.60			268.51	268.51
12+840.00		13.43	20.00		13.34		266.71	73.83		72.52			266.71	266.71
12+860.00		13.24	20.00		13.04		260.74	73.81		72.65			260.74	260.74
12+880.00		12.84	20.00		12.85		256.95	73.79		72.65			256.95	256.95
12+900.00		12.86	20.00		12.87		257.32	73.78		72.62			257.32	257.32
12+920.00		12.87	20.00		12.67		253.33	73.76		72.63			253.33	253.33
12+940.00		12.46	20.00		14.31		286.26	73.75		72.55			286.26	286.26
12+960.00		16.17	20.00		14.09		281.72	73.73		71.60			281.72	281.72
12+980.00		12.01	20.00		11.87		237.47	73.72		72.67			237.47	237.47
13+000.00		11.74	20.00		11.66		233.10	73.70		72.60			233.10	233.10
13+020.00		11.57	20.00		11.24		224.73	73.69		72.60			224.73	224.73
13+040.00		10.90	20.00		10.70		213.93	73.67		72.59		3.34	217.27	217.27
13+060.00		10.49	20.00		11.13		222.64	73.65		72.67			222.64	222.64
13+080.00		11.77	20.00		11.72		234.40	73.64		72.48			234.40	234.40
13+100.00		11.67	20.00		10.85		216.96	73.62		72.45			216.96	216.96
13+120.00		10.03	20.00		10.43		208.51	73.61		72.50			208.51	208.51
13+140.00		10.82	20.00		10.74		214.73	73.60		72.50			214.73	214.73
13+160.00		10.65	20.00		10.76		215.14	73.59		72.46			215.14	215.14
13+180.00		10.86	20.00		10.85		216.94	73.59		72.47			216.94	216.94
13+200.00		10.83	20.00		11.95		239.10	73.58		72.55		0.16	239.26	239.26
13+220.00		13.08	20.00		12.51		250.14	73.58		72.30			250.14	250.14
13+240.00		11.94	20.00		12.05		240.99	73.59		72.50			240.99	240.99
13+260.00		12.16	20.00		12.45		249.00	73.59		72.56			249.00	249.00
13+280.00		12.74	20.00		11.34		226.77	73.60		72.50			226.77	226.77
13+300.00		9.94	20.00		11.40		228.03	73.62		72.53			228.03	228.03
13+320.00		12.86	20.00		12.80		255.92	73.63		72.40			255.92	255.92
13+340.00		12.73	20.00		11.44		228.83	73.64		72.50			228.83	228.83
13+360.00		10.15	20.00		11.70		233.92	73.66		72.55			233.92	233.92
13+380.00		13.24	20.00		13.13		262.57	73.67		72.51			262.57	262.57
13+400.00		13.02	20.00		13.23		264.65	73.69		72.53			264.65	264.65
13+420.00		13.45	20.00		13.31		266.18	73.70		72.48			266.18	266.18
13+440.00		13.17	20.00		13.75		274.96	73.71		72.45			274.96	274.96
13+460.00		14.32	20.00		13.34		266.81	73.73		72.47			266.81	266.81
13+480.00		12.36	20.00		12.93		258.51	73.74		72.64			258.51	258.51
13+500.00		13.49	20.00		13.09		261.76	73.76		72.65			261.76	261.76
13+520.00		12.68	20.00		12.14		242.89	73.77		72.76			242.89	242.89
13+540.00		11.61	20.00		11.54		230.84	73.78		72.63		5.09	235.93	235.93
13+560.00		11.48	20.00		11.31		226.15	73.80		72.49		11.53	237.68	237.68
13+580.00		11.14	20.00		12.80		255.94	73.81		72.53			255.94	255.94
13+600.00		14.46	20.00		14.39		287.86	73.83		72.59			287.86	287.86
13+620.00		14.33	20.00		14.35		287.07	73.84		72.47			287.07	287.07
13+640.00		14.38	20.00		14.45		288.93	73.86		72.50			288.93	288.93
13+660.00		14.52	20.00		15.54		310.85	73.87		72.50			310.85	310.85
13+680.00		16.57	20.00		16.42		328.34	73.88		72.45			328.34	328.34
13+700.00		16.27	20.00		17.03		340.54	73.90		72.55			340.54	340.54
13+720.00		17.79	20.00		16.86		337.13	73.91		72.48			337.13	337.13
13+740.00		15.93	20.00		15.88		317.58	73.93		72.50			317.58	317.58
13+760.00		15.83	20.00		17.11		342.29	73.94		72.48			342.29	342.29
13+780.00		18.40	20.00		17.45		349.08	73.95		72.38			349.08	349.08
13+800.00		16.51	20.00		16.67		333.47	73.97		72.42			333.47	333.47
13+820.00		16.84	20.00		15.50		310.07	73.98		72.50			310.07	310.07
13+840.00		14.17	20.00		16.05		321.09	74.00		72.96			321.09	321.09
13+860.00		17.94	20.00		17.89		357.78	74.01		72.44			357.78	357.78
13+880.00		17.84	20.00		18.80		375.94	74.02		72.37			375.94	375.94
13+900.00		19.75	20.00		18.93		378.51	74.04		72.37			378.51	378.51
13+920.00		18.10	20.00		19.27		385.48	74.05		72.38			385.48	385.48
13+940.00		20.45	20.00		20.32		406.40	74.07		72.37			406.40	406.40
13+960.00		20.19	20.00		19.61		392.27	74.08		72.37			392.27	392.27
13+980.00		19.04	20.00		17.45		348.99	74.10		72.42			348.99	348.99
14+000.00		15.86	20.00		17.90		357.92	74.11		72.60			357.92	357.92
14+020.00		19.93	20.00		20.56		411.25	74.12		72.26			411.25	411.25
14+040.00		21.19	20.00		21.24		424.81	74.14		72.29			424.81	424.81
14+060.00		21.29	20.00		21.43		428.64	74.15		72.20			428.64	428.64
14+080.00		21.58	20.00		21.34		426.82	74.17		72.23			426.82	426.82
14+100.00		21.11	20.00		21.16		423.10	74.18		72.23			423.10	423.10
14+120.00		21.21	20.00		21.10		422.09	74.19		72.25			422.09	422.09
14+140.00		21.00	20.00		20.78		415.58	74.21		72.50			415.58	415.58
14+160.00		20.55	20.00		20.35		406.98	74.22		72.52			406.98	406.98
14+180.00		20.14	20.00		20.12		402.43	74.24		72.64			402.43	402.43
14+200.00		20.10	20.00		17.41		348.12	74.25		72.68			348.12	348.12
14+220.00		14.71	20.00		16.98		339.59	74.26		73.10			339.59	339.59
14+240.00		19.25	20.00		19.70		393.98	74.26		72.77			393.98	393.98
14+260.00		20.15	20.00		19.91		398.14	74.27		72.70			398.14	398.14
14+280.00		19.66	20.00		18.94		378.79	74.27		72.60			378.79	378.79
14+300.00		18.22	20.00		18.26		365.21	74.28		72.04			365.21	365.21
14+320.00		18.30	20.00		19.74		394.81	74.29		72.04			394.81	394.81
14+340.00		21.18	20.00		20.93		418.54	74.29		72.70			418.54	418.54

