

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

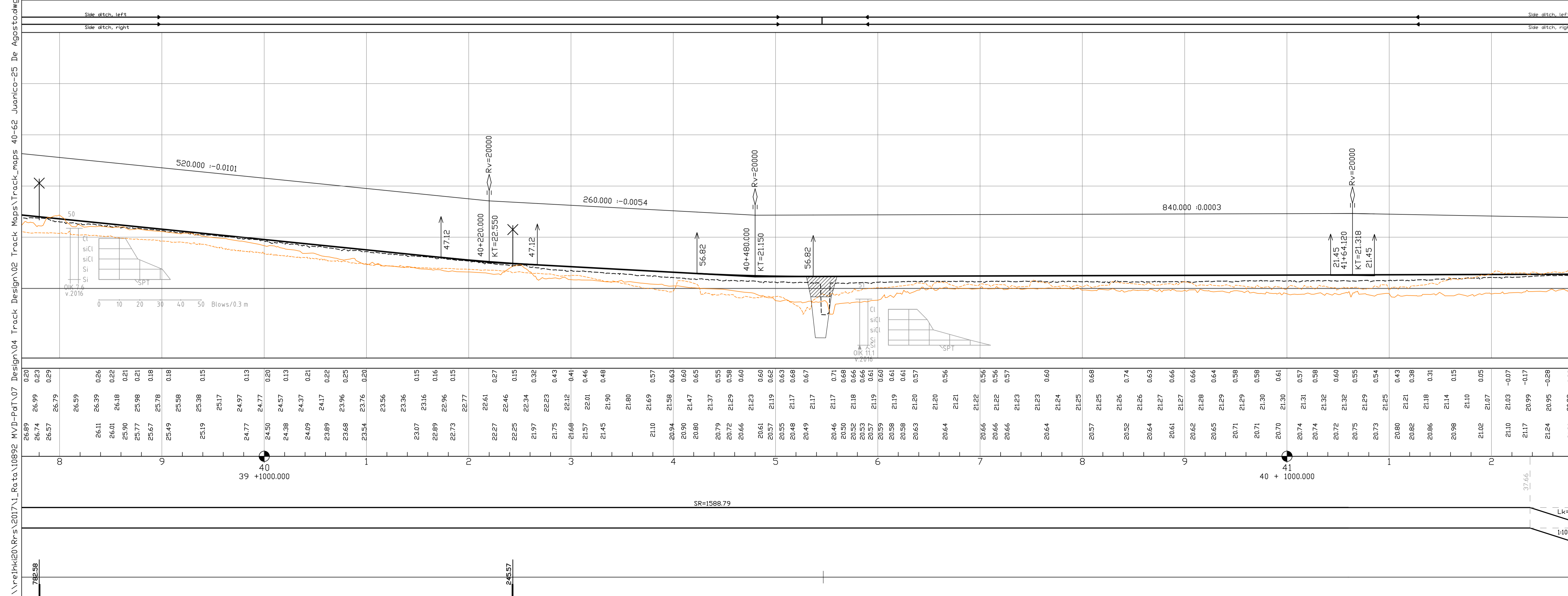
- BXXX BXXX: Railway bridge or underpass, Flyover
- CXXX: Culvert
- LCXXX: Level crossing

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
- 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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- 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

- SR= length of straight line (m)
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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

