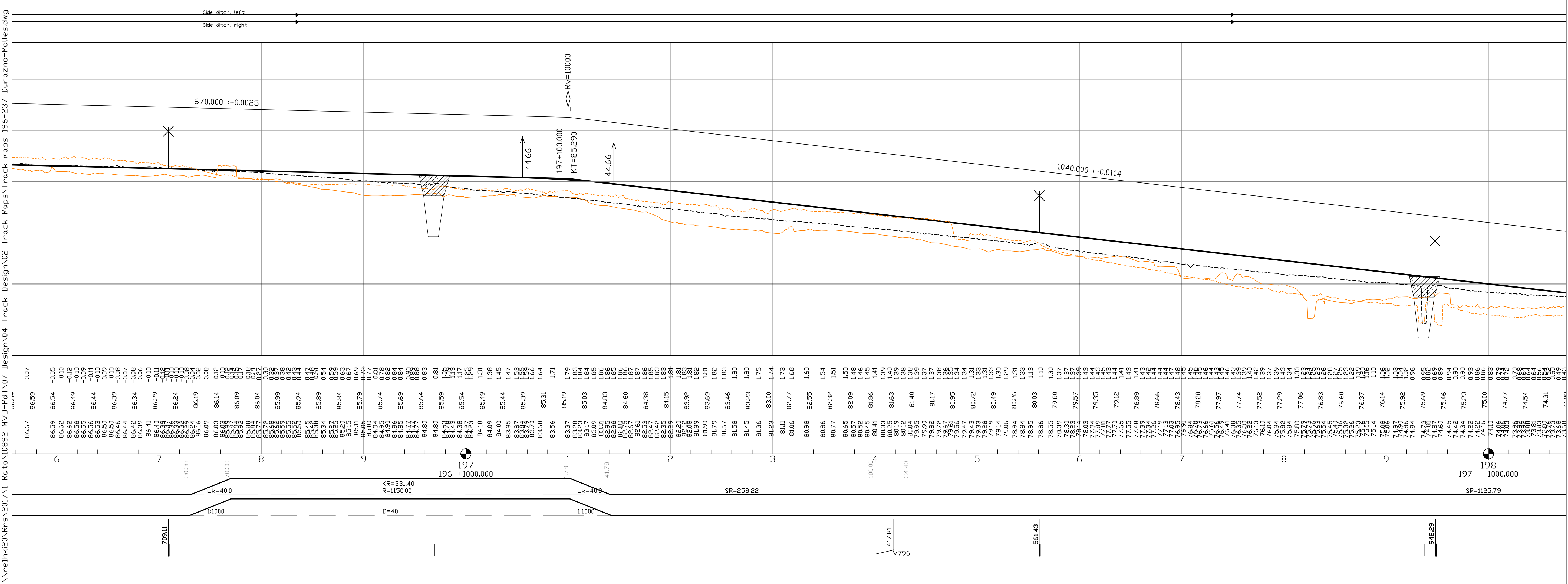


Two side tracks for oil trains and track maintenance rolling stock. The possibilities to achieve 0.15 % maximum vertical slope for the stabling tracks (two westernmost tracks) shall be studied in the detail design phase.

- ### LEGEND, MAP
- New railway alignment
 - Existing railway alignment (not in the Railway Project scope)
 - Railway Area borderline
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 - Removal track
 - Street or road modification area in level crossings or underpasses/flyovers
 - Modification needed to the property access
 - Affected parallel roads and streets and maintenance roads
 - Road closing down
 - Limit of designed soil cut (open cut or cut with a retaining wall)
 - Limit of designed embankment fill, not including possible ditch
 - Existing stations or passenger platforms
 - New passenger platforms
 - Symbols
 - Railway bridge or underpass, Flyover
 - Culvert
 - Level crossing
 - Track alignment with design geometry figures
 - R= curve radius (m)
 - KR= length of curve (m)
 - D= track cant (mm)
 - Lk= length of transition curve (m)
 - Rv= radius of vertical curve (m)
 - K= elevation
 - TG= length of tangent
 - 123.345= length of straight line (m)
 - SPT-sounding, terminated at cobble, boulder, or bedrock contact.
 - y. 2016= year of investigation, location of 2016 soundings not accurate
 - 1, 217= point number
 - Disturbed Sample
 - y. 2017= year of investigation
 - TR02= point number



- ### LEGEND, PROFILE
- Vertical railway alignment (S=radius of vertical curve, KT=elevation point)
 - Ground surface
 - Ground elevation on the left side of track centre line (-20m) and on the right side of track centre line (+20m)
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 - Level crossing
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 - Elevation figures
 - Difference between existing ground and designed track elevation
 - Designed track elevation (the running surface of the rail)
 - Existing ground elevation
 - Km stationing
 - Horizontal alignment, schematic
 - SR= length of straight line (m)
 - R= curve radius (m)
 - KR= length of curve (m)
 - D= track cant (mm)
 - Lk= length of transition curve (m)

Version 15.12.2017

Revision	Explanation	Date	Designer	Date	Acceptor

Customer	MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS	Project	Railway Project
Design phase	Pre-engineering, Phase 2	Content	Track map and profile
Supplier	VR TRACK	Scale	Km 196+0600 - 198+0000
Drawer	15.12.2017 UPa	Coordinate system	map 1:2000, profile 1:2000 / 1:200
Designer	15.12.2017 HMa / MLe	Elevation reference system	WGS 84 UTM 21 S, Local orthometric height
Supervisor	15.12.2017 SVI	Railway line	Montevideo - Paso de Los Toros
Accept.		Archive	Type Number Rev. Sheet Sheets total
Owner acc.			

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LEGEND, MAP

- New railway alignment
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- Limit of designed embankment fill, not including possible ditch
- Existing stations or passenger platforms
- New passenger platforms

Symbols

- BXXX BXXX: Railway bridge or underpass, Flyover
- CXXX: Culvert
- Level crossing

Track alignment with design geometry figures

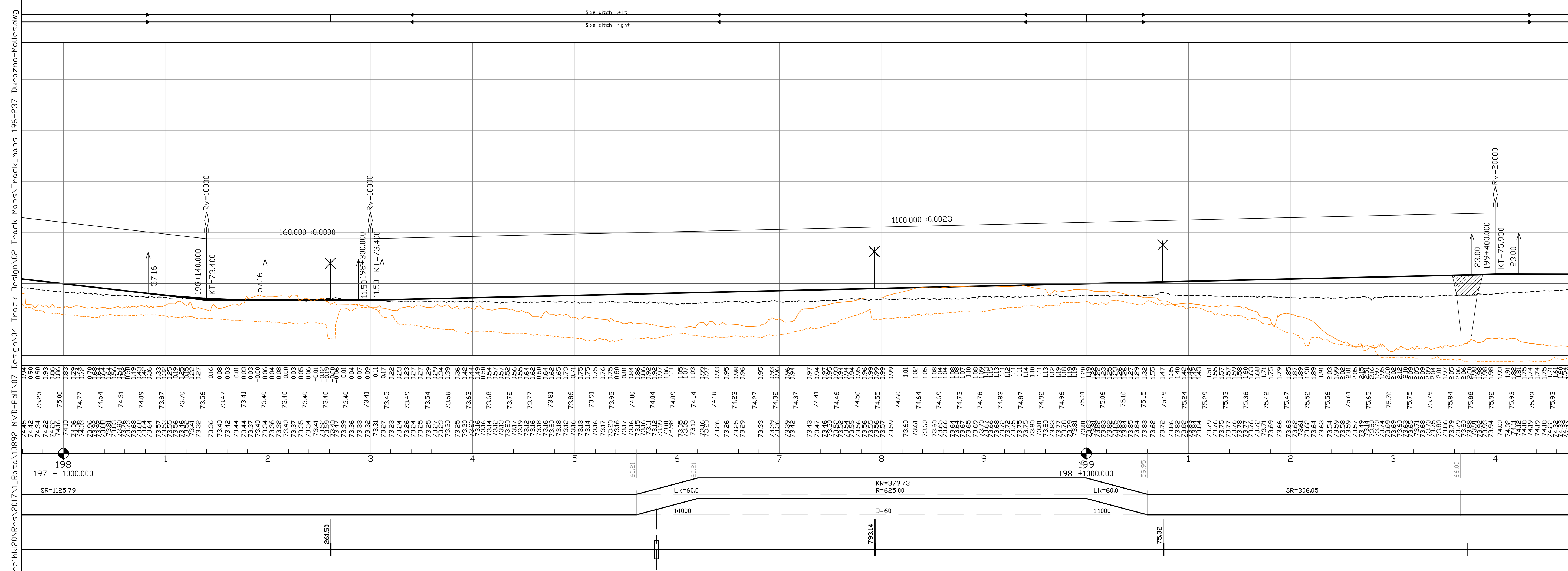
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Disturbed Sample

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LEGEND, PROFILE

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- Km stationing

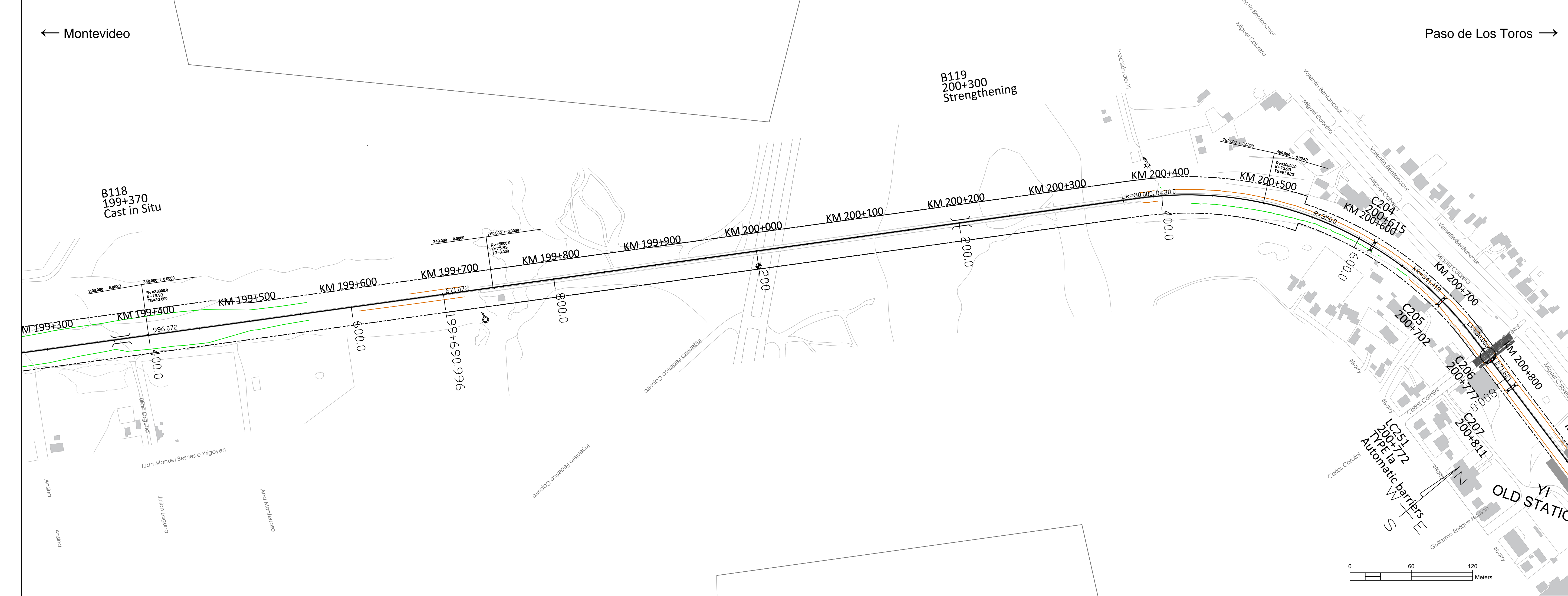
Horizontal alignment, schematic

- SR= length of straight line (m)
- R= curve radius (m)
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Version 15.12.2017

Revision	Explanation	Date	Designer	Date	Acceptor
1					

Customer		Project	
MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS		Railway Project	
Supplier		Design phase	
V TRACK		Pre-engineering, Phase 2	
Drawer		Content	
15.12.2017 UPa		Track map and profile	
Designer		Km 198+0000 - 199+0400	
15.12.2017 HMa / MLe		Scale	
Supervisor		map 1:2000, profile 1:2000 / 1:200	
15.12.2017 SVI		Coordinate system	
Accept.		WGS 84 UTM 21 S, Local orthometric height	
Owner acc.		Railway line	
		Montevideo - Paso de Los Toros	
		Archive	
		Type	
		Number	
		Rev. Sheet Sheets	
		total	
		142, 195	



LEGEND, MAP

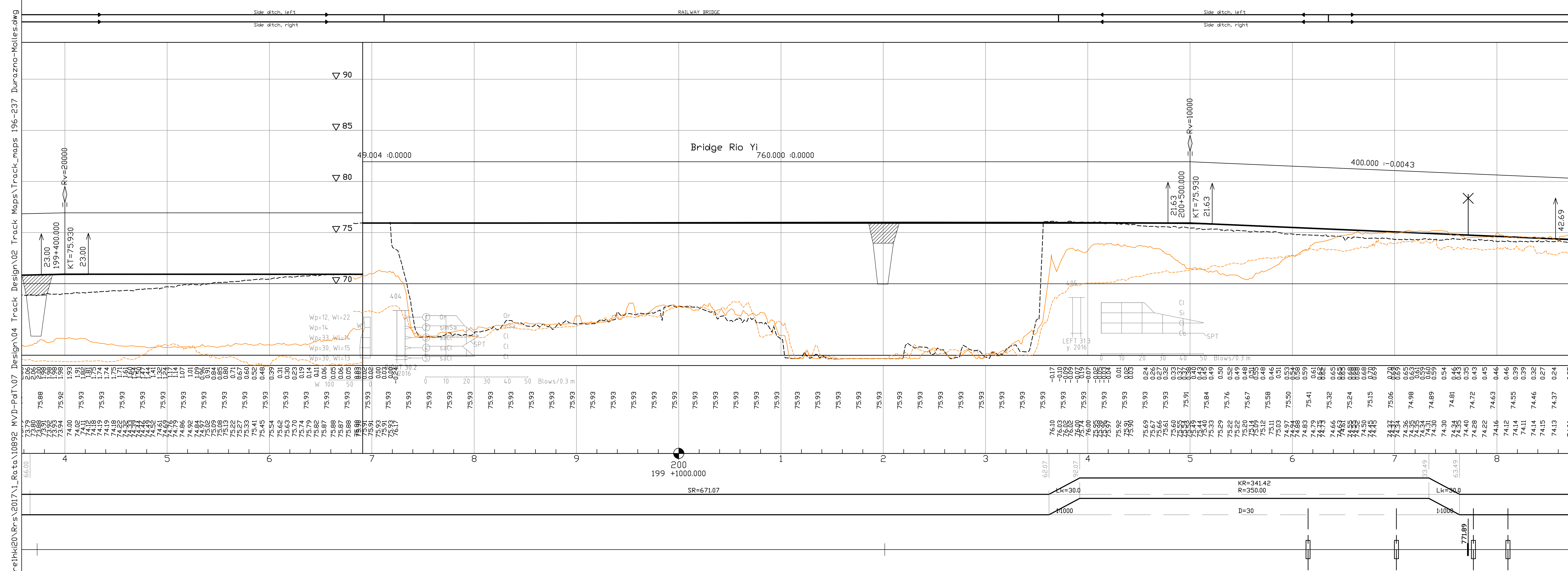
- New railway alignment
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- Removal track
- █ Street or road modification area in level crossings or underpasses/flyovers
- Modification needed to the property access
- ▭ Affected parallel roads and streets and maintenance roads
- ▭ Road closing down
- ▭ Limit of designed soil cut (open cut or cut with a retaining wall)
- ▭ Limit of designed embankment fill, not including possible ditch
- █ Existing stations or passenger platforms
- █ New passenger platforms
- Symbol Symbols
- ▭ Railway bridge or underpass, Flyover
- ▭ Culvert
- Level crossing
- LCXXX

Track alignment with design geometry figures

R= curve radius (m)
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Disturbed Sample
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LEGEND, PROFILE

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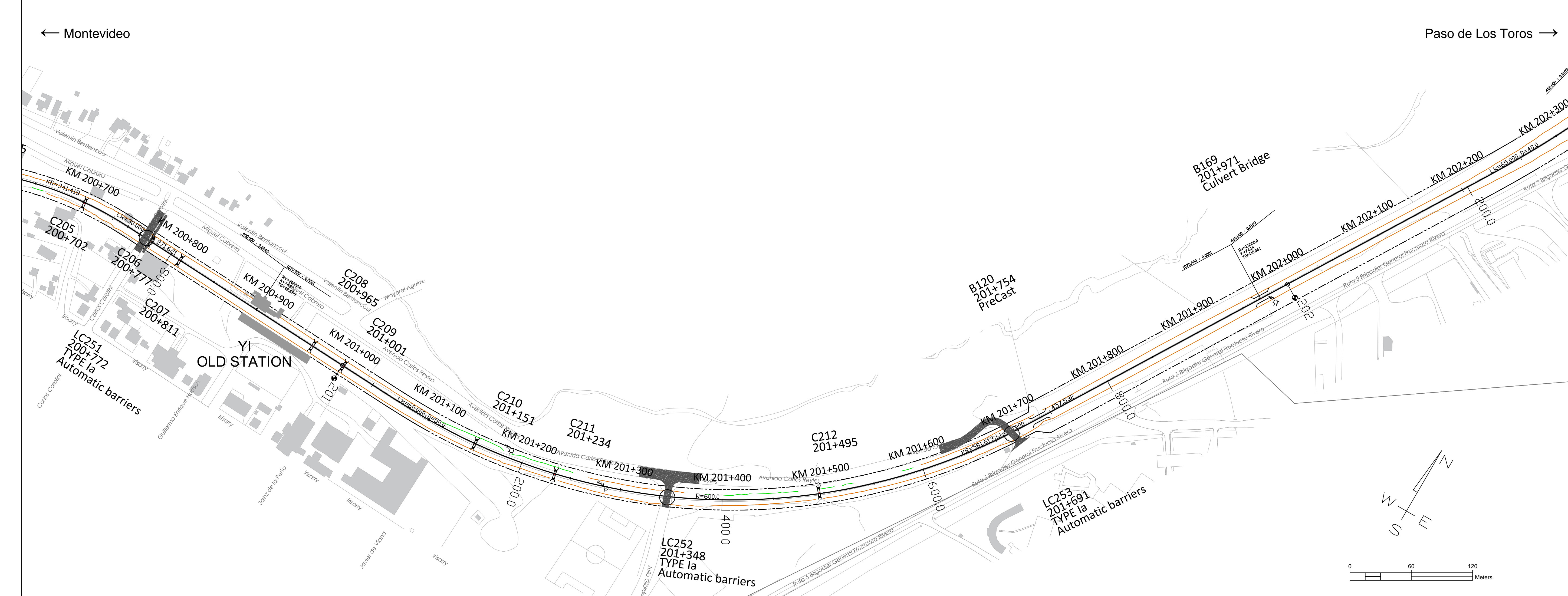
Horizontal alignment, schematic

SR= length of straight line (m)
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Version 15.12.2017

Revision	Explanation	Date	Designer	Date	Acceptor
1					

Customer		Project	
MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS		Railway Project	
Supplier		Design phase	
V TRACK		Pre-engineering, Phase 2	
Drawer		Content	
15.12.2017 UPa		Track map and profile	
Designer		Scale	
15.12.2017 HMa / MLo		map 1:2000, profile 1:2000 / 1:200	
Supervisor		Coordinate system	
15.12.2017 SVI		WGS 84 UTM 21 S, Local orthometric height	
Accept.		Railway line	
		Montevideo - Paso de Los Toros	
Owner acc.		Archive	
		Type	
		Number	
		Rev. Sheet	
		Total	
		143, 195	



LEGEND, MAP

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Disturbed Sample

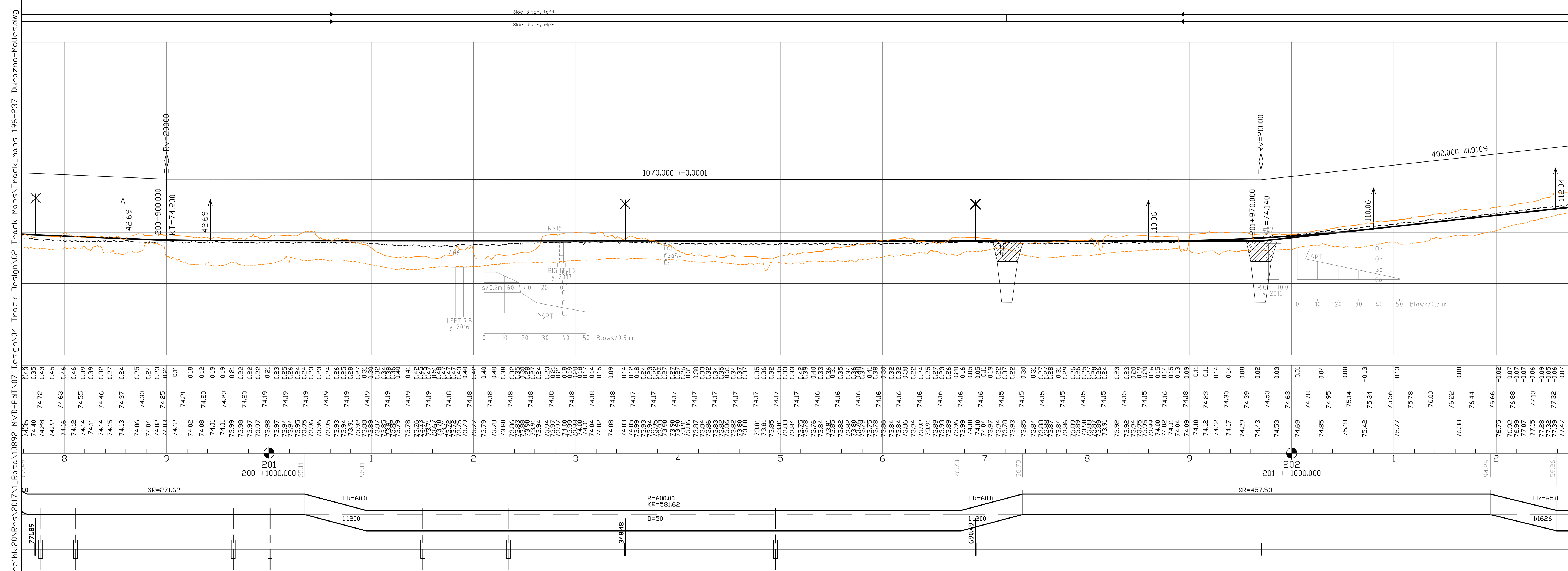
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Horizontal alignment, schematic

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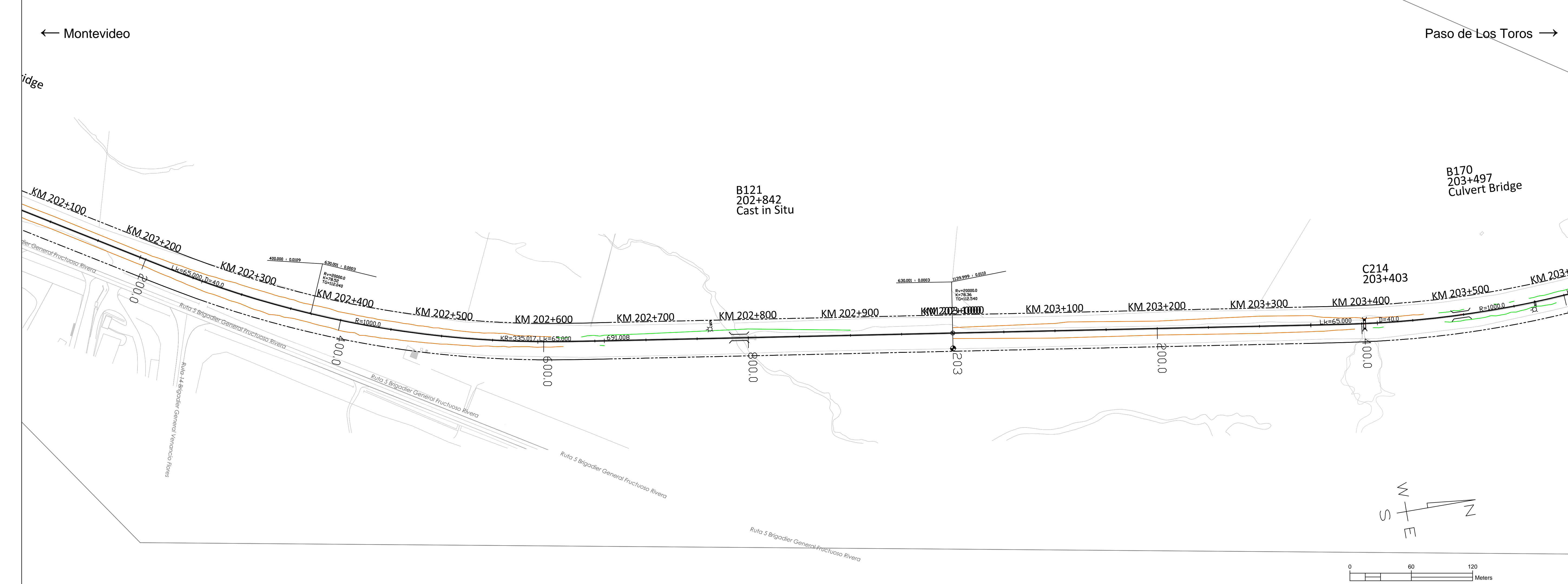


Version 15.12.2017

Revision	Explanation	Date	Designer	Date	Acceptor
1					

Customer	MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS	Project	Railway Project
Design phase	Pre-engineering, Phase 2	Content	Track map and profile
Supplier	VR TRACK	Contract	Km 200+0800 - 202+0200

