

Stationing	SR	R	KR	D	Lk	Rv	K	TG
108+000	400.00	650.00	98.19	50	60.00	10000	81.65	0.0090
108+100	400.00	650.00	98.19	50	60.00	10000	81.65	0.0090
108+200	400.00	650.00	98.19	50	60.00	10000	81.65	0.0090
108+300	400.00	650.00	98.19	50	60.00	10000	81.65	0.0090
108+400	400.00	650.00	98.19	50	60.00	10000	81.65	0.0090
108+500	400.00	650.00	98.19	50	60.00	10000	81.65	0.0090
108+600	400.00	650.00	98.19	50	60.00	10000	81.65	0.0090
108+700	400.00	650.00	98.19	50	60.00	10000	81.65	0.0090
108+800	400.00	650.00	98.19	50	60.00	10000	81.65	0.0090
108+900	400.00	650.00	98.19	50	60.00	10000	81.65	0.0090
109+000	260.00	1000.00	310.41	50	60.00	10000	82.95	-0.0023
109+100	260.00	1000.00	310.41	50	60.00	10000	82.95	-0.0023
109+200	260.00	1000.00	310.41	50	60.00	10000	82.95	-0.0023
109+300	260.00	1000.00	310.41	50	60.00	10000	82.95	-0.0023
109+400	260.00	1000.00	310.41	50	60.00	10000	82.95	-0.0023
109+500	260.00	1000.00	310.41	50	60.00	10000	82.95	-0.0023
109+600	260.00	1000.00	310.41	50	60.00	10000	82.95	-0.0023
109+700	260.00	1000.00	310.41	50	60.00	10000	82.95	-0.0023
109+800	260.00	1000.00	310.41	50	60.00	10000	82.95	-0.0023

**Version 15.12.2017**

Revision	Explanation	Date	Designer	Date	Acceptor
1					

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

Project: **Railway Project**

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

Content: **Track map and profile**

Supplier: **VR TRACK**

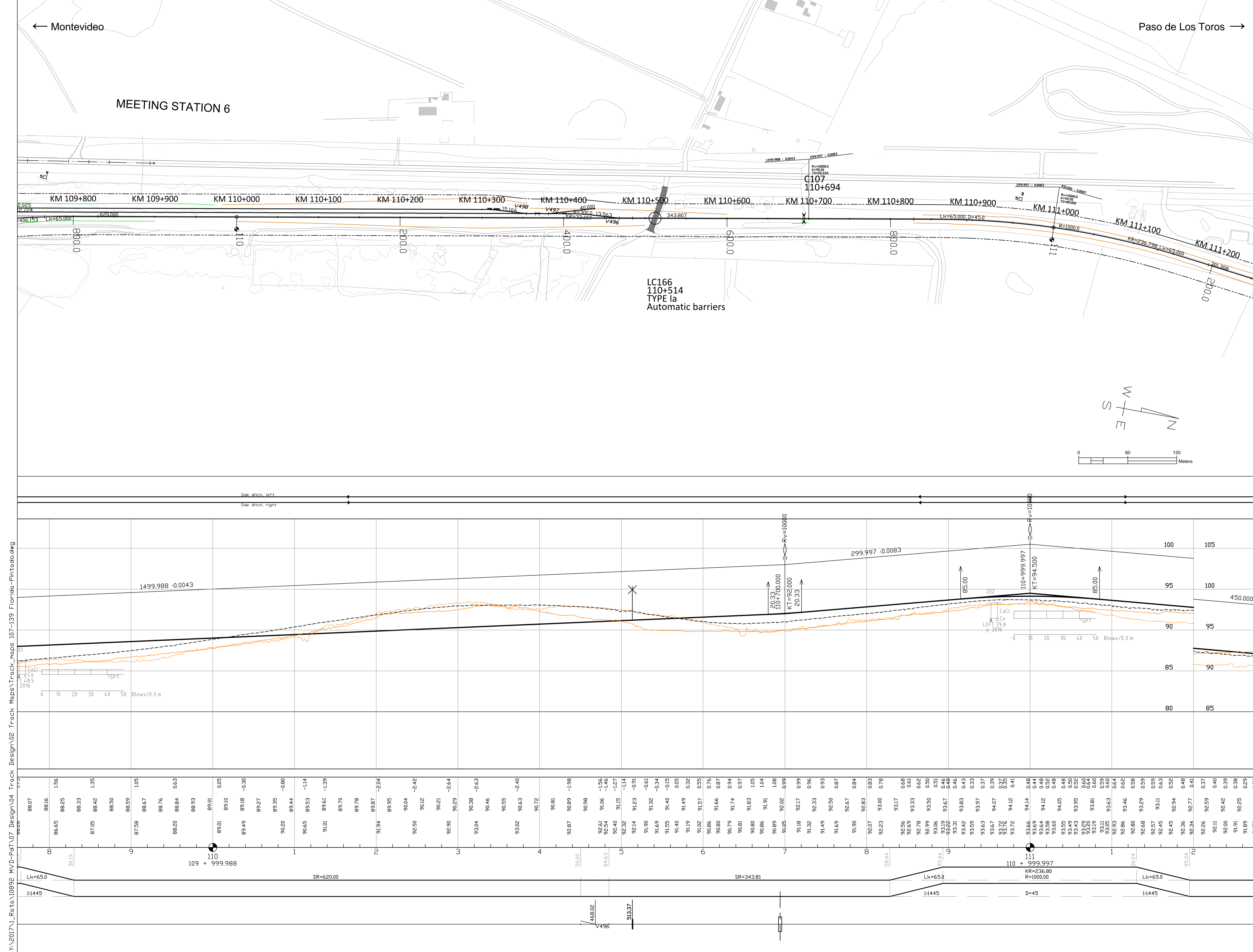
Project: **Km 108+0400 - 109+0800**

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

Designer	Date	Author	Coordinate system
HMa / MLe	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
			78 / 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)

**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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- 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

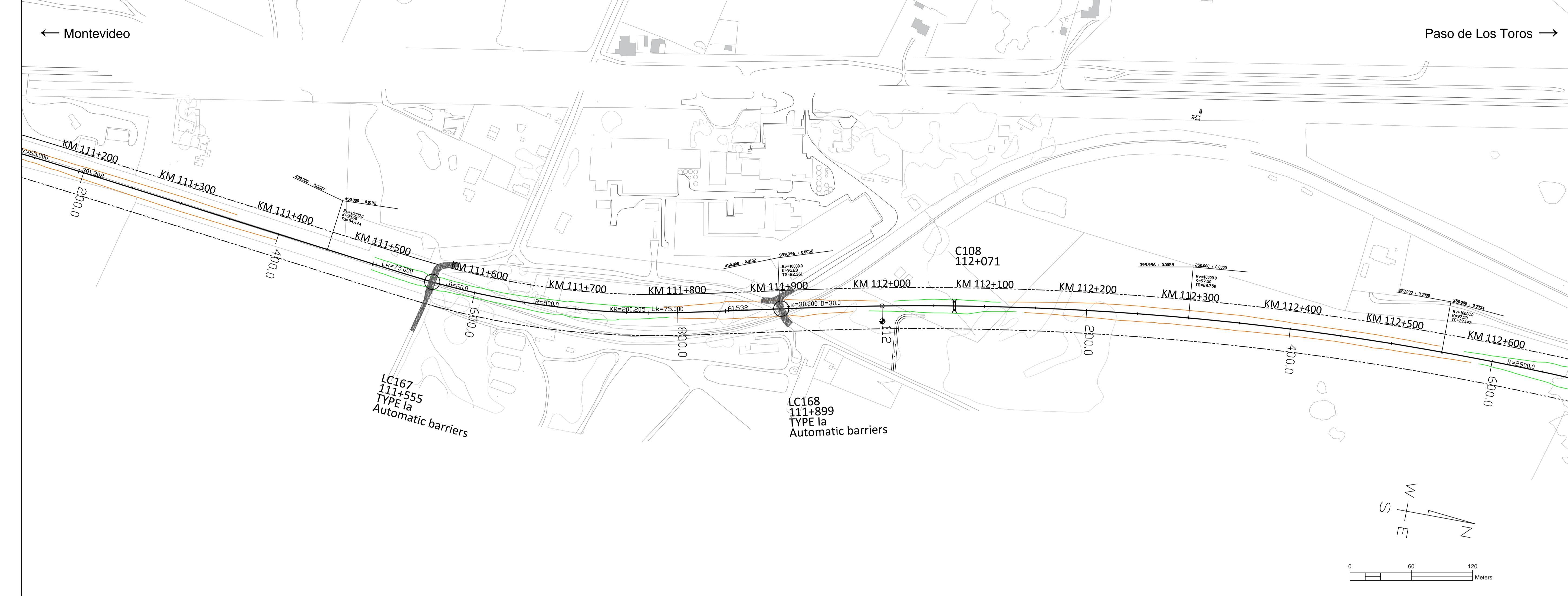
**Project Name:** Km 109+0800 - 111+0200

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

Designer	Date	Author	Coordinate system
HM/a / MLe	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.	Archive	Type	Number	Rev.	Sheet	Sheets total
					79	195



### LEGEND, MAP

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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

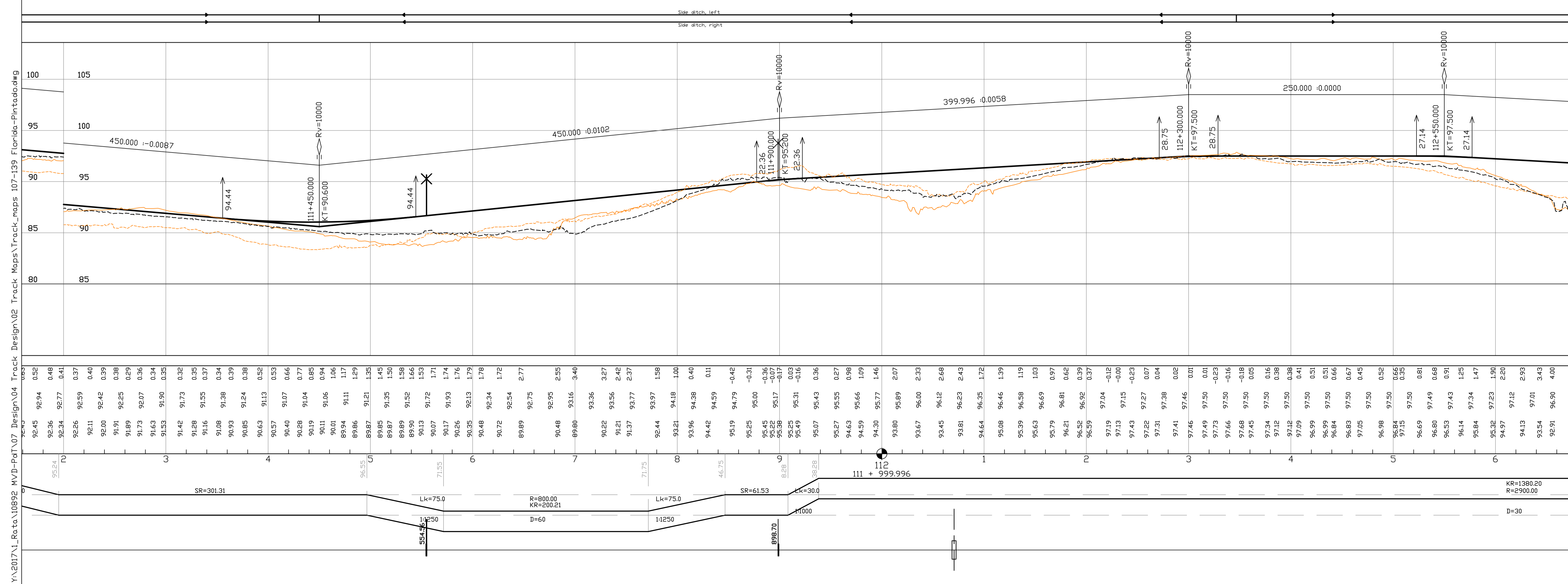
- BXXX BXXX: Railway bridge or underpass, Flyover
- CXXX: Culvert
- LCXXX: Level crossing

### 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)

### Legend, Profile

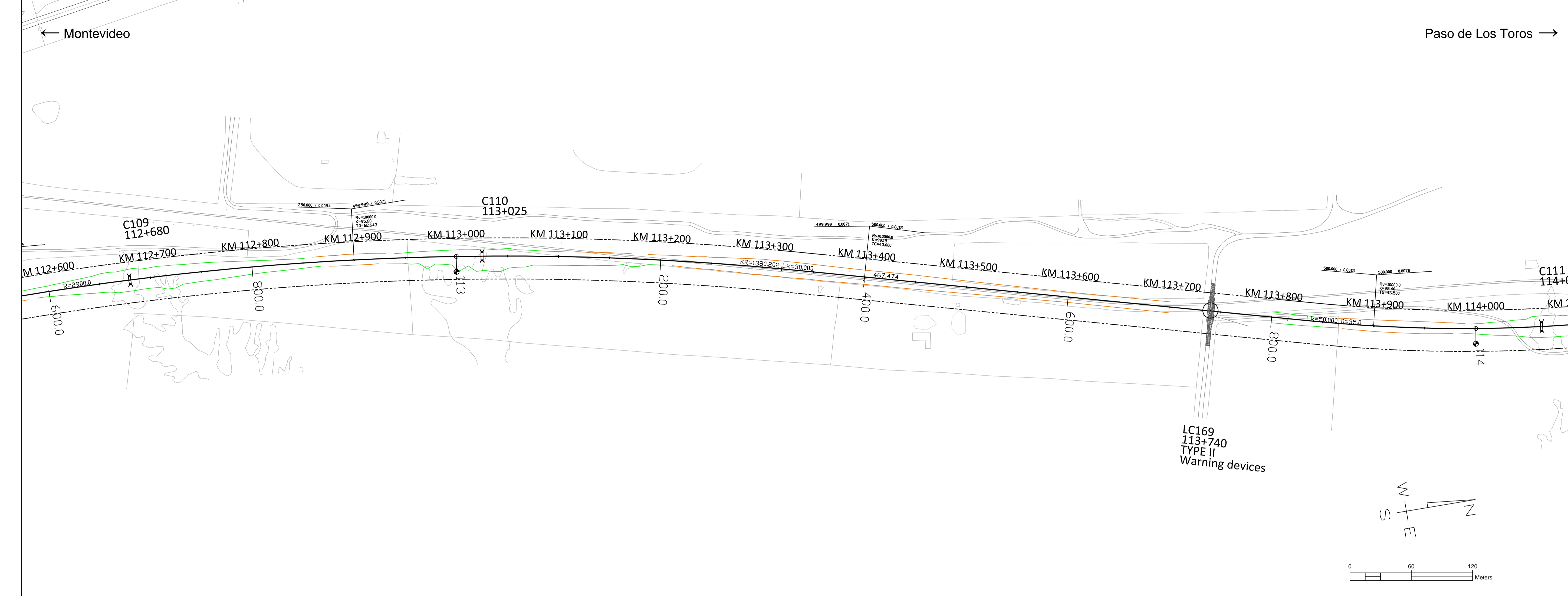
- Vertical railway alignment (S=radius of vertical curve, KT=elevation point)
- Ground surface
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- Designed track elevation (the running surface of the rail)
- Existing ground elevation
- Km stationing
- Horizontal alignment, schematic
- SR= length of straight line (m)
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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	VR TRACK	Scale	Km 111+0200 - 112+0600
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.			80 195



### LEGEND, MAP

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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: LCXXX