Ing. SERGIO R. [illegible]CIO BAEZ
Representante Legal

Ing. Juan Angel Rolón
Fiscal de Obra
D.N. - M.O.P.C.

Planilla de Volumen de Movimiento de Suelo **Perfil 4 Win**

Obra: CONVENIO YSJ-RAS 18,640

Tramo: -18+640.00

Tipo: **Pedraplén**

Volúmen: **Total** ⇐

Banquina Izquierda

Banquina Derecha

						-139 m³	315,180 m³					511 m³	315,690 m³	315,690 m³
	Areas		Distancia	Areas Medias		Volumen		Cotas						
Progresiva	Excavacion	Terraplén		Excavación	Terraplén	Excavación	Terraplén	Proyecto	Carga	Terr. Nat	Desbroce	Terraplen en corte	Terraplen Total	Volumen Terraplén
m.	m²	m²	m.	m²	m²	m³	m³	m	m	m	m³	m³	m³	m³
14+360.00		20.68	20.00		20.06		401.17	74.30		72.64			401.17	401.17
14+380.00		19.44	20.00		19.98		399.58	74.30		72.75			399.58	399.58
14+400.00		20.52	20.00		24.07		481.45	74.31		72.70			481.45	481.45
14+420.00		27.63	20.00		24.93		498.58	74.31		72.11			498.58	498.58
14+440.00		22.23	20.00		22.55		450.95	74.32		72.68			450.95	450.95
14+460.00		22.86	20.00		25.32		506.41	74.33		72.60			506.41	506.41
14+480.00		27.78	20.00		25.14		502.80	74.33		72.72			502.80	502.80
14+500.00		22.50	20.00		22.90		457.90	74.34		72.64			457.90	457.90
14+520.00		23.29	20.00		22.73		454.65	74.34		72.62			454.65	454.65
14+540.00		22.18	20.00		22.05		440.90	74.35		72.62			440.90	440.90
14+560.00		21.91	20.00		18.70		374.06	74.35		72.76			374.06	374.06
14+580.00		15.49	20.00		18.45		368.94	74.35		73.08			368.94	368.94
14+600.00		21.40	20.00		22.49		449.74	74.35		72.73			449.74	449.74
14+620.00		23.57	20.00		22.62		452.36	74.36		72.47			452.36	452.36
14+640.00		21.66	20.00		21.94		438.88	74.36		72.63			438.88	438.88
14+660.00		22.23	20.00		22.38		447.56	74.36		72.56			447.56	447.56
14+680.00		22.53	20.00		22.47		449.38	74.36		72.65			449.38	449.38
14+700.00		22.41	20.00		22.49		449.84	74.36		72.66			449.84	449.84
14+720.00		22.58	20.00		21.94		438.78	74.37		72.60			438.78	438.78
14+740.00		21.30	20.00		21.50		430.10	74.37		72.54			430.10	430.10
14+760.00		21.71	20.00		21.55		431.02	74.37		72.76			431.02	431.02
14+780.00		21.39	20.00		20.81		416.28	74.37		72.72			416.28	416.28
14+800.00		20.24	20.00		21.16		423.30	74.37		72.79			423.30	423.30
14+820.00		22.09	20.00		21.75		434.96	74.37		72.54			434.96	434.96
14+840.00		21.40	20.00		20.90		417.98	74.38		72.75			417.98	417.98
14+860.00		20.40	20.00		20.92		418.33	74.38		72.82			418.33	418.33
14+880.00		21.44	20.00		22.10		442.08	74.38		72.84			442.08	442.08
14+900.00		22.77	20.00		22.52		450.41	74.38		72.70			450.41	450.41
14+920.00		22.27	20.00		22.25		445.09	74.38		72.70			445.09	445.09
14+940.00		22.24	20.00		22.69		453.87	74.38		72.72			453.87	453.87
14+960.00		23.15	20.00		23.08		461.63	74.39		72.66			461.63	461.63
14+980.00		23.01	20.00		22.41		448.19	74.39		72.66			448.19	448.19
15+000.00		21.80	20.00		21.85		436.98	74.39		72.72			436.98	436.98
15+020.00		21.89	20.00		20.63		412.64	74.39		72.70			412.64	412.64
15+040.00		19.37	20.00		21.38		427.69	74.39		72.92			427.69	427.69
15+060.00		23.40	20.00		23.24		464.76	74.39		72.66			464.76	464.76