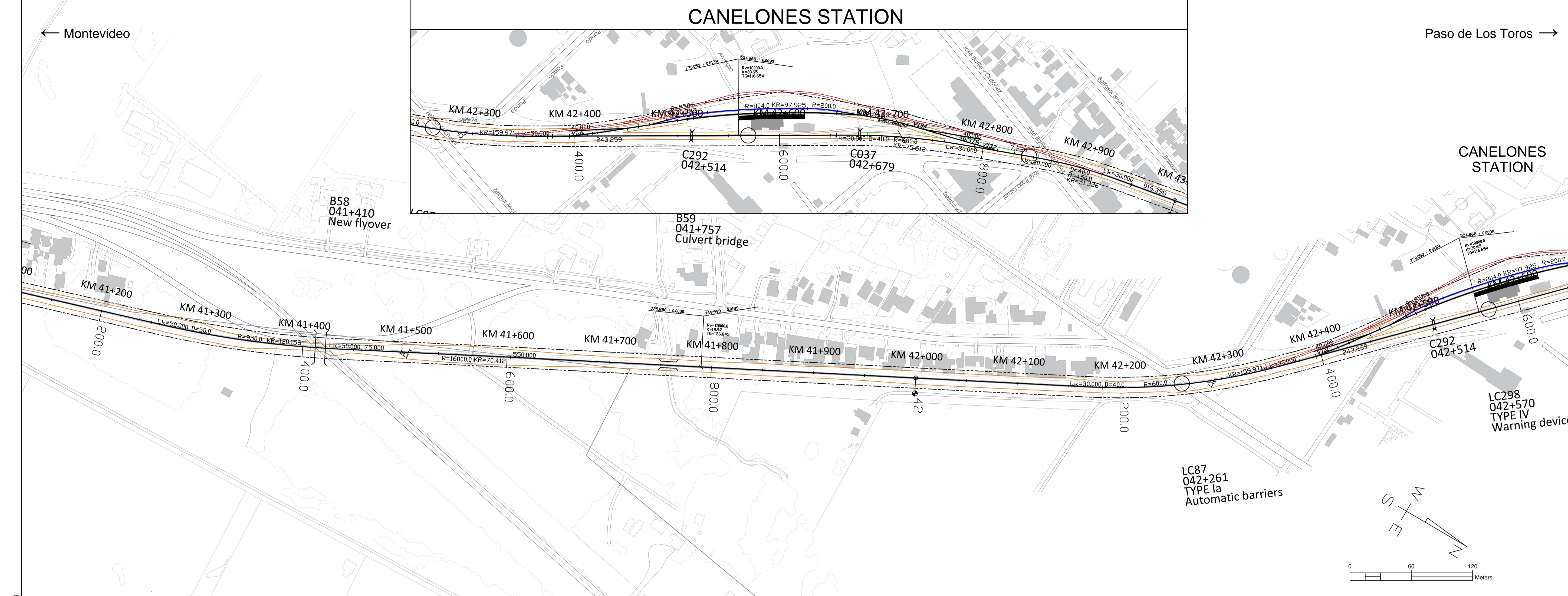
Content
 Km 39+0800 - 41+0200

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.	Archive	Type	Number	Rev.	Sheet	Sheets total
					29	195



LEGEND, MAP

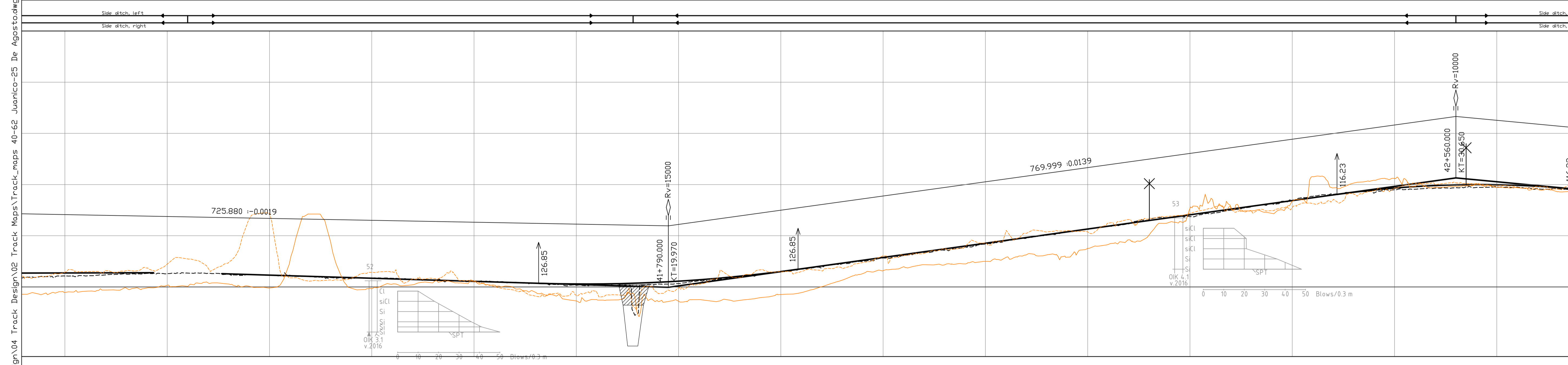
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- 1, 217= point number
- y. 2017
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- Km stationing
- 0 +1000.000