Drawer	Designer	Supervisor	Accept.	Owner acc.	Scale	Coordinate system	Railway line	Archive	Type	Number	Rev.	Sheet	Sheets total
UPa	HMa / MLo	SVI			map 1:2000, profile 1:2000	WGS 84 UTM 21 S, Local orthometric height	Montevideo - Paso de Los Toros					144	195



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- New passenger platforms

Symbols

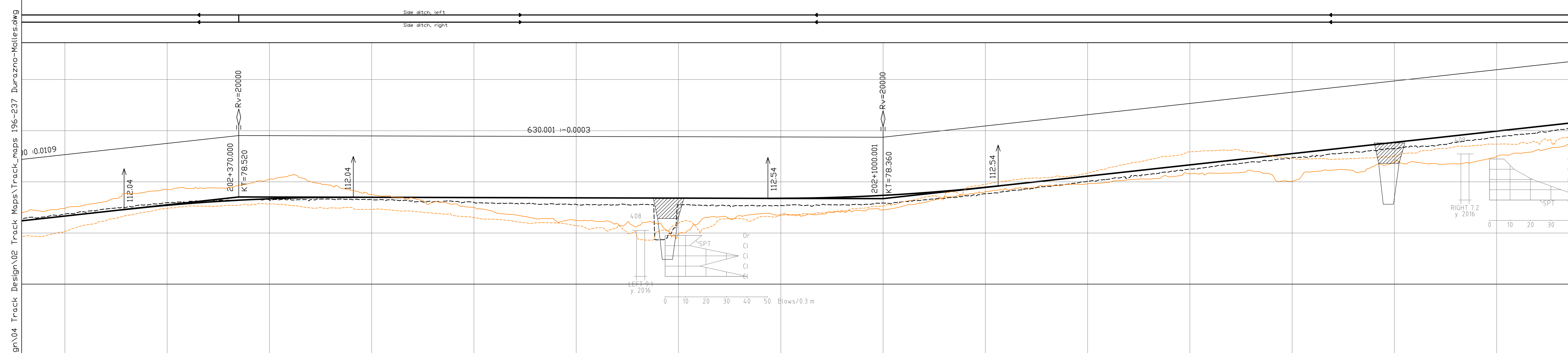
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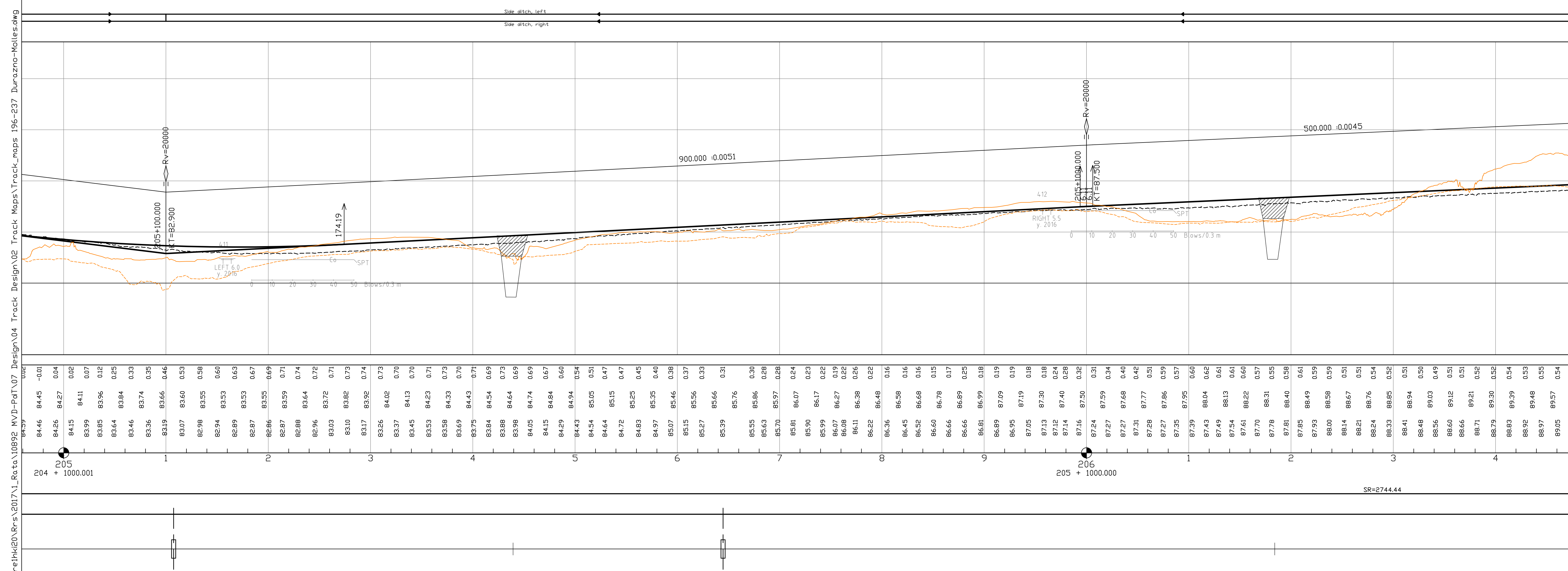
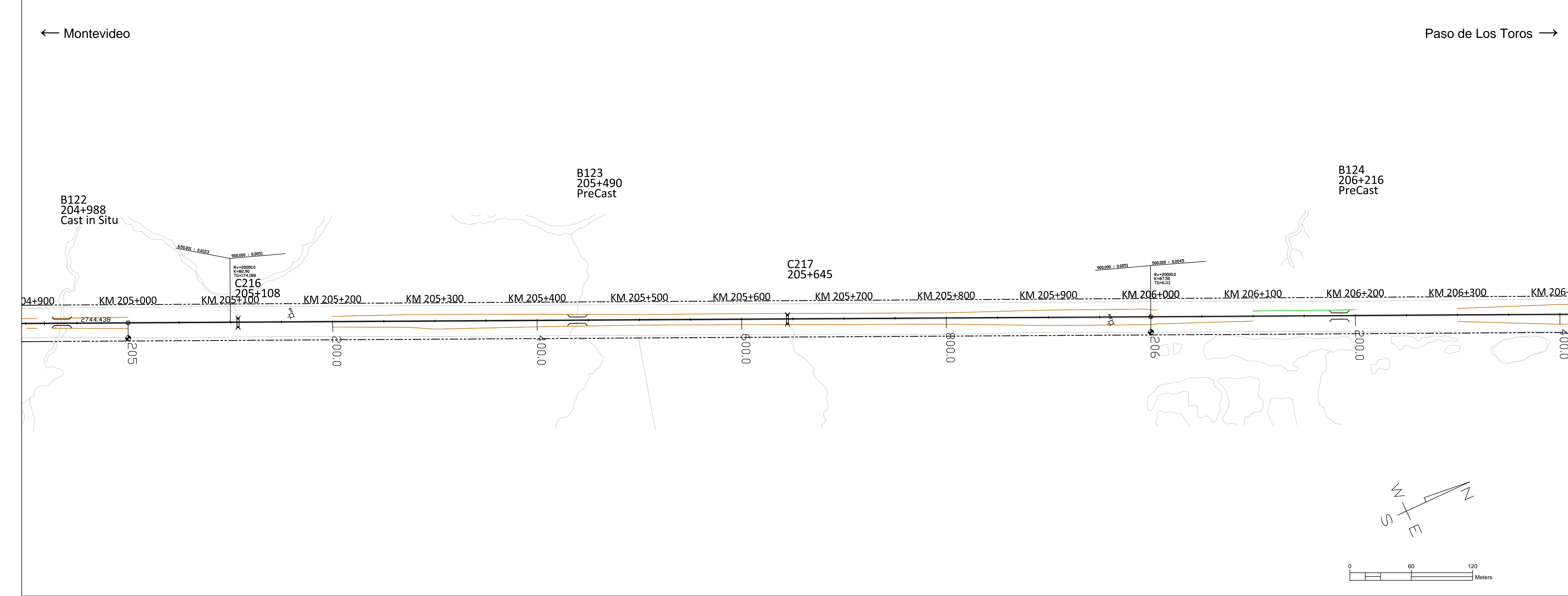
LEGEND, PROFILE

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- Lk= length of transition curve (m)

76.38	76.44	76.56	76.66	76.75	76.82	76.88	76.92	76.98	77.07	77.15	77.22	77.28	77.33	77.37	77.41	77.45	77.49	77.53	77.57	77.61	77.65	77.69	77.73	77.77	77.81	77.85	77.89	77.93	77.97	78.01	78.05	78.09	78.13	78.17	78.21	78.25	78.29	78.33	78.37	78.41	78.45	78.49	78.53	78.57	78.61	78.65	78.69	78.73	78.77	78.81	78.85	78.89	78.93	78.97	79.01	79.05	79.09	79.13	79.17	79.21	79.25	79.29	79.33	79.37	79.41	79.45	79.49	79.53	79.57	79.61	79.65	79.69	79.73	79.77	79.81	79.85	79.89	79.93	79.97	80.01	80.05	80.09	80.13	80.17	80.21	80.25	80.29	80.33	80.37	80.41	80.45	80.49	80.53	80.57	80.61	80.65	80.69	80.73	80.77	80.81	80.85	80.89	80.93	80.97	81.01	81.05	81.09	81.13	81.17	81.21	81.25	81.29	81.33	81.37	81.41	81.45	81.49	81.53	81.57	81.61	81.65	81.69	81.73	81.77	81.81	81.85	81.89	81.93	81.97	82.01	82.05	82.09	82.13	82.17	82.21	82.25	82.29	82.33	82.37	82.41	82.45	82.49	82.53	82.57	82.61	82.65	82.69	82.73	82.77	82.81	82.85	82.89	82.93	82.97	83.01	83.05	83.09	83.13	83.17	83.21	83.25	83.29	83.33	83.37	83.41	83.45	83.49	83.53	83.57	83.61	83.65	83.69	83.73	83.77	83.81	83.85	83.89	83.93	83.97	84.01	84.05	84.09	84.13	84.17	84.21	84.25	84.29	84.33	84.37	84.41	84.45	84.49	84.53	84.57	84.61	84.65	84.69	84.73	84.77	84.81	84.85	84.89	84.93	84.97	85.01	85.05	85.09	85.13	85.17	85.21	85.25	85.29	85.33	85.37	85.41	85.45	85.49	85.53	85.57	85.61	85.65	85.69	85.73	85.77	85.81	85.85	85.89	85.93	85.97	86.01	86.05	86.09	86.13	86.17	86.21	86.25	86.29	86.33	86.37	86.41	86.45	86.49	86.53	86.57	86.61	86.65	86.69	86.73	86.77	86.81	86.85	86.89	86.93	86.97	87.01	87.05	87.09	87.13	87.17	87.21	87.25	87.29	87.33	87.37	87.41	87.45	87.49	87.53	87.57	87.61	87.65	87.69	87.73	87.77	87.81	87.85	87.89	87.93	87.97	88.01	88.05	88.09	88.13	88.17	88.21	88.25	88.29	88.33	88.37	88.41	88.45	88.49	88.53	88.57	88.61	88.65	88.69	88.73	88.77	88.81	88.85	88.89	88.93	88.97	89.01	89.05	89.09	89.13	89.17	89.21	89.25	89.29	89.33	89.37	89.41	89.45	89.49	89.53	89.57	89.61	89.65	89.69	89.73	89.77	89.81	89.85	89.89	89.93	89.97	90.01	90.05	90.09	90.13	90.17	90.21	90.25	90.29	90.33	90.37	90.41	90.45	90.49	90.53	90.57	90.61	90.65	90.69	90.73	90.77	90.81	90.85	90.89	90.93	90.97	91.01	91.05	91.09	91.13	91.17	91.21	91.25	91.29	91.33	91.37	91.41	91.45	91.49	91.53	91.57	91.61	91.65	91.69	91.73	91.77	91.81	91.85	91.89	91.93	91.97	92.01	92.05	92.09	92.13	92.17	92.21	92.25	92.29	92.33	92.37	92.41	92.45	92.49	92.53	92.57	92.61	92.65	92.69	92.73	92.77	92.81	92.85	92.89	92.93	92.97	93.01	93.05	93.09	93.13	93.17	93.21	93.25	93.29	93.33	93.37	93.41	93.45	93.49	93.53	93.57	93.61	93.65	93.69	93.73	93.77	93.81	93.85	93.89	93.93	93.97	94.01	94.05	94.09	94.13	94.17	94.21	94.25	94.29	94.33	94.37	94.41	94.45	94.49	94.53	94.57	94.61	94.65	94.69	94.73	94.77	94.81	94.85	94.89	94.93	94.97	95.01	95.05	95.09	95.13	95.17	95.21	95.25	95.29	95.33	95.37	95.41	95.45	95.49	95.53	95.57	95.61	95.65	95.69	95.73	95.77	95.81	95.85	95.89	95.93	95.97	96.01	96.05	96.09	96.13	96.17	96.21	96.25	96.29	96.33	96.37	96.41	96.45	96.49	96.53	96.57	96.61	96.65	96.69	96.73	96.77	96.81	96.85	96.89	96.93	96.97	97.01	97.05	97.09	97.13	97.17	97.21	97.25	97.29	97.33	97.37	97.41	97.45	97.49	97.53	97.57	97.61	97.65	97.69	97.73	97.77	97.81	97.85	97.89	97.93	97.97	98.01	98.05	98.09	98.13	98.17	98.21	98.25	98.29	98.33	98.37	98.41	98.45	98.49	98.53	98.57	98.61	98.65	98.69	98.73	98.77	98.81	98.85	98.89	98.93	98.97	99.01	99.05	99.09	99.13	99.17	99.21	99.25	99.29	99.33	99.37	99.41	99.45	99.49	99.53	99.57	99.61	99.65	99.69	99.73	99.77	99.81	99.85	99.89	99.93	99.97	100.01	100.05	100.09	100.13	100.17	100.21	100.25	100.29	100.33	100.37	100.41	100.45	100.49	100.53	100.57	100.61	100.65	100.69	100.73	100.77	100.81	100.85	100.89	100.93	100.97	101.01	101.05	101.09	101.13	101.17	101.21	101.25	101.29	101.33	101.37	101.41	101.45	101.49	101.53	101.57	101.61	101.65	101.69	101.73	101.77	101.81	101.85	101.89	101.93	101.97	102.01	102.05	102.09	102.13	102.17	102.21	102.25	102.29	102.33	102.37	102.41	102.45	102.49	102.53	102.57	102.61	102.65	102.69	102.73	102.77	102.81	102.85	102.89	102.93	102.97	103.01	103.05	103.09	103.13	103.17	103.21	103.25	103.29	103.33	103.37	103.41	103.45	103.49	103.53	103.57	103.61	103.65	103.69	103.73	103.77	103.81	103.85	103.89	103.93	103.97	104.01	104.05	104.09	104.13	104.17	104.21	104.25	104.29	104.33	104.37	104.41	104.45	104.49	104.53	104.57	104.61	104.65	104.69	104.73	104.77	104.81	104.85	104.89	104.93	104.97	105.01	105.05	105.09	105.13	105.17	105.21	105.25	105.29	105.33	105.37	105.41	105.45	105.49	105.53	105.57	105.61	105.65	105.69	105.73	105.77	105.81	105.85	105.89	105.93	105.97	106.01	106.05	106.09	106.13	106.17	106.21	106.25	106.29	106.33	106.37	106.41	106.45	106.49	106.53	106.57	106.61	106.65	106.69	106.73	106.77	106.81	106.85	106.89	106.93	106.97	107.01	107.05	107.09	107.13	107.17	107.21	107.25	107.29	107.33	107.37	107.41	107.45	107.49	107.53	107.57	107.61	107.65	107.69	107.73	107.77	107.81	107.85	107.89	107.93	107.97	108.01	108.05	108.09	108.13	108.17	108.21	108.25	108.29	108.33	108.37	108.41	108.45	108.49	108.53	108.57	108.61	108.65	108.69	108.73	108.77	108.81	108.85	108.89	108.93	108.97	109.01	109.05	109.09	109.13	109.17	109.21	109.25	109.29	109.33	109.37	109.41	109.45	109.49	109.53	109.57	109.61	109.65	109.69	109.73	109.77	109.81	109.85	109.89	109.93	109.97	110.01	110.05	110.09	110.13	110.17	110.21	110.25	110.29	110.33	110.37	110.41	110.45	110.49	110.53	110.57	110.61	110.65	110.69	110.73	110.77	110.81	110.85	110.89	110.93	110.97	111.01	111.05	111.09	111.13	111.17	111.21	111.25	111.29	111.33	111.37	111.41	111.45	111.49	111.53	111.57	111.61	111.65	111.69	111.73	111.77	111.81	111.85	111.89	111.93	111.97	112.01	112.05	112.09	112.13	112.17	112.21	112.25	112.29	112.33	112.37	112.41	112.45	112.49	112.53	112.57	112.61	112.65	112.69	112.73	112.77	112.81	112.85	112.89	112.93	112.97	113.01	113.05	113.09	113.13	113.17	113.21	113.25	113.29	113.33	113.37	113.41	113.45	113.49	113.53	113.57	113.61	113.65	113.69	113.73	113.77	113.81	113.85	113.89	113.93	113.97	114.01	114.05	114.09	114.13	114.17	114.21	114.25	114.29	114.33	114.37	114.41	114.45	114.49	114.53	114.57	114.61	114.65	114.69	114.73	114.77	114.81	114.85	114.89	114.93	114.97	115.01	115.05	115.09	115.13	115.17	115.21	115.25	115.29	115.33	115.37	115.41	115.45	115.49	115.53	115.57	115.61	115.65	115.69	115.73	115.77	115.81	115.85	115.89	115.93	115.97	116.01	116.05	116.09	116.13	116.17	116.21	116.25	116.29	116.33	116.37	116.41	116.45	116.49	116.53	116.57	116.61	116.65	116.69	116.73	116.77	116.81	116.85	116.89	116.93	116.97	117.01	117.05	117.09	117.13	117.17	117.21	117.25	117.29	117.33	117.37	117.41	117.45	117.49	117.53	117.57	117.61	117.65	117.69	117.73	117.77	117.81	117.85	117.89	117.93	117.97	118.01	118.05	118.09	118.13	118.17	118.21	118.25	118.29	118.33	118.37	118.41	118.45	118.49	118.53	118.57	118.61	118.65	118.69	118.73	118.77	118.81	118.85	118.89	118.93	118.97	119.01	119.05	119.09	119.13	119.17	119.21	119.25	119.29	119.33	119.37	119.41	119.45	119.49	119.53
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LEGEND, MAP

- New railway alignment
- Existing railway alignment (not in the Railway Project scope)
- Railway Area borderline
- Secondary Side Tracks - Horizontal geometry pre-designed (Secondary side tracks and their switches will be designed and constructed based on Appendix Q)
- Removal track
- Street or road modification area in level crossings or underpasses/flyovers
- Modification needed to the property access
- Affected parallel roads and streets and maintenance roads
- Road closing down
- Limit of designed soil cut (open cut or cut with a retaining wall)
- Limit of designed embankment fill, not including possible ditch
- Existing stations or passenger platforms
- New passenger platforms
- Symbols
- Railway bridge or underpass, Flyover
- Culvert
- Level crossing

Track alignment with design geometry figures

R= curve radius (m)
 KR= length of curve (m)
 D= track cant (mm)
 Lk= length of transition curve (m)
 Rv= radius of vertical curve
 K= elevation
 TG= length of tangent
 123.345= length of straight line (m)

LEGEND, PROFILE

Vertical railway alignment (S=radius of vertical curve, KT=elevation point)

Ground surface

Ground elevation on the left side of track centre line (-20m) and on the right side of track centre line (+20m)

Culvert location (elevation will be designed in detailed design phase)

Level crossing

Overpass bridge, railway or underpass bridge

Elevation figures

Difference between existing ground and designed track elevation

Designed track elevation (the running surface of the rail)

Existing ground elevation

Km stationing

Horizontal alignment, schematic

SR= length of straight line (m)
 R= curve radius (m)
 KR= length of curve (m)
 D= track cant (mm)
 Lk= length of transition curve (m)

Version 15.12.2017

Revision	Explanation	Date	Designer	Date	Acceptor
1					

Customer: **MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS**

Project: **Railway Project**

Design phase: **Pre-engineering, Phase 2**

Content: **Track map and profile**

Supplier: **VR TRACK**

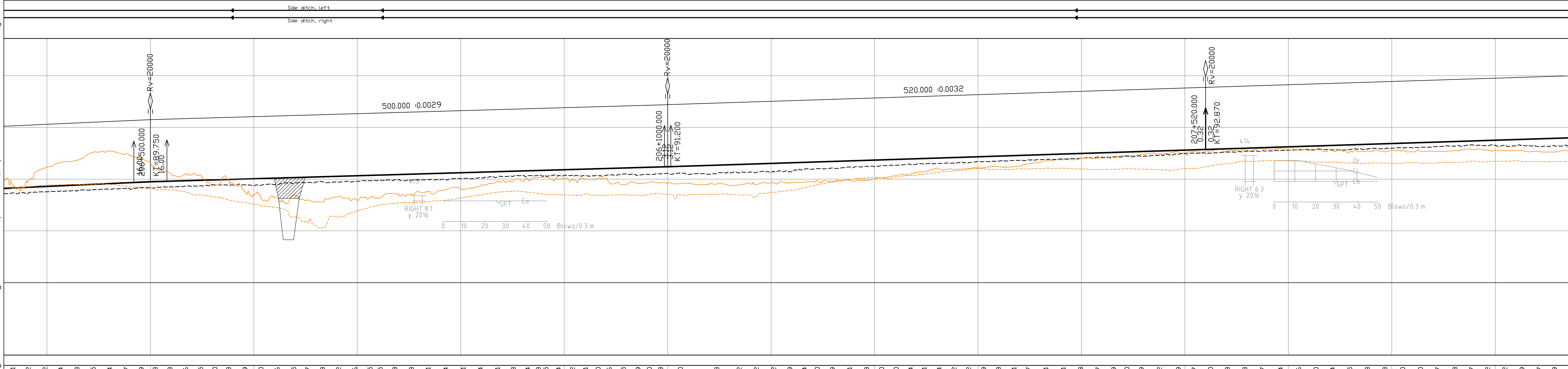
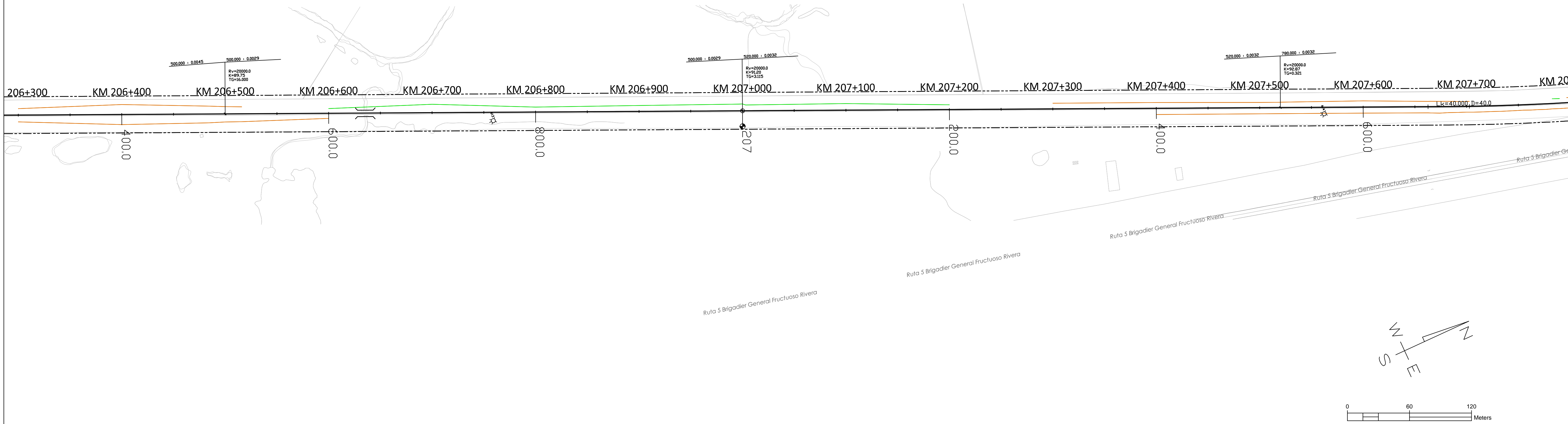
Project: **Km 205+0000 - 206+0400**