15+080.00		23.08	20.00		23.29		465.83	74.40		72.60			465.83	465.83
15+100.00		23.51	20.00		23.37		467.31	74.40		72.62			467.31	467.31
15+120.00		23.23	20.00		23.32		466.41	74.40		72.64			466.41	466.41
15+140.00		23.42	20.00		23.62		472.35	74.40		72.61			472.35	472.35
15+160.00		23.82	20.00		22.94		458.81	74.40		72.60			458.81	458.81
15+180.00		22.06	20.00		22.13		442.56	74.40		72.77			442.56	442.56
15+200.00		22.19	20.00		22.27		445.34	74.41		72.77			445.34	445.34
15+220.00		22.34	20.00		22.51		450.16	74.41		72.75			450.16	450.16
15+240.00		22.68	20.00		22.85		456.96	74.41		72.70			456.96	456.96
15+260.00		23.02	20.00		22.31		446.26	74.41		72.64			446.26	446.26
15+280.00		21.61	20.00		20.23		404.53	74.41		72.70			404.53	404.53
15+300.00		18.85	20.00		17.69		353.88	74.41		72.80			353.88	353.88
15+320.00		16.54	20.00		19.05		380.91	74.41		73.00			380.91	380.91
15+340.00		21.55	20.00		22.28		445.67	74.41		72.83			445.67	445.67
15+360.00		23.02	20.00		23.03		460.62	74.40		72.72			460.62	460.62
15+380.00		23.05	20.00		23.31		466.14	74.40		72.67			466.14	466.14
15+400.00		23.57	20.00		23.32		466.42	74.40		72.62			466.42	466.42
15+420.00		23.07	20.00		23.05		460.98	74.39		72.68			460.98	460.98
15+440.00		23.02	20.00		23.09		461.80	74.39		72.68			461.80	461.80
15+460.00		23.16	20.00		23.41		468.11	74.39		72.66			468.11	468.11
15+480.00		23.66	20.00		23.65		473.09	74.38		72.60			473.09	473.09
15+500.00		23.65	20.00		23.74		474.87	74.38		72.58			474.87	474.87
15+520.00		23.83	20.00		23.57		471.38	74.38		72.60			471.38	471.38
15+540.00		23.30	20.00		23.53		470.69	74.37		72.62			470.69	470.69
15+560.00		23.76	20.00		23.46		469.28	74.37		72.60			469.28	469.28
15+580.00		23.16	20.00		23.37		467.39	74.37		72.60			467.39	467.39
15+600.00		23.58	20.00		23.49		469.71	74.36		72.60			469.71	469.71
15+620.00		23.40	20.00		23.40		467.91	74.36		72.66			467.91	467.91
15+640.00		23.40	20.00		23.37		467.49	74.36		72.64			467.49	467.49
15+660.00		23.35	20.00		25.14		502.89	74.35		72.60			502.89	502.89
15+680.00		26.94	20.00		24.96		499.17	74.35		71.67			499.17	499.17
15+700.00		22.98	20.00		22.96		459.25	74.35		72.58			459.25	459.25
15+720.00		22.94	20.00		22.24		444.75	74.34		72.60			444.75	444.75
15+740.00		21.53	20.00		19.89		397.70	74.34		72.75			397.70	397.70
15+760.00		18.24	20.00		20.89		417.74	74.34		73.03			417.74	417.74
15+780.00		23.53	20.00		20.06		401.25	74.33		72.69			401.25	401.25
15+800.00		16.59	20.00		18.80		375.99	74.33		72.90			375.99	375.99
15+820.00		21.01	20.00		21.57		431.45	74.32		72.72			431.45	431.45
15+840.00		22.14	20.00		22.56		451.10	74.32		72.63			451.10	451.10
15+860.00		22.97	20.00		22.41		448.19	74.32		72.57			448.19	448.19
15+880.00		21.85	20.00		24.40		488.08	74.31		72.67			488.08	488.08
15+900.00		26.96	20.00		25.05		500.98	74.31		72.55			500.98	500.98
15+920.00		23.14	20.00		23.16		463.14	74.31		72.50			463.14	463.14
15+940.00		23.18	20.00		22.77		455.38	74.30		72.55			455.38	455.38

Ing. SERGIO ROMERO BAEZ
Representante Legal

Ing. Juan Angel Rolón
Fiscal de Obra
D.N.V. - M.O.P.C.

