

'i/2017/1_Rata/10892 MVD-PdT/07 Design/04 Track Design/02 Track Maps/Track_maps 139-168 Pintado-Puntas De

	KM-1 ⊕Lk=55,000,1	<u>_350.000 , 0.0</u> Kf	$R_{x=10000} + 0.0044$ $R_{x=155,95}$ $T_{G=3,125}$ $T_{G=3,125}$ R=900.0	KM-140+100	-KAA-140+200	100000 ,
				LC193 140+18 TYPE III Saint And	21 Drew Cross	
	165 \(\not\)		<=10000			
	0050 160 ▽	139+1000	KT=155.950	400.000		35.99
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V566	1:1100		D=50	1:110 1:110 1:082		

		LEGEND, MAP
Paso de Los Toros \rightarrow		New railway alignment
		Existing railway alignment (not in the Railway Project scop
		Railway Area borderline
		Secondary Side Tracks - Horizontal geometry pre-designed (Secondary side tracks and their switches will be designed and construct based on Appendix Q)
		Removal track
		Street or road modification area in level crossings or underpasses/flyovers
	>	Modification needed to the property access
	<u></u>	Affected parallel roads and streets and maintenance roa
		Road closing down
DOD44		Limit of designed soil cut (open cut or cut with a retaining w
180,000 , 0,0022 Rv z 0000 c		Limit of designed embankment fill, not including possible d
	-	Existing stations or passenger platforms
-140+400+403		New passenger platforms
KRAZA SOLOGI LODES	BXXX BXXX	Symbols
A 40+500 23000 000 0000 00000 00000 00000		Railway bridge or underpass, Flyover
King goog g To see 650 King goog g		Culvert
140+600	A I	
	0	Level crossing
S. N.	270.000 : 0.0141 400.000 : 0.0120 Rv=10000.0 K=38.70 TG=10.370	Track alignment with design geometry figuresR=curve radius (m)KR=length of curve (m)D=track cant (mm)Lk=length of transition curve (m)
	R=970.0 Lk=50.000 KR=50.191 D=50.0	RV=radius of vertical curveK=elevationTG=lenght of tangent123.345=length of straight line (m)
0 60 120 Meters	y. 2016 y. 2016 1 0 217 0 7	SPT-sounding, terminated at cobble, boulder, or bedrock contact.y. 2016=year of investigation, location of 2016 soundings not accurate1, 217=point number
	y. 2017 TR02	Disturbed Sample y. 2017= year of investigation TR02= point number
		LEGEND, PROFILE
0000	364.000 :0.0001 624.197 :0.0030 624.197 :0.0030 624.197 :0.0030 624.197 :0.0030 624.197 :0.0030 624.197 :0.0030	Vertical railway alignment (S=radius of vertical curve, KT=elevation point)
Rv=100		Ground surface
	3	Ground elevation on the left side of track centre line (-20r and on the right side of track centre line (+20m)
+400.000 -154.200 -99 	™ ₩	Culvert location (elevation will be designed in detailed desi phase)
	1771 1777777	
		Overpass bridge, railway or underpass bridge
	1	Elevation figures
	2.32 0	Designed track elevation (the running surface of the rail)
	32.15 92	Existing ground elevation
		Km stationing
	1 0 +1000.000	Horizontal alignment, schematic
		SR= length of straight line (m) R= curve radius (m) KB= length of surve (m)
4 0 0 4 4 V 0 7 0 7 0 7 0 7 0 7 0 7 0 7 0 7 0 7 0	D=50.00	D= track cant (mm) Lk= length of transition curve (m)
5 0.6	Version	15.12.2017
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		DE TRANSPORTE Y OBRAS PÚBLICAS Pre-engineering, Phase 2
- C 2 3 - C 2		Track map and profile
Lk=75.0		TRACK Km 139+0200 - 140+0600
1:1250	Drawer 15.12.2017 I	JPa Scale map 1:2000. profile 1:2000 /
ц	Designer 15.12.2017 H	IMa / MLe Coordinate system WGS 84 UTM 21 S, Local orthometric
\square	Supervisor 15.12.2017 S Accept.	Kailway lineMontevideo - Paso de LosArchiveTypeNumberRev.Rev.Sheet
I	Owner acc.	