Horizontal alignment, schematic

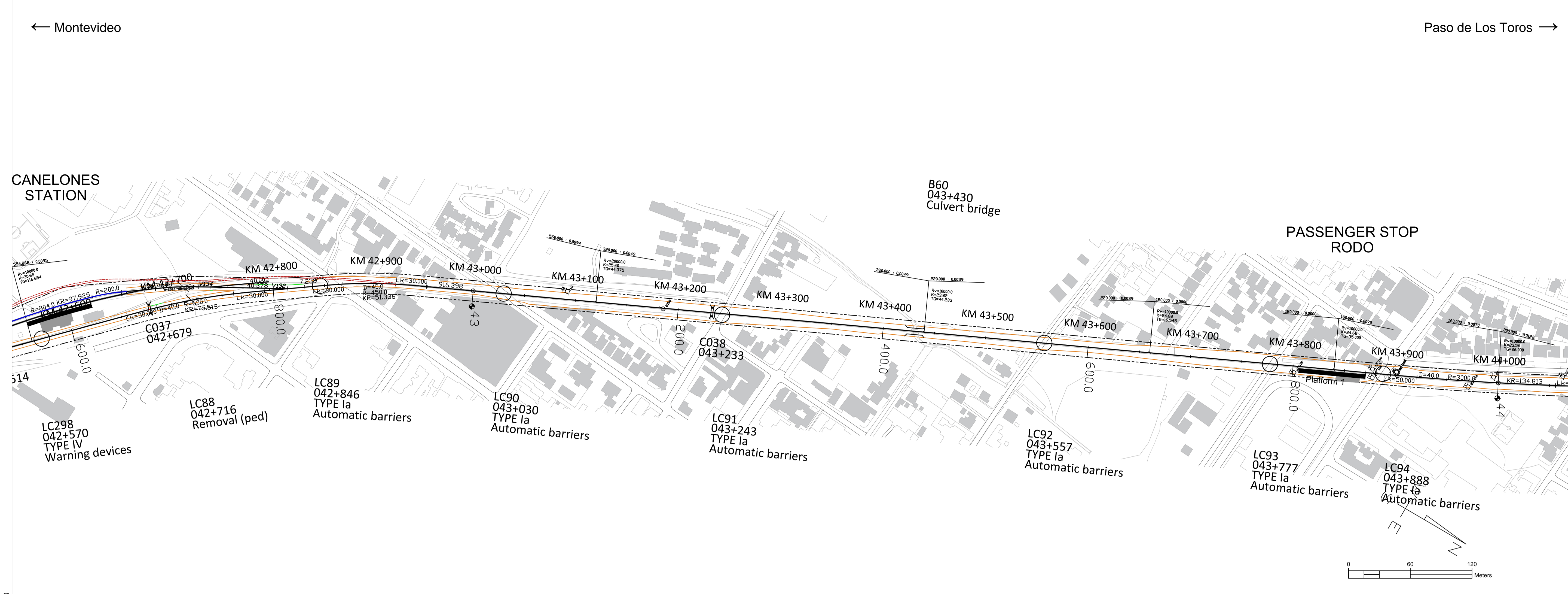
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Version 15.12.2017