Planilla de Volumen de Movimiento de Suelo Perfil 4 Win

Obra: CONVENIO YSJ-RAS 18,640

Tramo: -18+640.00

Tipo: Pedraplén

Volúmen: Total ⇐

Banquina Izquierda

Banquina Derecha

						-139 m³	315,180 m³					511 m³	315,690 m³	315,690 m³
	Areas		Distancia	Areas Medias		Volumen		Cotas						
Progresiva	Excavacion	Terraplén		Excavación	Terraplén	Excavación	Terraplén	Proyecto	Carga	Terr. Nat	Desbroce	Terraplen en corte	Terraplen Total	Volumen Terraplén
m.	m²	m²	m.	m²	m²	m³	m³	m	m	m	m³	m³	m³	m³
15+960.00		22.36	20.00		22.45		448.92	74.30		72.55			448.92	448.92
15+980.00		22.53	20.00		21.46		429.16	74.30		72.60			429.16	429.16
16+000.00		20.38	20.00		20.42		408.39	74.29		72.62			408.39	408.39
16+020.00		20.45	20.00		21.57		431.45	74.29		72.66			431.45	431.45
16+040.00		22.69	20.00		22.45		449.02	74.28		72.52			449.02	449.02
16+060.00		22.21	20.00		22.39		447.72	74.26		72.59			447.72	447.72
16+080.00		22.56	20.00		22.17		443.49	74.25		72.60			443.49	443.49
16+100.00		21.79	20.00		21.90		438.04	74.24		72.58			438.04	438.04
16+120.00		22.02	20.00		21.78		435.63	74.23		72.55			435.63	435.63
16+140.00		21.55	20.00		20.89		417.87	74.22		72.61			417.87	417.87
16+160.00		20.24	20.00		20.85		416.99	74.21		72.75			416.99	416.99
16+180.00		21.46	20.00		21.36		427.11	74.20		72.62			427.11	427.11
16+200.00		21.25	20.00		20.79		415.89	74.19		72.62			415.89	415.89
16+220.00		20.34	20.00		20.28		405.52	74.18		72.62			405.52	405.52
16+240.00		20.22	20.00		20.10		401.92	74.16		72.55			401.92	401.92
16+260.00		19.98	20.00		19.80		395.90	74.15		72.65			395.90	395.90
16+280.00		19.61	20.00		19.28		385.64	74.14		72.60			385.64	385.64
16+300.00		18.95	20.00		19.35		387.00	74.13		72.63			387.00	387.00
16+320.00		19.75	20.00		19.52		390.49	74.12		72.63			390.49	390.49
16+340.00		19.30	20.00		19.60		391.97	74.11		72.65			391.97	391.97
16+360.00		19.90	20.00		19.69		393.73	74.10		72.55			393.73	393.73
16+380.00		19.47	20.00		19.16		383.30	74.09		72.58			383.30	383.30
16+400.00		18.86	20.00		18.91		378.24	74.07		72.55			378.24	378.24
16+420.00		18.97	20.00		18.37		367.31	74.06		72.57			367.31	367.31
16+440.00		17.76	20.00		17.73		354.62	74.05		72.58			354.62	354.62
16+460.00		17.70	20.00		17.48		349.51	74.04		72.65			349.51	349.51
16+480.00		17.25	20.00		17.32		346.42	74.03		72.65			346.42	346.42
16+500.00		17.39	20.00		16.10		322.05	74.02		72.87			322.05	322.05
16+520.00		14.82	20.00		15.32		306.37	74.01		72.90			306.37	306.37
16+540.00		15.82	20.00		17.21		344.12	74.00		72.87			344.12	344.12
16+560.00		18.59	20.00		18.50		369.92	73.99		72.72			369.92	369.92
16+580.00		18.40	20.00		18.50		369.90	73.97		72.76			369.90	369.90
16+600.00		18.59	20.00		18.65		372.94	73.96		72.76			372.94	372.94
16+620.00		18.70	20.00		20.00		399.91	73.95		72.61			399.91	399.91
16+640.00		21.29	20.00		19.83		396.64	73.94		72.54			396.64	396.64
16+660.00		18.38	20.00		17.58		351.61	73.93		72.54			351.61	351.61