Drawer

← Montevideo

Paso de Los Toros →

B125
206+687
PreCast



8866	8921	0.52	0.31
8871	8926	0.52	0.32
8879	8930	0.52	0.34
8883	8939	0.53	0.34
8892	8948	0.53	0.35
8897	8957	0.54	0.35
8905	8966	0.54	0.35
8909	8974	0.57	0.39
8914	8981	0.58	0.39
8924	8988	0.58	0.39
8931	8997	0.56	0.35
8935	9006	0.57	0.37
8944	9015	0.57	0.37
8949	9024	0.63	0.43
8954	9033	0.62	0.42
8966	9042	0.62	0.42
8977	9051	0.56	0.36
8982	9060	0.65	0.45
8995	9069	0.65	0.45
8997	9078	0.58	0.38
8998	9087	0.58	0.38
8999	9096	0.63	0.43
9000	9105	0.61	0.41
9005	9114	0.64	0.44
9008	9123	0.64	0.44
9015	9132	0.61	0.41
9023	9141	0.54	0.34
9025	9150	0.51	0.31
9028	9159	0.53	0.33
9028	9168	0.54	0.34
9027	9177	0.58	0.38
9033	9186	0.55	0.35
9026	9195	0.64	0.44
9033	9204	0.62	0.42
9028	9213	0.71	0.51
9032	9222	0.70	0.50
9039	9231	0.66	0.46
9044	9240	0.65	0.45
9044	9249	0.69	0.49
9046	9258	0.70	0.50
9051	9267	0.68	0.48
9056	9276	0.70	0.50
9133	9285	0.63	0.43
9139	9294	0.82	0.62
9146	9303	0.82	0.62
9152	9312	0.82	0.62
9159	9321	0.79	0.59
9165	9330	0.74	0.54
9171	9339	0.70	0.50
9171	9348	0.69	0.49
9178	9357	0.61	0.41
9184	9366	0.63	0.43
9184	9375	0.60	0.40
9191	9384	0.60	0.40
9197	9393	0.54	0.34
9197	9402	0.51	0.31
9150	9411	0.51	0.31
9152	9420	0.54	0.34
9158	9429	0.52	0.32
9163	9438	0.52	0.32
9170	9447	0.49	0.29
9176	9456	0.48	0.28
9178	9465	0.51	0.31
9186	9474	0.47	0.27
9186	9483	0.51	0.31
9193	9492	0.51	0.31
9202	9501	0.48	0.28
9208	9510	0.47	0.27
9211	9519	0.49	0.29
9214	9528	0.50	0.30
9219	9537	0.49	0.29
9232	9546	0.42	0.22
9241	9555	0.39	0.19
9247	9564	0.37	0.17
9249	9573	0.40	0.20
9256	9582	0.38	0.18
9267	9591	0.33	0.13
9269	9600	0.37	0.17
9278	9609	0.34	0.14
9281	9618	0.36	0.16
9282	9627	0.40	0.20
9284	9636	0.44	0.24
9287	9645	0.45	0.25
9290	9654	0.48	0.28
9296	9663	0.44	0.24
9299	9672	0.50	0.30
9304	9681	0.50	0.30
9313	9690	0.47	0.27
9317	9699	0.48	0.28
9323	9708	0.47	0.27
9323	9717	0.52	0.32
9319	9726	0.62	0.42
9326	9735	0.59	0.39
9323	9744	0.67	0.47
9326	9753	0.69	0.49
9334	9762	0.66	0.46

LEGEND, MAP

- New railway alignment
- Existing railway alignment (not in the Railway Project scope)
- Railway Area borderline
- Secondary Side Tracks - Horizontal geometry pre-designed (Secondary side tracks and their switches will be designed and constructed based on Appendix Q)
- Removal track
- Street or road modification area in level crossings or underpasses/flyovers
- Modification needed to the property access
- Affected parallel roads and streets and maintenance roads
- Road closing down
- Limit of designed soil cut (open cut or cut with a retaining wall)
- Limit of designed embankment fill, not including possible ditch
- Existing stations or passenger platforms
- New passenger platforms
- Symbols
- Railway bridge or underpass, Flyover
- Culvert
- Level crossing

Track alignment with design geometry figures

- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)
- Rv= radius of vertical curve
- K= elevation
- TG= length of tangent
- 123.345= length of straight line (m)

LEGEND, PROFILE

- Vertical railway alignment (S=radius of vertical curve, KT=elevation point)
- Ground surface
- Ground elevation on the left side of track centre line (-20m) and on the right side of track centre line (+20m)
- Culvert location (elevation will be designed in detailed design phase)
- Level crossing
- Overpass bridge, railway or underpass bridge
- Elevation figures
- Difference between existing ground and designed track elevation
- Designed track elevation (the running surface of the rail)
- Existing ground elevation
- Km stationing

Horizontal alignment, schematic

- SR= length of straight line (m)
- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)

Version 15.12.2017

Revision	Explanation	Date	Designer	Date	Acceptor

Customer: **MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS**

Project: **Railway Project**

Design phase: **Pre-engineering, Phase 2**

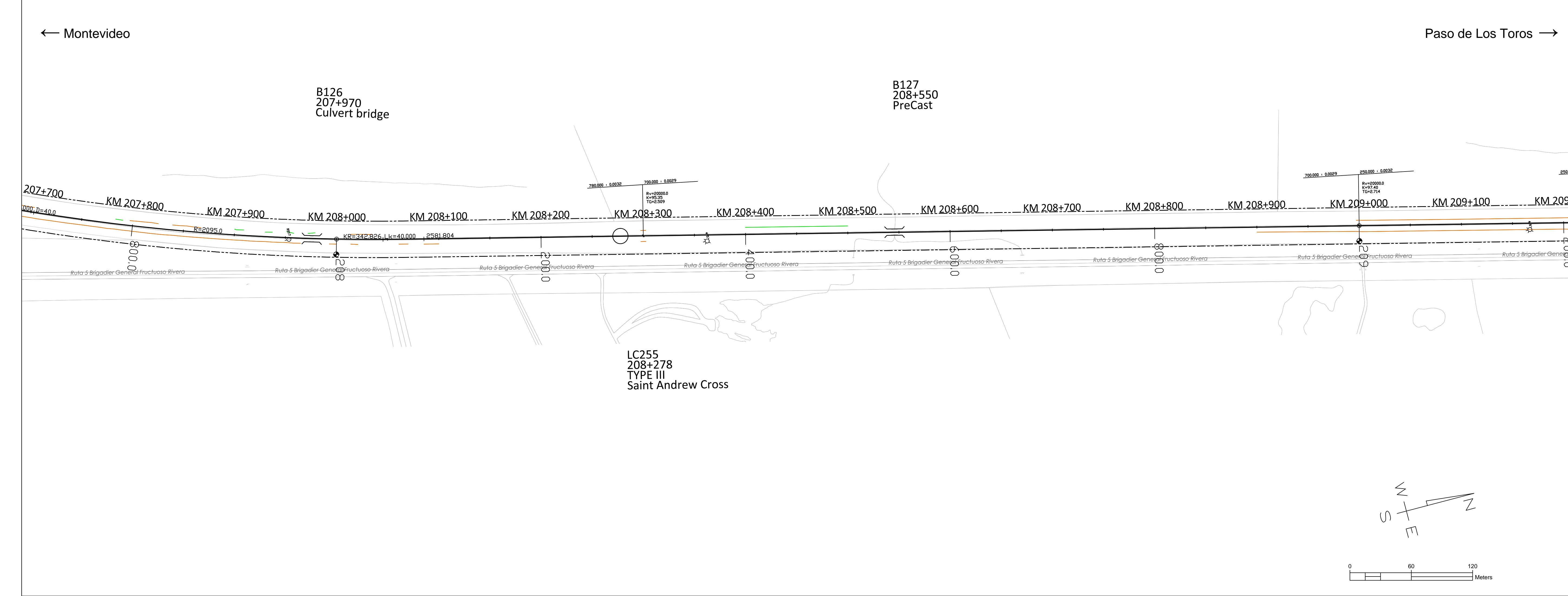
Content: **Track map and profile**

Supplier: **VR TRACK**

Content: **Km 206+0400 - 207+0800**

Drawer	Designer	Supervisor	Accept.	Owner acc.	Scale	Coordinate system	Elevation reference system	Railway line	Archive	Type	Number	Rev.	Sheet	Sheets total
UPa	HMa / MLo	SVI			map 1:2000, profile 1:2000 / 1:200	WGS 84 UTM 21 S, Local orthometric height		Montevideo - Paso de Los Toros						

148, 195



LEGEND, MAP

- New railway alignment
- Existing railway alignment (not in the Railway Project scope)
- Railway Area borderline
- Secondary Side Tracks - Horizontal geometry pre-designed (Secondary side tracks and their switches will be designed and constructed based on Appendix Q)
- Removal track
- Street or road modification area in level crossings or underpasses/flyovers
- Modification needed to the property access
- Affected parallel roads and streets and maintenance roads
- Road closing down
- Limit of designed soil cut (open cut or cut with a retaining wall)
- Limit of designed embankment fill, not including possible ditch
- Existing stations or passenger platforms
- New passenger platforms

Symbols

- BXXX BXXX: Railway bridge or underpass, Flyover
- CXXX: Culvert
- LCXXX: Level crossing

Track alignment with design geometry figures

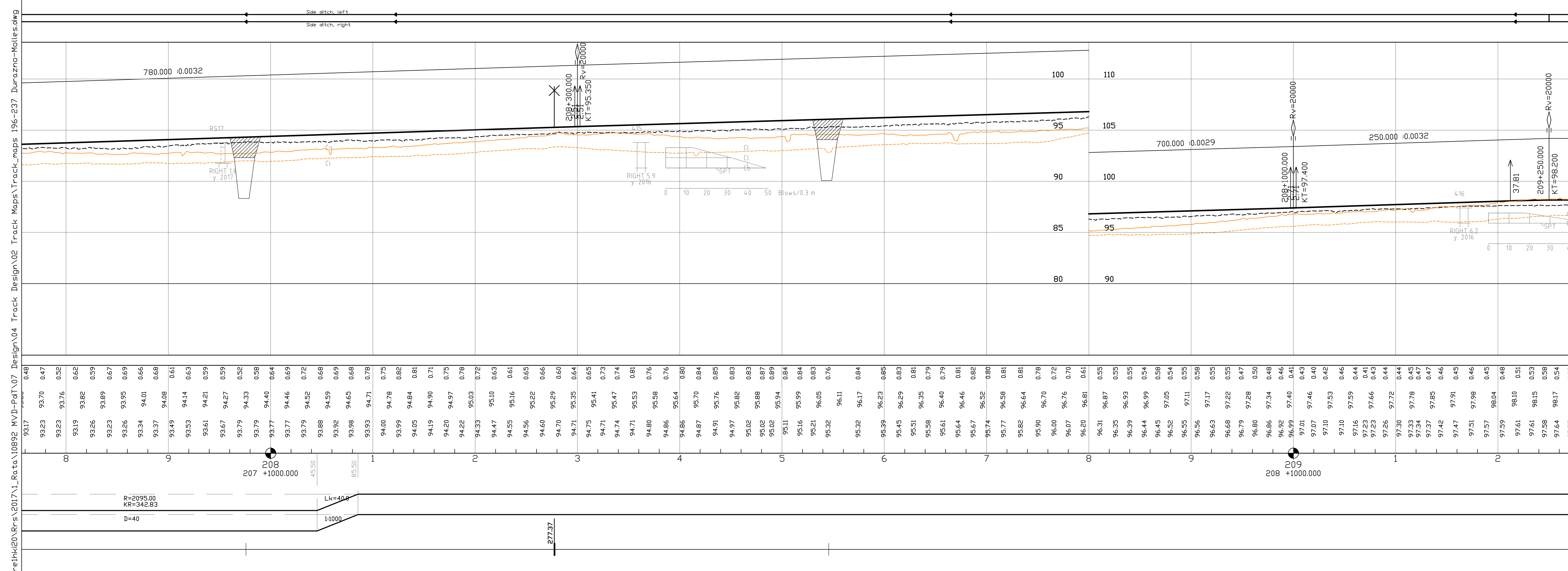
- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)
- Rv= radius of vertical curve
- K= elevation
- TG= length of tangent
- 123.345= length of straight line (m)

SPT-sounding, terminated at cobble, boulder, or bedrock contact.
 y. 2016= year of investigation, location of 2016 soundings not accurate
 1, 217= point number

Disturbed Sample
 y. 2017= year of investigation
 TR02= point number

LEGEND, PROFILE

- Vertical railway alignment (S=radius of vertical curve, KT=elevation point)
- Ground surface
- Ground elevation on the left side of track centre line (-20m) and on the right side of track centre line (+20m)
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- Level crossing
- Overpass bridge, railway or underpass bridge
- Elevation figures
- Difference between existing ground and designed track elevation
- Designed track elevation (the running surface of the rail)
- Existing ground elevation
- Km stationing
- Horizontal alignment, schematic
- SR= length of straight line (m)
- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)



Version 15.12.2017

Revision	Explanation	Date	Designer	Date	Acceptor
1					

Customer: MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS

Project: Railway Project

Design phase: Pre-engineering, Phase 2

Content: Track map and profile

Supplier: TRACK

Scale: map 1:2000, profile 1:2000 / 1:200

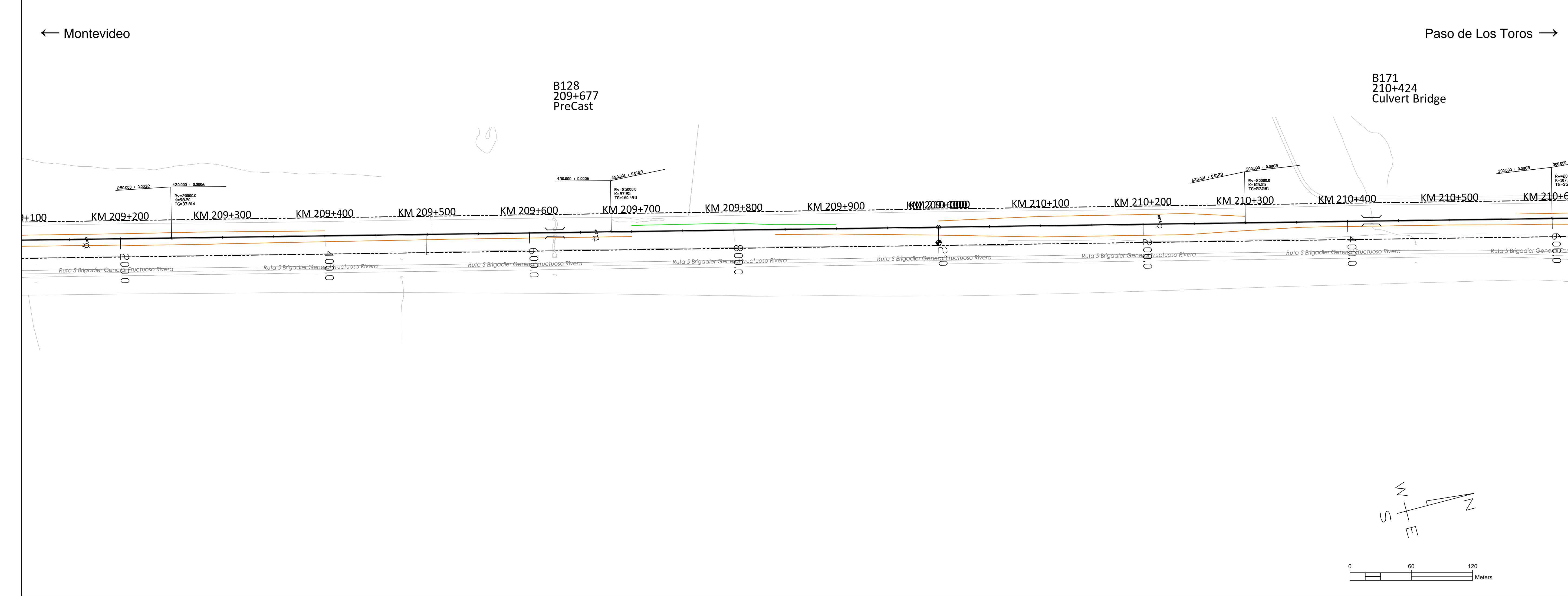
Coordinate system: WGS 84 UTM 21 S, Local orthometric height

Elevation reference system: WGS 84 UTM 21 S, Local orthometric height

Railway line: Montevideo - Paso de Los Toros

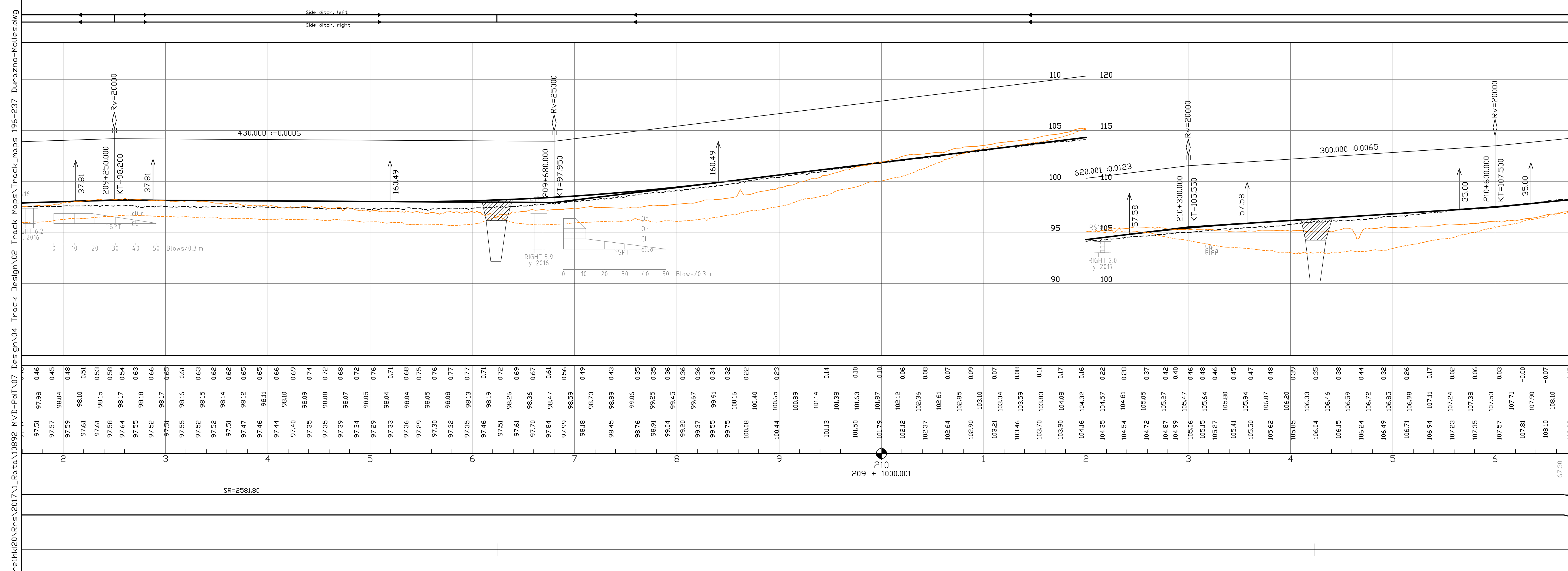
Drawer	15.12.2017	UPa	Scale	map 1:2000, profile 1:2000 / 1:200
Designer	15.12.2017	HMa / MLo	Coordinate system	WGS 84 UTM 21 S, Local orthometric height
Supervisor	15.12.2017	SVI	Elevation reference system	WGS 84 UTM 21 S, Local orthometric height
Accept.			Railway line	Montevideo - Paso de Los Toros
Owner acc.			Archive	Type Number Rev. Sheet Sheets total

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LEGEND, MAP

- New railway alignment
- Existing railway alignment (not in the Railway Project scope)
- - - Railway Area borderline
- Secondary Side Tracks - Horizontal geometry pre-designed (Secondary side tracks and their switches will be designed and constructed based on Appendix Q)
- Removal track
- Street or road modification area in level crossings or underpasses/flyovers
- Modification needed to the property access
- Affected parallel roads and streets and maintenance roads
- X Road closing down
- Limit of designed soil cut (open cut or cut with a retaining wall)
- Limit of designed embankment fill, not including possible ditch
- Existing stations or passenger platforms
- New passenger platforms
- Symbols
- BXXX BXXX Railway bridge or underpass, Flyover
- CXXX Culvert
- Level crossing
- LCXXX
- Track alignment with design geometry figures
- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)
- Rv= radius of vertical curve
- K= elevation
- TG= length of tangent
- 123.345= length of straight line (m)
- y. 2016 SPT-sounding, terminated at cobble, boulder, or bedrock contact.
- y. 2016= year of investigation, location of 2016 soundings not accurate
- 1, 217= point number
- y. 2017 Disturbed Sample
- TR02= year of investigation
- TR02= point number



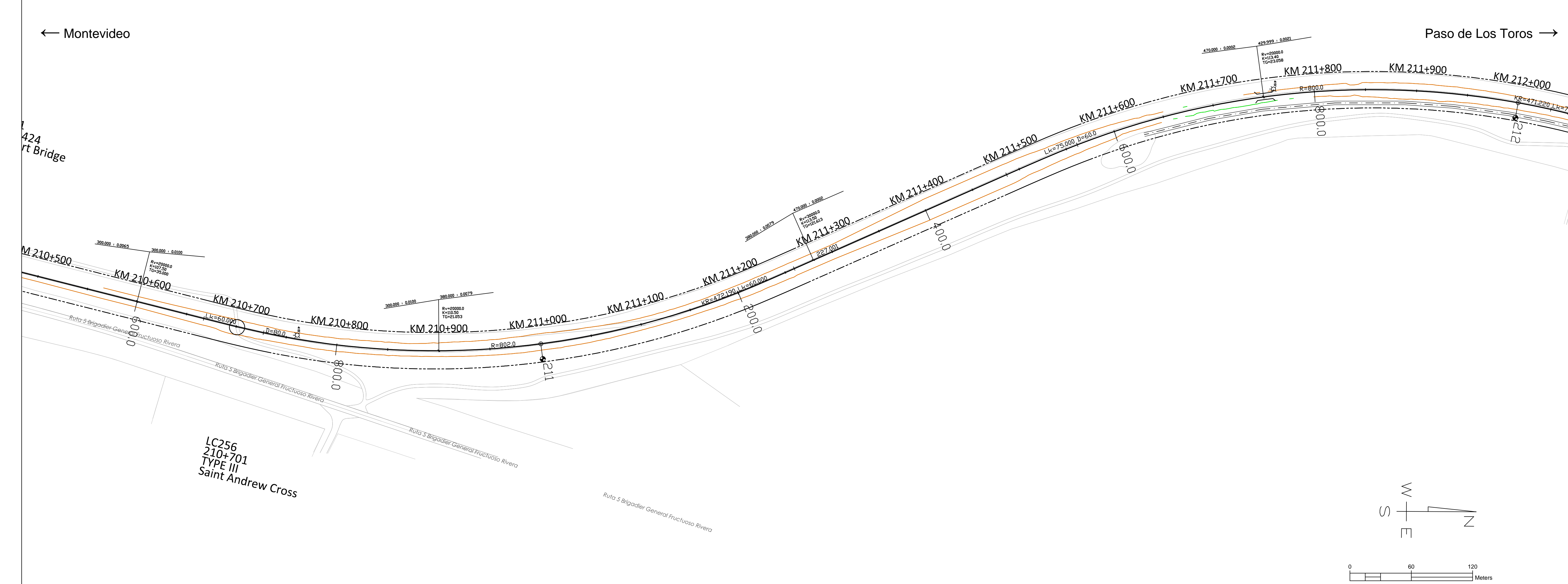
LEGEND, PROFILE

- Vertical railway alignment (S=radius of vertical curve, KT=elevation point)
- Ground surface
- Ground elevation on the left side of track centre line (-20m) and on the right side of track centre line (+20m)
- Culvert location (elevation will be designed in detailed design phase)
- Level crossing
- Overpass bridge, railway or underpass bridge
- Elevation figures
- Difference between existing ground and designed track elevation
- Designed track elevation (the running surface of the rail)
- Existing ground elevation
- Km stationing
- Horizontal alignment, schematic
- SR= length of straight line (m)
- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)

Version 15.12.2017				
Revision	Explanation	Date	Designer	Acceptor

MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS		Railway Project Design phase Pre-engineering, Phase 2 Content Track map and profile	
Supplier 		Km 209+0200 - 210+0600	
Drawer: 15.12.2017 Designer: 15.12.2017 Supervisor: 15.12.2017 Accept: Owner acc:	UPa HMa / MLo SVI	Scale: map 1:2000, profile 1:2000 / 1:200 Coordinate system: WGS 84 UTM 21 S, Local orthometric height Elevation reference system:	Archive Type Number Rev. Sheet Sheets total 150 195

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LEGEND, MAP

- New railway alignment
- Existing railway alignment (not in the Railway Project scope)
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- Road closing down
- Limit of designed soil cut (open cut or cut with a retaining wall)
- Limit of designed embankment fill, not including possible ditch
- Existing stations or passenger platforms
- New passenger platforms

Symbols

- BXXX BXXX: Railway bridge or underpass, Flyover
- CXXX: Culvert
- LCXXX: Level crossing

Track alignment with design geometry figures

- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)
- RV= radius of vertical curve
- K= elevation
- TG= length of tangent
- 123.345= length of straight line (m)

Sounding and Sample Symbols

- y. 2016: SPT-sounding, terminated at cobble, boulder, or bedrock contact.
- y. 2016= 217: year of investigation, location of 2016 soundings not accurate
- 1, 217= point number
- y. 2017: Disturbed Sample
- y. 2017= TR02= year of investigation
- TR02= point number