Revision	Explanation	Date	Designer	Date	Acceptor
Customer	Railway Project				
Design phase	Pre-engineering, Phase 2				
Content	Track map and profile				
Supplier	Km 41+0200 - 42+0600				
Drawer	15.12.2017	UPa	Scale	map 1:2000, profile 1:2000 / 1:200	
Designer	15.12.2017	HM/a / MLe	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
Owner acc.				Number	Rev. Sheet Sheets total

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Symbols

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

Track alignment with design geometry figures

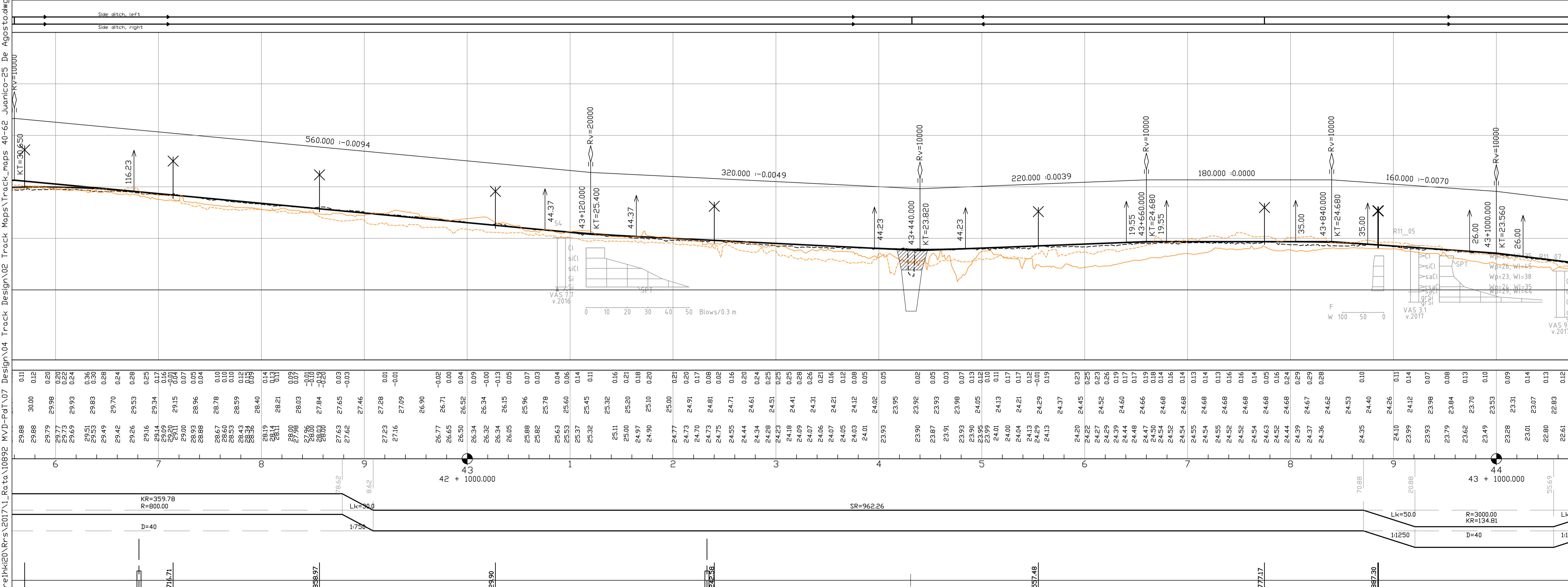
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Disturbed Sample

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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