16+680.00		16.78	20.00		15.08		301.68	73.92		72.66			301.68	301.68
16+700.00		13.38	20.00		13.83		276.57	73.91		72.60			276.57	276.57
16+720.00		14.27	20.00		15.88		317.53	73.90		72.89			317.53	317.53
16+740.00		17.48	20.00		17.03		340.64	73.88		72.58			340.64	340.64
16+760.00		16.59	20.00		16.35		327.02	73.87		72.72			327.02	327.02
16+780.00		16.12	20.00		15.90		318.01	73.86		72.74			318.01	318.01
16+800.00		15.68	20.00		15.84		316.71	73.85		72.71			316.71	316.71
16+820.00		15.99	20.00		15.93		318.63	73.84		72.70			318.63	318.63
16+840.00		15.88	20.00		16.25		325.08	73.83		72.68			325.08	325.08
16+860.00		16.63	20.00		16.71		334.21	73.82		72.58			334.21	334.21
16+880.00		16.79	20.00		16.56		331.18	73.81		72.56			331.18	331.18
16+900.00		16.33	20.00		16.25		324.98	73.80		72.60			324.98	324.98
16+920.00		16.17	20.00		15.73		314.63	73.78		72.60			314.63	314.63
16+940.00		15.29	20.00		15.35		306.93	73.77		72.67			306.93	306.93
16+960.00		15.40	20.00		14.92		298.37	73.76		72.65			298.37	298.37
16+980.00		14.44	20.00		14.53		290.66	73.75		72.71			290.66	290.66
17+000.00		14.63	20.00		14.75		294.90	73.74		72.65			294.90	294.90
17+020.00		14.86	20.00		14.83		296.58	73.73		72.64			296.58	296.58
17+040.00		14.80	20.00		14.44		288.85	73.72		72.67			288.85	288.85
17+060.00		14.09	20.00		13.04		260.88	73.71		72.69			260.88	260.88
17+080.00		12.00	20.00		10.38		207.57	73.69		72.85		10.16	217.72	217.72
17+100.00		8.76	20.00		10.68		213.60	73.68		73.00		10.11	223.71	223.71
17+120.00		12.60	20.00		13.07		261.36	73.67		72.82			261.36	261.36
17+140.00		13.53	20.00		12.81		256.28	73.66		72.71			256.28	256.28
17+160.00		12.09	20.00		12.69		253.78	73.65		72.75			253.78	253.78
17+180.00		13.28	20.00		12.54		250.76	73.64		72.65			250.76	250.76
17+200.00		11.79	20.00		12.23		244.68	73.63		72.69			244.68	244.68
17+220.00		12.68	20.00		12.93		258.66	73.62		72.62			258.66	258.66
17+240.00		13.19	20.00		12.95		259.04	73.61		72.61			259.04	259.04
17+260.00		12.72	20.00		12.80		256.05	73.59		72.59			256.05	256.05
17+280.00		12.89	20.00		12.95		259.05	73.58		72.56			259.05	259.05
17+300.00		13.02	20.00		12.42		248.34	73.57		72.47			248.34	248.34
17+320.00		11.82	20.00		12.26		245.17	73.56		72.62			245.17	245.17
17+340.00		12.70	20.00		12.63		252.60	73.55		72.47			252.60	252.60
17+360.00		12.56	20.00		11.61		232.20	73.54		72.50			232.20	232.20
17+380.00		10.66	20.00		10.92		218.37	73.53		72.56			218.37	218.37
17+400.00		11.18	20.00		11.38		227.66	73.52		72.56			227.66	227.66
17+420.00		11.59	20.00		11.29		225.83	73.51		72.52			225.83	225.83
17+440.00		11.00	20.00		10.87		217.39	73.49		72.50			217.39	217.39
17+460.00		10.74	20.00		10.28		205.66	73.48		72.54			205.66	205.66
17+480.00		9.82	20.00		9.89		197.88	73.47		72.59			197.88	197.88
17+500.00		9.97	20.00		9.42		188.33	73.46		72.56			188.33	188.33
17+520.00		8.87	20.00		8.82		176.36	73.45		72.61		0.57	176.92	176.92
17+540.00		8.77	20.00		8.58		171.50	73.44		72.60		1.15	172.65	172.65