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			Content Trac	k map	and profi	le											
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Designer	15.12.2017	HMa / MLe	Coordinate Elevation r	system eference sys	WGS 84 UTM 2	1 S, Local orthor	netric										
Supervisor	15.12.2017	SVi	Railway line	2	Montevide	eo - Paso de I	Los										
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	51 1000.000	KR=340.35 R=1000.00 D=45		Lk=65.0	SR=52.52	Lk=75.0 1:1250		





		LEGEND, MAP	
	_	New railway alignme	nt
	_	Existing railway align	ment (not in the Railway Project scope)
	_	Railway Area borderl	ine
	_	Secondary Side Trac (Secondary side tracks and based on Appendix Q)	ks - Horizontal geometry pre-designed d their switches will be designed and constructed
	==	Removal track	
		Street or road modific underpasses/flyovers	cation area in level crossings or
$\longrightarrow$		Modification needed	to the property access
<u> </u>		Affected parallel roa	ids and streets and maintenance roads
$\geq$	<u> </u>	Road closing down	
		Limit of designed soil	cut (open cut or cut with a retaining wall
	_	Limit of designed em	bankment fill, not including possible ditch
		Existing stations or p	assenger platforms
		New passenger platfo	orms
BXXX	BXXX	Symbols	
cxxx		Railway bridge or underpa	ss, Flyover
<u> </u>	_	Culvert	
O LCXXX		Level crossing	
.000 : 0.0141	400.000 : 0.012	Track alignment with R= curve radius (m)	design geometry figures
	Kv=10000.0 K=38.70 TG=10.370	KR= length of curve (m D= track cant (mm)	
Lk=50.0	634.031 00	_ Rv= radius of vertical of K= elevation	curve
191		TG= lenght of tangent 123.345= length of straight	line (m)
2016 y. 20 $\bigcap$ ²¹⁷ (		SPT-sounding, terminated y. 2016= year of in 1, 217= point nu	at cobble, boulder, or bedrock contact. nvestigation, location of 2016 soundings not accurate mber
y. 2017 D2		Disturbed Sample y. 2017= year of in TR02= point nur	nvestigation mber
=30000 =30000 ■	624 197 :0.0030	LEGEND, PROFILE	
744.000 000 000 000 000 000 000 000 000 0	44.35	Vertical railway align (S=radius of vertical curve,	ment KT=elevation point)
	~ ~	Ground surface	
~~~ ~~	-	Ground elevation on and on the right side	the left side of track centre line (-20m) of track centre line (+20m)
+734.6		Culvert location (elev phase)	ation will be designed in detailed design
×		Level crossing	
		Overpass bridge, rail	way or underpass bridge
		Elevation figures	
0.17		Difference between existin	g ground and designed track elevation
5 92.32		Designed track elevation (t	he running surface of the rail)
92.1		Existing ground elevation	
1)	Km stationing	1
0 +1000		SR= length of straigh R= curve radius (m KR= length of curve	it line (m) (m)
D=50.0		D= track cant (mm Lk= length of transit) ion curve (m)
Revision	Versio	n 15.12.2017	Date Designer Date Accen
Customer			Project Railway Project
		Y OBRAS PÚBLICAS	Pre-engineering, Phase 2
Supplier			Track map and profile
	V ?	TRACK	Km 151+0800 - 153+0200
Drawer Designer	15.12.2017 15.12.2017	UPa HMa / MLe	Scale map 1:2000, profile 1:2000 / 1:20 Coordinate system WGS 84 UTM 21 S, Local orthometric heid
	<u> </u>		Railway line

Archive Type

Number









	LEGEND, MAP	
_	New railway alignmen	t
	Existing railway alignr	nent (not in the Railway Project scope
_	Railway Area borderli	ne