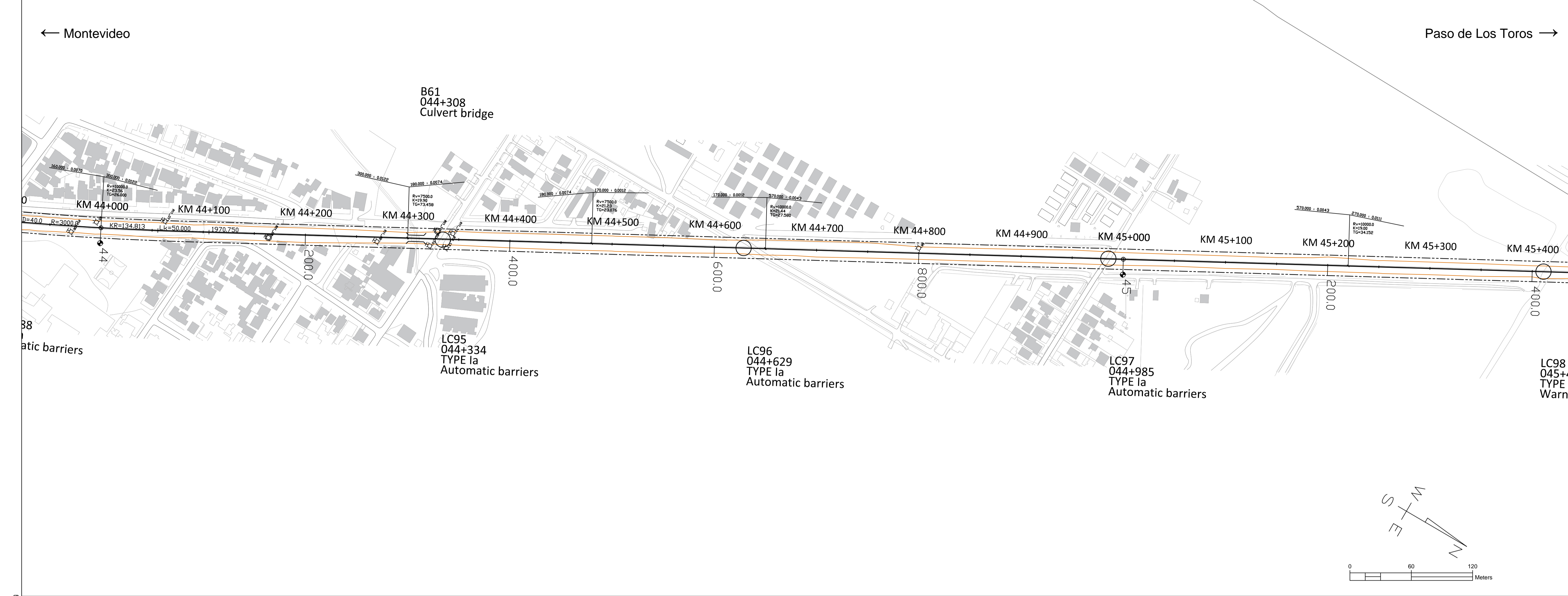
Supplier

VR TRACK

Project

Km 42+0600 - 44+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.			Montevideo - Paso de Los Toros	Archive Type Number Rev. Sheet Sheets total
Owner acc.				31 195