LEGEND, PROFILE

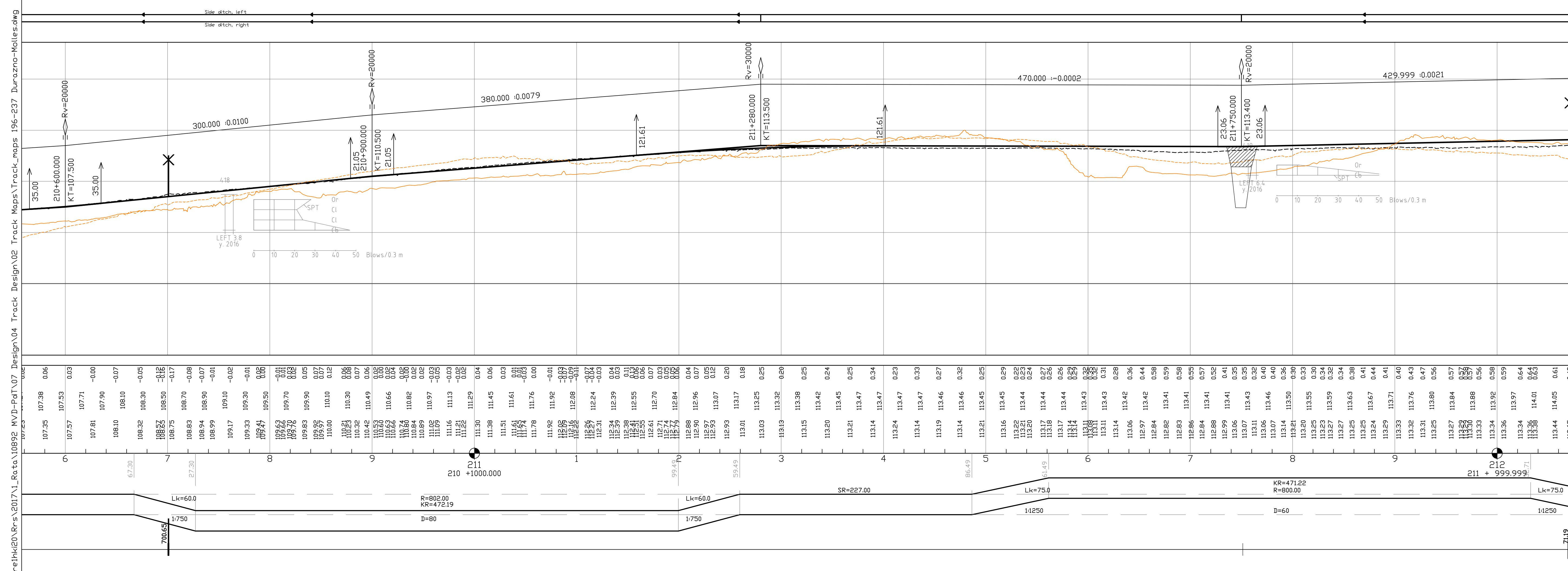
Vertical railway alignment

(S=radius of vertical curve, KT=elevation point)

- Ground surface
- Ground elevation on the left side of track centre line (-20m) and on the right side of track centre line (+20m)
- Culvert location (elevation will be designed in detailed design phase)
- Level crossing
- Overpass bridge, railway or underpass bridge
- Elevation figures
- Difference between existing ground and designed track elevation
- Designed track elevation (the running surface of the rail)
- Existing ground elevation
- Km stationing

Horizontal alignment, schematic

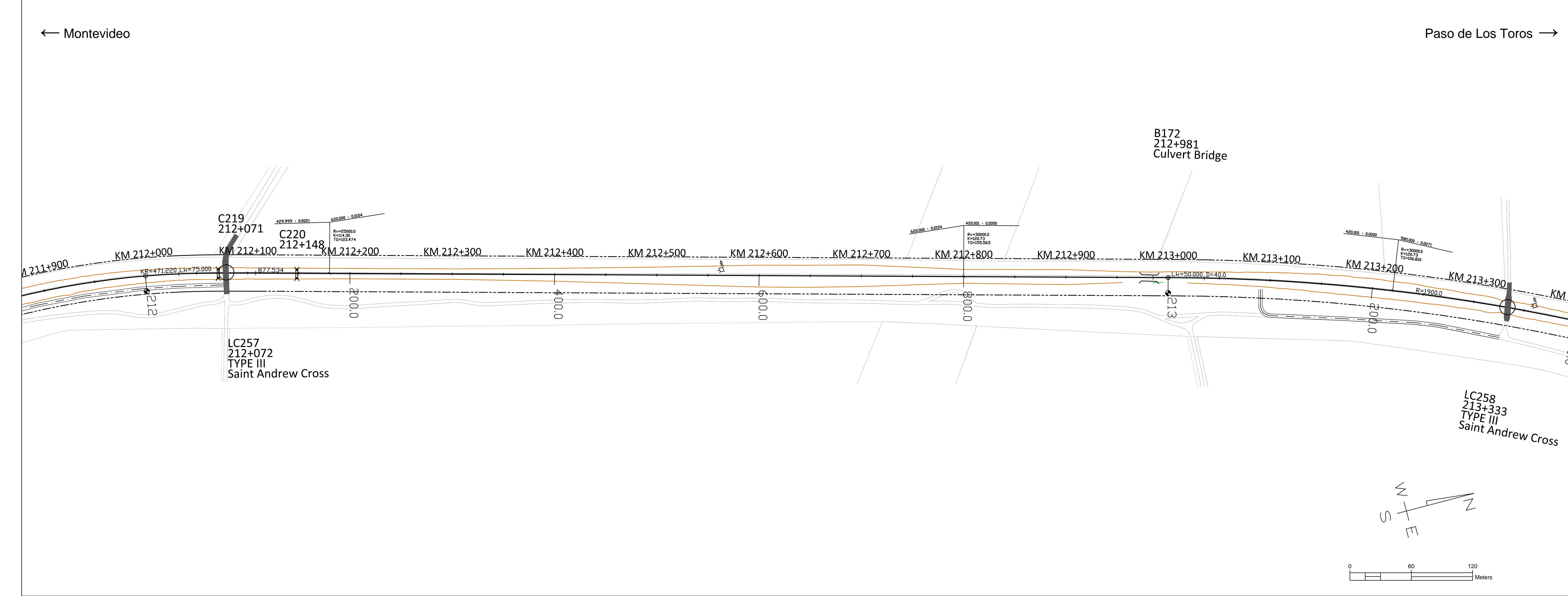
- SR= length of straight line (m)
- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)



Version 15.12.2017

Revision	Explanation	Date	Designer	Date	Acceptor
1					

Customer	MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS	Project	Railway Project
Design phase	Pre-engineering, Phase 2	Content	Track map and profile
Supplier	VR TRACK	Content	Km 210+0600 - 212+0000
Drawer	15.12.2017 UPa	Scale	map 1:2000, profile 1:2000 / 1:200
Designer	15.12.2017 HMa / MLe	Coordinate system	WGS 84 UTM 21 S, Local orthometric height
Supervisor	15.12.2017 SVI	Railway line	Montevideo - Paso de Los Toros
Accept.		Archive	Type Number Rev. Sheet Sheets total
Owner acc.			151, 195



LEGEND, MAP

- New railway alignment
- Existing railway alignment (not in the Railway Project scope)
- Railway Area borderline
- Secondary Side Tracks - Horizontal geometry pre-designed (Secondary side tracks and their switches will be designed and constructed based on Appendix Q)
- Removal track
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- Modification needed to the property access
- Affected parallel roads and streets and maintenance roads
- Road closing down
- Limit of designed soil cut (open cut or cut with a retaining wall)
- Limit of designed embankment fill, not including possible ditch
- Existing stations or passenger platforms
- New passenger platforms

Symbols

- BXXX BXXX: Railway bridge or underpass, Flyover
- CXXX: Culvert
- Level crossing: LCXXX

Track alignment with design geometry figures

- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)
- Rv= radius of vertical curve
- K= elevation
- TG= length of tangent
- 123.345= length of straight line (m)

SPT-sounding, terminated at cobble, boulder, or bedrock contact.

- y. 2016= year of investigation, location of 2016 soundings not accurate
- 1, 217= point number

Disturbed Sample

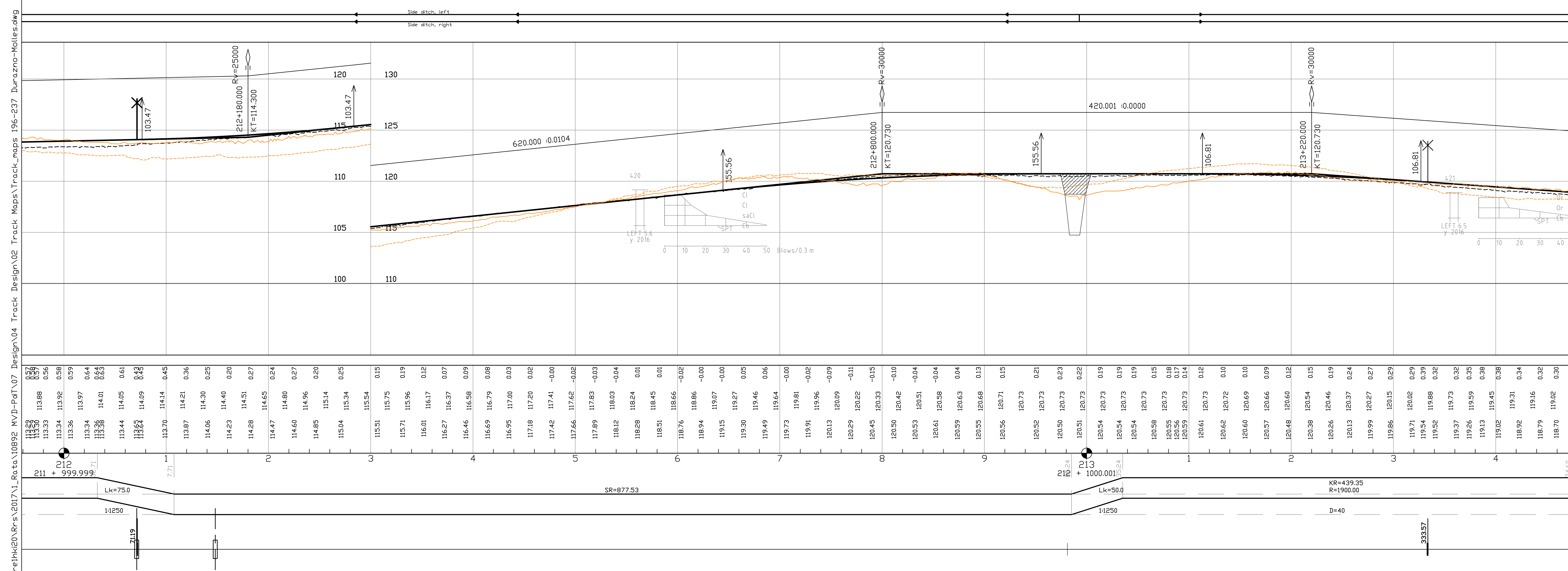
- y. 2017= year of investigation
- TR02= point number

LEGEND, PROFILE

- Vertical railway alignment (S=radius of vertical curve, KT=elevation point)
- Ground surface
- Ground elevation on the left side of track centre line (-20m) and on the right side of track centre line (+20m)
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- Level crossing
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- Elevation figures
- Difference between existing ground and designed track elevation
- Designed track elevation (the running surface of the rail)
- Existing ground elevation
- Km stationing

Horizontal alignment, schematic

- SR= length of straight line (m)
- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)

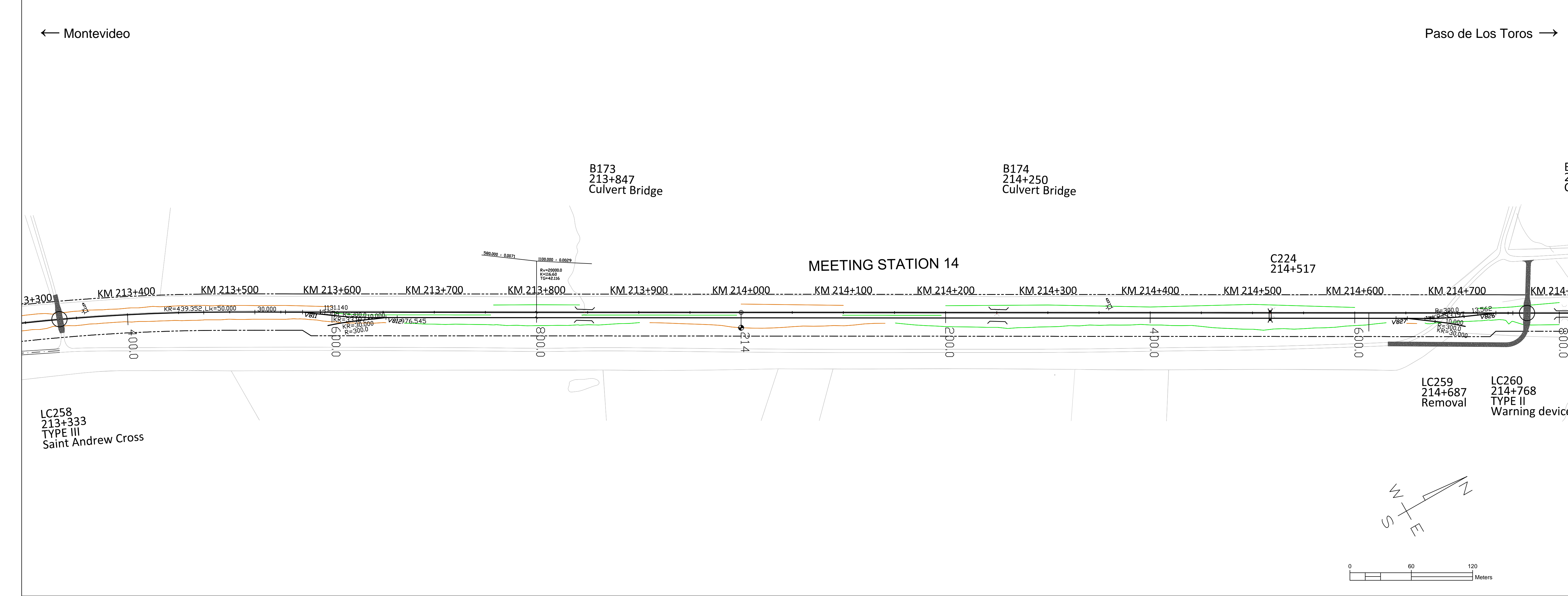


Version 15.12.2017				
Revision	Explanation	Date	Designer	Approver
1				

Customer	Railway Project	
Design phase	Pre-engineering, Phase 2	
Content	Track map and profile	
Supplier		
Project	Km 212+0000 - 213+0400	
Drawer	15.12.2017	UPa
Designer	15.12.2017	HMa / MLo
Supervisor	15.12.2017	SVI
Accept.		
Owner acc.		

Scale	map 1:2000, profile 1:2000 / 1:200	
Coordinate system	WGS 84 UTM 21 S, Local orthometric height	
Elevation reference system	Montevideo - Paso de Los Toros	
Archive	Type	Number
Rev.	Sheet	Sheets total
		152, 195

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LEGEND, MAP

- New railway alignment
- Existing railway alignment (not in the Railway Project scope)
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- Affected parallel roads and streets and maintenance roads
- Road closing down
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- Existing stations or passenger platforms
- New passenger platforms
- Symbols
- Railway bridge or underpass, Flyover
- Culvert
- Level crossing
- LCXXX

Track alignment with design geometry figures

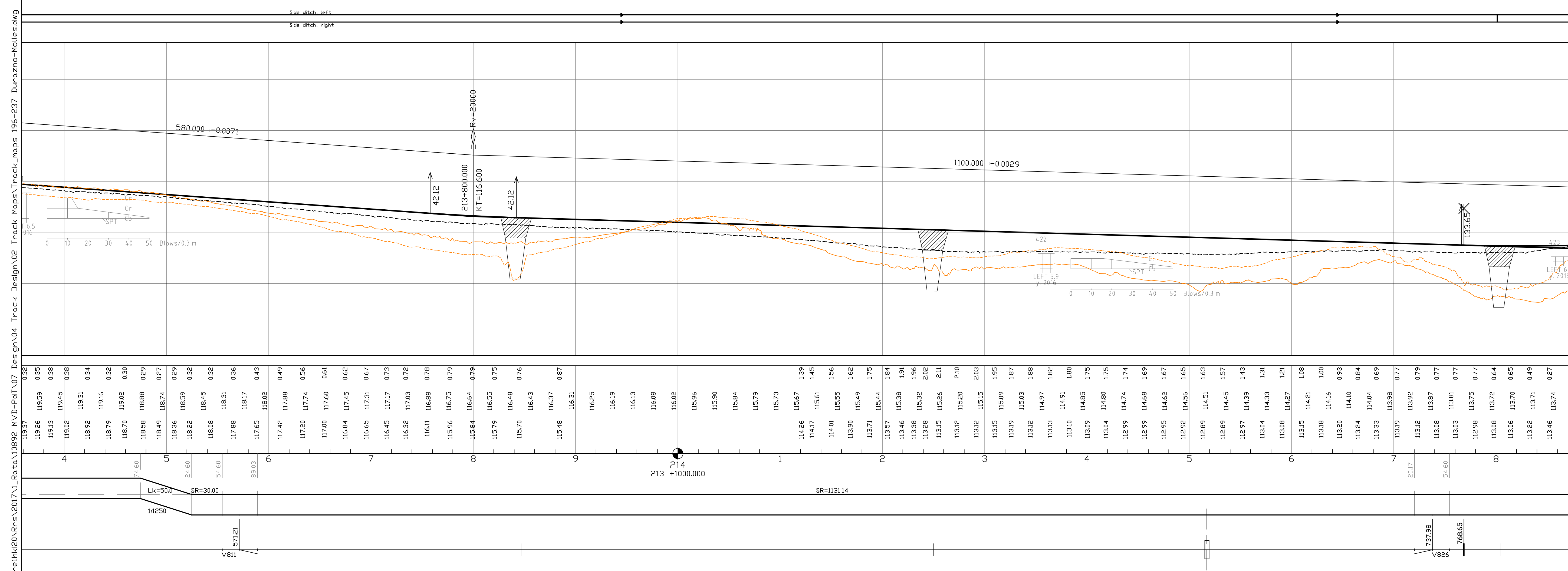
- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)
- Rv= radius of vertical curve
- K= elevation
- TG= length of tangent
- 123.345= length of straight line (m)

SPT-sounding, terminated at cobble, boulder, or bedrock contact.

- y. 2016= year of investigation, location of 2016 soundings not accurate
- 1, 217= point number

Disturbed Sample

- y. 2017= year of investigation
- TR02= point number



LEGEND, PROFILE

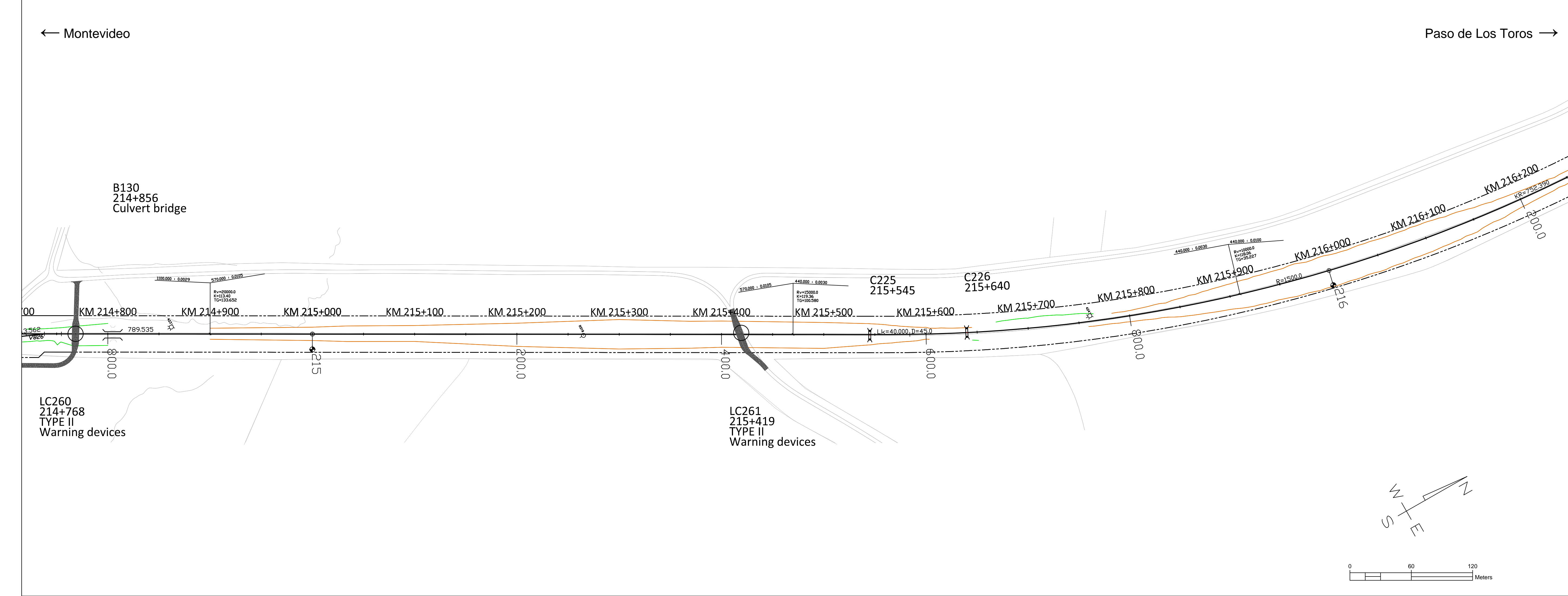
- Vertical railway alignment (S=radius of vertical curve, KT=elevation point)
- Ground surface
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- Elevation figures
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- Designed track elevation (the running surface of the rail)
- Existing ground elevation
- Km stationing

Horizontal alignment, schematic

- SR= length of straight line (m)
- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)

Version 15.12.2017

Revision	Explanation	Date	Designer	Date	Acceptor
Customer	Railway Project				
Supplier	MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS				
Design phase	Pre-engineering, Phase 2				
Content	Track map and profile				
Supplier					
Project	Km 213+0400 - 214+0800				
Scale	map 1:2000, profile 1:2000 / 1:200				
Coordinate system	WGS 84 UTM 21 S, Local orthometric height				
Elevation reference system	WGS 84 UTM 21 S, Local orthometric height				
Railway line	Montevideo - Paso de Los Toros				
Archive	Type	Number	Rev.	Sheet	Sheets total
153				195	



LEGEND, MAP

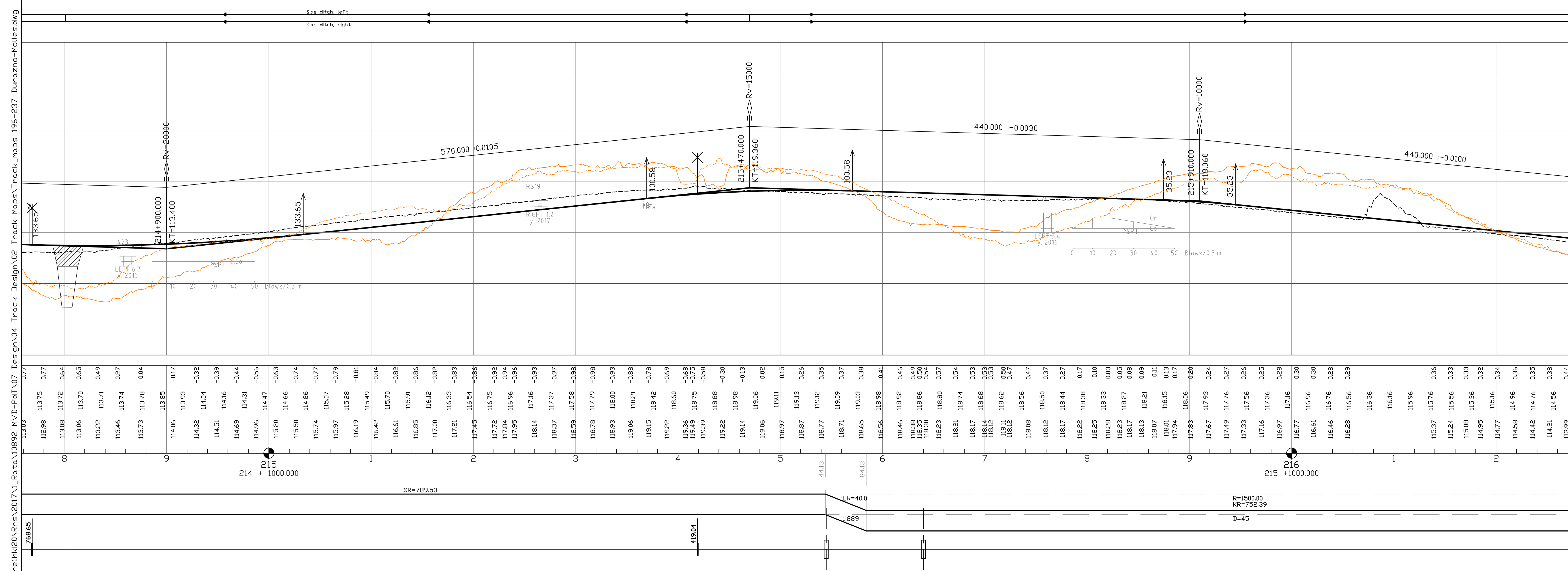
- New railway alignment
- Existing railway alignment (not in the Railway Project scope)
- Railway Area borderline
- Secondary Side Tracks - Horizontal geometry pre-designed (Secondary side tracks and their switches will be designed and constructed based on Appendix Q)
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- Existing stations or passenger platforms
- New passenger platforms
- Symbols
- Railway bridge or underpass, Flyover
- Culvert
- Level crossing

Track alignment with design geometry figures

R= curve radius (m)
 KR= length of curve (m)
 D= track cant (mm)
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 K= elevation
 TG= length of tangent
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SPT-sounding, terminated at cobble, boulder, or bedrock contact.
 y. 2016= year of investigation, location of 2016 soundings not accurate
 1, 217= point number

Disturbed Sample
 y. 2017= year of investigation
 TR02= point number



LEGEND, PROFILE

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- Elevation figures
- Difference between existing ground and designed track elevation
- Designed track elevation (the running surface of the rail)
- Existing ground elevation
- Km stationing

Horizontal alignment, schematic

SR= length of straight line (m)
 R= curve radius (m)
 KR= length of curve (m)
 D= track cant (mm)
 Lk= length of transition curve (m)