-	Secondary Side Track (Secondary side tracks and based on Appendix Q)	ss - Horizontal geometry pre-designe their switches will be designed and constructe
==	Removal track	
	Street or road modific underpasses/flyovers	ation area in level crossings or
	Modification needed to	o the property access
· <u> </u>	Affected parallel road	ds and streets and maintenance roac
	Road closing down	
_	Limit of designed soil	cut (open cut or cut with a retaining w
_	Limit of designed emb	pankment fill, not including possible dit
	Existing stations or pa	assenger platforms
	New passenger platfo	rms
вххх	Symbols	
	Railway bridge or underpas	s, Flyover
	Culvert	
	Level crossing	
400.000 : 0.0120 Rv=10000.0 K=38.70 TG=10.370 634.031	Track alignment withR=curve radius (m)KR=length of curve (m)D=track cant (mm)Lk=length of transitionRv=radius of vertical curveK=elevationTG=length of tangent123.345=length of straight l	design geometry figures curve (m) urve ine (m)
	SPT-sounding, terminated a y. 2016= year of in 1, 217= point num	at cobble, boulder, or bedrock contact. vestigation, location of 2016 soundings not accu ber
	Disturbed Sample y. 2017= year of in TR02= point num	vestigation ber
	LEGEND, PROFILE	
624.197 :0.0030	Vertical railway alignn (S=radius of vertical curve, f	nent KT=elevation point)
A11.	Ground surface	
	Ground elevation on and on the right side	the left side of track centre line (-20m of track centre line (+20m)
	Culvert location (eleva phase)	ation will be designed in detailed desig
	Level crossing	
	Overpass bridge, railv	vay or underpass bridge
	Elevation figures	
	Difference between existing	ground and designed track elevation
	Designed track elevation (th	e running surface of the rail)
	Existing ground elevation	
•	Km stationing	
o.ooo Version	Horizontal alignment, SR=SR=length of straight R=curve radius (m)KR=length of curve (D=track cant (mm)Lk=length of transiti15.12.2017	schematic t line (m) m) on curve (m)
Explanation		Date Designer Date Ad
	MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS	Railway Project Design phase Pre-engineering, Phase 2 Content Trook man and and file
		mack map and profile

Km 154+0600 - 156+0000

Number

ilway line

Archive Type





		LEGEND, MAP	
Paso de Los Toros \rightarrow		New railway alignmer	nt
		Existing railway align	ment (not in the Railway Project
FR		Railway Area borderli	ne
		Secondary Side Tracl (Secondary side tracks and based on Appendix Q)	KS - Horizontal geometry pre-de I their switches will be designed and content
		Removal track	
C159		Street or road modific underpasses/flyovers	cation area in level crossings or
157+412	<i>▶</i>	Modification needed t	to the property access
— КМ 157+200 —-КМ 1 57+300 -— КМ 15 7+400		Affected parallel roa	ds and streets and maintenanc
		Road closing down	
		Limit of designed soil	cut (open cut or cut with a retain
		Limit of designed em	pankment fill, not including poss
		Existing stations or pa	assenger platforms
		New passenger platfo	orms
	BXXX BXXX	Symbols	
		Railway bridge or underpas	s, Flyover
	<u> </u>	Culvert	
		Level crossing	
	<u>270.000 : 0.0141</u> <u>270.000 : 0.0141</u> Rv=10000.0 K=38.70 TG=10.370 634.031 KB=50.191	Track alignment withR=curve radius (m)KR=length of curve (m)D=track cant (mm)Lk=length of transitionRv=radius of vertical cK=elevation	design geometry figures) n curve (m) surve
	D=50.0	TG= lenght of tangent 123.345= length of straight	line (m)