### Track alignment with design geometry figures

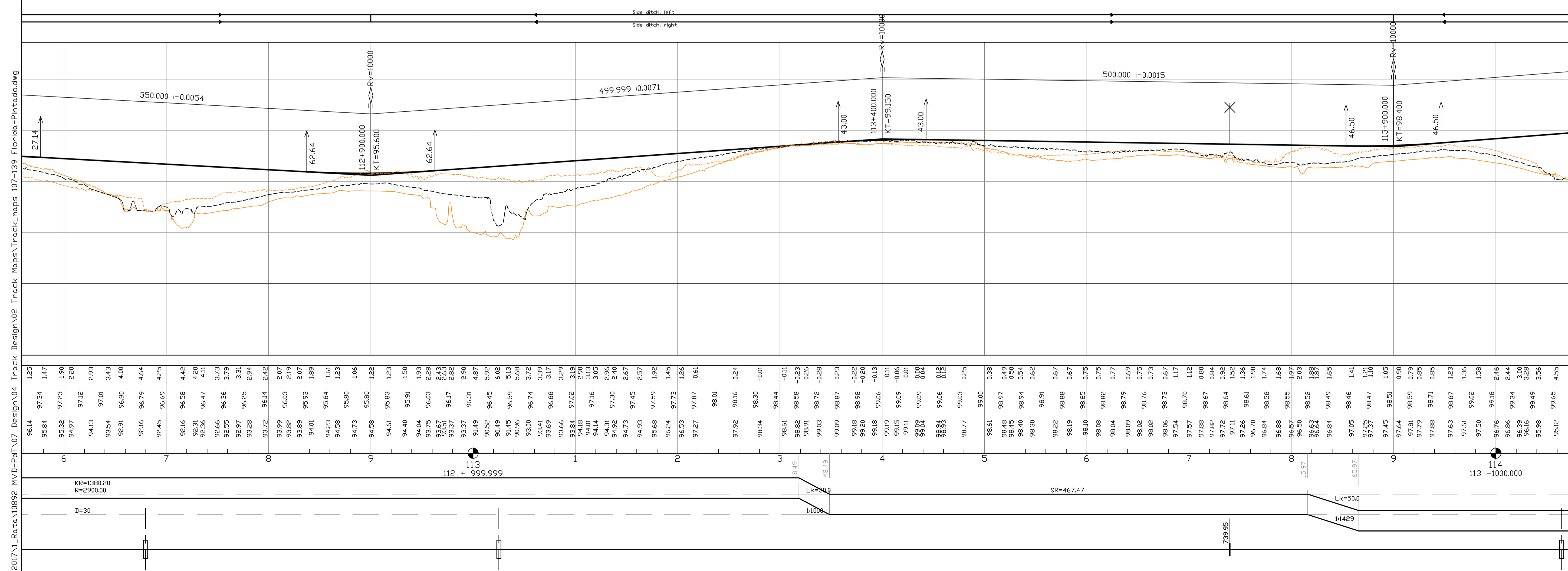
- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)
- Rv= radius of vertical curve
- K= elevation
- TG= length of tangent
- 123.345= length of straight line (m)

### 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)
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- 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

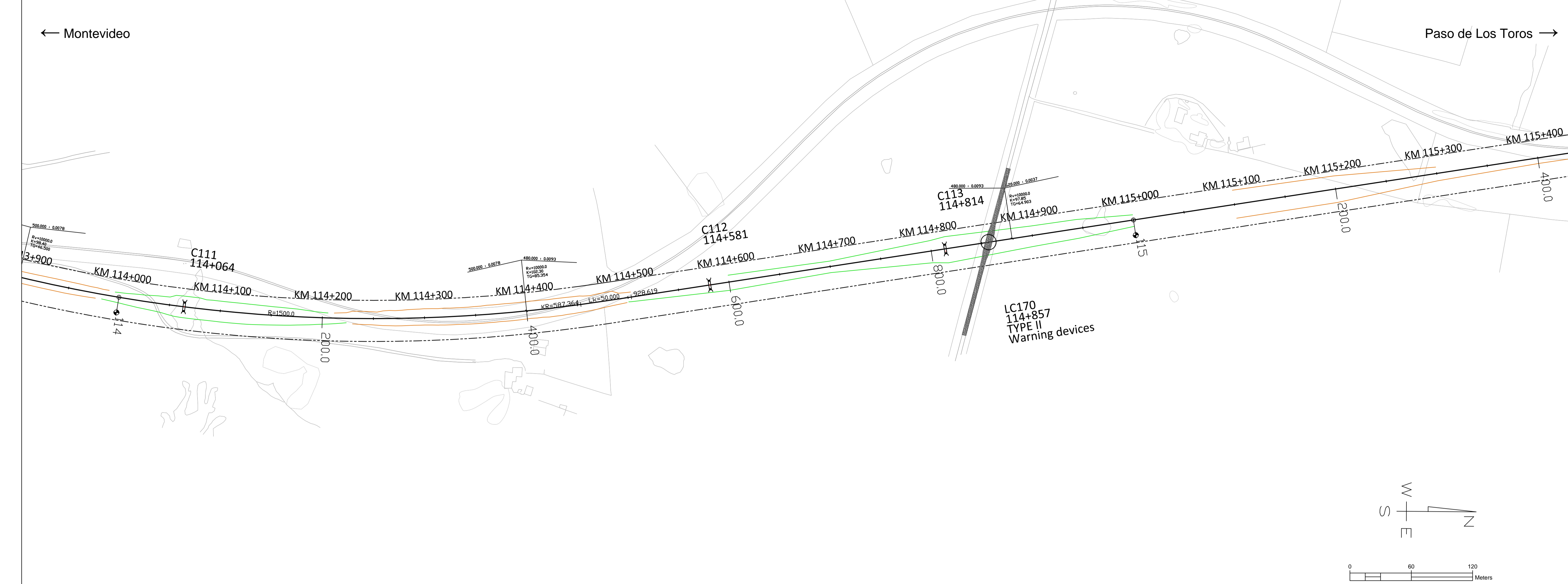
### Horizontal alignment, schematic

- 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

<b>MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS</b>		<b>Railway Project</b>	
<b>Pre-engineering, Phase 2</b>		<b>Track map and profile</b>	
<b>VR TRACK</b>		<b>Km 112+0600 - 114+0000</b>	
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:	Arch. Type Number Rev. Sheet Sheets total 81 195



### LEGEND, MAP

- New railway alignment
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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.

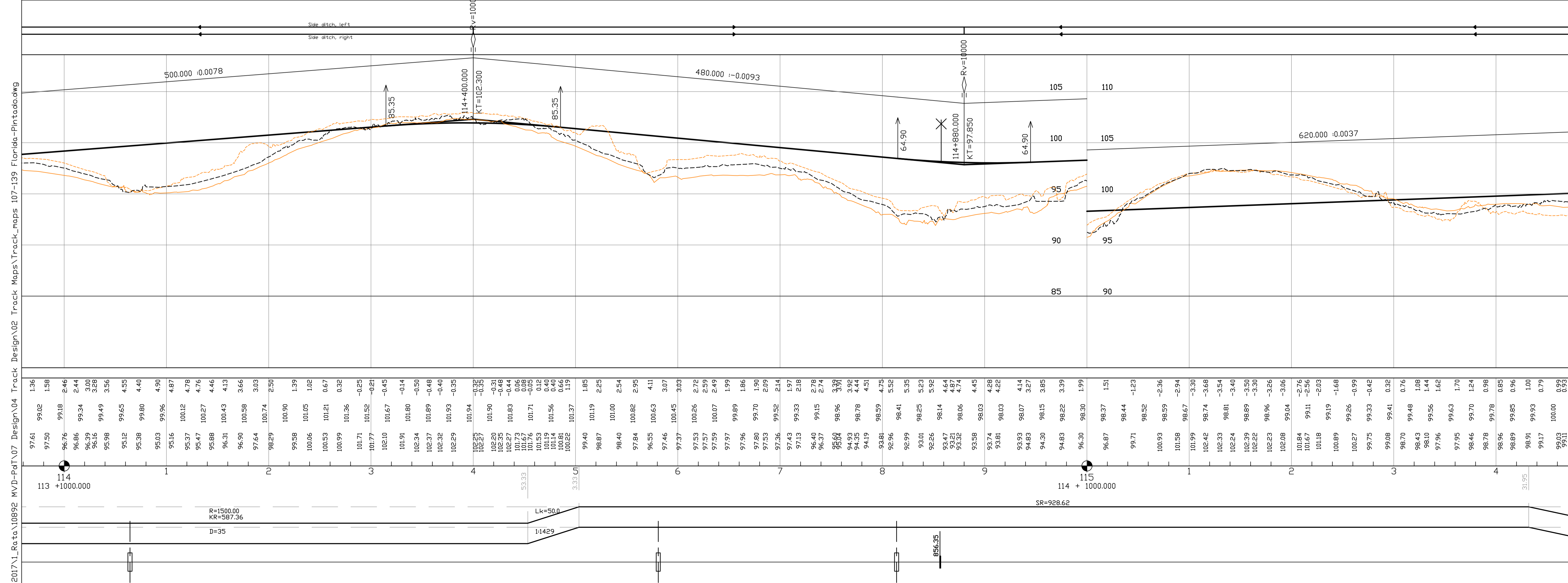
- y. 2016= year of investigation, location of 2016 soundings not accurate
- 1, 217= point number

### Disturbed Sample

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

### LEGEND, PROFILE

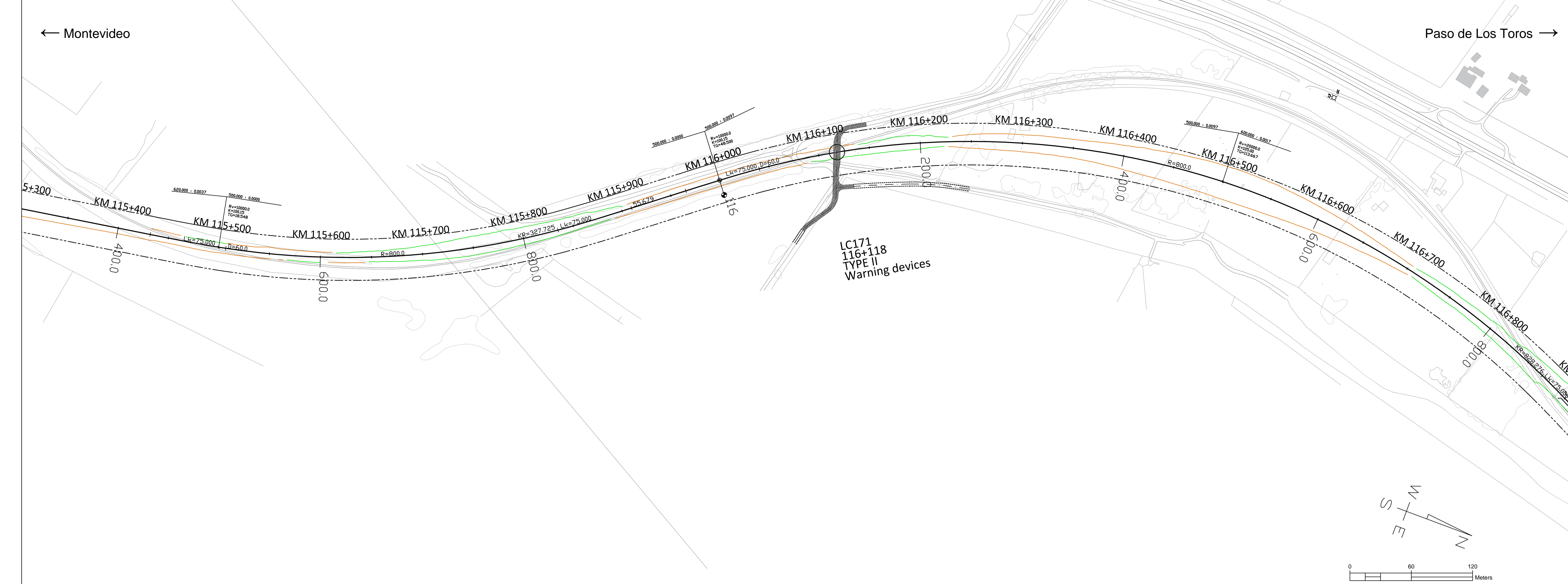
- Vertical railway alignment (S=radius of vertical curve, KT=elevation point)
- Ground surface
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- Level crossing
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- Designed track elevation (the running surface of the rail)
- Existing ground elevation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



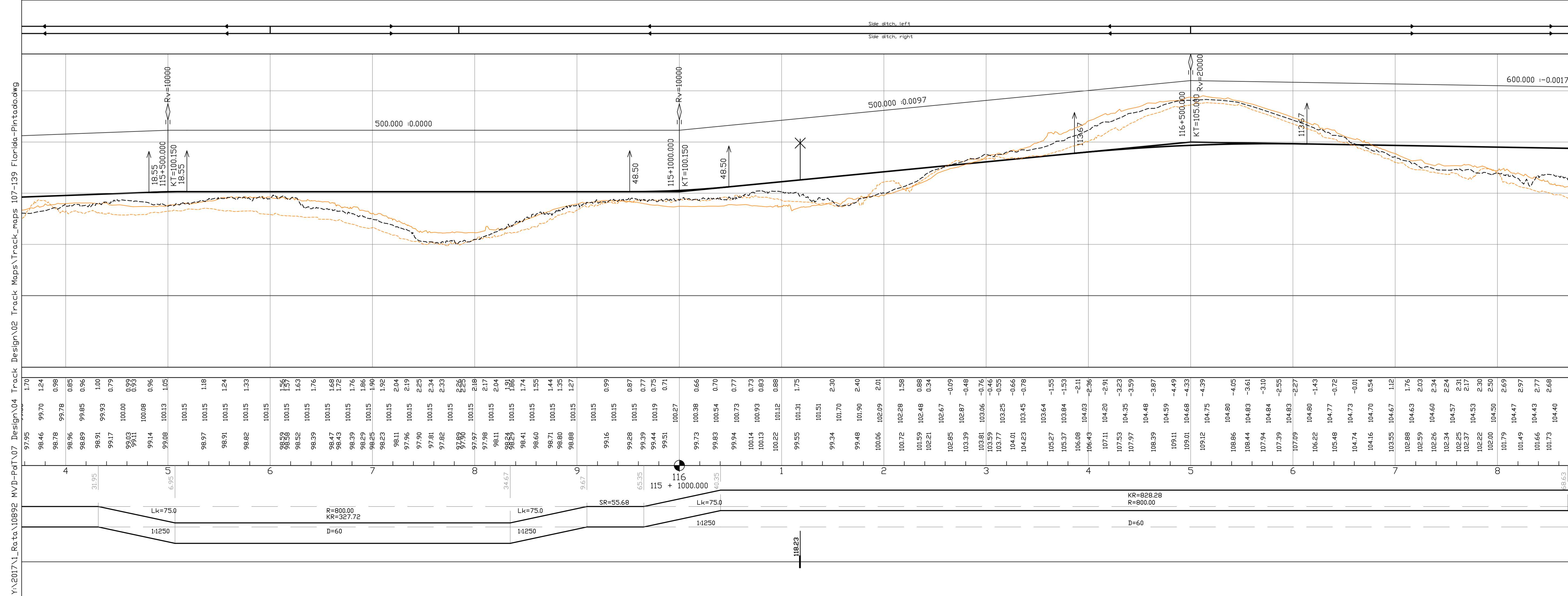
### Version 15.12.2017

Revision	Explanation	Date	Designer	Date	Acceptor
1					

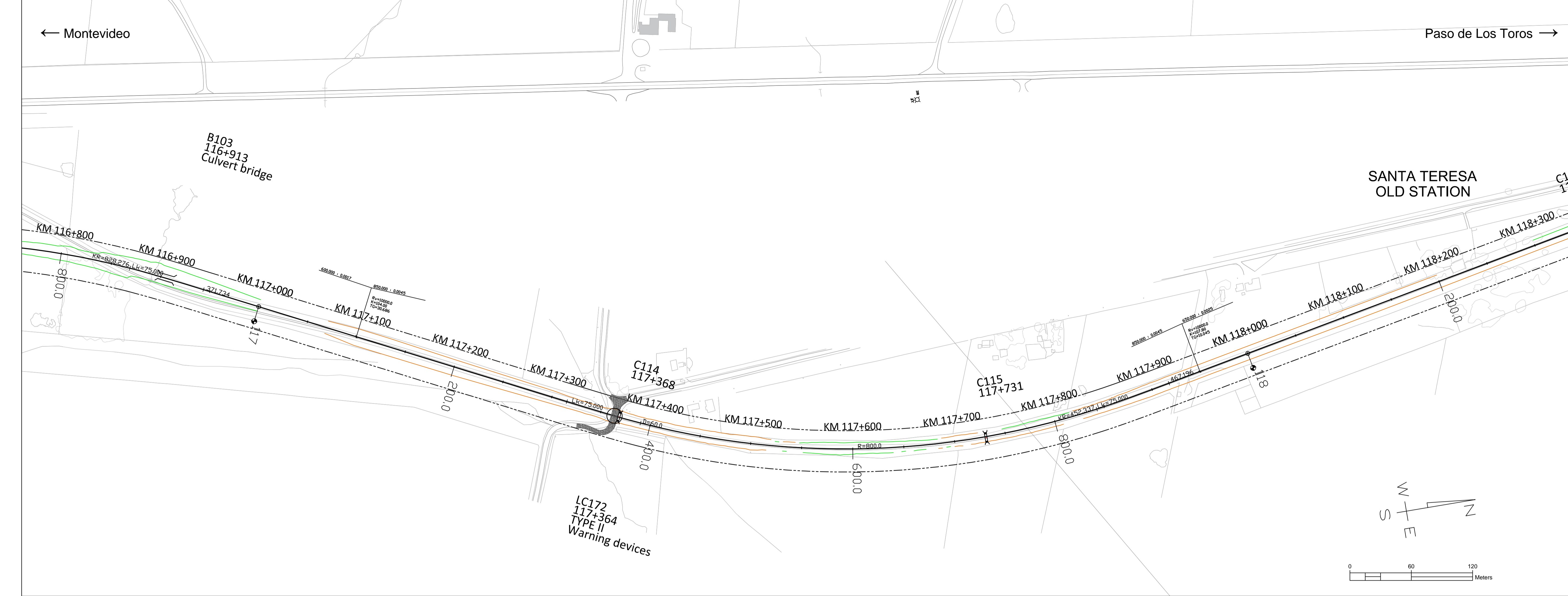
Customer	MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS	Project	Railway Project
Design phase	Pre-engineering, Phase 2	Content	Track map and profile
Supplier	VR TRACK	Scale	Km 114+0000 - 115+400
Drawer	15.12.2017 UPa	Coordinate system	map 1:2000, profile 1:2000 / 1:200
Designer	15.12.2017 HMa / MLe	Elevation 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.			