Ing. [illegible] SAMUDIO BAEZ
Representante Legal

Ing. Juan Angel Rolón
Fiscal de Obra
D.V. - M.O.P.C.

47 (cuarenta y siete)

Planilla de Volumen de Movimiento de Suelo — Perfil 4 Win

Obra: CONVENIO YSJ-RAS — 18,640

Tramo: -18+640,00

Tipo: Pedraplén

Volúmen: Total ⇐

Banquina Izquierda

Banquina Derecha

						-139 m³	315,180 m³					511 m³	315,690 m³	315,690 m³
	Areas		Distancia	Areas Medias		Volumen		Cotas				Terraplen	Terraplen	Volumen
Progresiva	Excavacion	Terraplén		Excavación	Terraplén	Excavación	Terraplén	Proyecto	Carga	Terr. Nat	Desbroce	en corte	Total	Terraplén
m.	m²	m²	m.	m²	m²	m³	m³	m	m	m	m³	m³	m³	m³
17+560.00		8.38	20.00		8.49		169.75	73.43		72.60		1.41	171.16	171.16
17+580.00		8.59	20.00		7.95		159.09	73.42		72.60		5.53	164.62	164.62
17+600.00		7.32	20.00		8.51		170.22	73.40		72.45			170.22	170.22
17+620.00		9.71	20.00		8.91		178.26	73.39		72.47			178.26	178.26
17+640.00		8.12	20.00		9.53		190.56	73.38		72.62			190.56	190.56
17+660.00		10.94	20.00		11.09		221.77	73.37		72.40			221.77	221.77
17+680.00		11.24	20.00		11.10		222.06	73.36		72.40			222.06	222.06
17+700.00		10.96	20.00		11.12		222.38	73.35		72.39			222.38	222.38
17+720.00		11.27	20.00		11.68		233.66	73.34		72.38			233.66	233.66
17+740.00		12.09	20.00		11.67		233.37	73.33		72.28			233.37	233.37
17+760.00		11.24	20.00		12.03		240.56	73.32		72.32			240.56	240.56
17+780.00		12.81	20.00		13.14		262.83	73.30		72.15			262.83	262.83
17+800.00		13.47	20.00		13.79		275.89	73.29		72.14			275.89	275.89
17+820.00		14.12	20.00		13.85		277.04	73.28		72.04			277.04	277.04
17+840.00		13.59	20.00		14.37		287.31	73.27		72.00			287.31	287.31
17+860.00		15.14	20.00		15.03		300.60	73.26		71.98			300.60	300.60
17+880.00		14.92	20.00		15.12		302.33	73.25		72.01			302.33	302.33
17+900.00		15.32	20.00		15.91		318.17	73.24		71.94			318.17	318.17
17+920.00		16.50	20.00		16.91		338.21	73.23		71.94			338.21	338.21
17+940.00		17.32	20.00		17.24		344.78	73.23		71.89			344.78	344.78
17+960.00		17.16	20.00		18.40		368.05	73.23		71.81			368.05	368.05
17+980.00		19.65	20.00		18.84		376.80	73.23		71.53			376.80	376.80
18+000.00		18.03	20.00		18.80		376.04	73.23		71.66			376.04	376.04
18+020.00		19.57	20.00		20.38		407.51	73.23		71.58			407.51	407.51
18+040.00		21.18	20.00		19.89		397.80	73.24		71.45			397.80	397.80
18+060.00		18.60	20.00		21.30		426.04	73.24		71.69			426.04	426.04
18+080.00		24.00	20.00		24.74		494.87	73.24		71.28			494.87	494.87
18+100.00		25.48	20.00		27.36		547.28	73.24		71.10			547.28	547.28
18+120.00		29.24	20.00		28.90		577.92	73.24		70.94			577.92	577.92
18+140.00		28.55	20.00		28.81		576.21	73.24		70.99			576.21	576.21
18+160.00		29.07	20.00		29.55		590.92	73.24		71.00			590.92	590.92
18+180.00		30.02	20.00		29.57		591.31	73.24		70.89			591.31	591.31
18+200.00		29.11	20.00		29.43		588.55	73.24		70.80			588.55	588.55
18+220.00		29.74	20.00		30.12		602.47	73.24		70.78			602.47	602.47
18+240.00		30.50	20.00		30.60		611.92	73.25		70.77			611.92	611.92
18+260.00		30.69	20.00		30.51		610.12	73.25		70.70			610.12	610.12
18+280.00		30.32	20.00		29.51		590.20	73.25		70.80			590.20	590.20
18+300.00		28.70	20.00		28.05		560.99	73.25		70.83			560.99	560.99
18+320.00		27.40	20.00		27.99		559.81	73.25		71.03			559.81	559.81
18+340.00		28.58	20.00		28.07		561.44	73.25		70.80			561.44	561.44
18+360.00		27.57	20.00		27.26		545.18	73.25		70.97			545.18	545.18
18+380.00		26.95	20.00		26.33		526.63	73.25		71.01			526.63	526.63
18+400.00		25.71	20.00		25.16		503.21	73.25		71.01			503.21	503.21
18+420.00		24.61	20.00		25.94		518.72	73.25		71.05			518.72	518.72
18+440.00		27.26	20.00		26.74		534.70	73.25		71.02			534.70	534.70
18+460.00		26.21	20.00		25.33		506.54	73.26		70.90			506.54	506.54
18+480.00		24.44	20.00		25.40		507.99	73.26		71.35			507.99	507.99
18+500.00		26.35	20.00		27.70		554.02	73.26		71.38			554.02	554.02
18+520.00		29.05	20.00		30.46		609.11	73.26		70.90			609.11	609.11
18+540.00		31.86	20.00		31.98		639.60	73.26		71.13			639.60	639.60
18+560.00		32.10	15.00		32.39		485.87	73.26		70.92			485.87	485.87
18+575.00		32.68	5.00		33.55		167.73	73.26		70.61			167.73	167.73
18+580.00		34.41	20.00		23.30		465.97	73.26		70.50			465.97	465.97
18+600.00		12.19	20.00		7.11		142.18	73.26		72.54		53.51	195.69	195.69
18+620.00		2.03	20.00	-2.41	1.01	-48.30	20.28	73.26		72.82		119.49	139.77	139.77
18+640.00	-4.83							73.26		73.37				
Totales:			18,640.00 ml			-139 m³	315,180 m³							