0 60 120 Meters	y. 2016 y. 2016 1 0 217 0 X X	SPT-sounding, terminated a y. 2016= year of in 1, 217= point nun	at cobble, boulder, or bedrock contact. westigation, location of 2016 soundings r nber
	y. 2017 TR02	Disturbed Sample y. 2017= year of in TR02= point nun	nvestigation nber
	S=3000	LEGEND, PROFILE	
	364.000 :0.0001 1 624.197 :0.0030	Vertical railway alignr (S=radius of vertical curve,	nent KT=elevation point)
	44.3 KT=i=1 44.5	Ground surface	
		Ground elevation on and on the right side	the left side of track centre line of track centre line (+20m)
	13463 1	Culvert location (elevent) phase)	ation will be designed in detailed
	*	Level crossing	
76.0.001 -0.0000		Overpass bridge, rail	way or underpass bridge
		Elevation figures	
	0.17	Difference between existing	g ground and designed track elevation
	15 92.3	Designed track elevation (th	ne running surface of the rail)
	65	Km stationing	
	1 0 +1000.000	Horizontal alignment.	schematic
		SR= length of straigh R= curve radius (m)	it line (m)
	LUTION Re-1000.00 LUTION D=50.00	KR= length of curve (D= track cant (mm)	(m)
	Version	Lk= length of transiti 15.12.2017	ion curve (m)
[35.80] [35.80] [35.80] [35.80] [35.80] [35.80] [35.80] [35.80] [35.80] [35.80] [35.80] [35.80] [35.80] [35.80] [35.80] [35.80] [35.80] [35.80]	Revision Explanation Customer		Date Designer Date
は 1919		MINISTERIO	Railway Project
		DE TRANSPORTE Y OBRAS PÚBLICAS	Design phase Pre-engineering, Phase 2
2 3 4			Content Track map and profile
SR=1514.92		BUCK	Km 156+0000 - 157+0400
			Scale mon 1-2000 profile 1
	Designer 15.12.2017 U	Ma / MLe	Coordinate system WGS 84 UTM 21 S, Local or Elevation reference system
Ψ	Supervisor 15.12.2017 S	Vi	Railway line Montevideo - Paso Archive Type Number Rev.
I			

900	KM	158+C)00		KM-158	3+100- 55.000,D=	45.0		158+2			KAA	15 8+	300		KAA-	158+4	£00.0	KB=350	KM 25	8+500		42-021	
	Side	∂itch, le	ft																					_
	Side	e ditch, ri	ght																					_
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770 777 771 776 776	775 755 755 755 755 755 755	071 172	1.69 1.71 1.67).65 1.65 1.65 1.61 1.61	0.61 0.61 0.60 0.61	1.59 1.59 1.59	1.556 1.576 1.577 1.577).62).65 1.65 1.61	0.60 1.62 1.59	0.61).60	1,61).60).57 !.58),58 1,558 1,57	0.51 1.54	1,55).50 0.51 1.53	49).49 .50	00'0).54 58	1.60	0.61	0.60	1621
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132.72 132.67 132.61 132.58 132.53 132.53 132.51 132.51	132:38 132:38 132:34 132:31 132:28 132:28 132:28	132.15 132.15 132.07 132.04 ^{1:}	131.99 131.99 131.90	131.85 131.80 131.76 131.76 131.76 131.76 131.76	131.58 131.58 131.54 131.54 131.54	131.39 1 131.39 1 131.37 1 131.37 1	131.22 131.18 131.18 131.08 131.01 131.01	130.95 130.86 130.80 130.80	130.77 130.77 130.69 130.64 ¹	130.54 130.50 130.43	130.43 1.	130.25 130.23 1 130.16	130.05 130.05 129.98	129,95 ¹ 129,86 129,78 1:	129.67 1	129.60 129.53 129.48	129,38 ¹ 129,34	129.26 1	129,05 ¹	128.88 1 128.65 1i	128,48 ¹	128,35 1	128.23 ₁	128.1U
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10, +]				Lk=65.0	 					R= KP	=1000,	00						Ū	Lk=6	55.0	m			
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	Side ditch, le	eft																
	Side ditch, r	ight																
												570.0	00 0.0149)				
1 	90.000 :0.0000	¢ 29	530,000	.33,000										/			222	
27		74.5	159+	KT=1														