- 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
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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)
- Legend, Profile**
- 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**
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  - 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
- Project Name:** Km 115+400 - 116+0800
- | Drawer | Date       | Author | Scale                              |
|--------|------------|--------|------------------------------------|
| UPa    | 15.12.2017 |        | map 1:2000, profile 1:2000 / 1:200 |
- | Designer  | Date       | Author | Coordinate system                         |
|-----------|------------|--------|---|
| HMa / MLe | 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  |
- 83 / 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

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

### Track alignment with design geometry figures

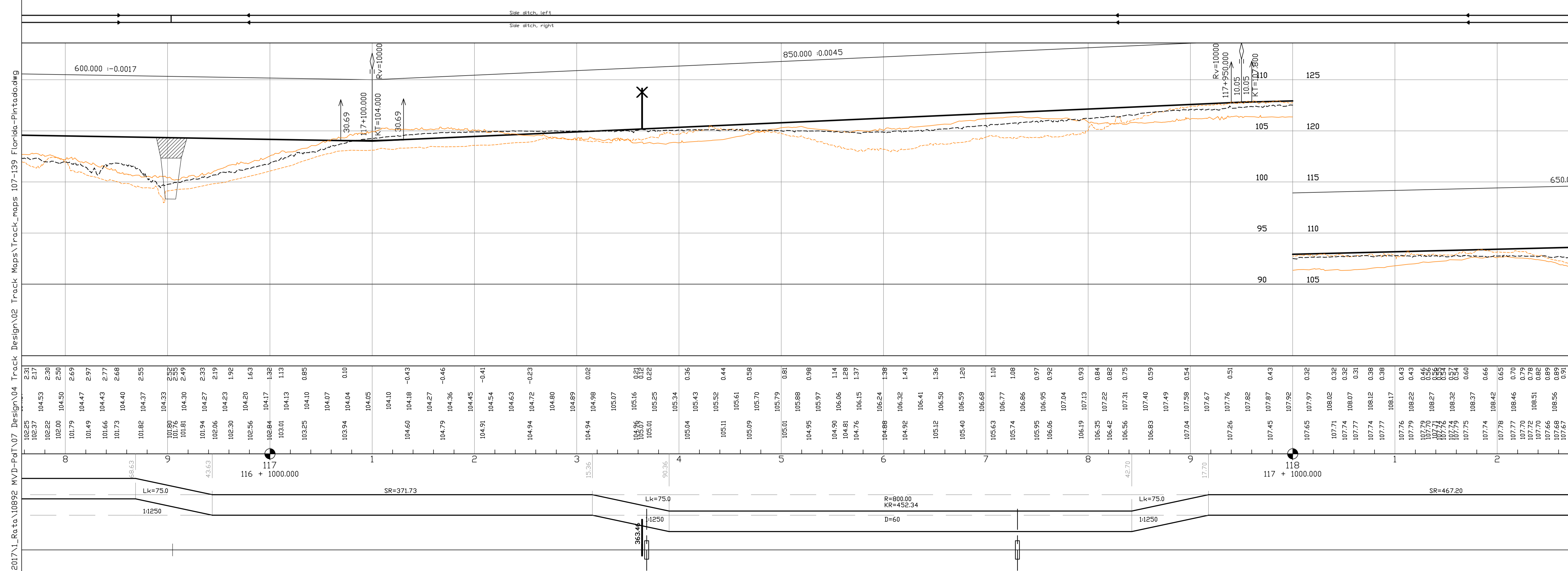
- R= curve radius (m)
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- D= track cant (mm)
- Lk= length of transition curve (m)
- Rv= radius of vertical curve
- K= elevation
- TG= length of tangent
- 123.345= length of straight line (m)

### 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

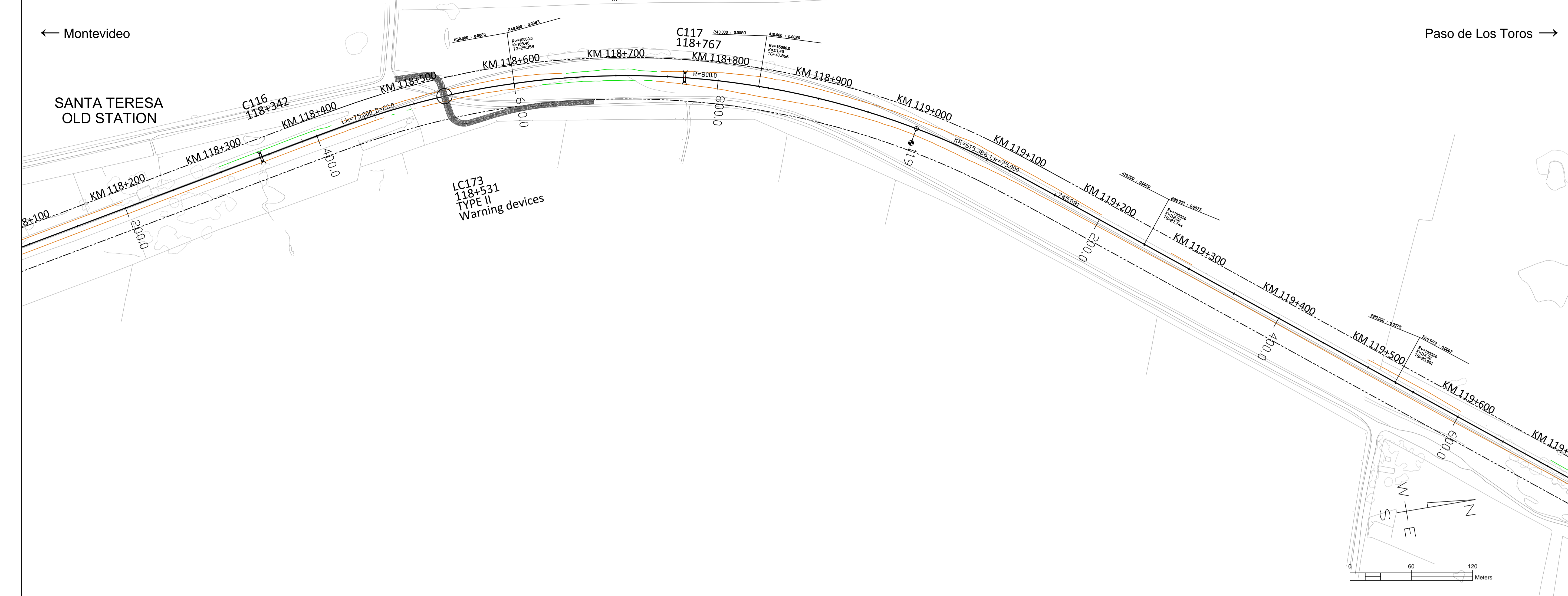
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- Horizontal alignment, schematic
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- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)

**Version 15.12.2017**

Revision	Explanation	Date	Designer	Date	Acceptor
1					

Customer	MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS	Project	Railway Project
Design phase	Pre-engineering, Phase 2	Content	Track map and profile
Supplier	<b>VR TRACK</b>	Scale	Km 116+0800 - 118+0200
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.			84 195





### LEGEND, MAP

- New railway alignment
- Existing railway alignment (not in the Railway Project scope)
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- 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

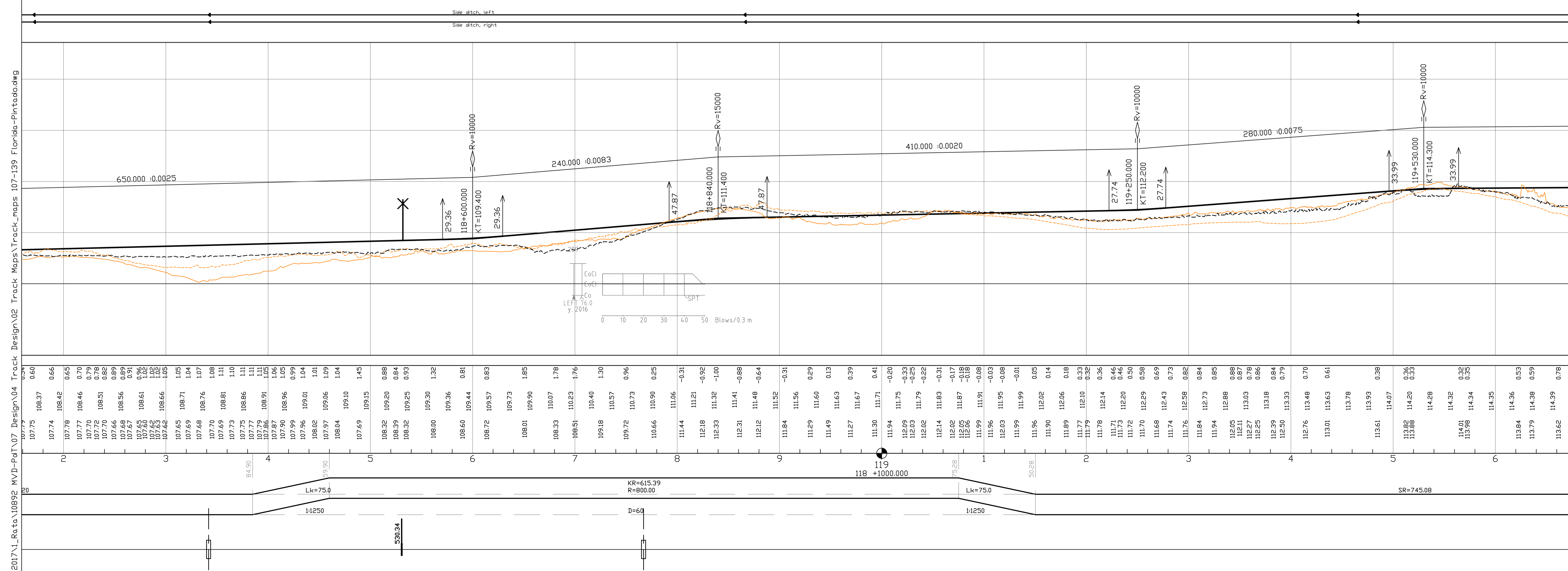
- BXXX BXXX: Railway bridge or underpass, Flyover
- CXXX: Culvert
- LCXXX: Level crossing

### Track alignment with design geometry figures

- R= curve radius (m)
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### Sounding Symbols

- 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
- 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

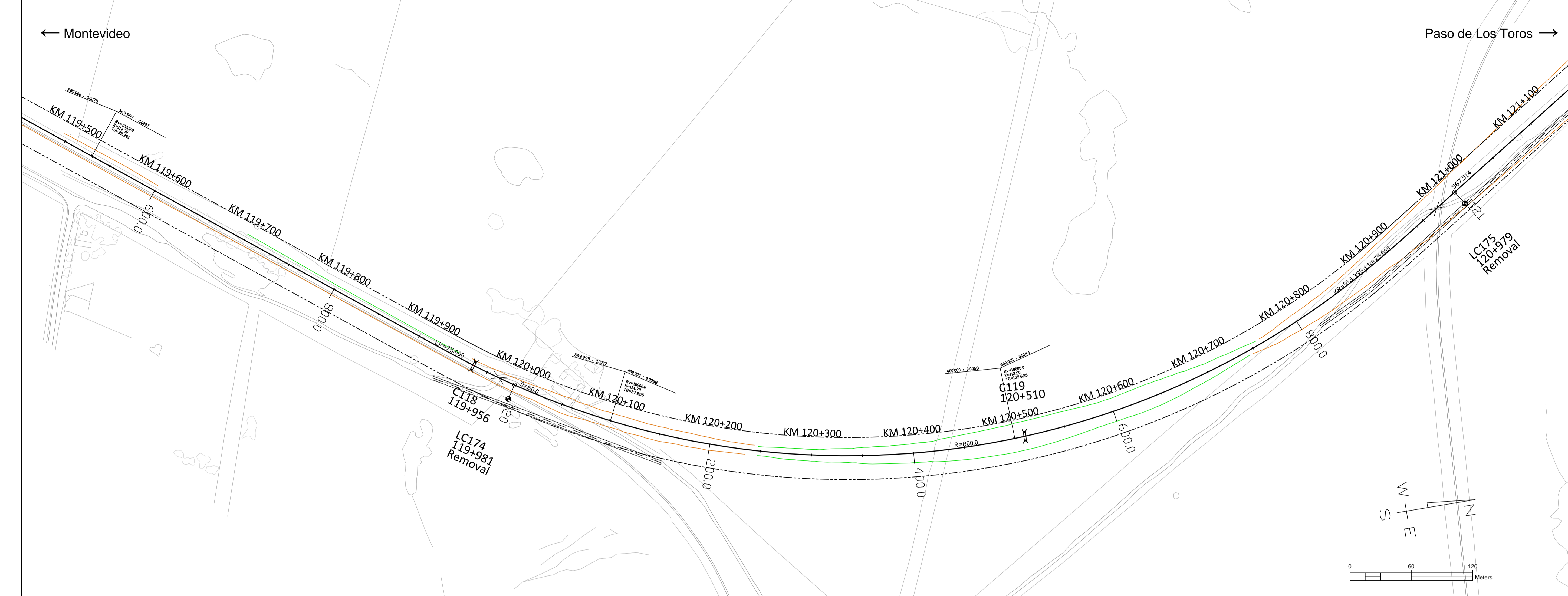
- SR= length of straight line (m)
- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)

Revision	Explanation	Date	Designer	Date	Acceptor
1	15.12.2017	UPA			
2	15.12.2017	HMa / MLe			
3	15.12.2017	SVI			

**Version 15.12.2017**

Customer	MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS	Project	Railway Project
Supplier	VR TRACK	Design phase	Pre-engineering, Phase 2
Content	Track map and profile	Contract	Km 118+0200 - 119+0600

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	Elevation reference system	Railway line
Accept.			Railway line	Montevideo - Paso de Los Toros
Owner acc.			Archive	Type Number Rev. Sheet Sheets total



### LEGEND, MAP

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- 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
- LCXXX

### Track alignment with design geometry figures

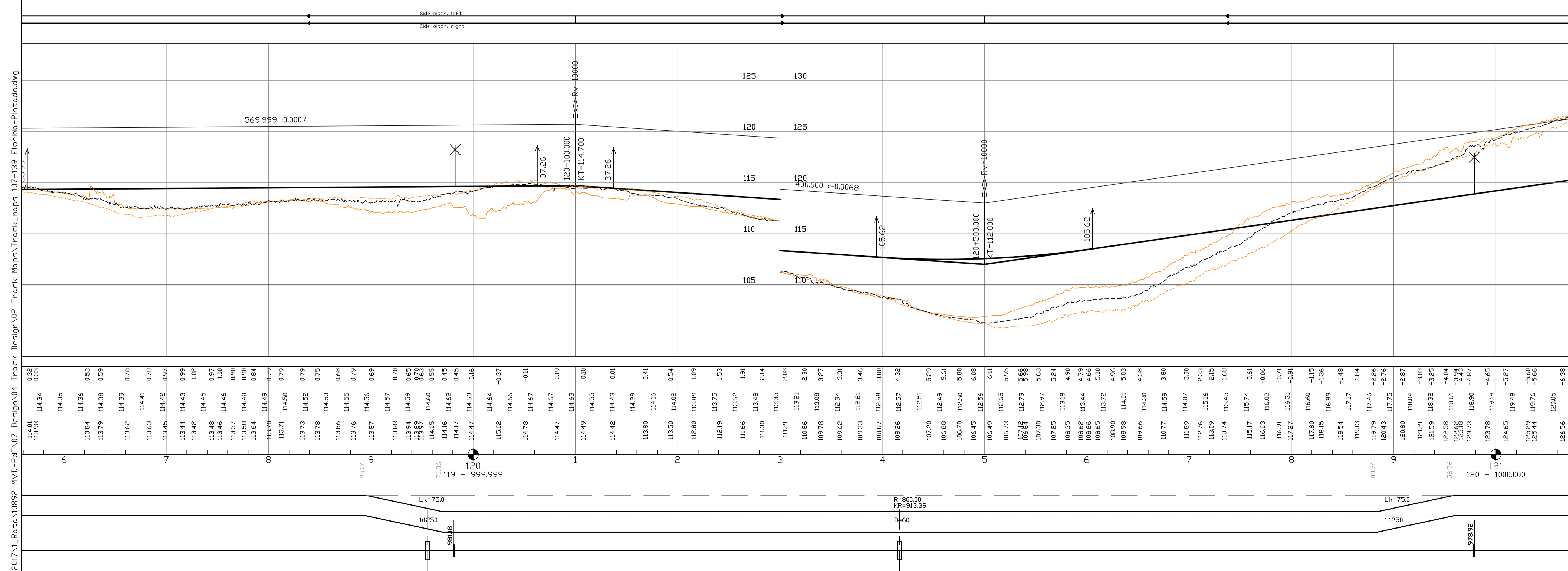
R= curve radius (m)  
 KR= length of curve (m)  
 D= track cant (mm)  
 Lk= length of transition curve (m)  
 RV= radius of vertical curve  
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 TG= length of tangent  
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 1, 217= point number