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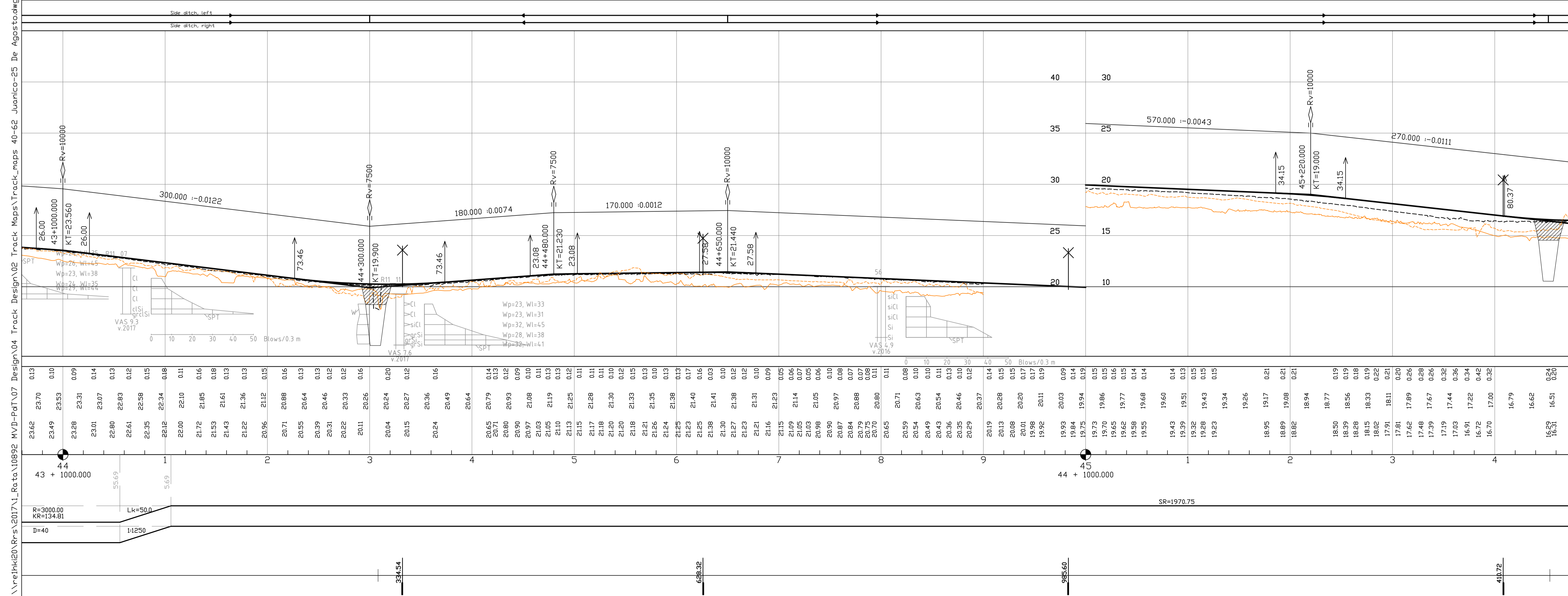
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Version 15.12.2017

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	Content	Km 44+0000 - 45+0400
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	
Owner acc.		Archive	Type Number Rev. Sheet Sheets total