Ing. Juan Ángel Rolón
Fiscal de Obra
D.V. - M.O.P.C

CRONOGRAMA DE AVAN
LPN MOPC Nº 93/2022 PAVIMENTACION ASFALTICA EN LOS DEPAR
TRAMO: YBYRATY - S
LOTE 1 (PROG. 0+000 - 18
CRONOGRAMA DE AVAN

Descripción del Bien	Unidad	Cantidad contrato	Cantidad C.M.O. Nº1	Precio unitario (IVA incluido)	Precio total Contractual (IVA incluido)	Precio total C.M.O. Nº1 (IVA incluido)	1 ene-24	2 feb-24	3 mar-24	4 abr-24	5 may-24	6 jun-24	7 jul-24	8 ago-24	9 sep-24	10 oct-24
Desbroce, Despeje y Limpieza	Ha	24.96	33.52	$ 9,023,046	$ 225,215,228	$ 302,416,410				20.00%	20.00%	20.00%	20.00%	10.00%	10.00%	
Remoción de Estructuras Existentes	gl	1.00	1.00	$ 32,845,342	$ 32,845,342	$ 32,845,342						20.00%	20.00%	60.00%		
Excavación No Clasificada	m3	9,751.80	15,988.99	$ 19,405	$ 189,233,679	$ 310,266,412					20.00%	20.00%	20.00%	10.00%	10.00%	10.00%
Excavación de Bolsones	m3	14,413.86	28,412.10	$ 21,863	$ 315,130,221	$ 621,173,742					20.00%	20.00%	20.00%	10.00%	10.00%	10.00%
Excavación de Zanjas de Drenaje	m3	4,760.00	4,760.00	$ 19,405	$ 92,367,800	$ 92,367,800					20.00%	20.00%	20.00%	10.00%	10.00%	10.00%
Terraplén	m3	228,851.22	0.00	$ 22,236	$ 5,089,193,430	$ 0										
Suelo Estabilizado con Cal (Talud)	m3	95,454.42	0.00	$ 79,524	$ 7,590,917,296	$ 0										
Subrasante Mejorada CBR=20%	m3	72,006.33	0.00	$ 79,524	$ 5,726,231,387	$ 0										
Subbase Granular Estabilizada CBR=80%	m3	43,846.38	0.00	$ 193,664	$ 8,491,465,336	$ 0										
Base Granular Estabilizada CBR=100%	m3	42,334.43	43,070.85	$ 227,463	$ 9,629,516,451	$ 9,797,025,436										
Riego de Imprimación	lts	309,948.52	241,315.20	$ 8,847	$ 2,742,114,556	$ 2,134,915,574										
Riego de Liga	lts	73,026.90	74,480.00	$ 8,638	$ 630,660,308	$ 643,209,280										
Carpeta de Concreto Asfáltico	m3	17,009.37	10,799.60	$ 1,436,749	$ 24,438,195,338	$ 15,516,314,500										
Alcantarilla Lateral Tubular Simple de H°A° D=0,80 m	ml	120.00	120.00	$ 1,322,525	$ 158,703,000	$ 158,703,000										
Alcantarilla Celular Simple de H A 1,50x1,50	ml	152.00	0.00	$ 4,750,196	$ 722,029,792	$ 0										
Alcantarilla Celular Doble de H A 1,50x1,50	ml	206.00	0.00	$ 7,275,298	$ 1,498,711,388	$ 0										
Alcantarilla Celular Triple de H A 3,00x3,00	ml	14.00	16.00	$ 33,097,507	$ 463,365,098	$ 529,560,112						25.00%	25.00%	25.00%	25.00%	
Cuneta Revestida de Hormigón	m3	31.64	31.64	$ 1,000,284	$ 31,648,986	$ 31,648,986										
Pórtico de Señalización	un	2.00	2.00	$ 62,808,582	$ 125,617,164	$ 125,617,164										
Señalización Horizontal	m2	6,703.20	6,703.20	$ 87,692	$ 587,817,014	$ 587,817,014										
Tacha Reflectiva	un	4,655.00	4,655.00	$ 20,631	$ 96,037,305	$ 96,037,305										
Tachón Reflectivo	un	250.00	250.00	$ 69,915	$ 17,478,750	$ 17,478,750										
Señalización Vertical	m2	95.79	95.79	$ 1,602,304	$ 153,484,892	$ 153,484,892										
Baranda Metálica de Contención Vehicular	ml	1,440.00	1,440.00	$ 573,070	$ 825,220,800	$ 825,220,800										
Alambrado	ml	500.00	500.00	$ 35,157	$ 17,578,500	$ 17,578,500										25.00%
Mojón para kilometraje	un	18.00	18.00	$ 1,008,605	$ 18,154,890	$ 18,154,890										
Caseta de resguardo peaional	un	4.00	4.00	$ 43,041,145	$ 172,164,580	$ 172,164,580										
Iluminación en Intersecciones	un	15.00	15.00	$ 16,993,241	$ 254,898,615	$ 254,898,615										
Traslado de columnas de servicio público	un	105.00	105.00	$ 4,448,717	$ 467,115,285	$ 467,115,285					20.00%	25.00%	25.00%	20.00%	10.00%	
Revestimiento Vegetal con Tepes	m2	173,646.01	0.00	$ 11,038	$ 1,916,357,366	$ 0										
Protección Forestal en Áreas de Préstamo	un	16.00	0.00	$ 37,946,558	$ 607,144,928	$ 0										
Cinema de Pesaje	un	1.00	1.00	$ 385,997,112	$ 385,997,112	$ 385,997,112										
Diagnóstico de Puentes Existentes	ml	45.00	45.00	$ 1,260,756	$ 56,734,020	$ 56,734,020			50.00%	50.00%						
Readecuación funcional y estructural de puentes existentes	ml	45.00	45.00	$ 5,673,403	$ 255,303,135	$ 255,303,135						25.00%	25.00%	25.00%	25.00%	
Instalaciones y Servicios Especializados	Mes	24.00	29.00	$ 36,228,889	$ 869,493,336	$ 1,050,637,781	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%
Revisión del Diseño Final de Ingeniería	gl	1.00	1.00	$ 31,518,905	$ 31,518,905	$ 31,518,905	50.00%	50.00%								
Movilización	gl	1.00	1.00	$ 2,277,500,395	$ 2,277,500,395	$ 2,277,500,395		25.00%	20.00%							
[illegible]																
Pedraplen	m3		344,102.10	$ 151,798		$ 52,233,850,642							3.00%	5.00%	5.00%	5.00%
Alcantarilla Celular Simple de H°A° 1,00x1,00	ml		143.00	$ 3,834,850		$ 548,383,501					10.00%	10.00%	10.00%	10.00%	20.00%	20.00%
Alcantarilla Celular Doble de H°A° 1,00x1,00	ml		429.00	$ 6,538,929		$ 2,805,200,638					10.00%	10.00%	10.00%	10.00%	20.00%	20.00%
Adquisición de servicios ambientales	gl		1.00	$ 16,720,456		$ 16,720,456						100.00%				
Programa de educación ambiental y producción sostenible a la comunidad rural	gl		1.00	$ 70,566,980		$ 70,566,980						20.00%	20.00%	20.00%	20.00%	20.00%
				Precio Total	77,208,181,428	92,818,427,954	33,988,342	621,343,460	520,095,974	123,079,181	730,255,233	987,329,729	2,337,514,792	3,571,961,741	3,704,300,622	3,419,327,963
						PORCENTAJE PREVISTO MENSUAL:	0.07%	0.80%	0.67%	0.16%	0.95%	1.28%	3.03%	4.62%	4.80%	4.46%
						PORCENTAJE PREVISTO ACUMULADO:	0.07%	0.87%	1.53%	1.71%	2.65%	3.93%	7.22%	11.83%	16.63%	20.11%