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y. 2017= year of investigation  
 TR02= point number



### LEGEND, PROFILE

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

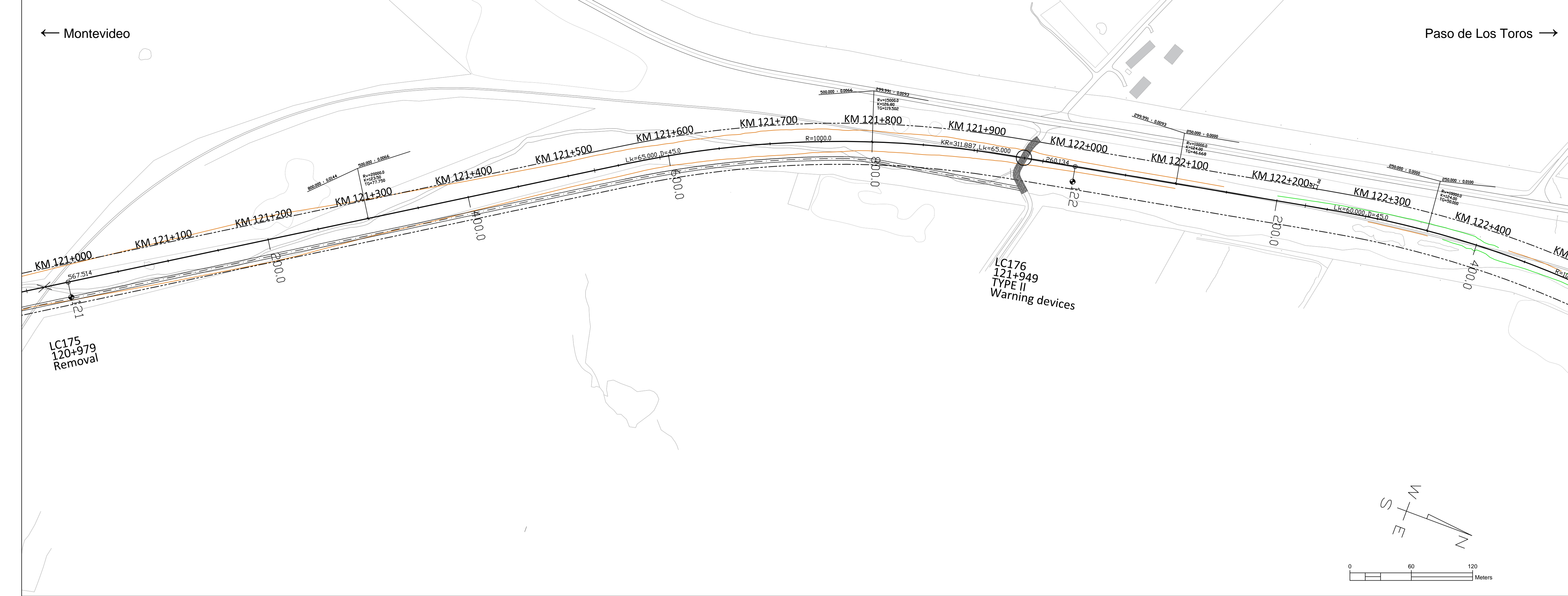
### Horizontal alignment, schematic

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

<b>MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS</b>		<b>Railway Project</b> Design phase <b>Pre-engineering, Phase 2</b> Content <b>Track map and profile</b>	
<b>Supplier</b> 		<b>Km 119+0600 - 121+0000</b>	
Drawer: 15.12.2017 Designer: 15.12.2017 Supervisor: 15.12.2017 Accept: Owner acc:	UPa HMa / MLe 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 86 195



### 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
- 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

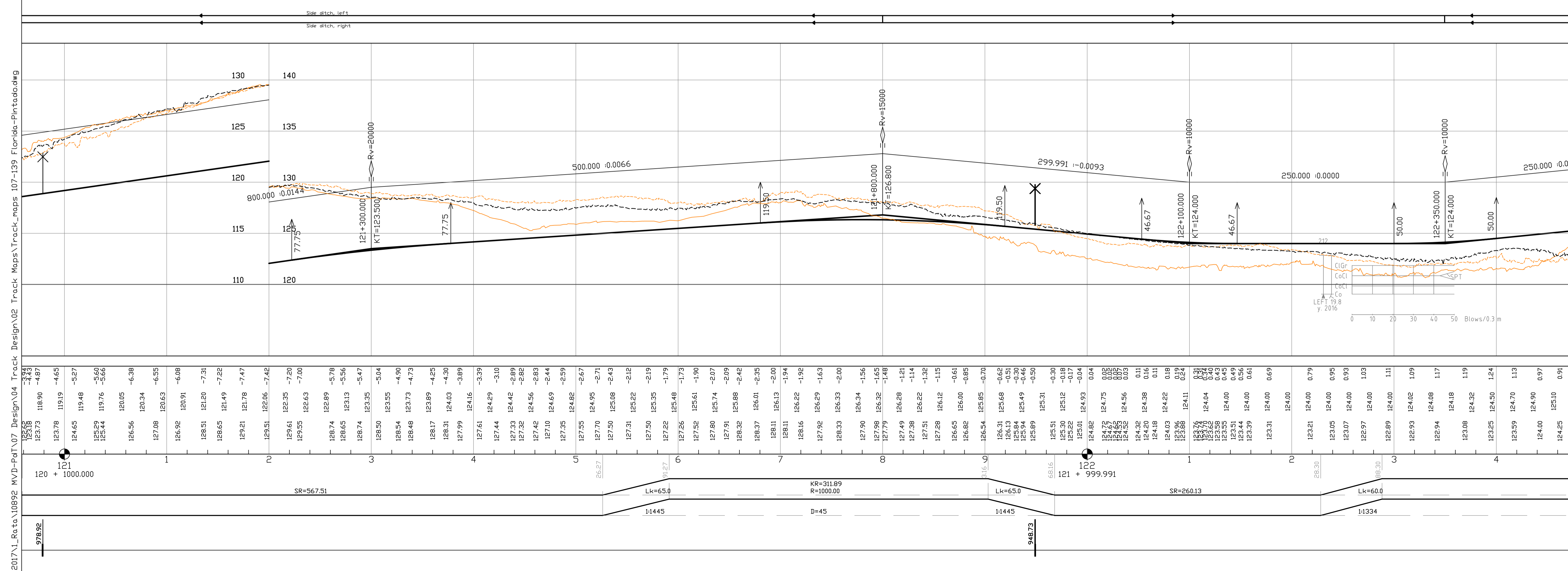
- y. 2017= year of investigation
- TR02= point number

### LEGEND, PROFILE

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

**MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS**

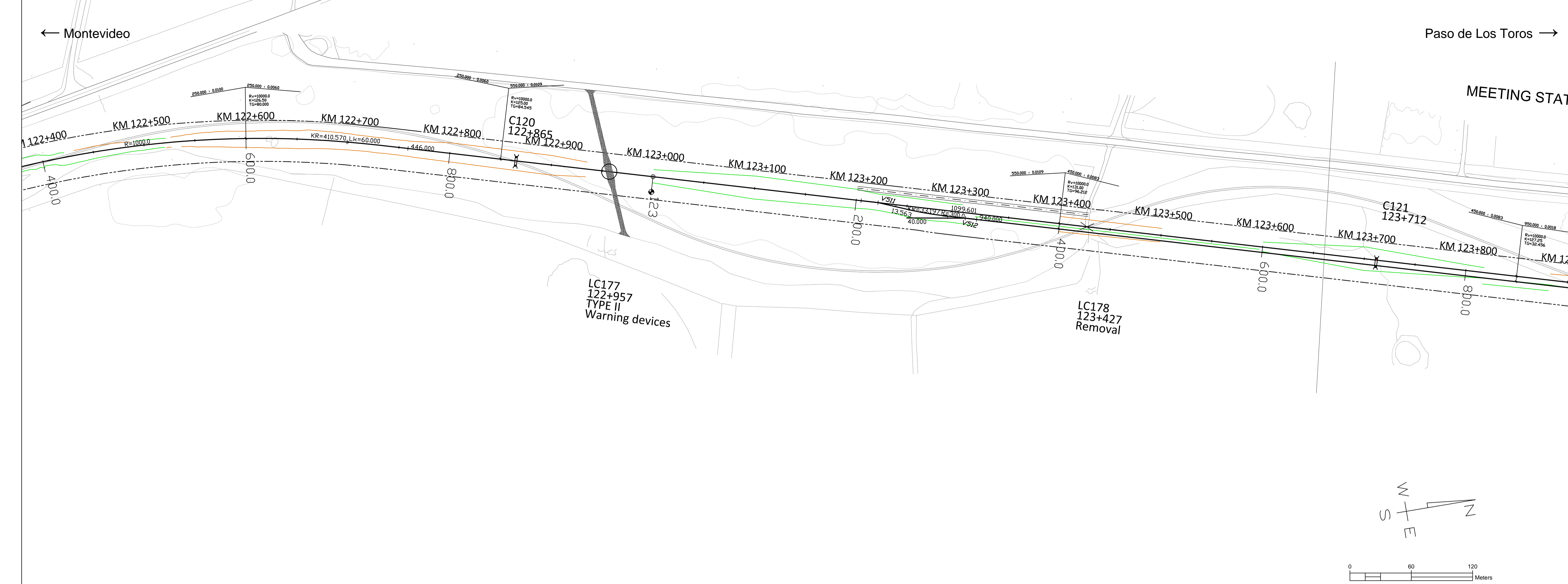
**Railway Project**

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

Content: **Track map and profile**

Supplier: **VR TRACK**

Drawer	Date	Scale	Coordinate system
UPa	15.12.2017	map 1:2000, profile 1:2000 / 1:200	WGS 84 UTM 21 S, Local orthometric height
Designer	Date	Railway line	Elevation reference system
HMa / MLe	15.12.2017	Montevideo - Paso de Los Toros	
Supervisor	Date	Archive	Type
SVI	15.12.2017		
Accept.	Date	Number	Rev. Sheet Sheets total
			87 / 195



### LEGEND, MAP

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### Symbols

- BXXX BXXX: Railway bridge or underpass, Flyover
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### Track alignment with design geometry figures

- R= curve radius (m)
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- 1, 217= point number

### Disturbed Sample

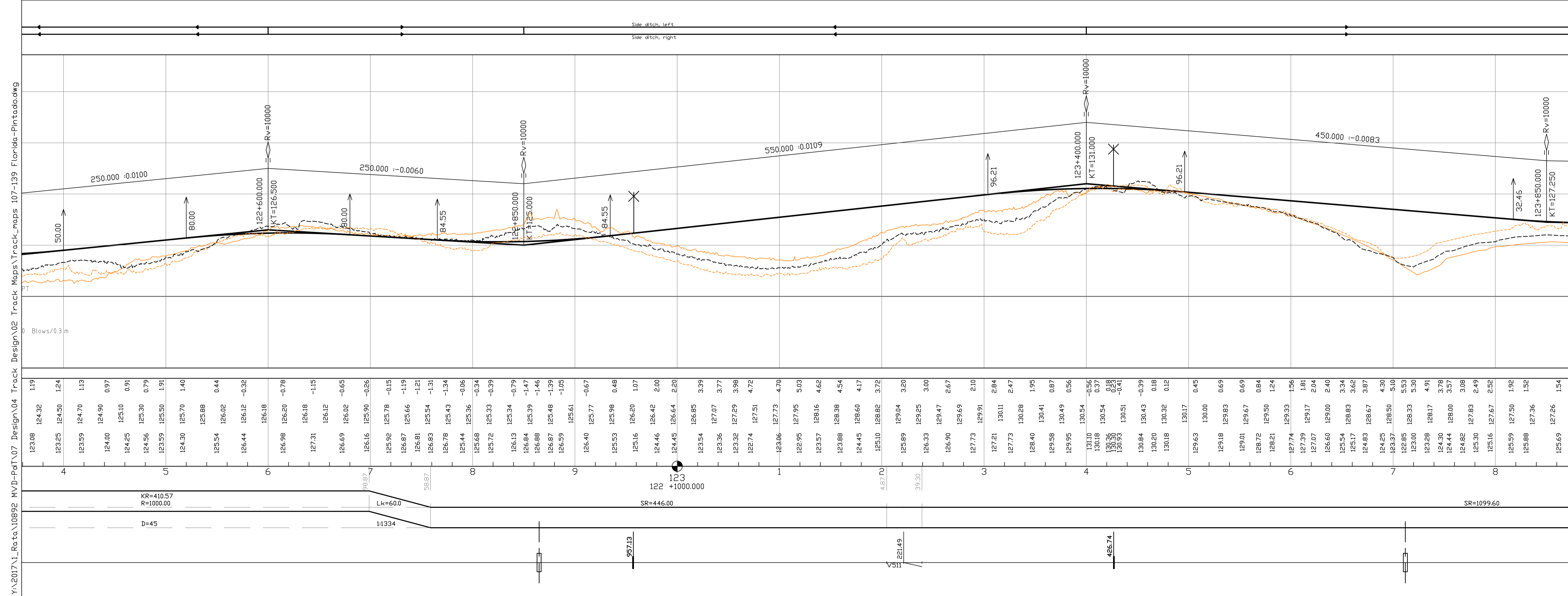
- y. 2017= year of investigation
- TR02= point number

### LEGEND, PROFILE

- Vertical railway alignment (S=radius of vertical curve, KT=elevation point)
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- Existing ground elevation
- Km stationing

### Horizontal alignment, schematic

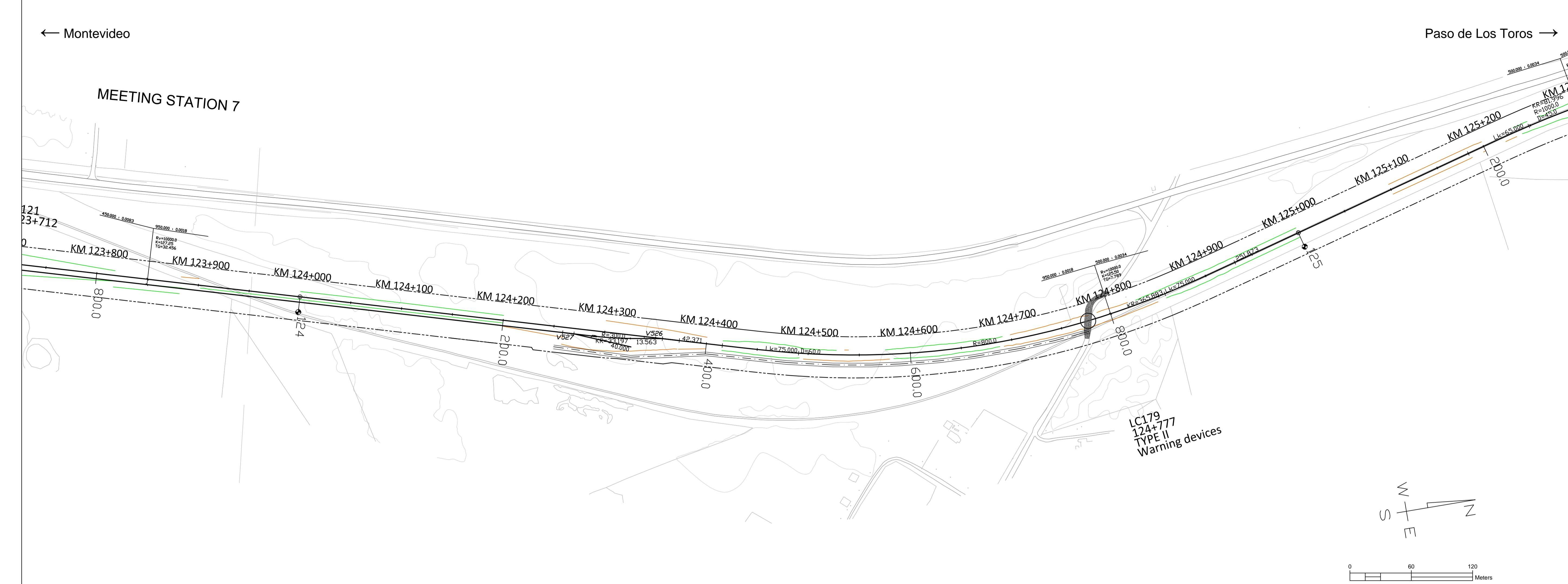
- SR= length of straight line (m)
- R= curve radius (m)
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- Lk= length of transition curve (m)



Revision	Explanation	Date	Designer	Date	Acceptor
1	Version 15.12.2017				

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 122+0400 - 123+0800
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.			