Version 15.12.2017

Revision	Explanation	Date	Designer	Date	Acceptor
1					

Customer: MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS

Project: Railway Project

Design phase: Pre-engineering, Phase 2

Content: Track map and profile

Supplier: V TRACK

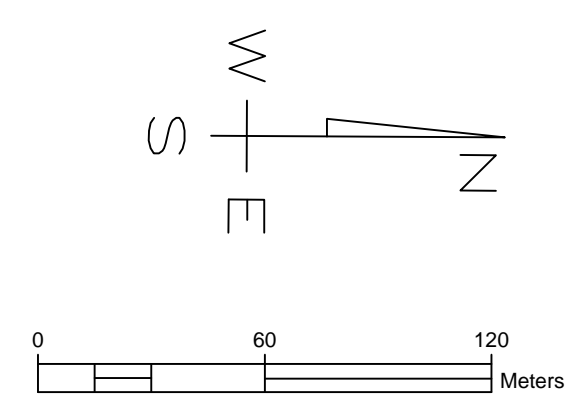
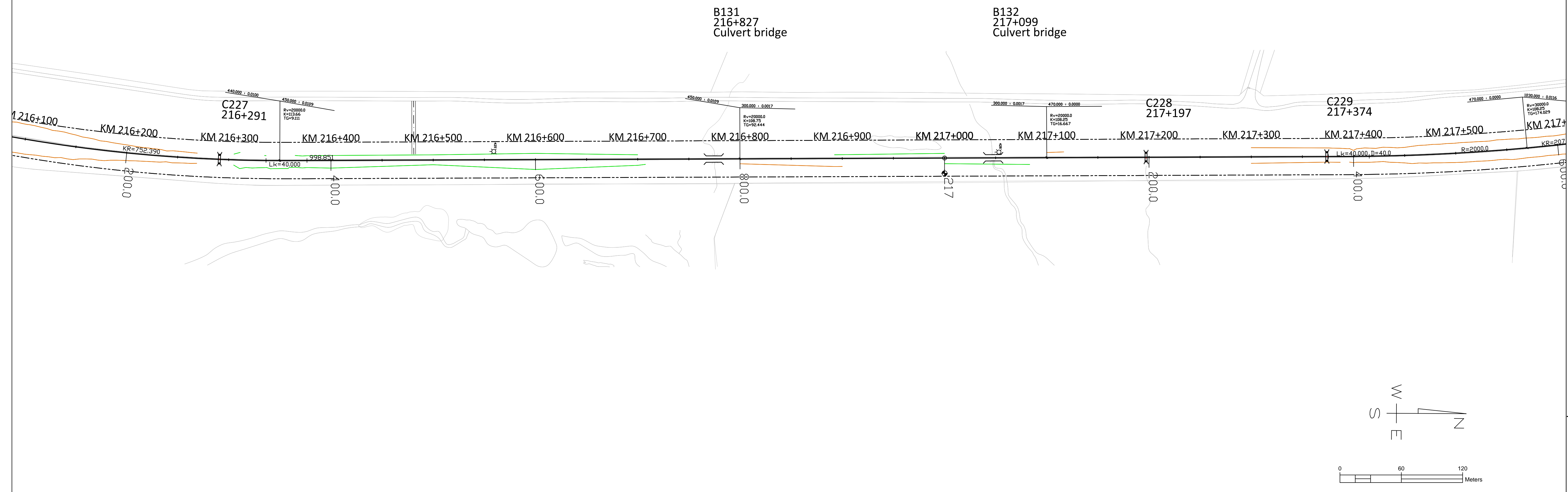
Project Name: Km 214+0800 - 216+0200

Drawer	15.12.2017	UPa	Scale	map 1:2000, profile 1:2000 / 1:200
Designer	15.12.2017	HMa / MLo	Coordinate system	WGS 84 UTM 21 S, Local orthometric height
Supervisor	15.12.2017	SVI	Elevation reference system	
Accept.			Railway line	Montevideo - Paso de Los Toros
Owner acc.			Archive	Type Number Rev. Sheet Sheets total

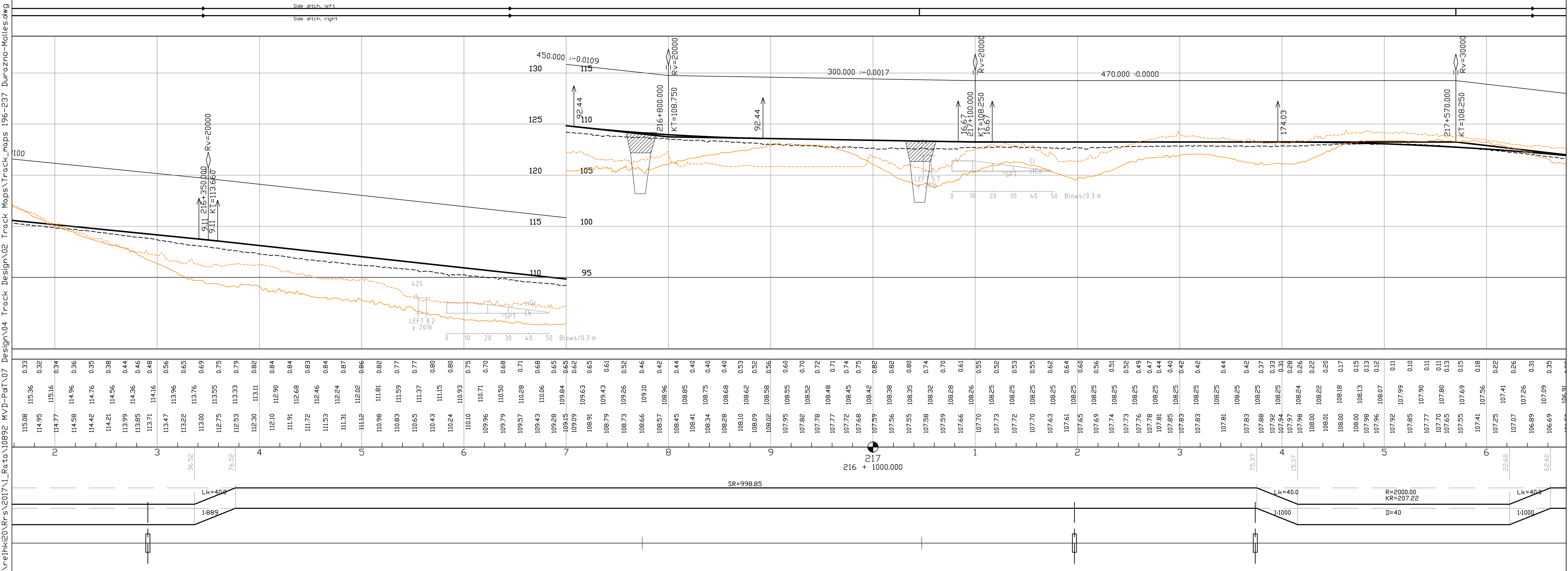
154, 195

← Montevideo

Paso de Los Toros →



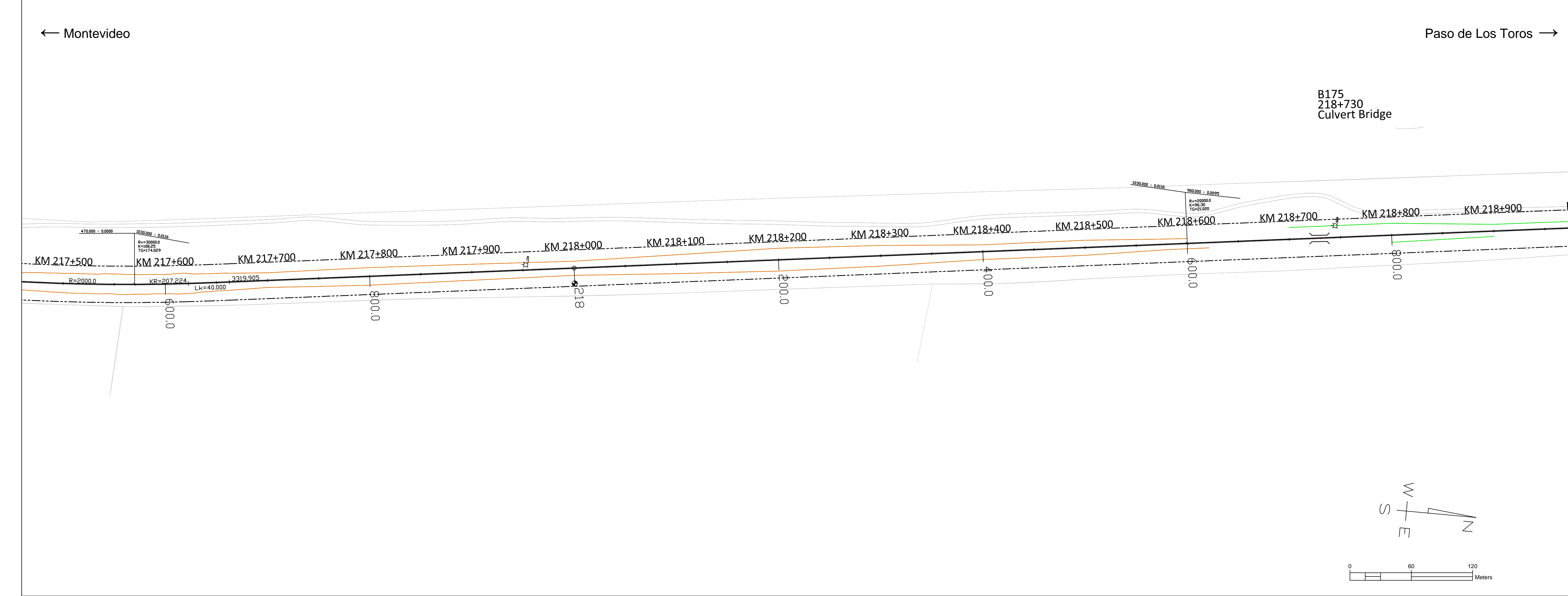
- LEGEND, MAP**
- New railway alignment
 - Existing railway alignment (not in the Railway Project scope)
 - - - Railway Area borderline
 - Secondary Side Tracks - Horizontal geometry pre-designed (Secondary side tracks and their switches will be designed and constructed based on Appendix Q)
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 - Symbols
 - BXXX BXXX Railway bridge or underpass, Flyover
 - CXXX Culvert
 - Level crossing
 - LCXXX
 - Track alignment with design geometry figures
 - R= curve radius (m)
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 - D= track cant (mm)
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 - RV= radius of vertical curve
 - K= elevation
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 - y. 2017= year of investigation
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- LEGEND, PROFILE**
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 - Horizontal alignment, schematic
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 - R= curve radius (m)
 - KR= length of curve (m)
 - D= track cant (mm)
 - Lk= length of transition curve (m)

Version 15.12.2017

Revision	Explanation	Date	Designer	Date	Acceptor
Customer	Railway Project				
Design phase	Pre-engineering, Phase 2				
Content	Track map and profile				
Supplier					
Project	Km 216+0200 - 217+0600				
Scale	map 1:2000, profile 1:2000 / 1:200				
Coordinate system	WGS 84 UTM 21 S, Local orthometric height				
Elevation reference system	Montevideo - Paso de Los Toros				
Drawer	15.12.2017	UPa			
Designer	15.12.2017	HM/a / MLe			
Supervisor	15.12.2017	SVI			
Accept.					
Owner acc.					
Archive	Type	Number	Rev.	Sheet	Sheets
				Total	155 / 195



LEGEND, MAP

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- Affected parallel roads and streets and maintenance roads
- Road closing down
- Limit of designed soil cut (open cut or cut with a retaining wall)
- Limit of designed embankment fill, not including possible ditch
- Existing stations or passenger platforms
- New passenger platforms

Symbols

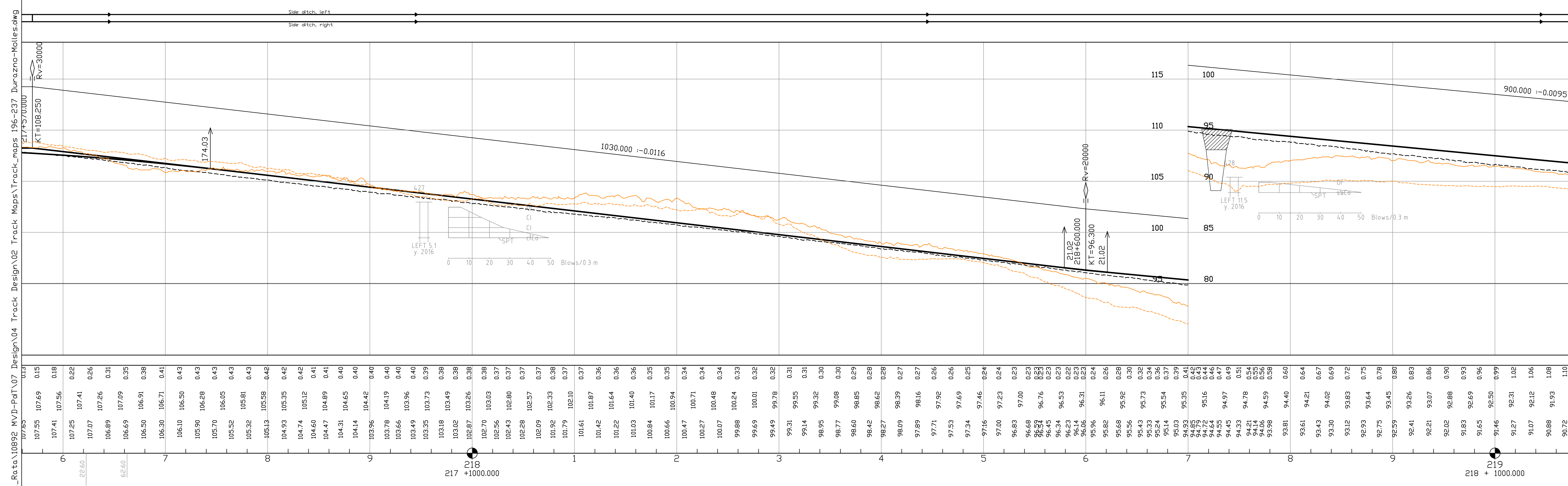
- BXXX BXXX: Railway bridge or underpass, Flyover
- CXXX: Culvert
- LCXXX: Level crossing

Track alignment with design geometry figures

- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)
- RV= radius of vertical curve
- K= elevation
- TG= length of tangent
- 123.345= length of straight line (m)

LEGEND, PROFILE

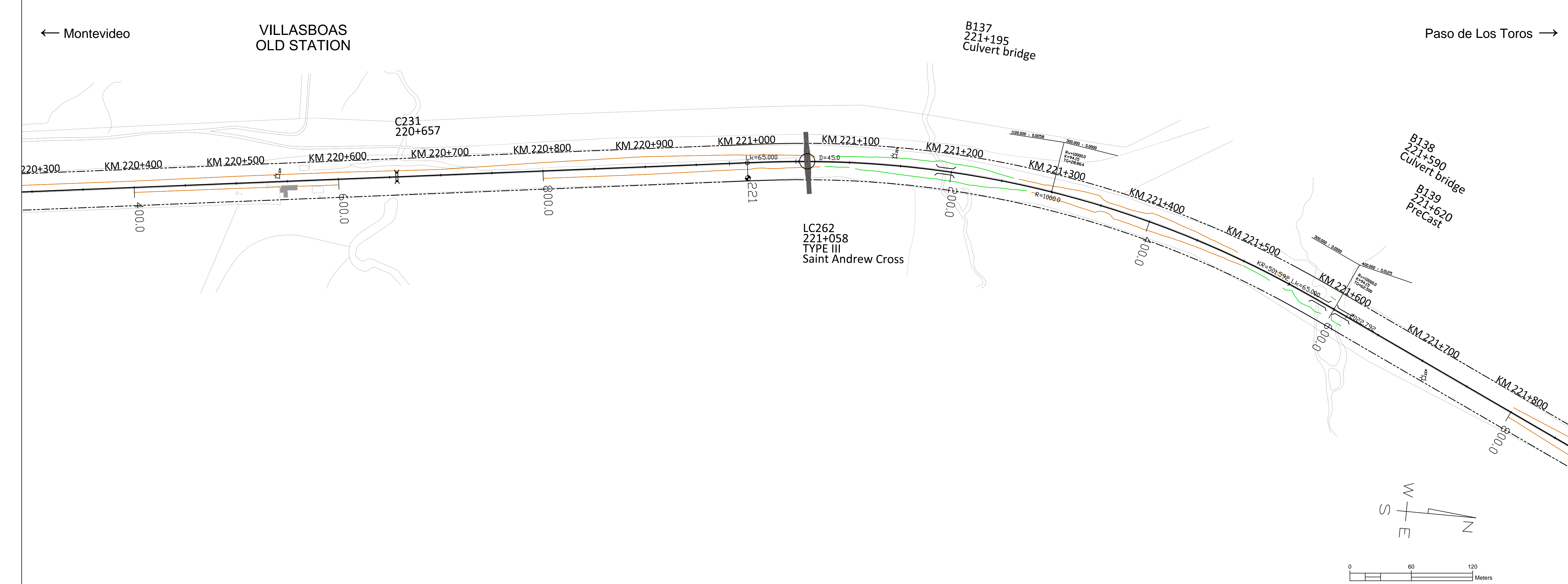
- Vertical railway alignment (S=radius of vertical curve, KT=elevation point)
- Ground surface
- Ground elevation on the left side of track centre line (-20m) and on the right side of track centre line (+20m)
- Culvert location (elevation will be designed in detailed design phase)
- Level crossing
- Overpass bridge, railway or underpass bridge
- Elevation figures
- Difference between existing ground and designed track elevation
- Designed track elevation (the running surface of the rail)
- Existing ground elevation
- Km stationing
- Horizontal alignment, schematic
- SR= length of straight line (m)
- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)



Station	107.55	107.69	0.15	107.41	107.56	0.18	107.25	107.41	0.22	106.89	107.26	0.31	106.69	107.09	0.35	106.50	106.91	0.38	106.30	106.71	0.41	106.10	106.50	0.43	105.90	106.28	0.43	105.70	106.05	0.43	105.52	105.81	0.43	105.32	105.61	0.43	105.13	105.58	0.42	104.93	105.35	0.42	104.74	105.12	0.42	104.50	104.89	0.41	104.31	104.65	0.40	104.14	104.42	0.40	103.96	104.19	0.40	103.78	103.96	0.40	103.66	103.96	0.40	103.49	103.73	0.39	103.35	103.49	0.38	103.18	103.49	0.38	103.02	103.26	0.38	102.87	103.03	0.38	102.70	102.80	0.37	102.56	102.60	0.37	102.43	102.48	0.37	102.28	102.37	0.37	102.09	102.13	0.37	101.92	101.92	0.38	101.79	101.79	0.37	101.61	101.61	0.37	101.42	101.42	0.36	101.22	101.22	0.36	101.03	101.03	0.36	100.84	100.84	0.35	100.66	100.66	0.35	100.47	100.47	0.34	100.27	100.27	0.34	100.07	100.07	0.34	99.88	99.88	0.33	99.69	99.69	0.32	99.49	99.49	0.32	99.31	99.31	0.31	99.14	99.14	0.31	98.95	98.95	0.30	98.77	98.77	0.30	98.60	98.60	0.29	98.42	98.42	0.28	98.27	98.27	0.28	98.09	98.09	0.27	97.89	97.89	0.27	97.71	97.71	0.26	97.53	97.53	0.26	97.34	97.34	0.25	97.16	97.16	0.24	97.00	97.00	0.24	96.83	96.83	0.23	96.68	96.68	0.23	96.53	96.53	0.23	96.45	96.45	0.23	96.34	96.34	0.23	96.23	96.23	0.22	96.14	96.14	0.23	96.06	96.06	0.23	95.96	95.96	0.24	95.82	95.82	0.26	95.68	95.68	0.28	95.56	95.56	0.30	95.43	95.43	0.32	95.33	95.33	0.34	95.24	95.24	0.36	95.14	95.14	0.37	95.03	95.03	0.39	94.93	94.93	0.41	94.83	94.83	0.43	94.72	94.72	0.44	94.65	94.65	0.45	94.55	94.55	0.47	94.45	94.45	0.49	94.33	94.33	0.51	94.21	94.21	0.54	94.14	94.14	0.55	94.06	94.06	0.56	93.98	93.98	0.58	93.81	93.81	0.60	93.61	93.61	0.64	93.43	93.43	0.67	93.30	93.30	0.69	93.12	93.12	0.72	92.93	92.93	0.75	92.75	92.75	0.78	92.59	92.59	0.80	92.41	92.41	0.83	92.21	92.21	0.86	92.02	92.02	0.90	91.83	91.83	0.93	91.65	91.65	0.96	91.46	91.46	0.99	91.27	91.27	1.02	91.07	91.07	1.06	90.88	90.88	1.08	90.72	90.72	1.10	90.54	90.54	1.11
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Version 15.12.2017

Revision	Explanation	Date	Designer	Date	Acceptor
Customer	Railway Project				
Supplier					
Design phase	Pre-engineering, Phase 2				
Content	Track map and profile				
Scale	map 1:2000, profile 1:2000 / 1:200				
Coordinate system	WGS 84 UTM 21 S, Local orthometric height				
Elevation reference system	Railway line				
Railway line	Montevideo - Paso de Los Toros				
Archive	Type	Number	Rev.	Sheet	Sheets total
				156	195



LEGEND, MAP

- New railway alignment
- Existing railway alignment (not in the Railway Project scope)
- Railway Area borderline
- Secondary Side Tracks - Horizontal geometry pre-designed (Secondary side tracks and their switches will be designed and constructed based on Appendix Q)
- Removal track
- Street or road modification area in level crossings or underpasses/flyovers
- Modification needed to the property access
- Affected parallel roads and streets and maintenance roads
- Road closing down
- Limit of designed soil cut (open cut or cut with a retaining wall)
- Limit of designed embankment fill, not including possible ditch
- Existing stations or passenger platforms
- New passenger platforms

Symbols

- BXXX BXXX: Railway bridge or underpass, Flyover
- CXXX: Culvert
- LCXXX: Level crossing

Track alignment with design geometry figures

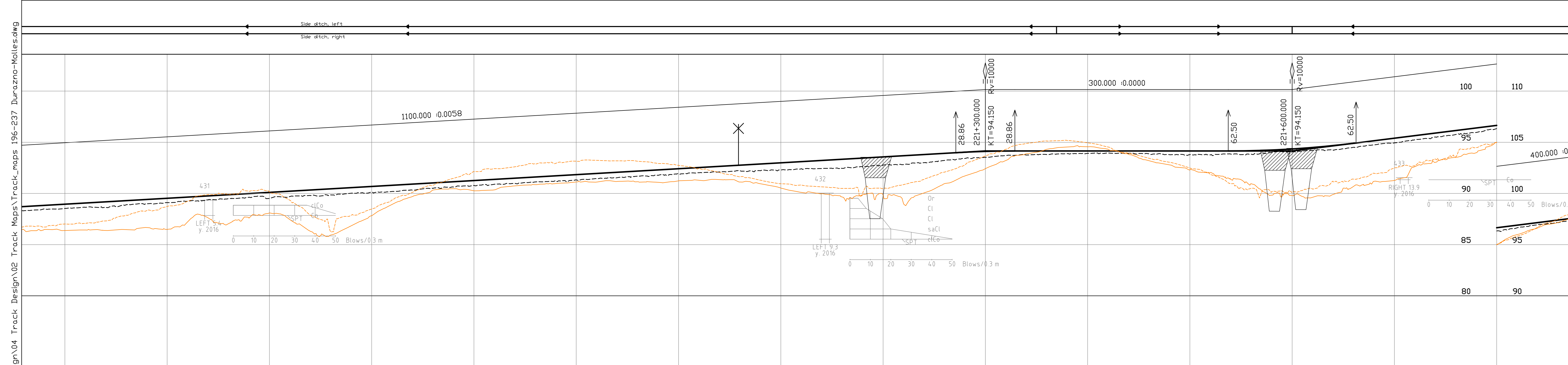
- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)
- Rv= radius of vertical curve
- K= elevation
- TG= length of tangent
- 123.345= length of straight line (m)

SPT-sounding, terminated at cobble, boulder, or bedrock contact.