Ing. SERGIO R. ARMUDIO BAEZ
Representante Legal

Ing. Juan Angel Ro
Fiscal de Obra
D.V. - M.O.P.C.

44 (cuarenta y cuatro)

E FISICO FINANCIERO
AMENTOS MISIONES, CORDILLERA Y CAAGUAZU con ID: 419394
N JUAN BAUTISTA
620). LONG. 18,92 KM
E FISICO FINANCIERO

11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
nov-24	dic-24	ene-25	feb-25	mar-25	abr-25	may-25	jun-25	jul-25	ago-25	sep-25	oct-25	nov-25	dic-25	ene-26	feb-26	mar-26	abr-26	may-26
10.00%																		
10.00%																		
10.00%																		
	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%								
	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%								
					6.67%	6.67%	6.67%	20.00%	20.00%	20.00%	20.00%							
					6.67%	6.67%	6.67%	20.00%	20.00%	20.00%	20.00%							
		33.33%	33.33%	33.33%														
			50.00%	50.00%														
																	50.00%	50.00%
													15.00%	25.00%	25.00%	25.00%	10.00%	
																30.00%	35.00%	35.00%
																	50.00%	50.00%
																30.00%	30.00%	40.00%
														25.00%	25.00%	25.00%	25.00%	
25.00%	35.00%	15.00%																
																50.00%	50.00%	
												50.00%	50.00%					
																	50.00%	50.00%
												25.00%	30.00%	30.00%	15.00%			
3.45%	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%
				85.00%														10.00%
10.00%	7.00%	10.00%	10.00%	8.00%	10.00%	10.00%	10.00%	7.00%										
10.00%	5.00%	5.00%																
10.00%	5.00%	5.00%																
6,702,747,788	6,059,642,831	6,476,054,983	6,633,133,494	6,501,731,619	7,510,109,660	7,510,109,660	7,510,109,660	8,117,697,791	4,401,327,746	4,401,327,746	3,266,151,759	218,410,457	326,287,463	505,287,476	447,067,609	473,422,447	549,049,024	557,983,287
7.99%	6.31%	8.61%	8.61%	8.42%	9.75%	9.75%	9.75%	10.51%	5.70%	5.70%	4.23%	0.28%	0.42%	0.65%	0.58%	0.61%	0.70%	0.72%
28.32%	34.87%	43.22%	51.87%	60.30%	70.14%	79.89%	89.65%	100.16%	105.94%	111.72%	115.95%	116.24%	116.66%	117.31%	117.89%	118.31%	119.27%	119.99%