Y:\A2017\1\_Rata\10892\_MVD-PAT\07\_Design\04\_Track\_Design\02\_Track\_maps\107-139\_Florido-Pinto\dwg



### 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

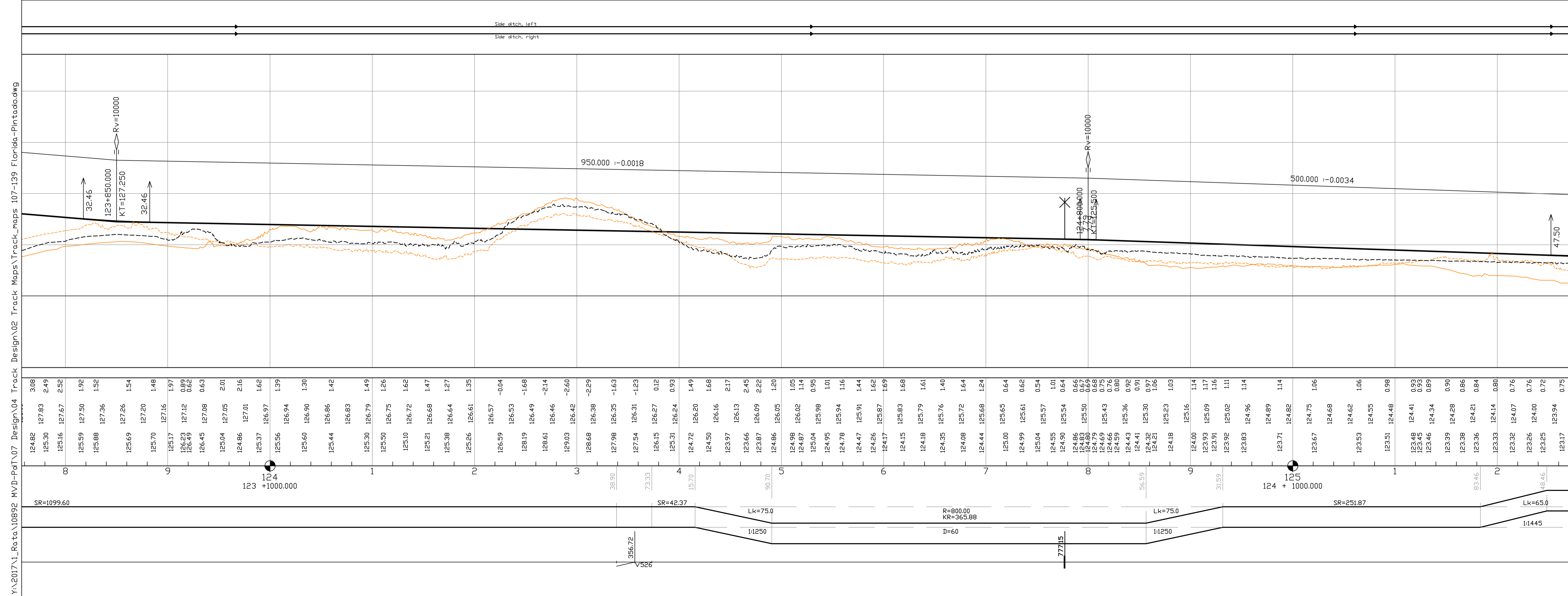
- BXXX BXXX: Railway bridge or underpass, Flyover
- CXXX: Culvert
- Level crossing: LCXXX

### Track alignment with design geometry figures

- R= curve radius (m)
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- TG= length of tangent
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### Sounding and Sample Symbols

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



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### Horizontal alignment, schematic

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Revision	Explanation	Date	Designer	Date	Acceptor
1	15.12.2017	UPa			
2	15.12.2017	HM/a / MLe			
3	15.12.2017	SVI			

**MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS**

**Version 15.12.2017**

**Railway Project**

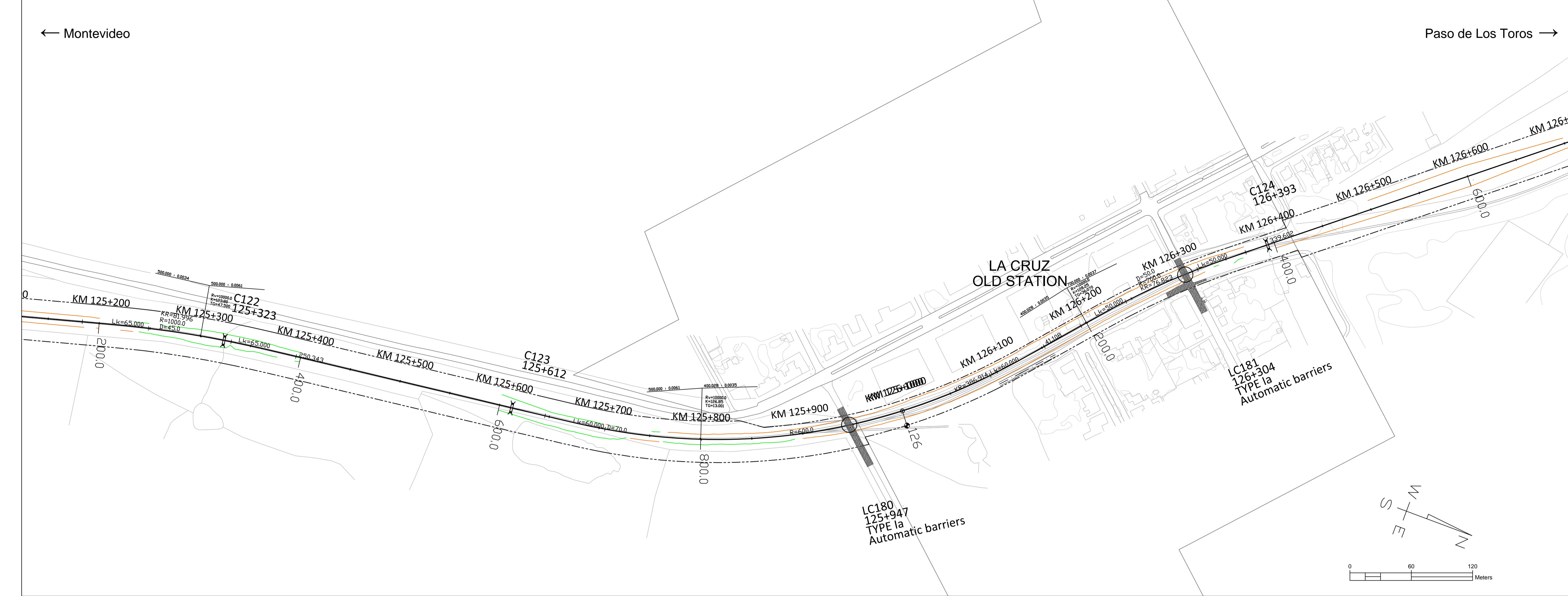
Design phase: **Pre-engineering, Phase 2**

Content: **Track map and profile**

Supplier: **VR TRACK**

Project: **Km 123+0800 - 125+0200**

Drawer	Designer	Supervisor	Accept.	Owner acc.	Scale	Coordinate system	Elevation reference system	Railway line	Archive	Type	Number	Rev.	Sheet	Sheets total
15.12.2017	15.12.2017	15.12.2017			map 1:2000, profile 1:2000 / 1:200	WGS 84 UTM 21 S, Local orthometric height		Montevideo - Paso de Los Toros					89	195



### LEGEND, MAP

- New railway alignment
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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

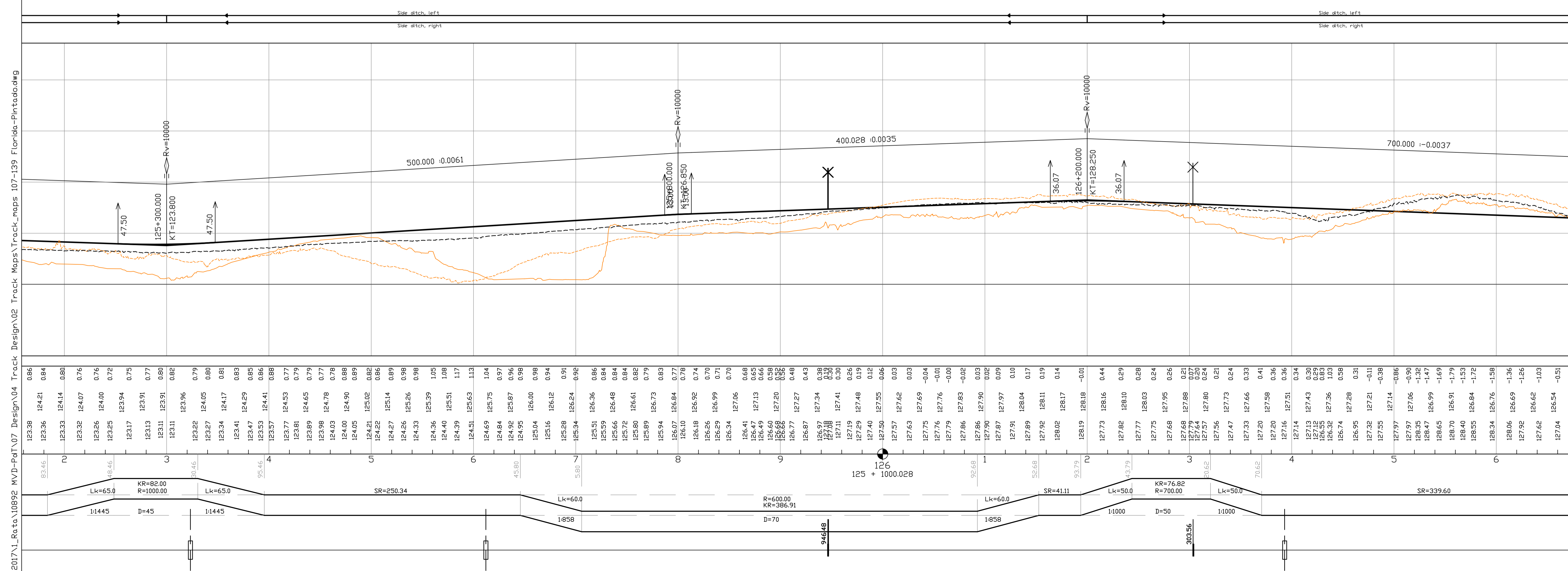
- R= curve radius (m)
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### Disturbed Sample

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



### LEGEND, PROFILE

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### Horizontal alignment, schematic

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

**Version 15.12.2017**

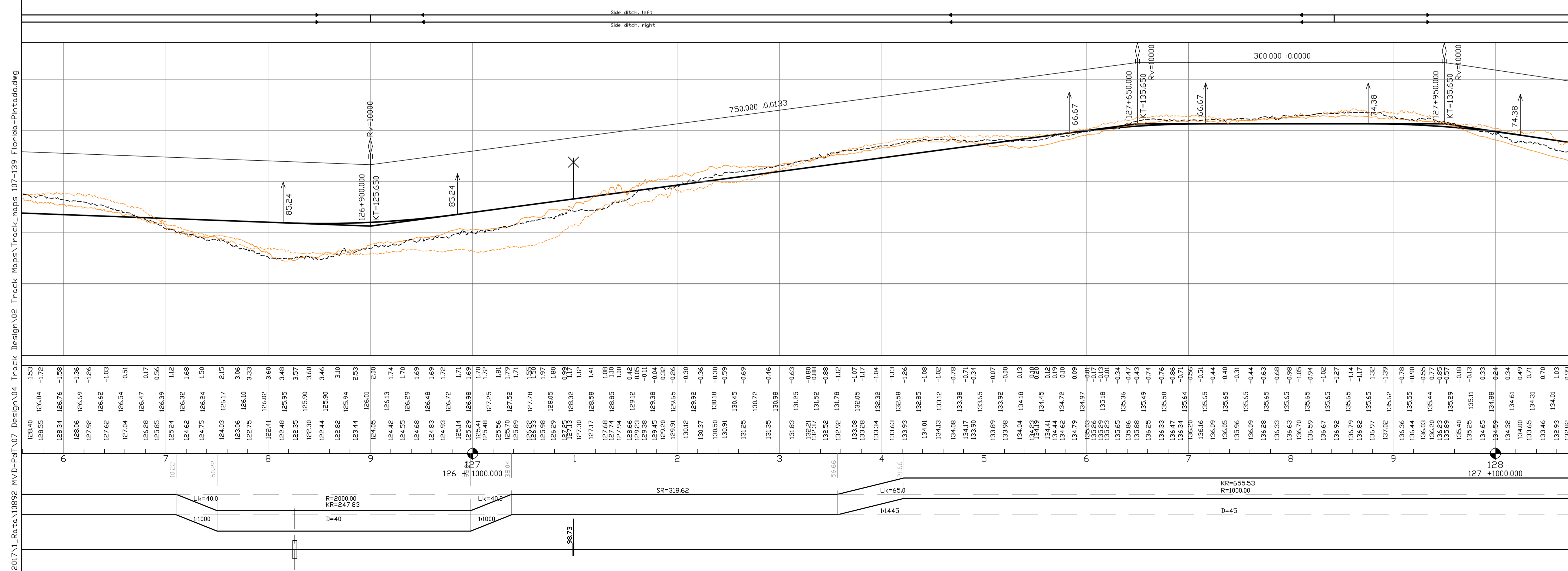
Revision	Explanation	Date	Designer	Date	Acceptor

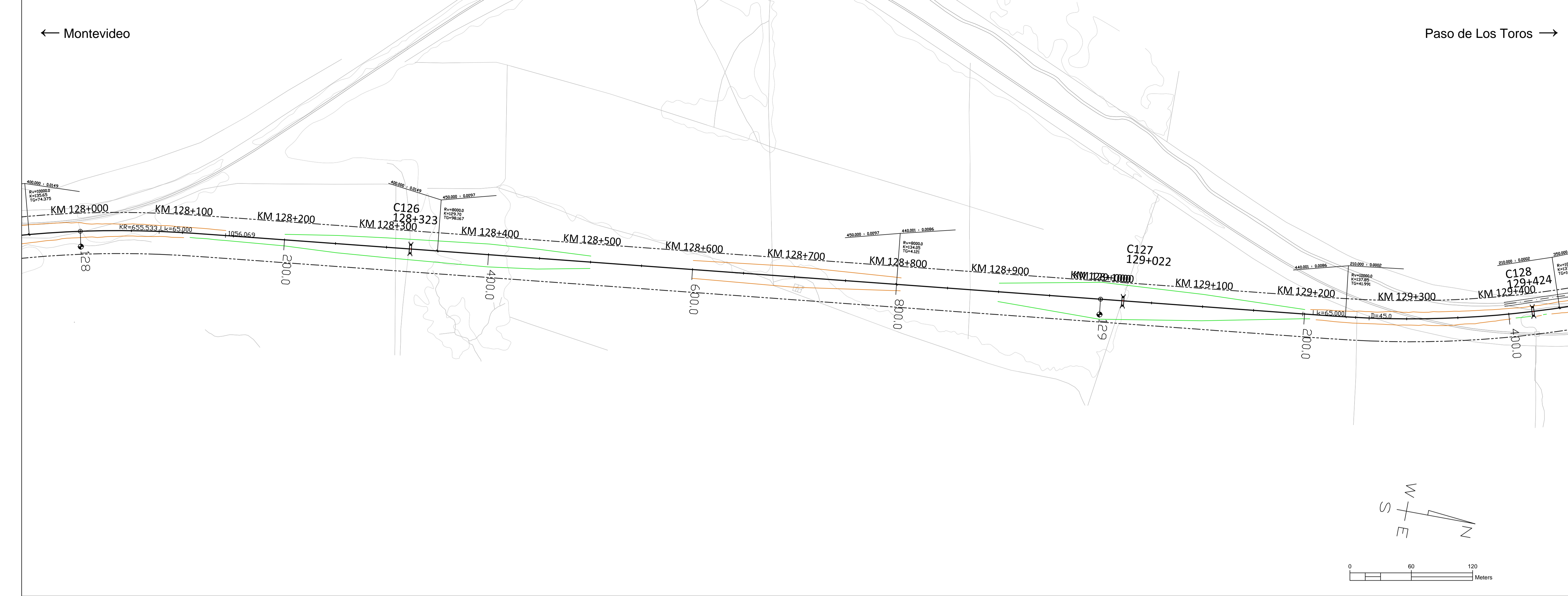
<b>MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS</b>		<b>Railway Project</b>	
<b>Pre-engineering, Phase 2</b>		<b>Track map and profile</b>	
<b>Km 125+0200 - 126+0600</b>		<b>Supplier</b> 	