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32,93 32,98 33,00	133.00	133.00 33.03 133.10	133.21	33,36 33,55	33.78 34.04	34.34	34,64 34 64	35,24	35,54	.35,83 .36,13	36,43	36.73 37.03	37.32	37.92	38.22 - 38.52 - 38.52 -	38.82 38.82 139.11	(39,41 -	139.71 -
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91.65	4		5	_ I _ I		5		<u> </u>	7			- ' {	3	. 1			1	159
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						Sie	de ditch,	left																						— T					
						Sid	de ditch,	right																						1					
		800,000	41.600 ⁻ Rv=10000			2	00.001	:-0.0	059				0,001	+10 $Rv = 10000$					3	00.0()0 :-().009()								Rv=10000				
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0.77 1.05	1.38	1.45	1,41	1,42 1,38	1.32	1.11	0.97 1.14	0.94	0.77	0.87 1.01	1.01	0.9Z	0.10	0.79	1.12 1.26	1.17	1,48	1.24 1.24	1.30		1.69	1,64 1,80	2.73	2,92	3.24 3.47	3.62	3.61	3,55	3,44	3.13	2,98 2,52	2,29	1.95	1.64	1.36
141.59	141.59	141.55	141.47	141.36	141.24	141.12	141.01	140.89	140.77	140.65		140.53	140,40	140.23	140.05	139.87		C0/C01	139.51	139.33	139.15	138,96	138.78	138.60	138.42	138.24		138,06	137,91	137.80	137.73	137.70	137.70	137.70	
140.54 140.54	140.21	140.10	140.08	139,99	139,92	140.03	140.08 139.83	139,93	140.04	139.85 139.65	139.61	13,451	139.51	139,45	139,03 138,81	138,83 138,44	138,29	138.33 138.33	138,20 137,95		137.54	137,43 137,16	136.07	135.74	135.31 134.92	134,64	134.51	134,45	134.45	134.67	134.77 135.20	135,41	135.75	136.06	136.34
		E	3	<u> </u>	1	I	9	<u> </u>	I		1	60	- (16 + 1) 1 000.0	01		1	<u> </u>	1		<u> </u>	<u> </u>	1	ć	2	I			<u> </u>	3	I ;	<u> </u>	I		Ĺ

V162+100KiM-1	3000 · 0003 50000 · 0008 162+200 KM 162+300	KM 162+400	C163 162+485 -KM-162+500	tim tion toother with the second seco	
▶		Side ditch, left Side ditch, right	•		
0.000 :-0.0038			500.000 :0.0008		=10000
	$\begin{array}{c c} \hline & 23.17 \\ \hline & 23.17 \\ \hline & KT = 140.800 \\ \hline & 23.17 \\ \hline & & \\ \hline \hline & & \\ \hline \hline & & \\ \hline \hline \\ \hline & & \\ \hline \hline \\ \hline \\ \hline \hline \hline \hline \hline \hline \hline \\ \hline \hline$				162+800.000 ⁻
1.53 1.70 1.37 1.37	1.24 1.31 1.32 1.93 2.14 2.14 2.37 2.37 2.37 2.37 2.37 2.37 2.37 2.37	4.63 4.63 5.13 5.12 4.61 4.60	4,43 4,19 4,18 3,65 3,65 3,65 3,65 2,95 2,95	2.73 2.67 2.78 2.91 2.74 2.73 2.74 1.93 1.93 1.31 1.31 1.31 1.31 1.01 1.01 1.01	1.27 1.41
141.26 141.18 141.11 141.03 140.95	140.88 140.83 140.82 140.85 140.85 140.98 140.90	140.91 140.93 140.96 140.98	140.99 141.01 141.02 141.04 141.06	141.07 141.09 141.10 141.12 141.12 141.12 141.15 141.17 (141,18
139.75 139.48 139.49 139.60	139,65 139,54 139,51 138,70 138,70 138,49 137,49 137,49 136,91	136.28 136.28 135.80 135.80 135.83 135.83 136.05 136.32	136.55 136.82 136.82 137.00 137.36 137.81 138.10 138.10	138.34 138.40 138.30 138.38 138.38 138.35 138.37 138.95 139.20 139.20 139.40 139.83 139.83 139.83 139.83 139.83 139.83 139.83 139.83	139.91 139.78
2	3 4	5	6	7	<u> </u>

R=800.00 KR=707.52 D=60

	LEGEND, MAP					
	New railway alignmen	t				
	Existing railway alignr	nent (nc	ot in the Ra	ailway F	Project sco	pe)
	Railway Area borderli	ne				
	Secondary Side Track (Secondary side tracks and based on Appendix Q)	s - Hori their swit	zontal geo ches will be	ometry designed	pre-desigi and constru	ned cted
====	Removal track					
	Street or road modific underpasses/flyovers	ation are	ea in level	crossin	igs or	