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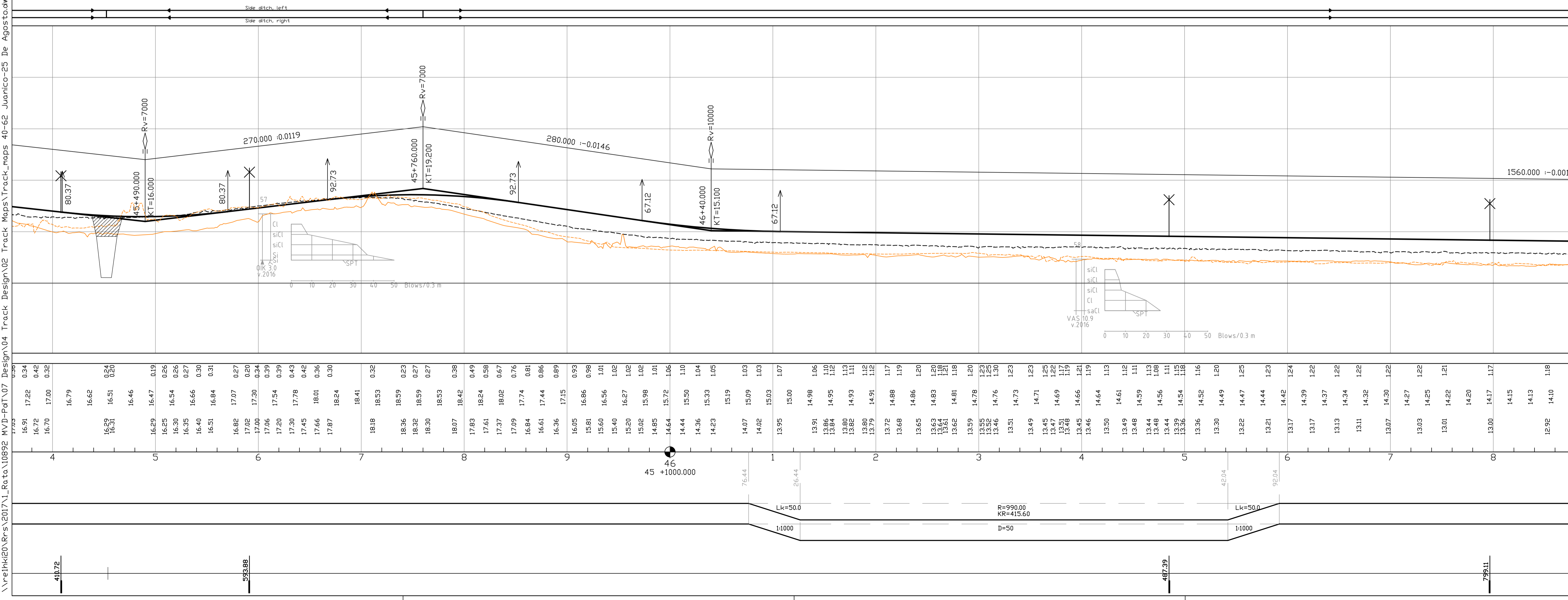
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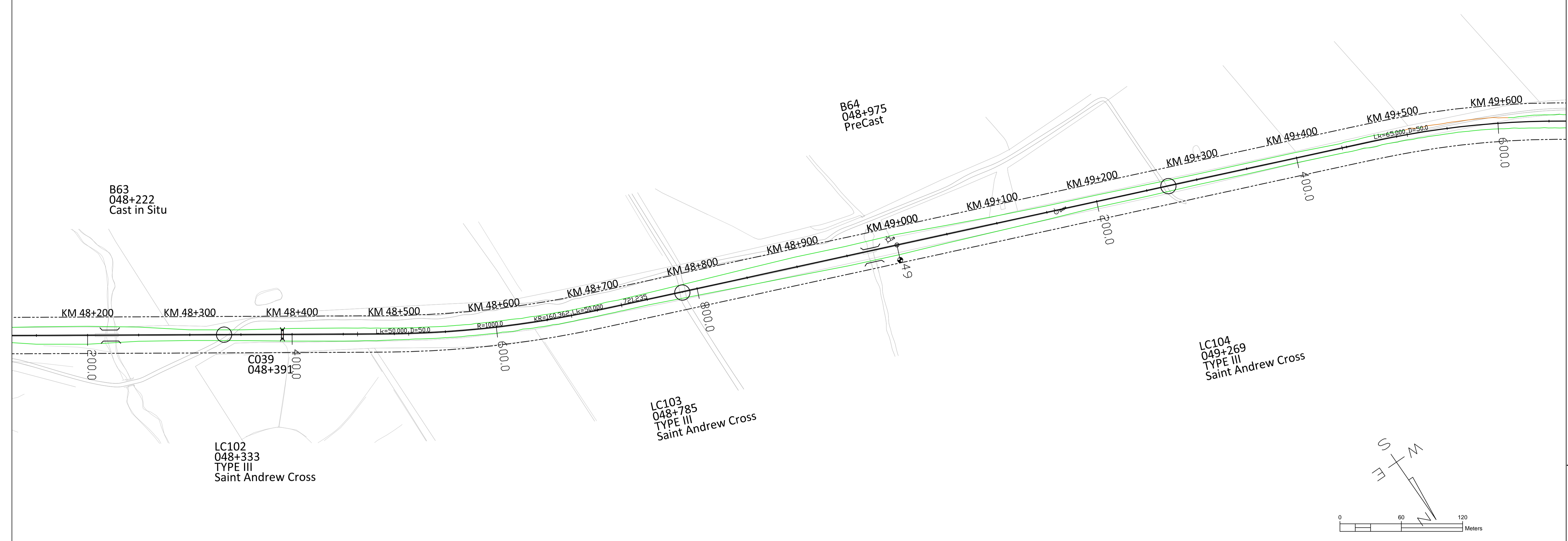
Version 15.12.2017