- y. 2016= year of investigation, location of 2016 soundings not accurate
- 1, 217= point number

Disturbed Sample

- y. 2017= year of investigation
- TR02= point number



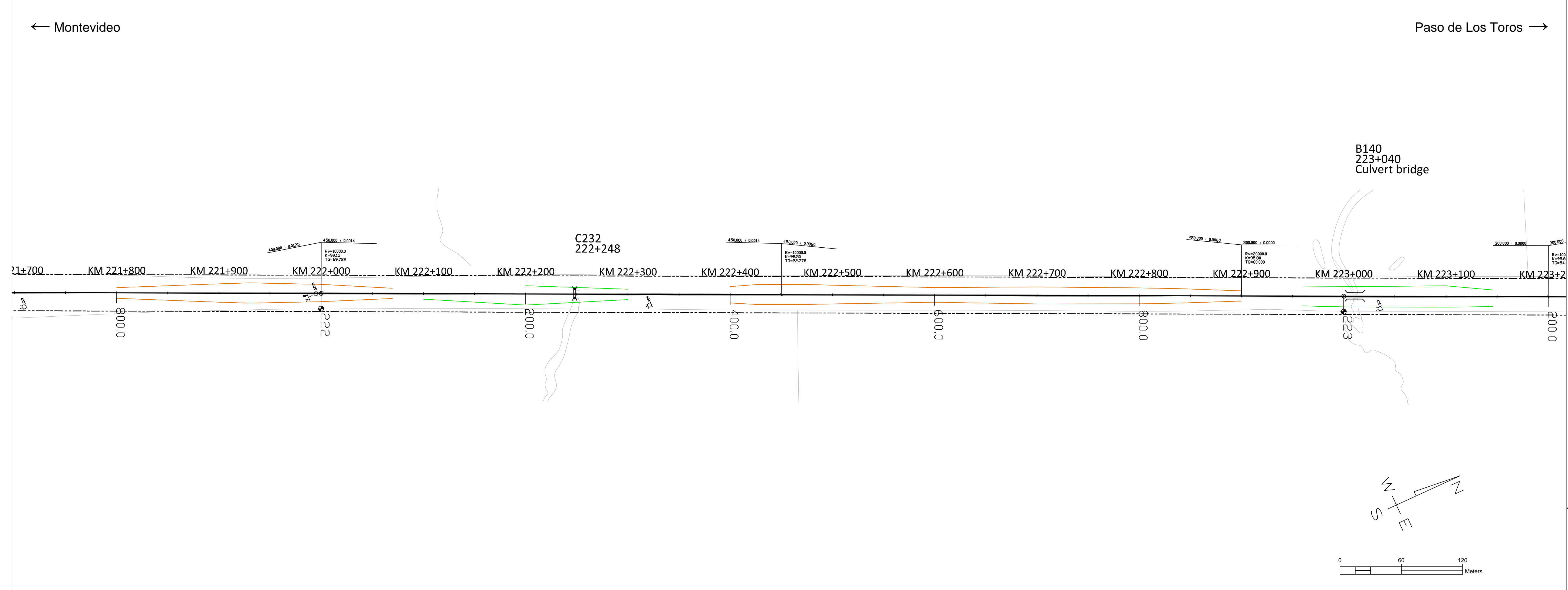
LEGEND, PROFILE

- Vertical railway alignment (S=radius of vertical curve, KT=elevation point)
- Ground surface
- Ground elevation on the left side of track centre line (-20m) and on the right side of track centre line (+20m)
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Horizontal alignment, schematic

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- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
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8835	8884	8907	8919	8930	8941	8953	8965	8976	8988	8999	9011	9022	9034	9046	9058	9070	9082	9094	9106	9118	9130	9142	9154	9166	9178	9190	9202	9214	9226	9238	9250	9262	9274	9286	9298	9310	9322	9334	9346	9358	9370	9382	9394	9406	9418	9430	9442	9454	9466	9478	9490	9502	9514	9526	9538	9550	9562	9574	9586	9598	9610	9622	9634	9646	9658	9670	9682	9694	9706	9718	9730	9742	9754	9766	9778	9790	9802	9814	9826	9838	9850	9862	9874	9886	9898	9910	9922	9934	9946	9958	9970	9982	9994	1006	1018	1030	1042	1054	1066	1078	1090	1102	1114	1126	1138	1150	1162	1174	1186	1198	1210	1222	1234	1246	1258	1270	1282	1294	1306	1318	1330	1342	1354	1366	1378	1390	1402	1414	1426	1438	1450	1462	1474	1486	1498	1510	1522	1534	1546	1558	1570	1582	1594	1606	1618	1630	1642	1654	1666	1678	1690	1702	1714	1726	1738	1750	1762	1774	1786	1798	1810	1822	1834	1846	1858	1870	1882	1894	1906	1918	1930	1942	1954	1966	1978	1990	2002	2014	2026	2038	2050	2062	2074	2086	2098	2110	2122	2134	2146	2158	2170	2182	2194	2206	2218	2230	2242	2254	2266	2278	2290	2302	2314	2326	2338	2350	2362	2374	2386	2398	2410	2422	2434	2446	2458	2470	2482	2494	2506	2518	2530	2542	2554	2566	2578	2590	2602	2614	2626	2638	2650	2662	2674	2686	2698	2710	2722	2734	2746	2758	2770	2782	2794	2806	2818	2830	2842	2854	2866	2878	2890	2902	2914	2926	2938	2950	2962	2974	2986	2998	3010	3022	3034	3046	3058	3070	3082	3094	3106	3118	3130	3142	3154	3166	3178	3190	3202	3214	3226	3238	3250	3262	3274	3286	3298	3310	3322	3334	3346	3358	3370	3382	3394	3406	3418	3430	3442	3454	3466	3478	3490	3502	3514	3526	3538	3550	3562	3574	3586	3598	3610	3622	3634	3646	3658	3670	3682	3694	3706	3718	3730	3742	3754	3766	3778	3790	3802	3814	3826	3838	3850	3862	3874	3886	3898	3910	3922	3934	3946	3958	3970	3982	3994	4006	4018	4030	4042	4054	4066	4078	4090	4102	4114	4126	4138	4150	4162	4174	4186	4198	4210	4222	4234	4246	4258	4270	4282	4294	4306	4318	4330	4342	4354	4366	4378	4390	4402	4414	4426	4438	4450	4462	4474	4486	4498	4510	4522	4534	4546	4558	4570	4582	4594	4606	4618	4630	4642	4654	4666	4678	4690	4702	4714	4726	4738	4750	4762	4774	4786	4798	4810	4822	4834	4846	4858	4870	4882	4894	4906	4918	4930	4942	4954	4966	4978	4990	5002	5014	5026	5038	5050	5062	5074	5086	5098	5110	5122	5134	5146	5158	5170	5182	5194	5206	5218	5230	5242	5254	5266	5278	5290	5302	5314	5326	5338	5350	5362	5374	5386	5398	5410	5422	5434	5446	5458	5470	5482	5494	5506	5518	5530	5542	5554	5566	5578	5590	5602	5614	5626	5638	5650	5662	5674	5686	5698	5710	5722	5734	5746	5758	5770	5782	5794	5806	5818	5830	5842	5854	5866	5878	5890	5902	5914	5926	5938	5950	5962	5974	5986	5998	6010	6022	6034	6046	6058	6070	6082	6094	6106	6118	6130	6142	6154	6166	6178	6190	6202	6214	6226	6238	6250	6262	6274	6286	6298	6310	6322	6334	6346	6358	6370	6382	6394	6406	6418	6430	6442	6454	6466	6478	6490	6502	6514	6526	6538	6550	6562	6574	6586	6598	6610	6622	6634	6646	6658	6670	6682	6694	6706	6718	6730	6742	6754	6766	6778	6790	6802	6814	6826	6838	6850	6862	6874	6886	6898	6910	6922	6934	6946	6958	6970	6982	6994	7006	7018	7030	7042	7054	7066	7078	7090	7102	7114	7126	7138	7150	7162	7174	7186	7198	7210	7222	7234	7246	7258	7270	7282	7294	7306	7318	7330	7342	7354	7366	7378	7390	7402	7414	7426	7438	7450	7462	7474	7486	7498	7510	7522	7534	7546	7558	7570	7582	7594	7606	7618	7630	7642	7654	7666	7678	7690	7702	7714	7726	7738	7750	7762	7774	7786	7798	7810	7822	7834	7846	7858	7870	7882	7894	7906	7918	7930	7942	7954	7966	7978	7990	8002	8014	8026	8038	8050	8062	8074	8086	8098	8110	8122	8134	8146	8158	8170	8182	8194	8206	8218	8230	8242	8254	8266	8278	8290	8302	8314	8326	8338	8350	8362	8374	8386	8398	8410	8422	8434	8446	8458	8470	8482	8494	8506	8518	8530	8542	8554	8566	8578	8590	8602	8614	8626	8638	8650	8662	8674	8686	8698	8710	8722	8734	8746	8758	8770	8782	8794	8806	8818	8830	8842	8854	8866	8878	8890	8902	8914	8926	8938	8950	8962	8974	8986	8998	9010	9022	9034	9046	9058	9070	9082	9094	9106	9118	9130	9142	9154	9166	9178	9190	9202	9214	9226	9238	9250	9262	9274	9286	9298	9310	9322	9334	9346	9358	9370	9382	9394	9406	9418	9430	9442	9454	9466	9478	9490	9502	9514	9526	9538	9550	9562	9574	9586	9598	9610	9622	9634	9646	9658	9670	9682	9694	9706	9718	9730	9742	9754	9766	9778	9790	9802	9814	9826	9838	9850	9862	9874	9886	9898	9910	9922	9934	9946	9958	9970	9982	9994	10006	10018	10030	10042	10054	10066	10078	10090	10102	10114	10126	10138	10150	10162	10174	10186	10198	10210	10222	10234	10246	10258	10270	10282	10294	10306	10318	10330	10342	10354	10366	10378	10390	10402	10414	10426	10438	10450	10462	10474	10486	10498	10510	10522	10534	10546	10558	10570	10582	10594	10606	10618	10630	10642	10654	10666	10678	10690	10702	10714	10726	10738	10750	10762	10774	10786	10798	10810	10822	10834	10846	10858	10870	10882	10894	10906	10918	10930	10942	10954	10966	10978	10990	11002	11014	11026	11038	11050	11062	11074	11086	11098	11110	11122	11134	11146	11158	11170	11182	11194	11206	11218	11230	11242	11254	11266	11278	11290	11302	11314	11326	11338	11350	11362	11374	11386	11398	11410	11422	11434	11446	11458	11470	11482	11494	11506	11518	11530	11542	11554	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LEGEND, MAP

- New railway alignment
- Existing railway alignment (not in the Railway Project scope)
- Railway Area borderline
- Secondary Side Tracks - Horizontal geometry pre-designed (Secondary side tracks and their switches will be designed and constructed based on Appendix Q)
- Removal track
- Street or road modification area in level crossings or underpasses/flyovers
- Modification needed to the property access
- Affected parallel roads and streets and maintenance roads
- Road closing down
- Limit of designed soil cut (open cut or cut with a retaining wall)
- Limit of designed embankment fill, not including possible ditch
- Existing stations or passenger platforms
- New passenger platforms

Symbols

- BXXX BXXX: Railway bridge or underpass, Flyover
- CXXX: Culvert
- LCXXX: Level crossing

Track alignment with design geometry figures

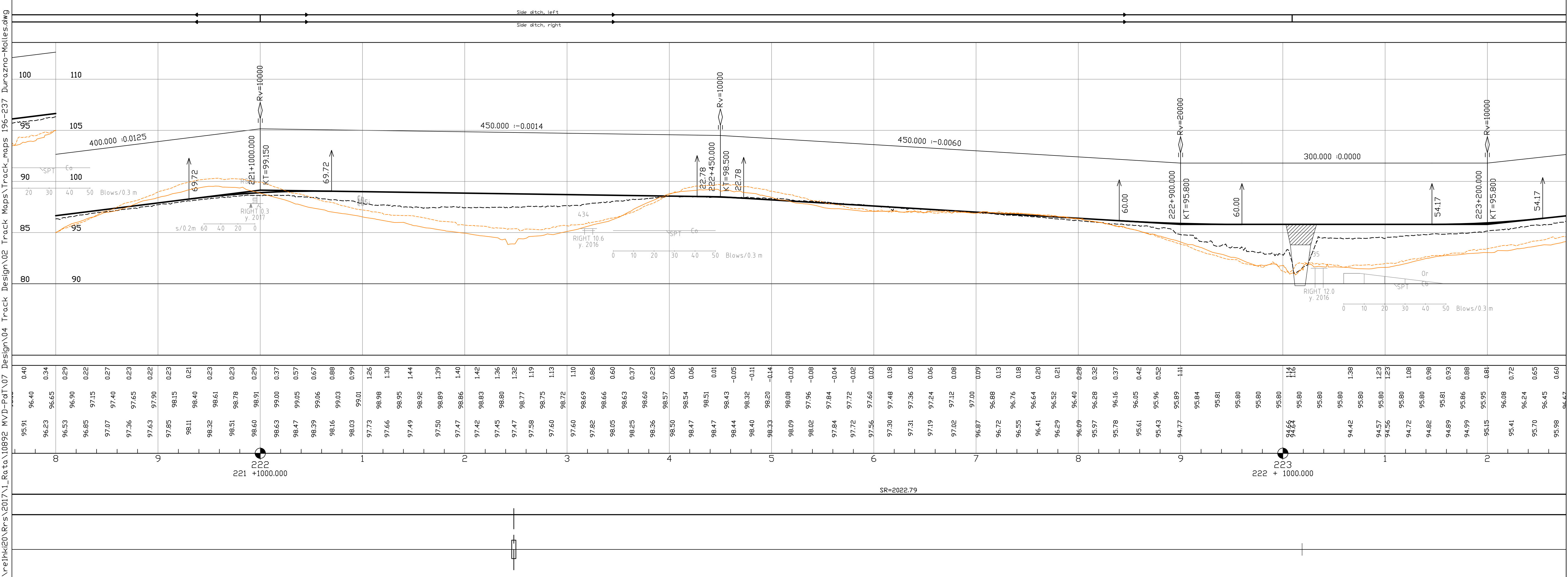
- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)
- RV= radius of vertical curve
- K= elevation
- TG= length of tangent
- 123.345= length of straight line (m)

SPT-sounding, terminated at cobble, boulder, or bedrock contact.

- y. 2016= year of investigation, location of 2016 soundings not accurate
- 1, 217= point number

Disturbed Sample

- y. 2017= year of investigation
- TR02= point number



LEGEND, PROFILE

- Vertical railway alignment (S=radius of vertical curve, KT=elevation point)
- Ground surface
- Ground elevation on the left side of track centre line (-20m) and on the right side of track centre line (+20m)
- Culvert location (elevation will be designed in detailed design phase)
- Level crossing
- Overpass bridge, railway or underpass bridge
- Elevation figures
- Difference between existing ground and designed track elevation
- Designed track elevation (the running surface of the rail)
- Existing ground elevation
- Km stationing

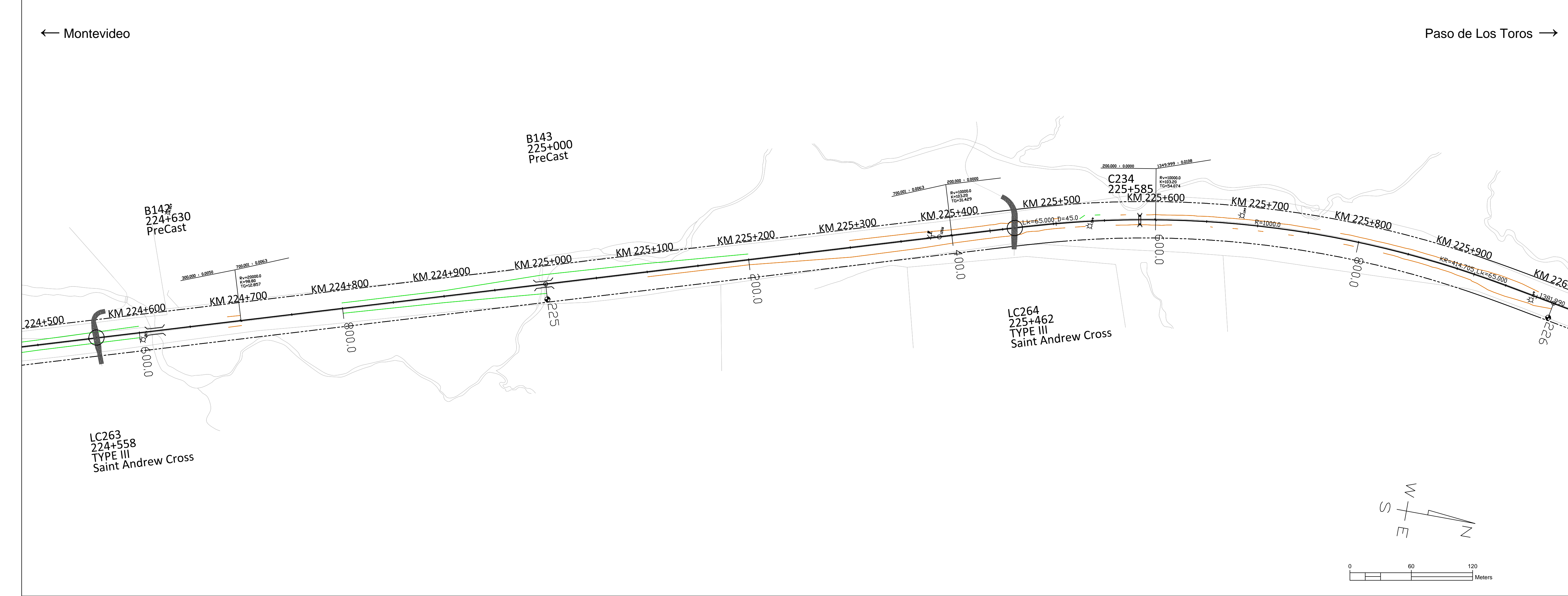
Horizontal alignment, schematic

- SR= length of straight line (m)
- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)

Version 15.12.2017				
Revision	Explanation	Date	Designer	Acceptor

MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS		Railway Project	
Supplier 		Design phase Pre-engineering, Phase 2	
Content Track map and profile		Km 221+0800 - 223+0200	

Drawer: 15.12.2017 Designer: 15.12.2017 Supervisor: 15.12.2017 Accept: Owner acc:	UPa HMa / MLo SVI	Scale: map 1:2000, profile 1:2000 Coordinate system: WGS 84 UTM 21 S, Local orthometric height Elevation reference system: Railway line: Montevideo - Paso de Los Toros	Rev. Sheet Sheets total 159 195
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LEGEND, MAP

- New railway alignment
- Existing railway alignment (not in the Railway Project scope)
- Railway Area borderline
- Secondary Side Tracks - Horizontal geometry pre-designed (Secondary side tracks and their switches will be designed and constructed based on Appendix Q)
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- Existing stations or passenger platforms
- New passenger platforms

Symbols

- BXXX BXXX: Railway bridge or underpass, Flyover
- CXXX: Culvert
- LCXXX: Level crossing

Track alignment with design geometry figures

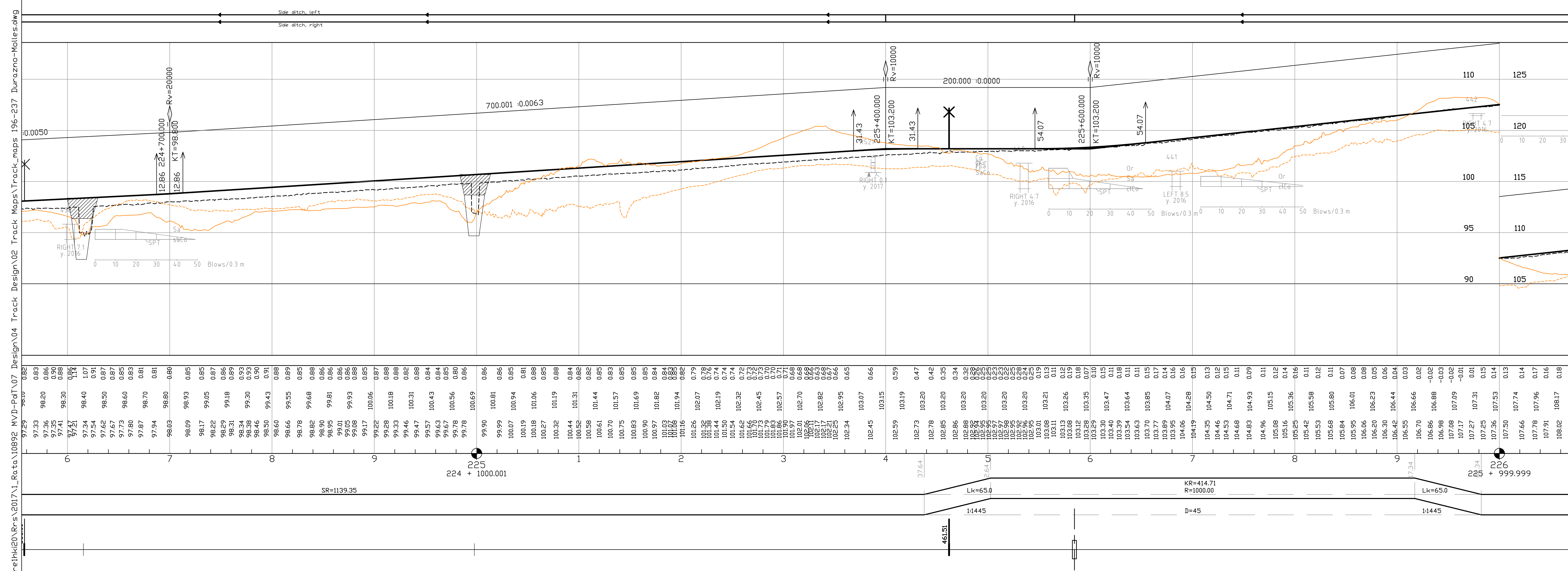
- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)
- Rv= radius of vertical curve
- K= elevation
- TG= length of tangent
- 123.345= length of straight line (m)

SPT-sounding, terminated at cobble, boulder, or bedrock contact.

- y. 2016: year of investigation, location of 2016 soundings not accurate
- 1, 217= point number

Disturbed Sample

- y. 2017: year of investigation
- TR02= point number



LEGEND, PROFILE

- Vertical railway alignment (S=radius of vertical curve, KT=elevation point)
- Ground surface
- Ground elevation on the left side of track centre line (-20m) and on the right side of track centre line (+20m)
- Culvert location (elevation will be designed in detailed design phase)
- Level crossing
- Overpass bridge, railway or underpass bridge
- Elevation figures
- Difference between existing ground and designed track elevation
- Designed track elevation (the running surface of the rail)
- Existing ground elevation
- Km stationing

Horizontal alignment, schematic

- SR= length of straight line (m)
- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)

Version 15.12.2017

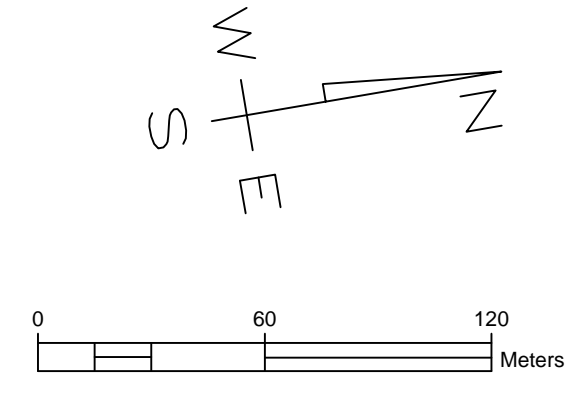
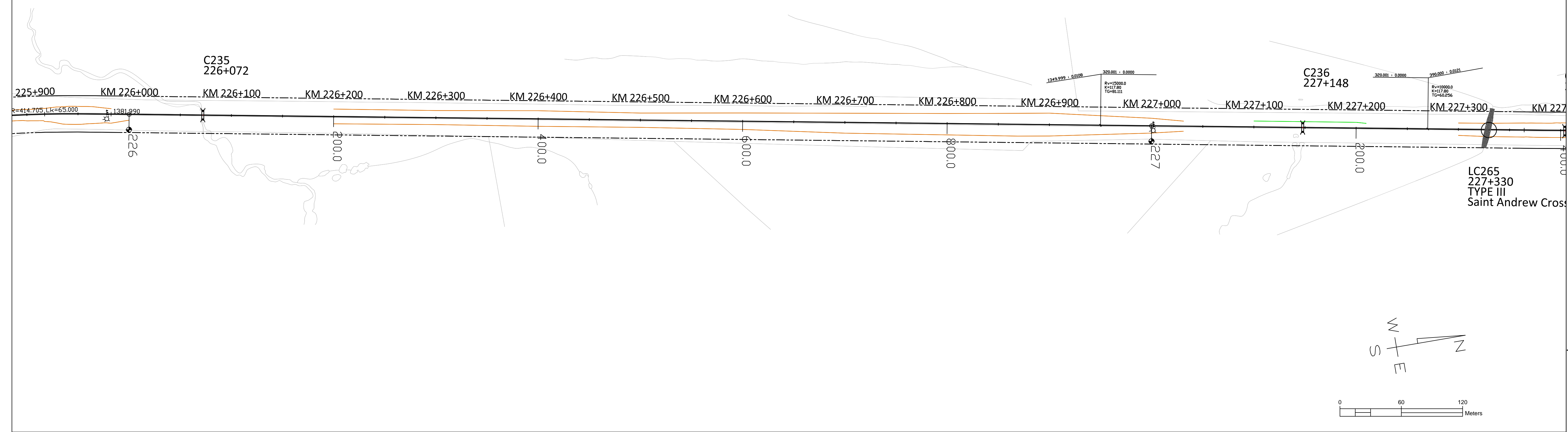
Revision	Explanation	Date	Designer	Date	Acceptor
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Customer	MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS	Project	Railway Project
Design phase	Pre-engineering, Phase 2	Content	Track map and profile
Supplier	VR TRACK	Content	Km 224+0600 - 226+0000

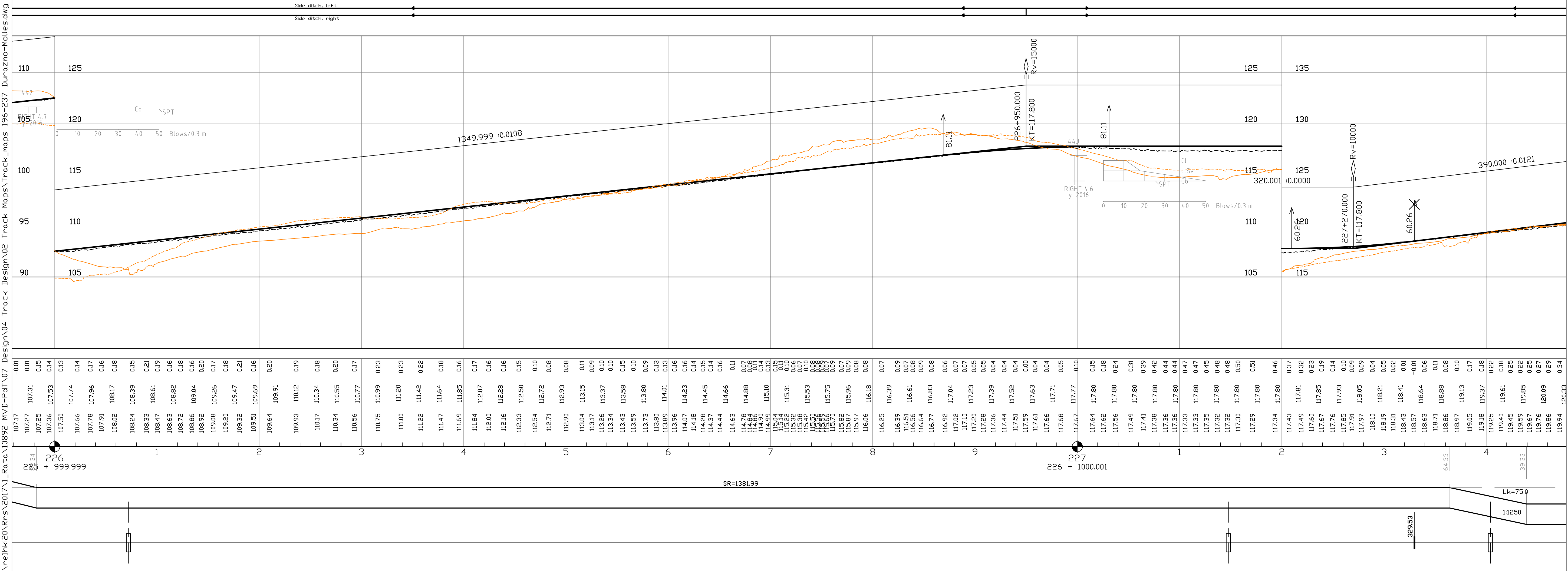
Drawer	15.12.2017	UPa	Scale	map 1:2000, profile 1:2000 / 1:200
Designer	15.12.2017	HMa / MLo	Coordinate system	WGS 84 UTM 21 S, Local orthometric height
Supervisor	15.12.2017	SVI	Elevation reference system	Railway line
Accept.			Montevideo - Paso de Los Toros	Archive Type Number Rev. Sheet Sheets total
Owner acc.				161, 195