Drawer: 15.12.2017 Designer: 15.12.2017 Supervisor: 15.12.2017 Accept: Owner acc:	UPA HMa / MLe SVI	Scale: map 1:2000, profile 1:2000 / 1:200 Coordinate system: WGS 84 UTM 21 S, Local orthometric height Elevation reference system: Railway line: Montevideo - Paso de Los Toros
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Archive	Type	Number	Rev.	Sheet	Sheets total
				90	195

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### LEGEND, MAP

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### Symbols

- BXXX BXXX: Railway bridge or underpass, Flyover
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### Track alignment with design geometry figures

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### Disturbed Sample

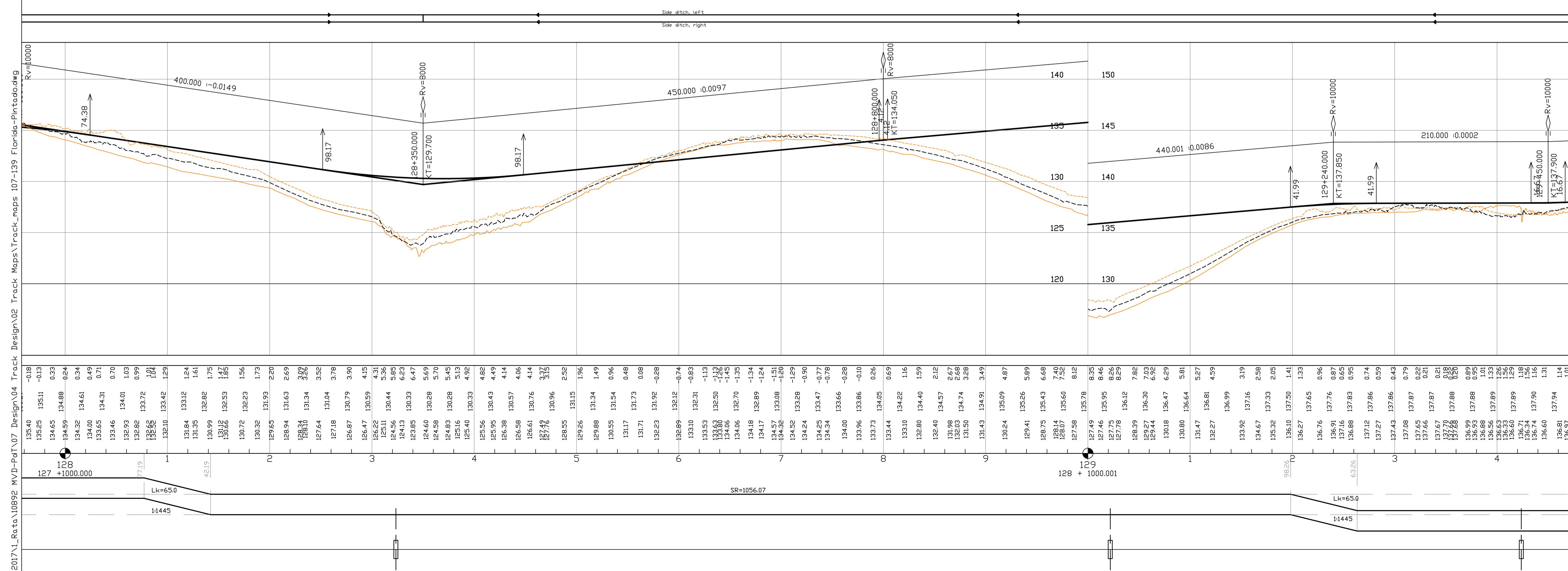
- y. 2017= year of investigation
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### LEGEND, PROFILE

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### Horizontal alignment, schematic

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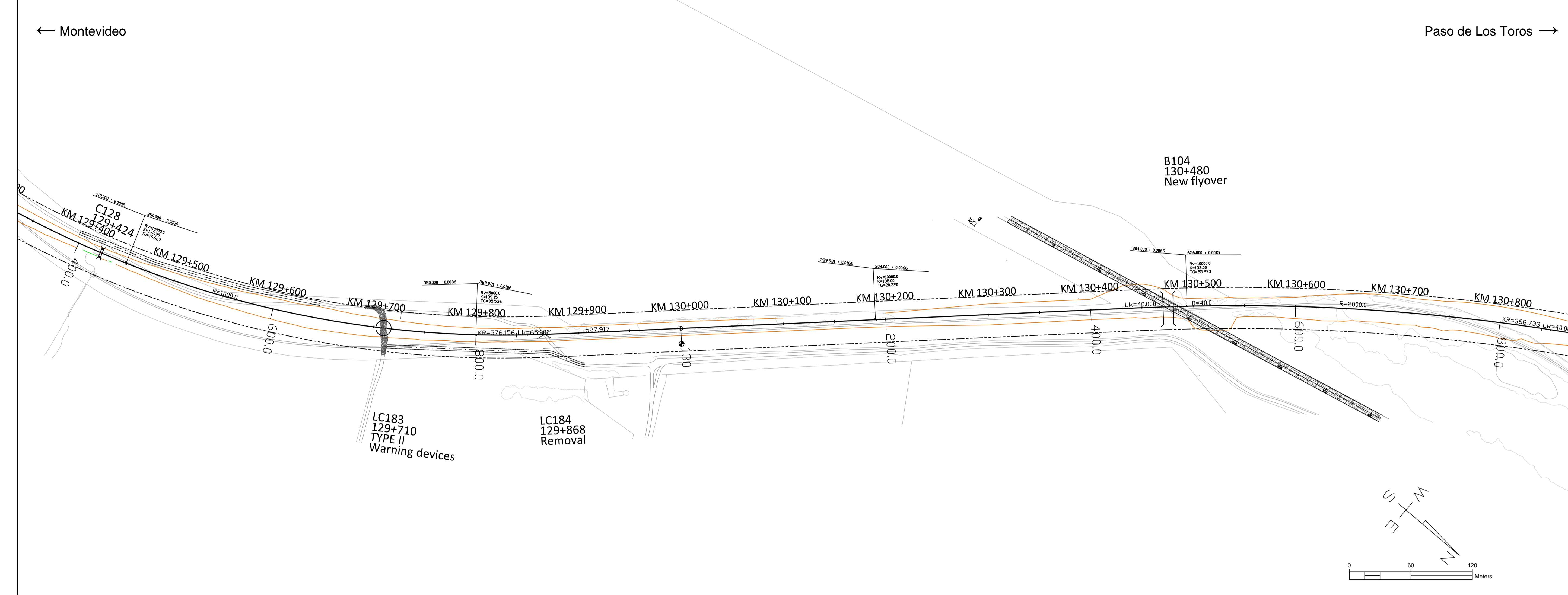
### Version 15.12.2017

Revision	Explanation	Date	Designer	Date	Acceptor
1					

Customer	MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS	Project	Railway Project
Supplier	VR TRACK	Design phase	Pre-engineering, Phase 2
Content	Track map and profile	Content	Km 128+0000 - 129+0400

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	Elevation reference system	
Accept.			Railway line	Montevideo - Paso de Los Toros
Owner acc.			Archive	Type Number Rev. Sheet Sheets total





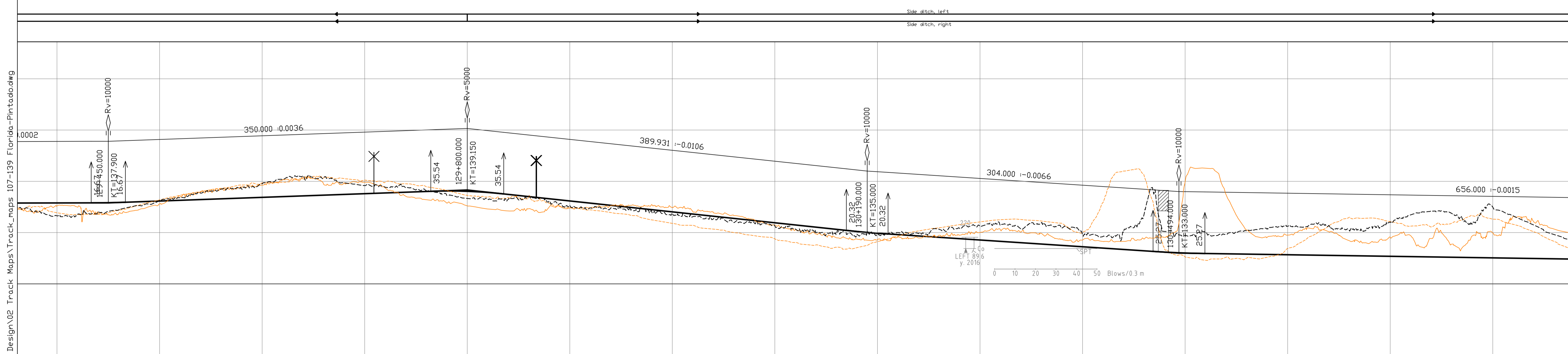
### LEGEND, MAP

- New railway alignment
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- 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)  
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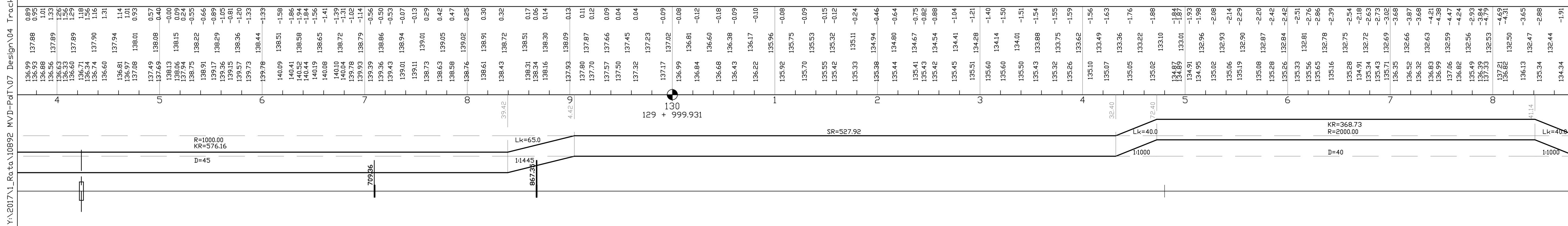


### LEGEND, PROFILE

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SR= length of straight line (m)  
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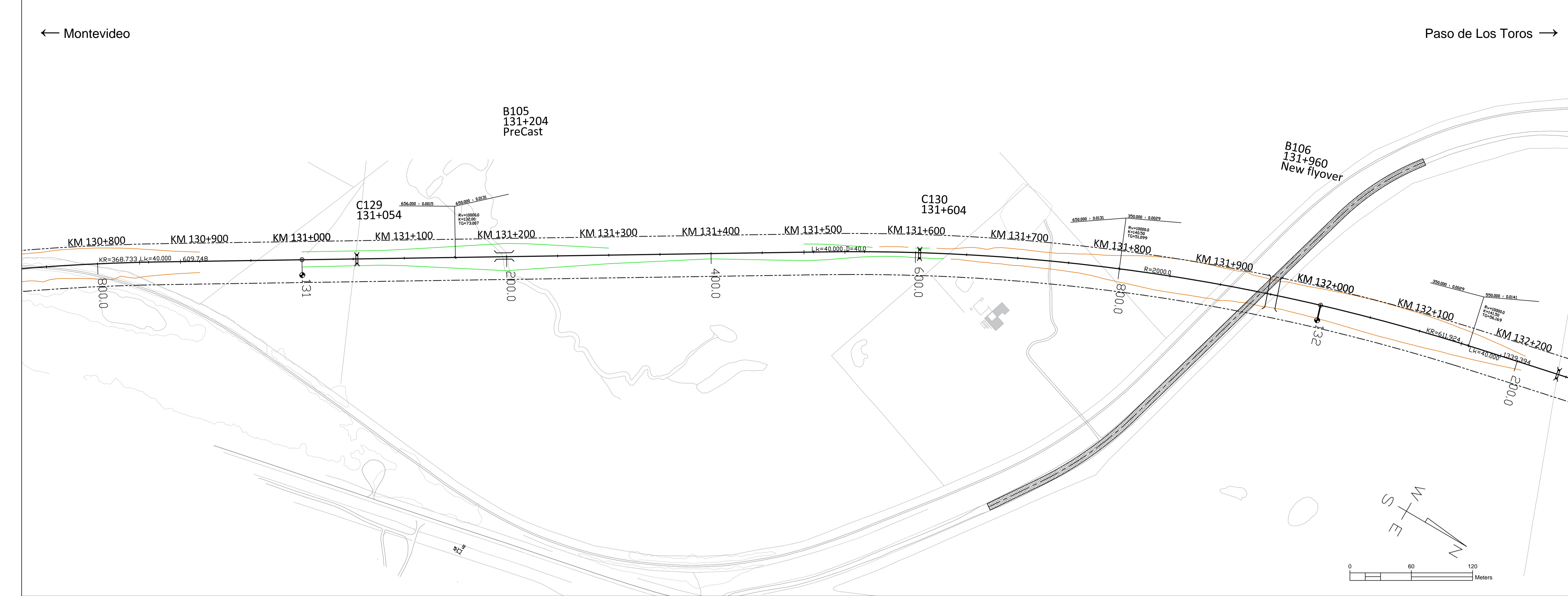
**Version 15.12.2017**

Revision	Explanation	Date	Designer	Date	Accepter
1					

**MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS**  
**VR TRACK**

Customer	Railway Project
Design phase	Pre-engineering, Phase 2
Content	Track map and profile
Supplier	Km 129+0400 - 130+0800

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.				93 195



### LEGEND, MAP

- New railway alignment
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- CXXX: Culvert
- LCXXX: Level crossing