>	Modification needed to	o the pro	operty acc	ess		
	Affected parallel road	ds and s	treets and	d maint	enance ro	ads
<	Road closing down					
	Limit of designed soil	cut (ope	en cut or c	ut with a	a retaining	wall)
	Limit of designed emb	ankmer	nt fill, not ir	ncluding	g possible	ditch
	Existing stations or pa	issenge	r platforms	3		
	New passenger platfo	rms				
	Symbols					
<u> </u>	Railway bridge or underpase	s, Flyover				
xx						
	Culvert					
)	Level crossing					
XX <u>400.000 : 0.0120</u> Rv=10000.0 K=38.70 TG=10.370 634.031	Track alignment with ofR=curve radius (m)KR=length of curve (m)D=track cant (mm)Lk=length of transitionRv=radius of vertical curveK=elevationTG=length of tangent	design g curve (m) urve	geometry f	igures		
2016	123.345= length of straight l	ine (m)	ouldor or b	odrock co	ntact	
	y. 2016= year of in 1, 217= point num	vestigatior	n, location of	2016 sou	ndings not ac	curate
	Disturbed Sample y. 2017= year of in TR02= point num	vestigatior ber	١			
S=30000	LEGEND, PROFILE					
624.197 :0.0030 0 000 A 0 000 A	Vertical railway alignn (S=radius of vertical curve, I	n ent KT=elevat	ion point)			
44 44	Ground surface					
~	Ground elevation on and on the right side	the left of track	side of tra centre lin	ck cent e (+20r	re line (-20 m)))
	Culvert location (eleva phase)	ation will	l be desigr	ned in d	letailed de	sign
*	Level crossing					
	Overpass bridge, railv	vay or u	nderpass	bridge		
	Elevation figures					
0.17	Difference between existing	ground ar	nd designed t	track elev	ation	
92.32	Designed track elevation (th	e running	surface of th	e rail)		
92.15	Existing ground elevation					
\mathbf{e}_1	Km stationing					
	Horizontal alignment, SR= length of straight R= curve radius (m) KR= length of curve (D= track cant (mm) Lk= length of transitie	schem t line (m) m) on curve	atic (m)			
VERSION Explanation	13.12.201/		Date	Designer	Date	Acceptor
		Project Railw	ay Projec	:t		
	MINISTERIO DE TRANSPORTF	Design phase				
	Y OBRAS PÚBLICAS	Pre-e	ngineerin	g, Pha	se 2	
		Track	map and	l profile	9	
	RACK	Km 16	61+0600 ·	- 163+(0000	
15.12.2017 UP	a	Scale	map) 1:2000, j	profile 1:2000) / 1:200

Railway line

Archive Type

Number

ISV

Side ditch, lef	t													-																			
Side ditch, rigł	nt													-																			
0 :0,0029						0.000						260,	000	:-0,(0113						<u>=</u> ≪>Rv=10000			95.83	36 :0.(0011	145						
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1.23 1.16	1.25 1.03	0,88	0.57 0.34	0.17	0.31	0.28 0.33	0,43	0. <b>4</b> 9	0.56	0.73	1.2.U	0.95	0.95	0.98	0196	1.07	1.01	0.92	0.84	0.74 0.88	ゆ.子 0.82 0.81	0.84	0.44	0.03 0.13 0.15	0.14 0.15	0.17	0.14	0.14 0.17	0.22	0.25	0.31 ה פבן	0.36	0.38
136.39 136.45	136.51	136.57	136.62	136.63	136.61	136.55	136.44	136.30	136.11	135.89	135.67	135 44		135.21	134.98	134.76		134.53	134.33	134.17	134.04	133.96	133,92	133.92	133.94	<del>133,96</del>	133,98	134,00	134.03	134.05		134.U /	134.09
135.14 135.28	135.22 135.48	135.76	136.03 136.29	136.46	136.30	136.30 136.18	11376.999	135.82	135.62	135.38	134.78	134.58	134.40	124 23	133,96	133.75	133.65	133,58	133.58	133,47 133,29	133,95 133,95 133,19	133,12	133,48	133,88 133,88 133,95	133.80 133.79	133.78 133.83	133,83	133,84 133,83 133,70	133.80	د/،ددا 133.79	133.75 133.71	133.72	133,71