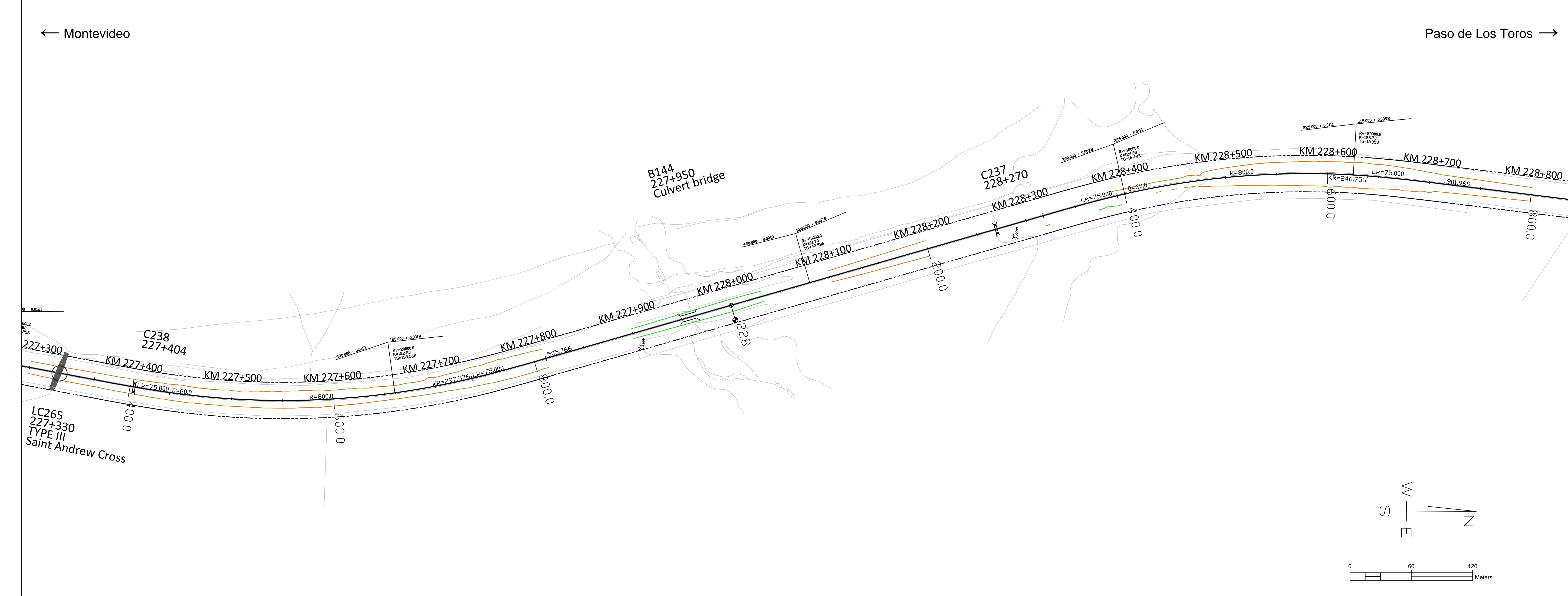
← Montevideo

Paso de Los Toros →



- LEGEND, MAP**
- New railway alignment
 - Existing railway alignment (not in the Railway Project scope)
 - Railway Area borderline
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 - Road closing down
 - Limit of designed soil cut (open cut or cut with a retaining wall)
 - Limit of designed embankment fill, not including possible ditch
 - Existing stations or passenger platforms
 - New passenger platforms
 - Symbols
 - Railway bridge or underpass, Flyover
 - Culvert
 - Level crossing
 - Track alignment with design geometry figures
 - R= curve radius (m)
 - KR= length of curve (m)
 - D= track cant (mm)
 - Lk= length of transition curve (m)
 - RV= radius of vertical curve
 - K= elevation
 - TG= length of tangent
 - 123.345= length of straight line (m)
 - SPT-sounding, terminated at cobble, boulder, or bedrock contact.
 - y. 2016= year of investigation, location of 2016 soundings not accurate
 - 1, 217= point number
 - Disturbed Sample
 - y. 2017= year of investigation
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Symbols

- BXXX BXXX: Railway bridge or underpass, Flyover
- CXXX: Culvert
- LCXXX: Level crossing

Track alignment with design geometry figures

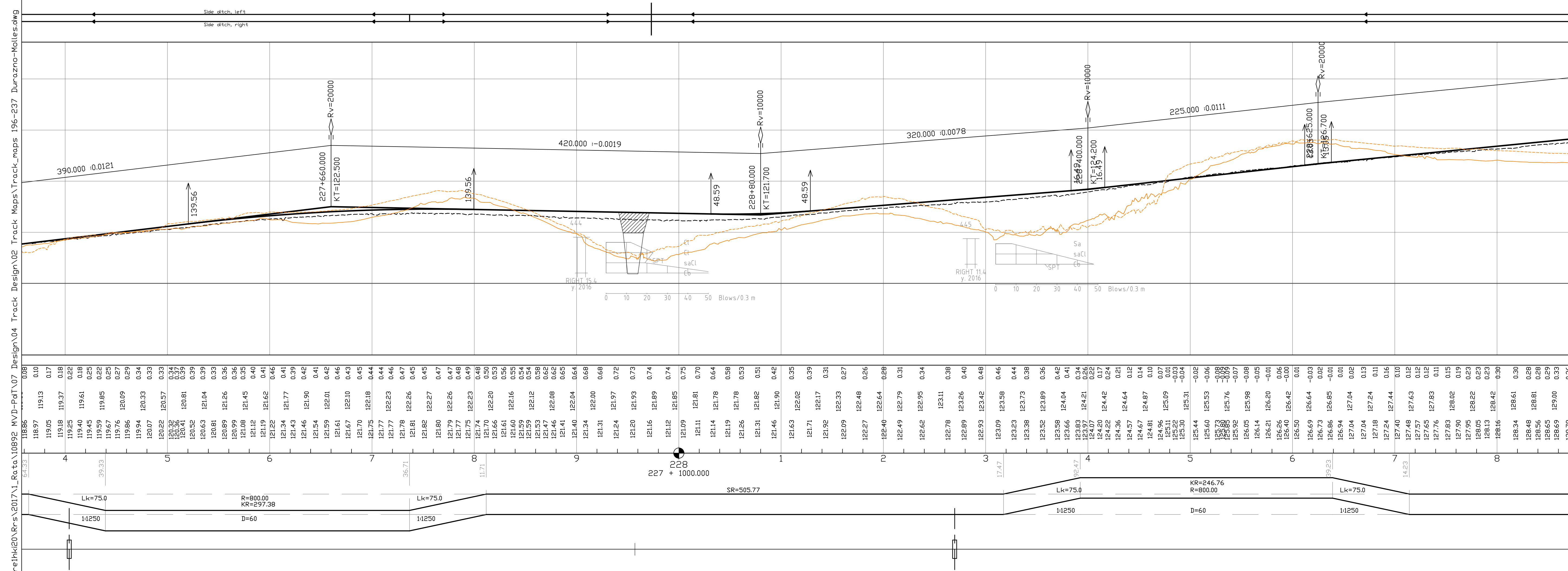
- R= curve radius (m)
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Legend, Profile

- Vertical railway alignment (S=radius of vertical curve, KT=elevation point)
- Ground surface
- Ground elevation on the left side of track centre line (-20m) and on the right side of track centre line (+20m)
- Culvert location (elevation will be designed in detailed design phase)
- Level crossing
- Overpass bridge, railway or underpass bridge
- Elevation figures
- Difference between existing ground and designed track elevation
- Designed track elevation (the running surface of the rail)
- Existing ground elevation
- Km stationing

Horizontal alignment, schematic

- SR= length of straight line (m)
- R= curve radius (m)
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- Lk= length of transition curve (m)



Version 15.12.2017

Revision	Explanation	Date	Designer	Date	Acceptor
1					

Customer: MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS

Project: Railway Project

Design phase: Pre-engineering, Phase 2

Content: Track map and profile

Supplier: TRACK

Project Name: Km 227+0400 - 228+0800

Drawer	Date	Author	Scale
UPa	15.12.2017		map 1:2000, profile 1:2000 / 1:200

Designer	Date	Author	Coordinate system
HMa / MLo	15.12.2017		WGS 84 UTM 21 S, Local orthometric height

Supervisor	Date	Author	Railway line
SVI	15.12.2017		Montevideo - Paso de Los Toros

Accept.	Rev.	Sheet	Sheets total
		163	195

← Montevideo

Paso de Los Toros →

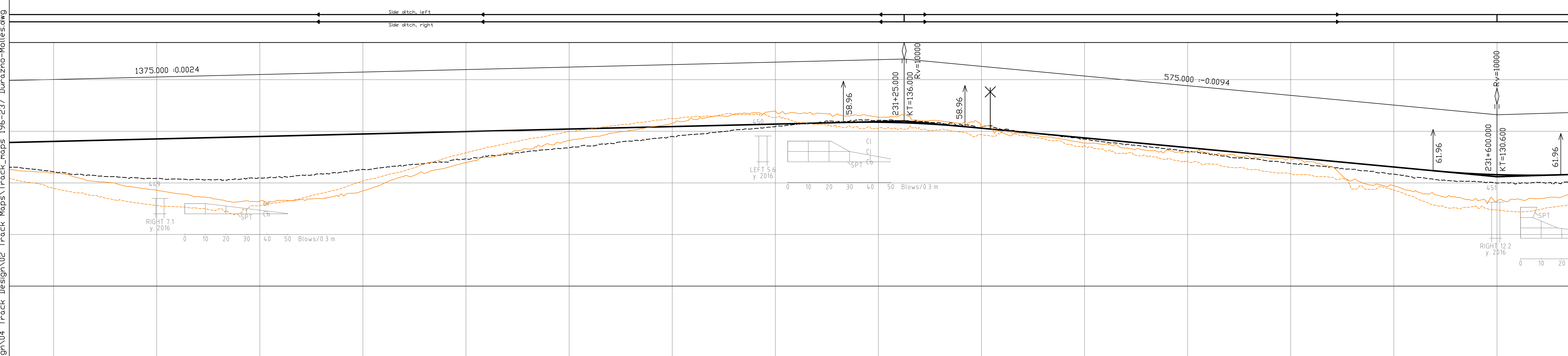
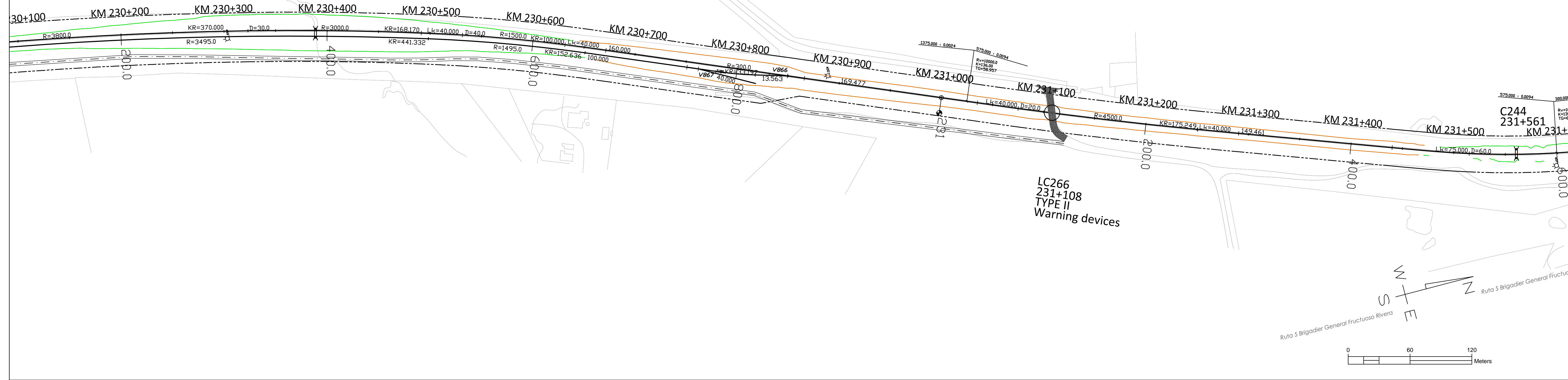
MEETING STATION 15

C243
230+389

LC266
231+108
TYPE II
Warning devices

LEGEND, MAP

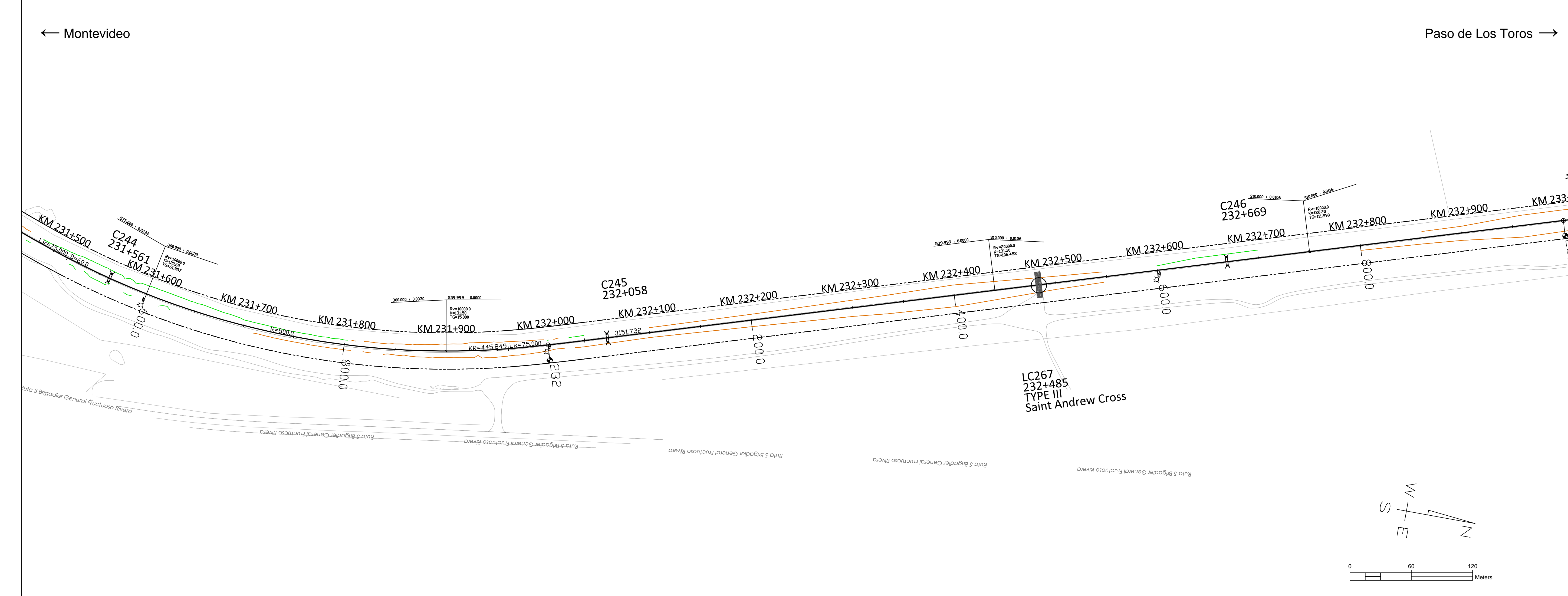
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250	131.44	131.32	133.97	2.65	131.17	131.09	134.02	2.93	130.97	134.07	3.18	130.92	134.12	3.27	130.74	134.12	3.37	130.64	134.16	3.54	130.54	134.21	3.74	130.46	134.26	3.78	130.41	134.50	4.08	130.49	134.50	4.08	130.51	134.55	4.03	130.60	134.60	3.97	130.75	134.60	3.86	130.63	134.64	3.80	130.93	134.64	3.73	131.00	134.69	3.68	131.11	134.69	3.59	131.24	134.74	3.49	131.37	134.74	3.39	131.47	134.79	3.31	131.60	134.84	3.13	131.70	134.84	3.13	131.80	134.88	3.06	131.97	134.88	2.94	132.11	134.93	2.83	132.28	134.98	2.69	132.43	135.03	2.57	132.54	135.03	2.48	132.68	135.08	2.37	132.79	135.08	2.28	132.90	135.12	2.20	133.03	135.12	2.08	133.16	135.17	2.00	133.28	135.22	1.91	133.40	135.22	1.81	133.51	135.27	1.73	133.60	135.27	1.67	133.73	135.32	1.56	133.86	135.32	1.46	133.99	135.36	1.36	134.05	135.36	1.32	134.17	135.41	1.22	134.26	135.41	1.16	134.38	135.46	1.06	134.52	135.46	0.94	134.68	135.51	0.83	134.78	135.56	0.74	134.85	135.56	0.62	134.94	135.56	0.62	135.07	135.60	0.53	135.17	135.60	0.45	135.25	135.65	0.39	135.33	135.65	0.33	135.39	135.70	0.29	135.50	135.70	0.20	135.60	135.75	0.13	135.68	135.75	0.07	135.76	135.76	0.01	135.86	135.80	-0.07	135.96	135.96	-0.13	135.95	135.84	-0.10	136.03	135.88	-0.15	136.08	135.88	-0.19	136.18	135.88	-0.18	136.26	135.84	-0.18	136.34	135.84	-0.18	136.41	135.84	-0.16	136.49	135.84	-0.16	136.56	135.76	-0.18	136.63	135.76	-0.16	136.71	135.76	-0.16	136.79	135.64	-0.13	136.86	135.64	-0.14	136.90	135.64	-0.14	136.96	135.46	-0.14	137.00	135.46	-0.11	137.04	135.30	-0.11	137.07	135.30	-0.11	137.11	135.30	-0.11	137.14	135.30	-0.11	137.17	135.30	-0.11	137.20	135.30	-0.11	137.23	135.30	-0.11	137.26	135.30	-0.11	137.29	135.30	-0.11	137.32	135.30	-0.11	137.35	135.30	-0.11	137.38	135.30	-0.11	137.41	135.30	-0.11	137.44	135.30	-0.11	137.47	135.30	-0.11	137.50	135.30	-0.11	137.53	135.30	-0.11	137.56	135.30	-0.11	137.59	135.30	-0.11	137.62	135.30	-0.11	137.65	135.30	-0.11	137.68	135.30	-0.11	137.71	135.30	-0.11	137.74	135.30	-0.11	137.77	135.30	-0.11	137.80	135.30	-0.11	137.83	135.30	-0.11	137.86	135.30	-0.11	137.89	135.30	-0.11	137.92	135.30	-0.11	137.95	135.30	-0.11	137.98	135.30	-0.11	138.01	135.30	-0.11	138.04	135.30	-0.11	138.07	135.30	-0.11	138.10	135.30	-0.11	138.13	135.30	-0.11	138.16	135.30	-0.11	138.19	135.30	-0.11	138.22	135.30	-0.11	138.25	135.30	-0.11	138.28	135.30	-0.11	138.31	135.30	-0.11	138.34	135.30	-0.11	138.37	135.30	-0.11	138.40	135.30	-0.11	138.43	135.30	-0.11	138.46	135.30	-0.11	138.49	135.30	-0.11	138.52	135.30	-0.11	138.55	135.30	-0.11	138.58	135.30	-0.11	138.61	135.30	-0.11	138.64	135.30	-0.11	138.67	135.30	-0.11	138.70	135.30	-0.11	138.73	135.30	-0.11	138.76	135.30	-0.11	138.79	135.30	-0.11	138.82	135.30	-0.11	138.85	135.30	-0.11	138.88	135.30	-0.11	138.91	135.30	-0.11	138.94	135.30	-0.11	138.97	135.30	-0.11	139.00	135.30	-0.11	139.03	135.30	-0.11	139.06	135.30	-0.11	139.09	135.30	-0.11	139.12	135.30	-0.11	139.15	135.30	-0.11	139.18	135.30	-0.11	139.21	135.30	-0.11	139.24	135.30	-0.11	139.27	135.30	-0.11	139.30	135.30	-0.11	139.33	135.30	-0.11	139.36	135.30	-0.11	139.39	135.30	-0.11	139.42	135.30	-0.11	139.45	135.30	-0.11	139.48	135.30	-0.11	139.51	135.30	-0.11	139.54	135.30	-0.11	139.57	135.30	-0.11	139.60	135.30	-0.11	139.63	135.30	-0.11	139.66	135.30	-0.11	139.69	135.30	-0.11	139.72	135.30	-0.11	139.75	135.30	-0.11	139.78	135.30	-0.11	139.81	135.30	-0.11	139.84	135.30	-0.11	139.87	135.30	-0.11	139.90	135.30	-0.11	139.93	135.30	-0.11	139.96	135.30	-0.11	139.99	135.30	-0.11	140.02	135.30	-0.11	140.05	135.30	-0.11	140.08	135.30	-0.11	140.11	135.30	-0.11	140.14	135.30	-0.11	140.17	135.30	-0.11	140.20	135.30	-0.11	140.23	135.30	-0.11	140.26	135.30	-0.11	140.29	135.30	-0.11	140.32	135.30	-0.11	140.35	135.30	-0.11	140.38	135.30	-0.11	140.41	135.30	-0.11	140.44	135.30	-0.11	140.47	135.30	-0.11	140.50	135.30	-0.11	140.53	135.30	-0.11	140.56	135.30	-0.11	140.59	135.30	-0.11	140.62	135.30	-0.11	140.65	135.30	-0.11	140.68	135.30	-0.11	140.71	135.30	-0.11	140.74	135.30	-0.11	140.77	135.30	-0.11	140.80	135.30	-0.11	140.83	135.30	-0.11	140.86	135.30	-0.11	140.89	135.30	-0.11	140.92	135.30	-0.11	140.95	135.30	-0.11	140.98	135.30	-0.11	141.01	135.30	-0.11	141.04	135.30	-0.11	141.07	135.30	-0.11	141.10	135.30	-0.11	141.13	135.30	-0.11	141.16	135.30	-0.11	141.19	135.30	-0.11	141.22	135.30	-0.11	141.25	135.30	-0.11	141.28	135.30	-0.11	141.31	135.30	-0.11	141.34	135.30	-0.11	141.37	135.30	-0.11	141.40	135.30	-0.11	141.43	135.30	-0.11	141.46	135.30	-0.11	141.49	135.30	-0.11	141.52	135.30	-0.11	141.55	135.30	-0.11	141.58	135.30	-0.11	141.61	135.30	-0.11	141.64	135.30	-0.11	141.67	135.30	-0.11	141.70	135.30	-0.11	141.73	135.30	-0.11	141.76	135.30	-0.11	141.79	135.30	-0.11	141.82	135.30	-0.11	141.85	135.30	-0.11	141.88	135.30	-0.11	141.91	135.30	-0.11	141.94	135.30	-0.11	141.97	135.30	-0.11	142.00	135.30	-0.11	142.03	135.30	-0.11	142.06	135.30	-0.11	142.09	135.30	-0.11	142.12	135.30	-0.11	142.15	135.30	-0.11	142.18	135.30	-0.11	142.21	135.30	-0.11	142.24	135.30	-0.11	142.27	135.30	-0.11	142.30	135.30	-0.11	142.33	135.30	-0.11	142.36	135.30	-0.11	142.39	135.30	-0.11	142.42	135.30	-0.11	142.45	135.30	-0.11	142.48	135.30	-0.11	142.51	135.30	-0.11	142.54	135.30	-0.11	142.57	135.30	-0.11	142.60	135.30	-0.11	142.63	135.30	-0.11	142.66	135.30	-0.11	142.69	135.30	-0.11	142.72	135.30	-0.11	142.75	135.30	-0.11	142.78	135.30	-0.11	142.81	135.30	-0.11	142.84	135.30	-0.11	142.87	135.30	-0.11	142.90	135.30	-0.11	142.93	135.30	-0.11	142.96	135.30	-0.11	142.99	135.30	-0.11	143.02	135.30	-0.11	143.05	135.30	-0.11	143.08	135.30	-0.11	143.11	135.30	-0.11	143.14	135.30	-0.11	143.17	135.30	-0.11	143.20	135.30	-0.11	143.23	135.30	-0.11	143.26	135.30	-0.11	143.29	135.30	-0.11	143.32	135.30	-0.11	143.35	135.30	-0.11	143.38	135.30	-0.11	143.41	135.30	-0.11	143.44	135.30	-0.11	143.47	135.30	-0.11	143.50	135.30	-0.11	143.53	135.30	-0.11	143.56	135.30	-0.11	143.59	135.30	-0.11	143.62	135.30	-0.11	143.65	135.30	-0.11	143.68	135.30	-0.11	143.71	135.30	-0.11	143.74	135.30	-0.11	143.77	135.30	-0.11	143.80	135.30	-0.11	143.83	135.30	-0.11	143.86	135.30	-0.11	143.89	135.30	-0.11	143.92	135.30	-0.11	143.95	135.30	-0.11	143.98	135.30	-0.11	144.01	135.30	-0.11	144.04	135.30	-0.11	144.07	135.30	-0.11	144.10	135.30	-0.11	144.13	135.30	-0.11	144.16	135.30	-0.11	144.19	135.30	-0.11	144.22	135.30	-0.11	144.25	135.30	-0.11	144.28	135.30	-0.11	144.31	135.30	-0.11	144.34	135.30	-0.11	144.37	135.30	-0.11	144.40	135.30	-0.11	144.43	135.30	-0.11	144.46	135.30	-0.11	144.49	135.30	-0.11	144.52	135.30	-0.11	144.55	135.30	-0.11	144.58	135.30	-0.11	144.61	135.30	-0.11	144.64	135.30	-0.11	144.67	135.30	-0.11	144.70	135.30	-0.11	144.73	135.30	-0.11	144.76	135.30	-0.11	144.79	135.30	-0.11	144.82	135.30	-0.11	144.85	135.30	-0.11	144.88	135.30	-0.11	144.91	135.30	-0.11	144.94	135.30	-0.11	144.97	135.30	-0.11	145.00	135.30	-0.11	145.03	135.30	-0.11	145.06	135.30	-0.11	145.09	135.30	-0.11	145.12	135.30	-0.11	145.15	135.30	-0.11	145.18	135.30	-0.11	145.21	135.30	-0.11	145.24	135.30	-0.11	145.27	135.30	-0.11	145.30	135.30	-0.11
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LEGEND, MAP