### Track alignment with design geometry figures

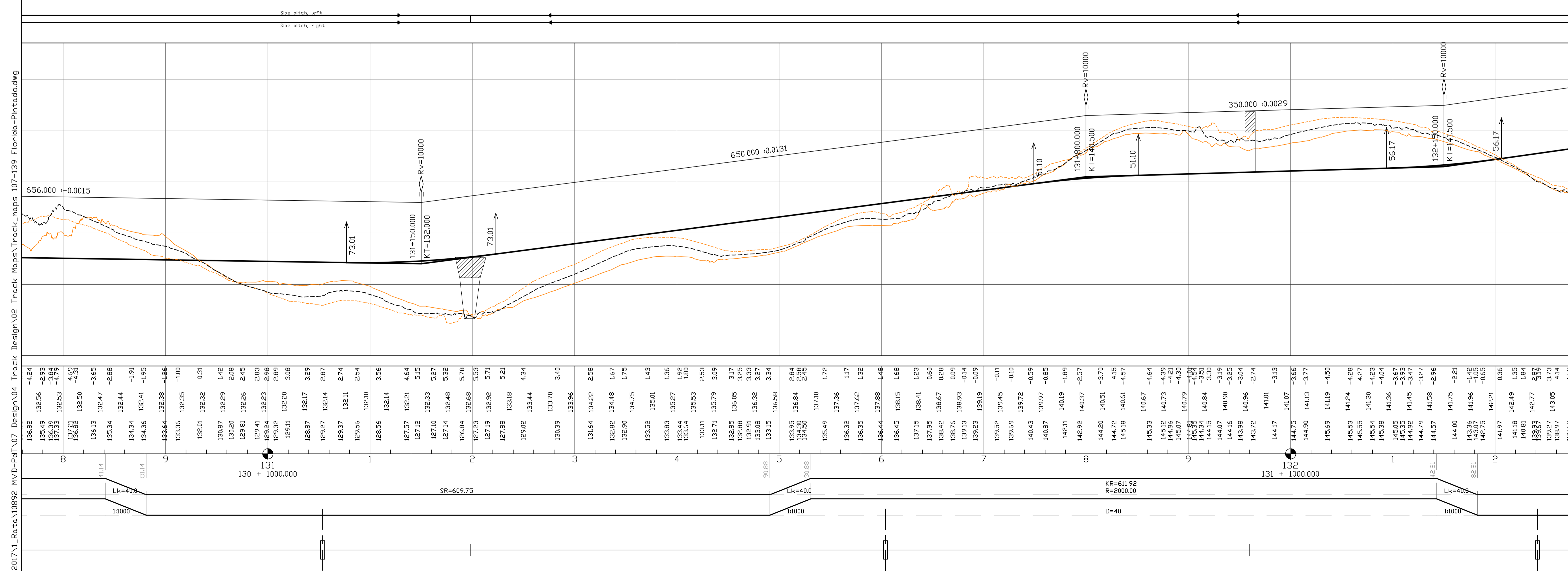
- R= curve radius (m)
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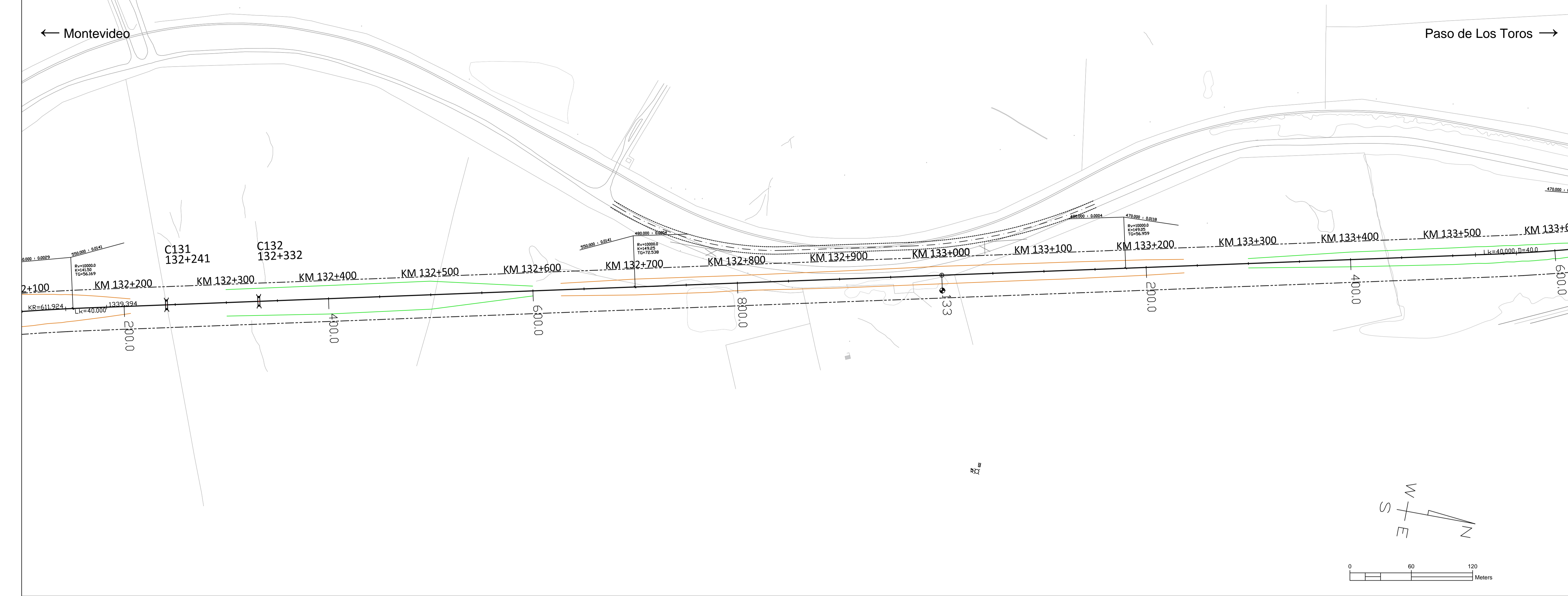
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### Version 15.12.2017

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	Scale	Km 130+0800 - 132+0200
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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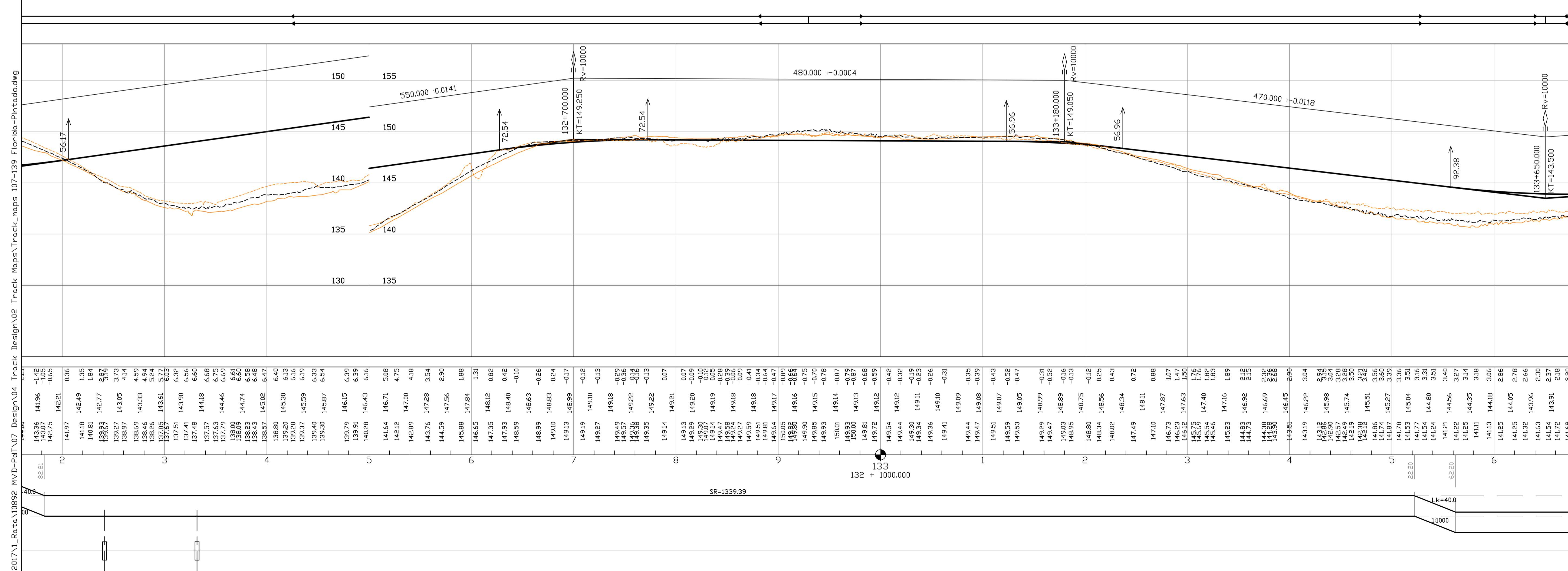
- y. 2017: year of investigation
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- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)

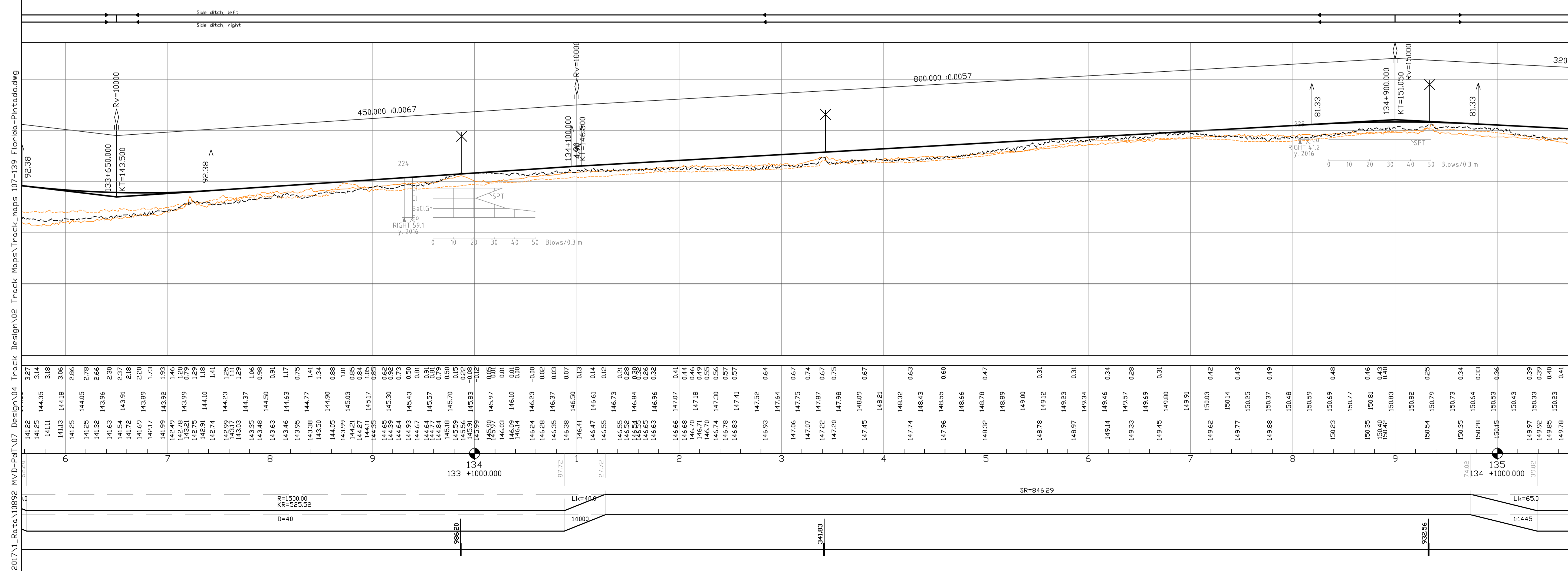
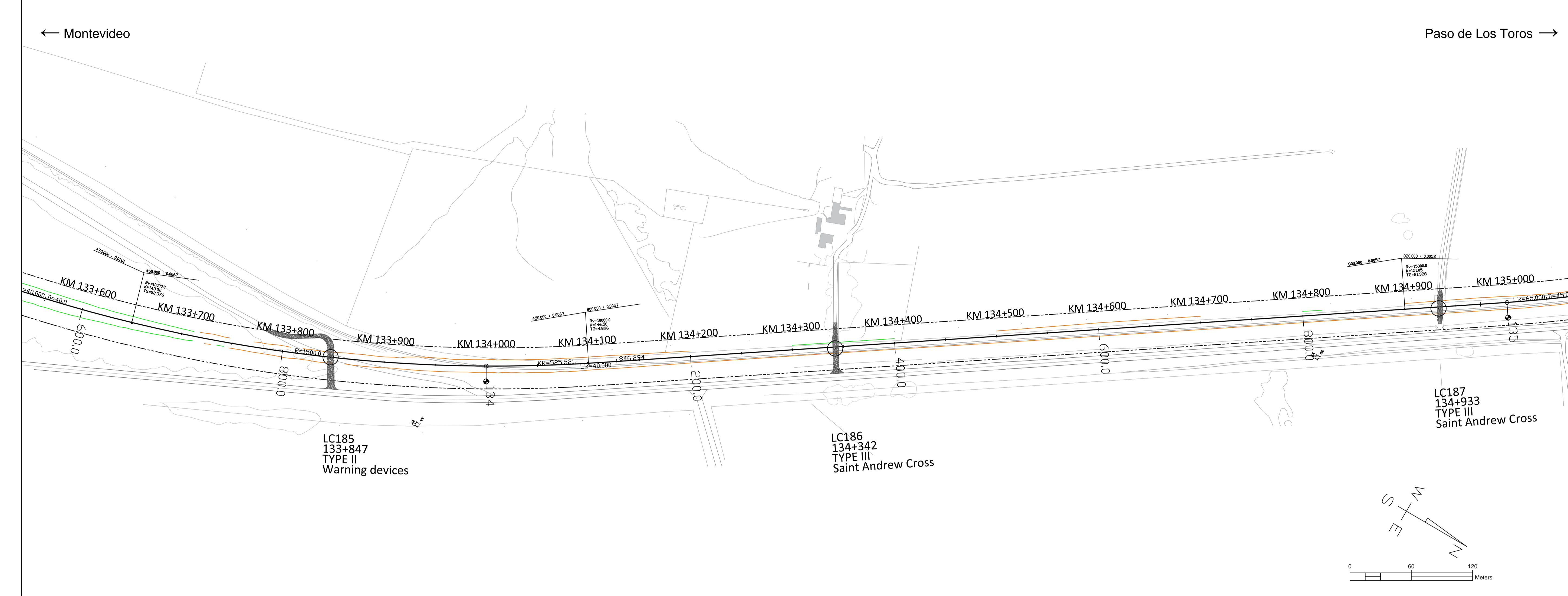


**Version 15.12.2017**

Revision	Explanation	Date	Designer	Date	Acceptor
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 132+0200 - 133+0600

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.			Railway line	Montevideo - Paso de Los Toros
Owner acc.			Archive	Type Number Rev. Sheet Sheets total
				95 195



**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
- 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
  - 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

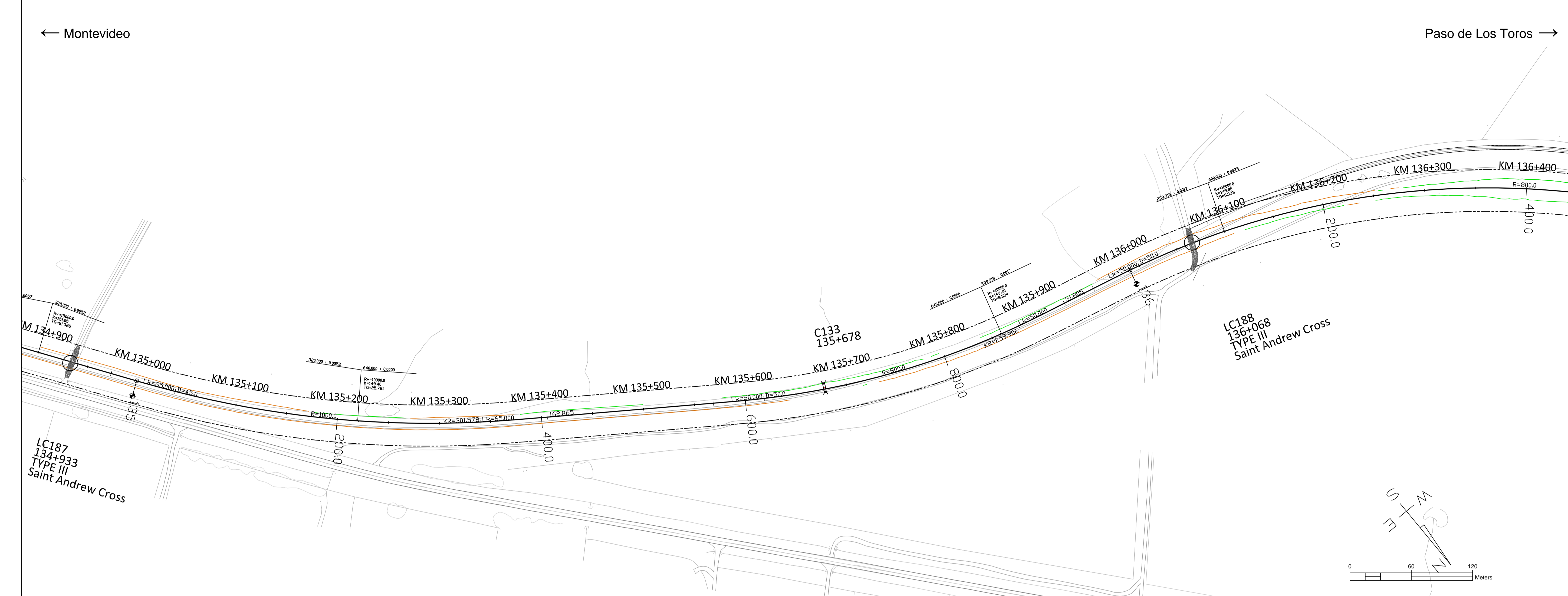
**Content**  
 Track map and profile

**Supplier**  
**VR TRACK**

**Content**  
 Km 133+0600 - 135+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	Elevation reference system	Railway line
Accept.			Railway line	Montevideo - Paso de Los Toros
Owner acc.			Archive	Type Number Rev. Sheet Sheets total