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					SR	=627 <b>.5</b> F	<b>2</b> =676.	72																<u> </u>		L	.k=75	.0			R	=850.0	00
																								+		1:	1500				D	)=50	.89
· 																																	

		LEGEND, MAP	
Paso de Los Toros $\rightarrow$		New railway alignmer	nt
		Existing railway alignr	ment (not in the Railway Project scor
		Railway Area borderli	ine
		Secondary Side Track (Secondary side tracks and based on Appendix Q)	ks - Horizontal geometry pre-design I their switches will be designed and construc
		Removal track	
		Street or road modific underpasses/flyovers	cation area in level crossings or
	$\rightarrow$	Modification needed t	to the property access
	<u></u>	Affected parallel roa	ds and streets and maintenance roa
		Road closing down	
		Limit of designed soil	cut (open cut or cut with a retaining
		Limit of designed emb	bankment fill, not including possible o
40A-168+600		Existing stations or pa	assenger platforms
168+500 KW.		New passenger platfo	orms
KNA 168+400	BXXX BXXX	Symbols	
R=850.0 KR=171.8941.8=0 O		Railway bridge or underpas	ss, Flyover
		Culvert	
	0	Level crossing	
	LCXXX <u>270.000:0.0141</u> Rv=10000.0 K=38.70	Track alignment with R= curve radius (m) KR= length of curve (m)	design geometry figures
	TG=10.370 634.031 KR=50.000 KR=50.191	D=track cant (mm)Lk=length of transitionRv=radius of vertical cK=elevation	n curve (m) curve
$\square \qquad \qquad$	D=50.0	TG= lenght of tangent 123.345= length of straight	line (m)
0 60 120	y. 2016 y. 2016 1 0 217 0 <b>7</b> 7	SPT-sounding, terminated a y. 2016= year of in 1, 217= point num	at cobble, boulder, or bedrock contact. nvestigation, location of 2016 soundings not acc nber
	y. 2017 TR02	Disturbed Sample y. 2017= year of in TR02= point num	nvestigation nber
↓ ↓	- 	LEGEND, PROFILE	
	<u>364.000 :0.0001 II 624.197 :0.0030</u>	Vertical railway alignr	ment
	44.35 KT=7.968.0 44.35	(S=radius of vertical curve, Ground surface	KI=elevation point)
570.000 :0.0011		Ground elevation on and on the right side	the left side of track centre line (-20 of track centre line (+20m)
	+734.63	Culvert location (eleva phase)	ation will be designed in detailed des
	Ť	Level crossing	
		Overpass bridge, railv	way or underpass bridge
		Elevation figures	
	0.17	Difference between existing	g ground and designed track elevation
	2.15 92.	Existing ground elevation	
		Km stationing	
	1 0 +1000.000	Horizontal alignment,	schematic
		SR= length of straigh R= curve radius (m)	nt line (m) )
	Listing Re-2008 Listing D=50.00	KR= length of curve ( D= track cant (mm)	(m) ion curve (m)
0.36 0.46 0.46 0.55 0.55 0.55 0.55 0.55 0.44 0.44 0.44	Version	<b>15.12.2017</b>	
134.09 134.14 134.14 134.16 134.26 134.25 134.29 134.20 134.30 134.30 134.40	Revision Explanation Customer		Date Designer Date
33.71 33.71 33.71 33.71 33.59 33.51 33.55 33.51 33.55 33.51 33.55 33.51 33.51 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71 33.71		MINISTERIO	Railway Project
		DE TRANSPORTE Y OBRAS PÚBLICAS	Pre-engineering, Phase 2
4 48,64 2 48,64 6			Track map and profile
50.00 Lk=75.0	Supplier VRT	RACK	Km 167+0200 - 168+0600
0 1:1500	Drawer 15.12.2017 U	Ра	Scale map 1:2000, profile 1:2000
	Designer 15.12.2017 H	Ma / MLe	Coordinate system WGS 84 UTM 21 S, Local orthometr Elevation reference system
	Supervisor 15.12.2017 S Accept.	VI	Archive Type Number Rev. Sheet
			- 120

![](_page_20_Picture_4.jpeg)