- New railway alignment
- Existing railway alignment (not in the Railway Project scope)
- - - Railway Area borderline
- Secondary Side Tracks - Horizontal geometry pre-designed (Secondary side tracks and their switches will be designed and constructed based on Appendix Q)
- Red dashed line: Removal track
- Street or road modification area in level crossings or underpasses/flyovers
- Modification needed to the property access
- Affected parallel roads and streets and maintenance roads
- Road closing down
- Limit of designed soil cut (open cut or cut with a retaining wall)
- Limit of designed embankment fill, not including possible ditch
- Existing stations or passenger platforms
- New passenger platforms

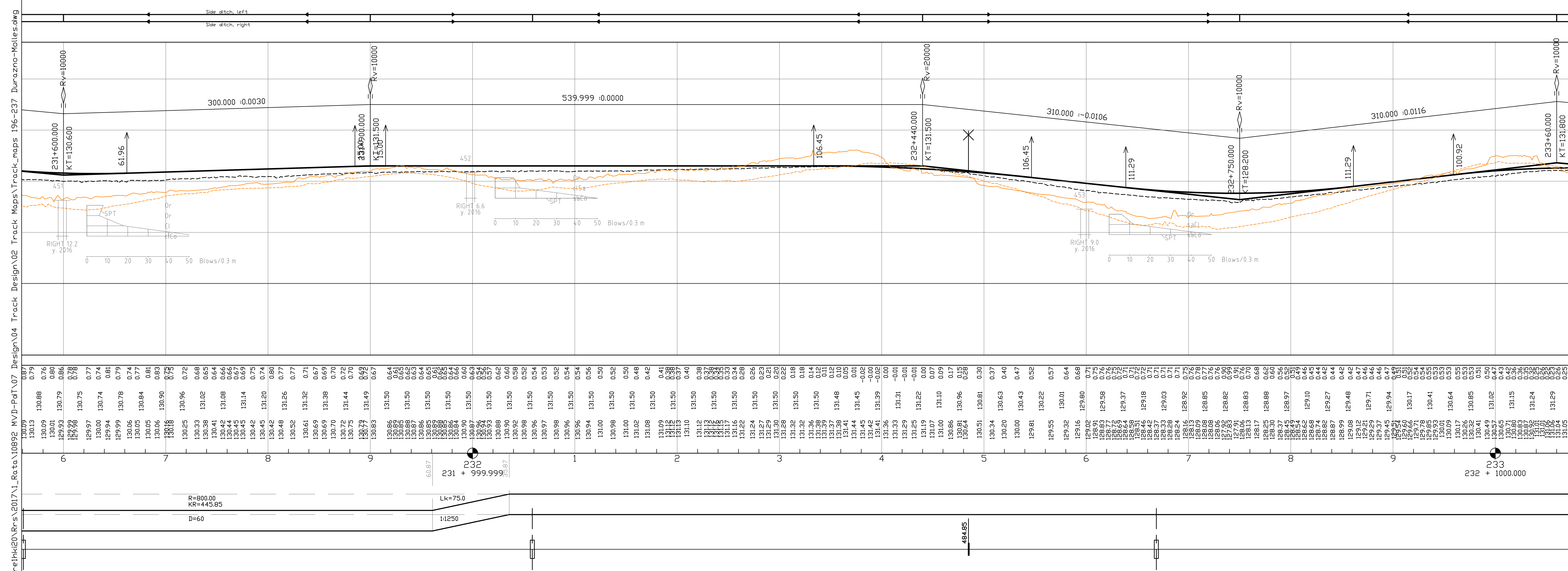
Symbols

- BXXX BXXX: Railway bridge or underpass, Flyover
- CXXX: Culvert
- LCXXX: Level crossing

Track alignment with design geometry figures

- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)
- Rv= radius of vertical curve
- K= elevation
- TG= length of tangent
- 123.345= length of straight line (m)

SPT-sounding, terminated at cobble, boulder, or bedrock contact.
 y. 2016= year of investigation, location of 2016 soundings not accurate
 1, 217= point number
 Disturbed Sample
 y. 2017= year of investigation
 TR02= point number



LEGEND, PROFILE

- Vertical railway alignment (S=radius of vertical curve, KT=elevation point)
- Ground surface
- Ground elevation on the left side of track centre line (-20m) and on the right side of track centre line (+20m)
- Culvert location (elevation will be designed in detailed design phase)
- Level crossing
- Overpass bridge, railway or underpass bridge
- Elevation figures
- Difference between existing ground and designed track elevation
- Designed track elevation (the running surface of the rail)
- Existing ground elevation
- Km stationing

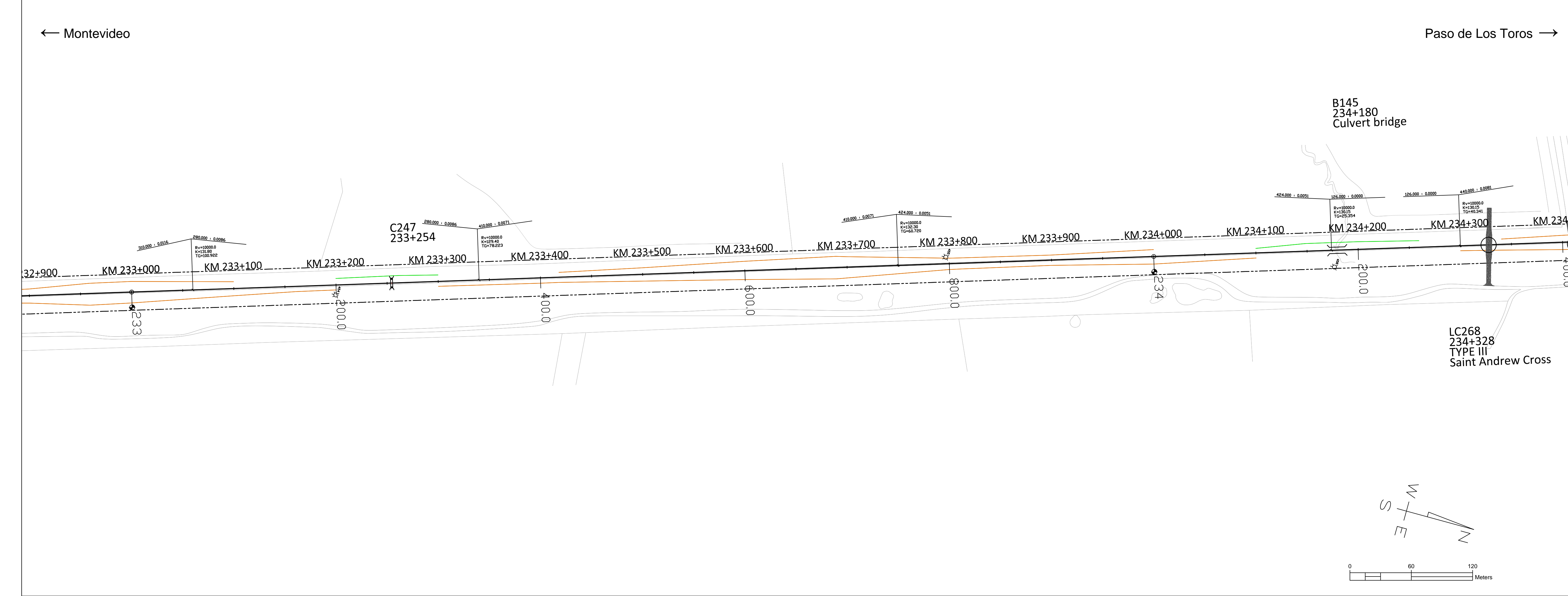
Horizontal alignment, schematic

- SR= length of straight line (m)
- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)

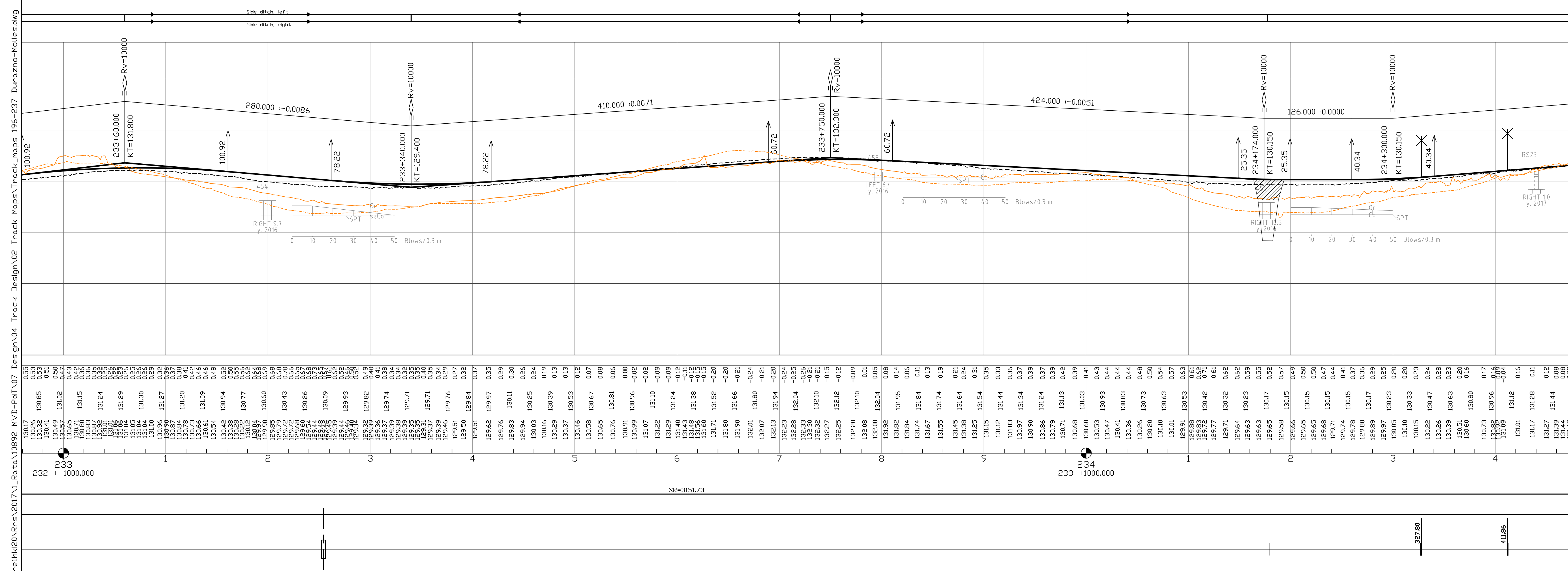
Version 15.12.2017

Revision	Explanation	Date	Designer	Date	Acceptor
1					

Customer	MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS	Project	Railway Project
Design phase	Pre-engineering, Phase 2	Content	Track map and profile
Supplier	VR TRACK	Scale	Km 231+0600 - 233+0000
Drawer	15.12.2017 UPa	Coordinate system	map 1:2000, profile 1:2000 / 1:200
Designer	15.12.2017 HMa / MLo	Elevation reference system	WGS 84 UTM 21 S, Local orthometric height
Supervisor	15.12.2017 SVI	Railway line	Montevideo - Paso de Los Toros
Accept.		Archive	Type Number Rev. Sheet Sheets total
Owner acc.			166 195



- ### LEGEND, MAP
- New railway alignment
 - Existing railway alignment (not in the Railway Project scope)
 - - - Railway Area borderline
 - Secondary Side Tracks - Horizontal geometry pre-designed (Secondary side tracks and their switches will be designed and constructed based on Appendix Q)
 - Removal track
 - █ Street or road modification area in level crossings or underpasses/flyovers
 - Modification needed to the property access
 - Affected parallel roads and streets and maintenance roads
 - X Road closing down
 - Limit of designed soil cut (open cut or cut with a retaining wall)
 - Limit of designed embankment fill, not including possible ditch
 - █ Existing stations or passenger platforms
 - █ New passenger platforms
 - BXXX BXXX Symbols
 - Railway bridge or underpass, Flyover
 - CXXX Culvert
 - Level crossing
 - LCXXX
- ### Track alignment with design geometry figures
- R= curve radius (m)
 - KR= length of curve (m)
 - D= track cant (mm)
 - Lk= length of transition curve (m)
 - Rv= radius of vertical curve
 - K= elevation
 - TG= length of tangent
 - 123.345= length of straight line (m)
- ### SPT=
- sounding, terminated at cobble, boulder, or bedrock contact.
 - y. 2016= year of investigation, location of 2016 soundings not accurate
 - 1, 217= point number
- ### Disturbed Sample
- y. 2017= year of investigation
 - TR02= point number

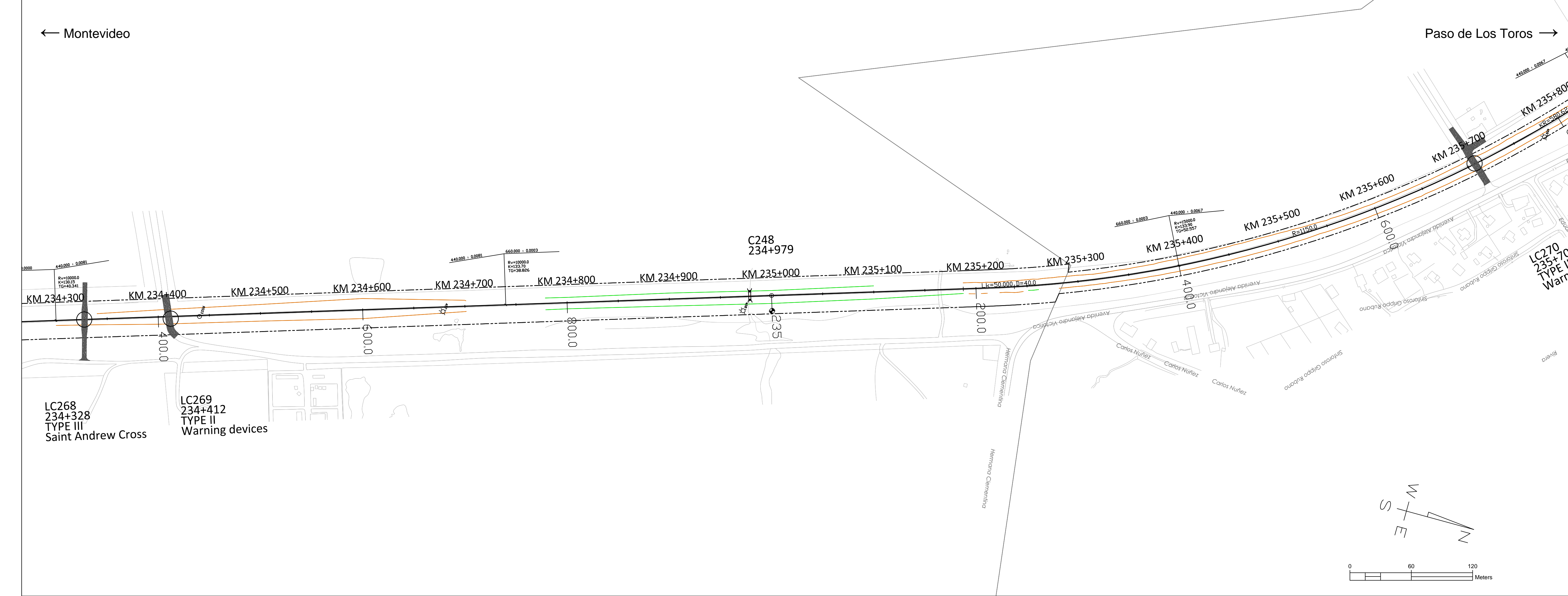


- ### LEGEND, PROFILE
- Vertical railway alignment (S=radius of vertical curve, KT=elevation point)
 - Ground surface
 - Ground elevation on the left side of track centre line (-20m) and on the right side of track centre line (+20m)
 - Culvert location (elevation will be designed in detailed design phase)
 - Level crossing
 - Overpass bridge, railway or underpass bridge
 - Elevation figures
 - Difference between existing ground and designed track elevation
 - Designed track elevation (the running surface of the rail)
 - Existing ground elevation
 - Km stationing
 - Horizontal alignment, schematic
 - SR= length of straight line (m)
 - R= curve radius (m)
 - KR= length of curve (m)
 - D= track cant (mm)
 - Lk= length of transition curve (m)

Version 15.12.2017

Revision	Explanation	Date	Designer	Date	Acceptor
1					

Customer	MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS		Project	Railway Project	
Supplier			Design phase	Pre-engineering, Phase 2	
Drawer	15.12.2017	UPa	Content	Track map and profile	
Designer	15.12.2017	HMa / MLo	Supplier	Km 233+0000 - 234+0400	
Supervisor	15.12.2017	SVI	Scale	map 1:2000, profile 1:2000 / 1:200	
Accept.			Coordinate system	WGS 84 UTM 21 S, Local orthometric height	
Owner acc.			Elevation reference system	Railway line	
			Archive	Type	Number
			Rev.	Sheet	Sheets
			Total	167	195



LEGEND, MAP

- New railway alignment
- Existing railway alignment (not in the Railway Project scope)
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- Limit of designed embankment fill, not including possible ditch
- Existing stations or passenger platforms
- New passenger platforms

Symbols

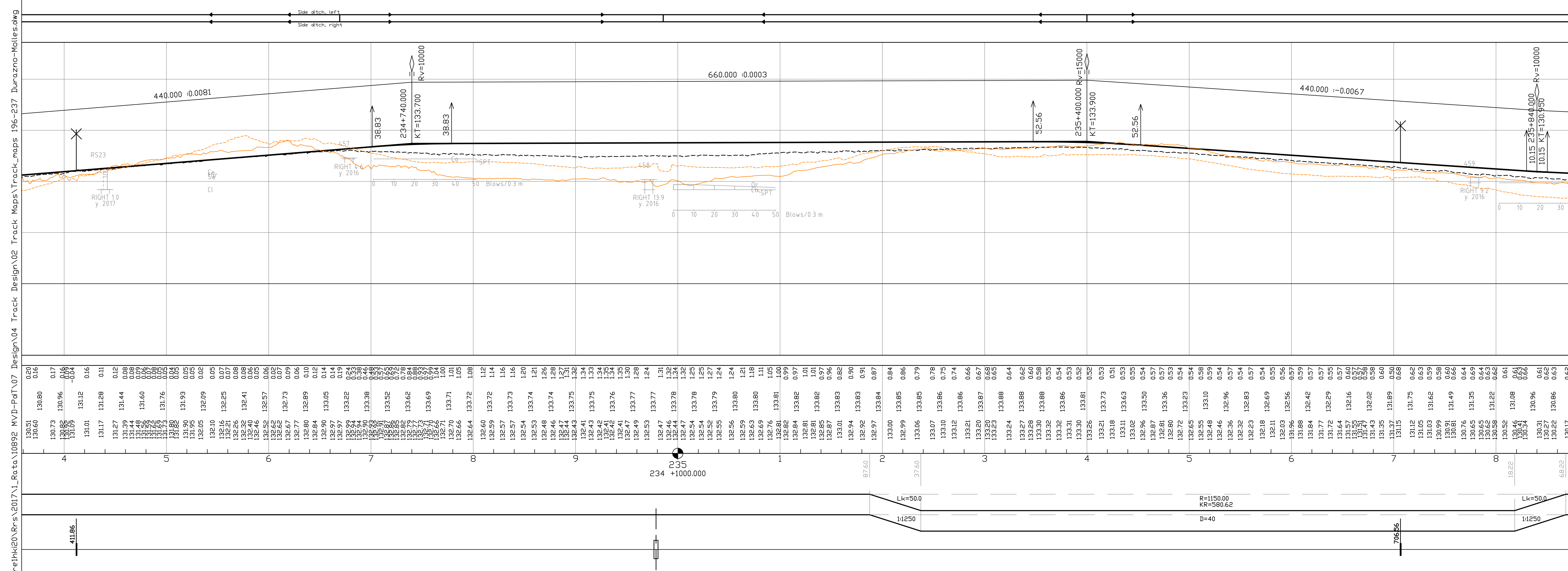
- BXXX BXXX: Railway bridge or underpass, Flyover
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- LCXXX: Level crossing

Track alignment with design geometry figures

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- Existing ground elevation
- Km stationing

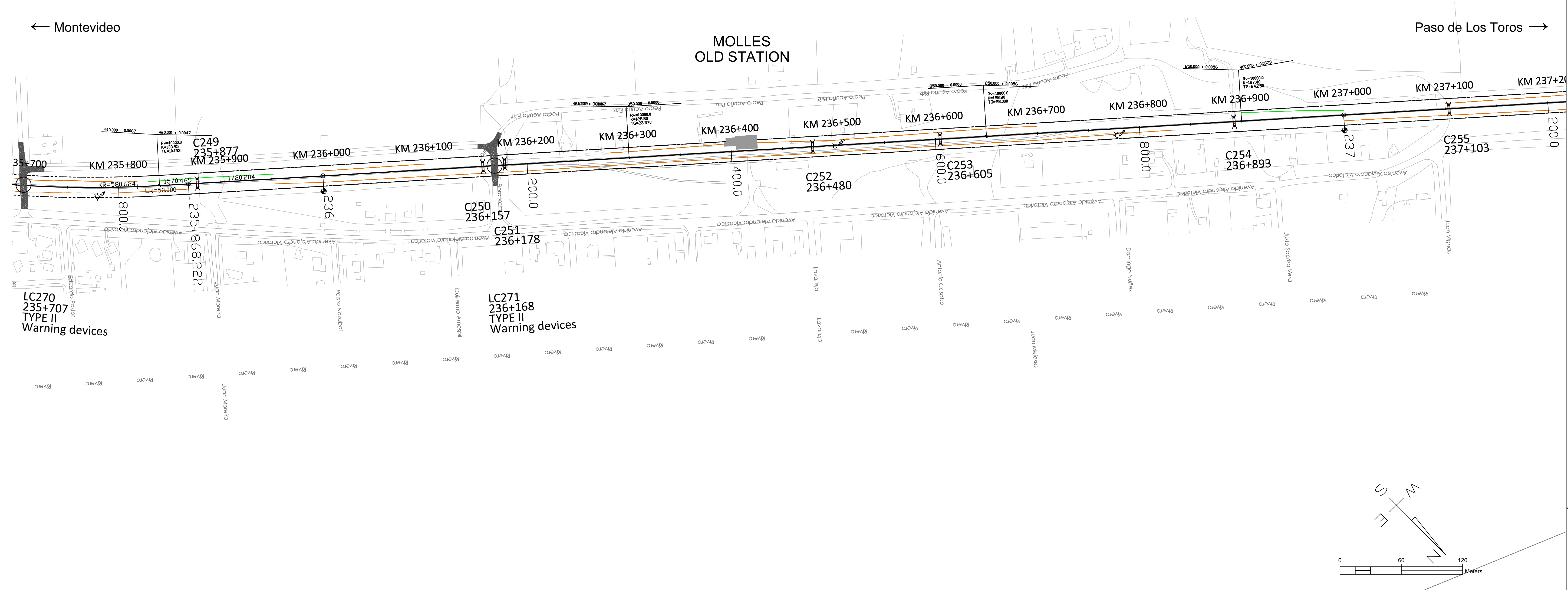
Horizontal alignment, schematic

SR = length of straight line (m)
 R = curve radius (m)
 KR = length of curve (m)
 D = track cant (mm)
 Lk = length of transition curve (m)

Version 15.12.2017

Revision	Explanation	Date	Designer	Date	Acceptor
1					

Customer	MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS	Project	Railway Project
Design phase	Pre-engineering, Phase 2	Content	Track map and profile
Supplier	VR TRACK	Scale	map 1:2000, profile 1:2000 / 1:200
Drawer	15.12.2017 UPa	Coordinate system	WGS 84 UTM 21 S, Local orthometric height
Designer	15.12.2017 HMa / MLo	Elevation reference system	Railway line
Supervisor	15.12.2017 SVI	Railway line	Montevideo - Paso de Los Toros
Accept.		Archive	Type Number Rev. Sheet Sheets total
Owner acc.			168 195



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