96 / 195



### LEGEND, MAP

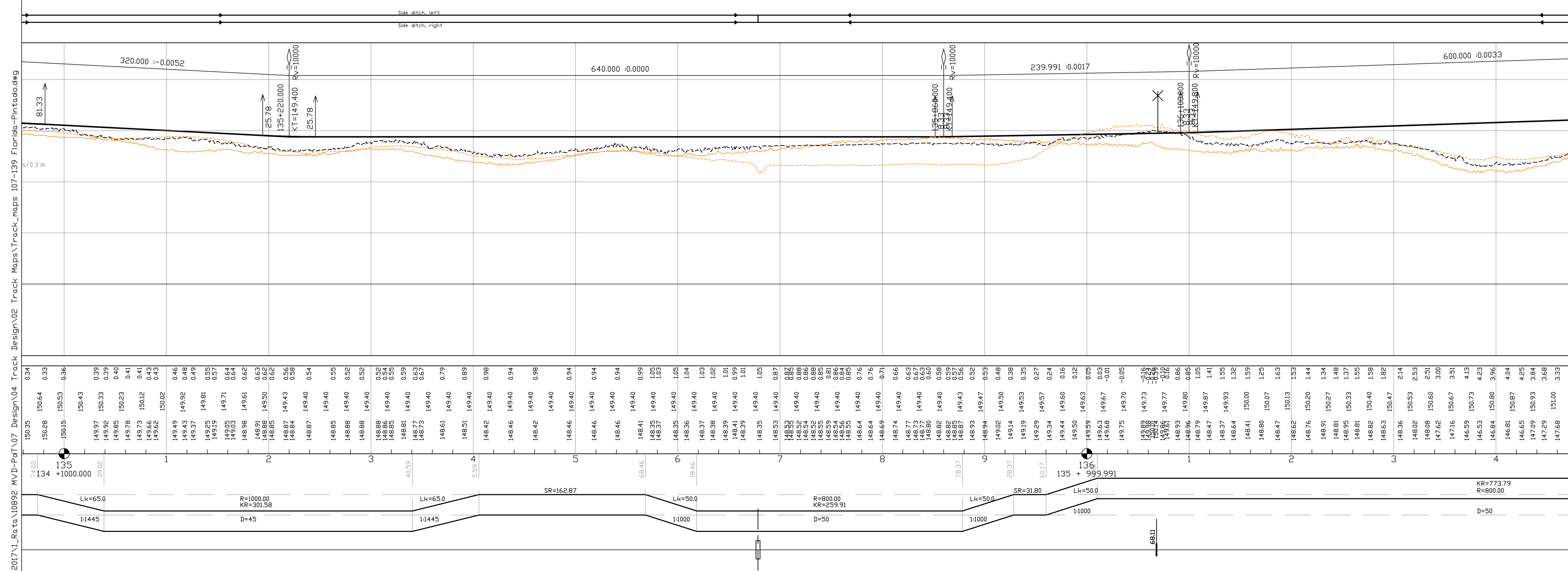
- New railway alignment
- Existing railway alignment (not in the Railway Project scope)
- Railway Area borderline
- Secondary Side Tracks - Horizontal geometry pre-designed (Secondary side tracks and their switches will be designed and constructed based on Appendix Q)
- Removal track
- Street or road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

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  
 y. 2017= year of investigation  
 TR02= point number



### LEGEND, PROFILE

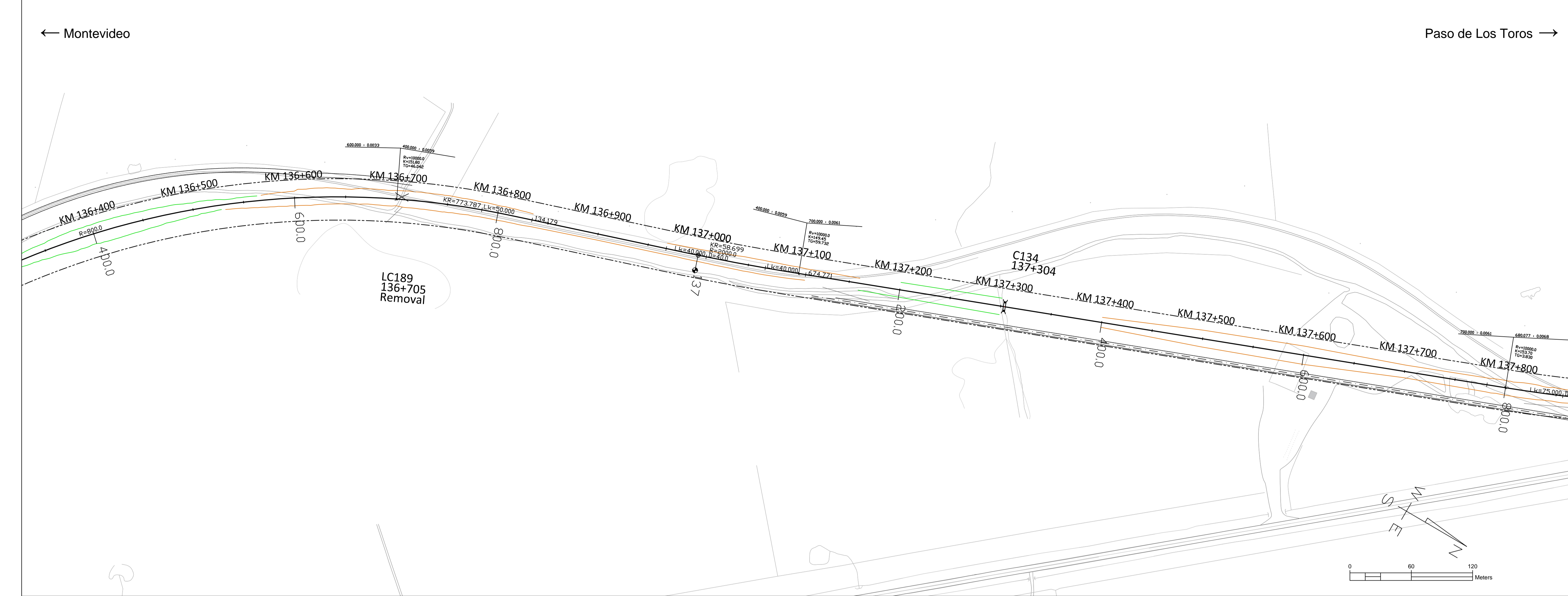
- Vertical railway alignment (S=radius of vertical curve, KT=elevation point)
- Ground surface
- Ground elevation on the left side of track centre line (-20m) and on the right side of track centre line (+20m)
- Culvert location (elevation will be designed in detailed design phase)
- Level crossing
- 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)

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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	Km 135+0000 - 136+0400				
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	Elevation reference system	Railway line	
Accept.			Railway line	Montevideo - Paso de Los Toros	
Owner acc.			Archive	Type	Number
			Rev.	Sheet	Sheets total
				97	195

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### LEGEND, MAP

- New railway alignment
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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

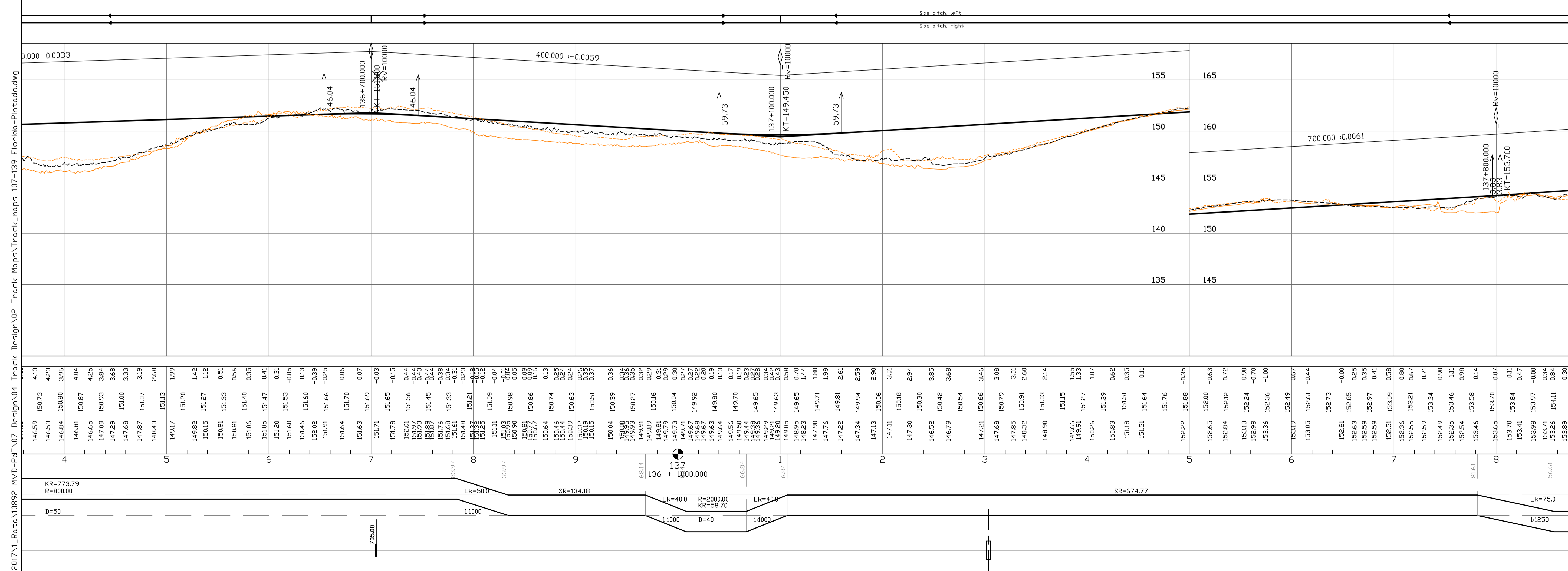
- BXXX BXXX: Railway bridge or underpass, Flyover
- CXXX: Culvert
- LCXXX: Level crossing

### 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

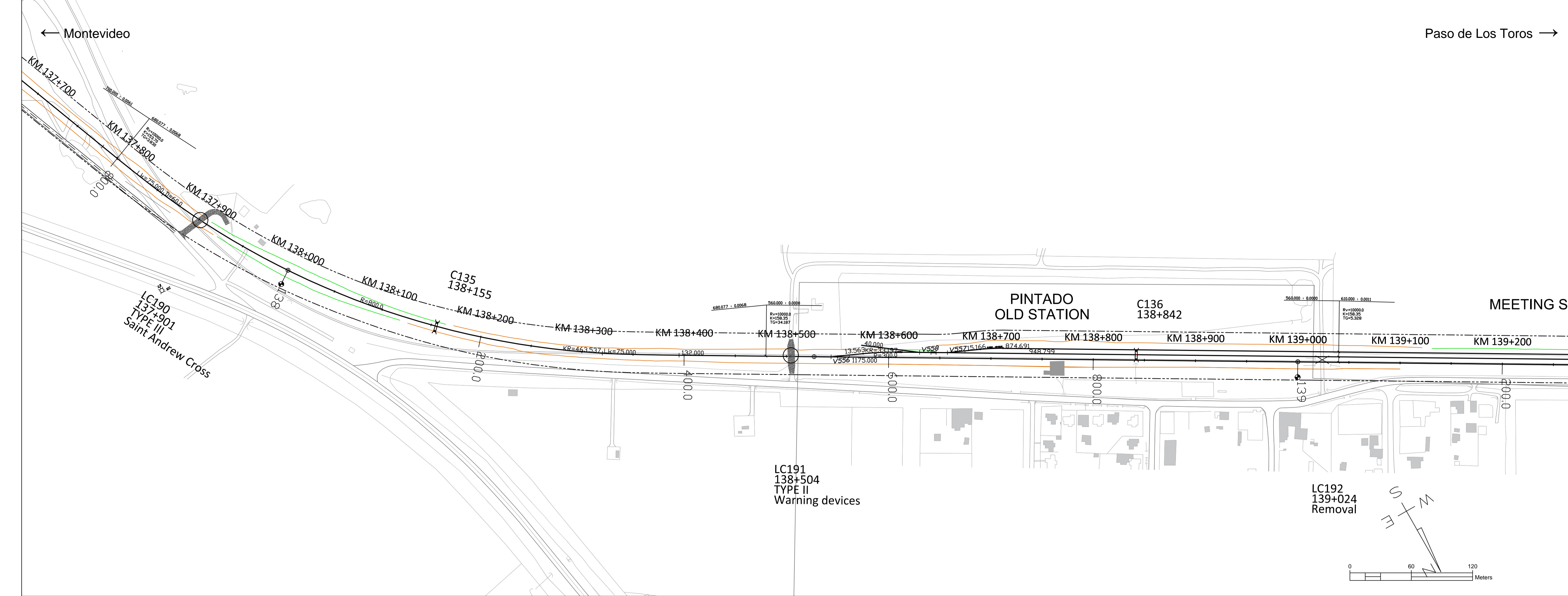
- Vertical railway alignment (S=radius of vertical curve, KT=elevation point)
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- Designed track elevation (the running surface of the rail)
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- Horizontal alignment, schematic
- SR= length of straight line (m)
- R= curve radius (m)
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- 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	Contract	Km 136+0400 - 137+0800

Drawer	Designer	Supervisor	Accept.	Owner acc.	Date	UPa	HM/MLe	SVI	Scale	Coordinate system	Elevation reference system	Railway line	Archive	Type	Number	Rev.	Sheet	Sheets total	
	15.12.2017	15.12.2017	15.12.2017						map 1:2000, profile 1:2000 / 1:200	WGS 84 UTM 21 S, Local orthometric height		Montevideo - Paso de Los Toros						98	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

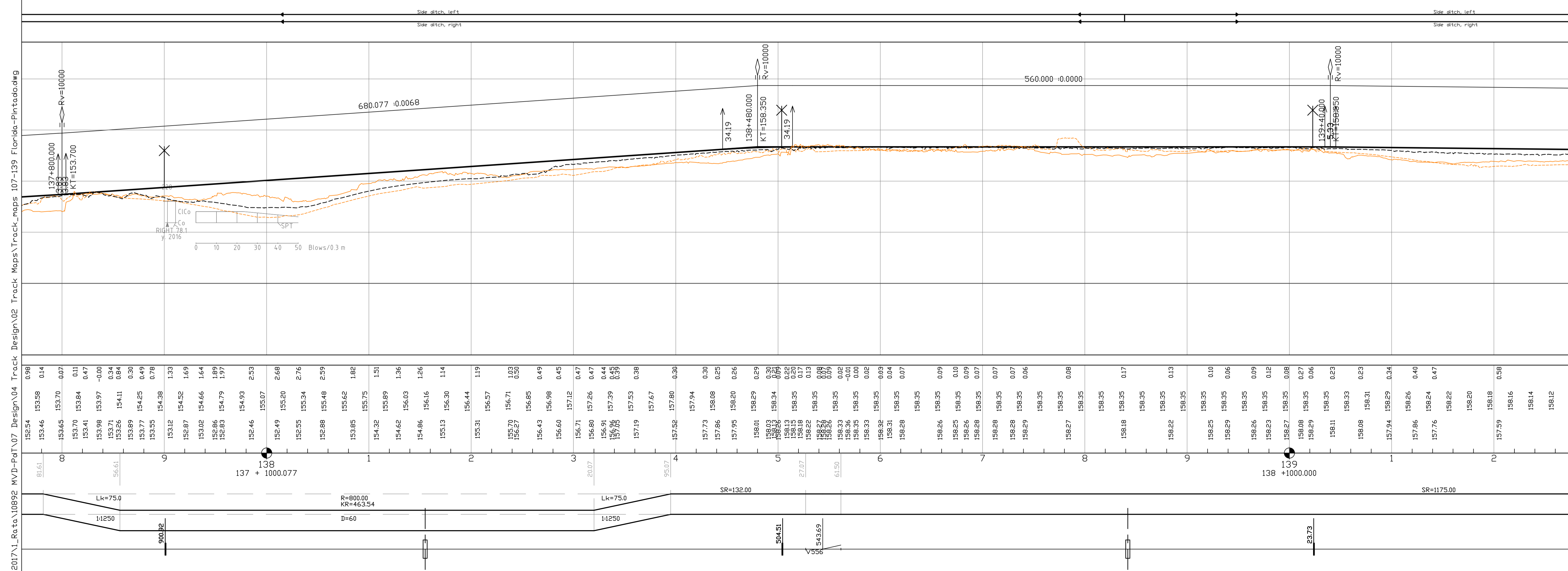
- BXXX BXXX: Railway bridge or underpass, Flyover
- CXXX: Culvert
- LCXXX: Level crossing

### 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)
- K= elevation
- RV= radius of vertical curve
- 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
- y. 2017: Disturbed Sample
- TR02= year of investigation point number



### LEGEND, PROFILE

- Vertical railway alignment (S=radius of vertical curve, KT=elevation point)
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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	Railway Project				
Design phase	Pre-engineering, Phase 2				
Content	Track map and profile				
Supplier					
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	Elevation reference system	Railway line	
Accept.			Railway line	Montevideo - Paso de Los Toros	
Owner acc.			Archive	Type	Number
			Rev.	Sheet	Sheets total
				99	195