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	Content	Km 45+0400 - 46+0800
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.		Archive	Montevideo - Paso de Los Toros
Owner acc.		Type	Number
		Rev.	Sheet
		Number	Total
			33 / 195

← Montevideo

Paso de Los Toros →



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- Culvert
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Track alignment with design geometry figures

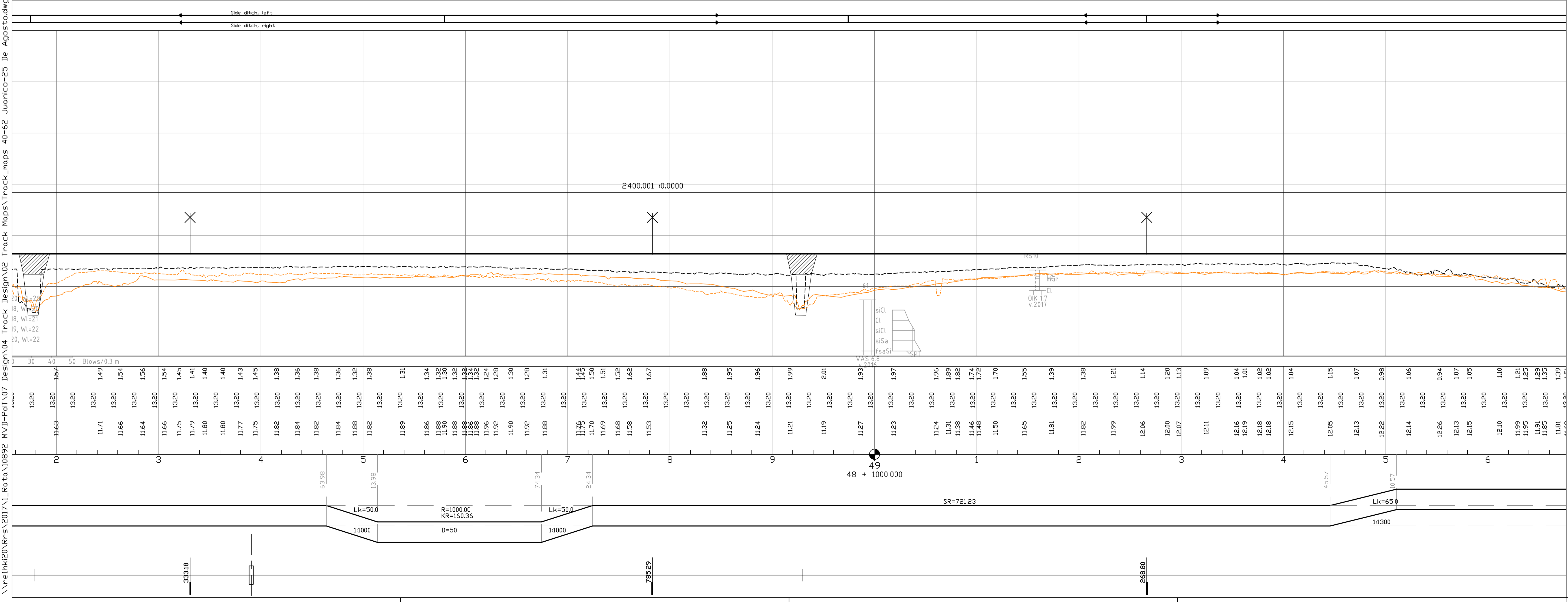
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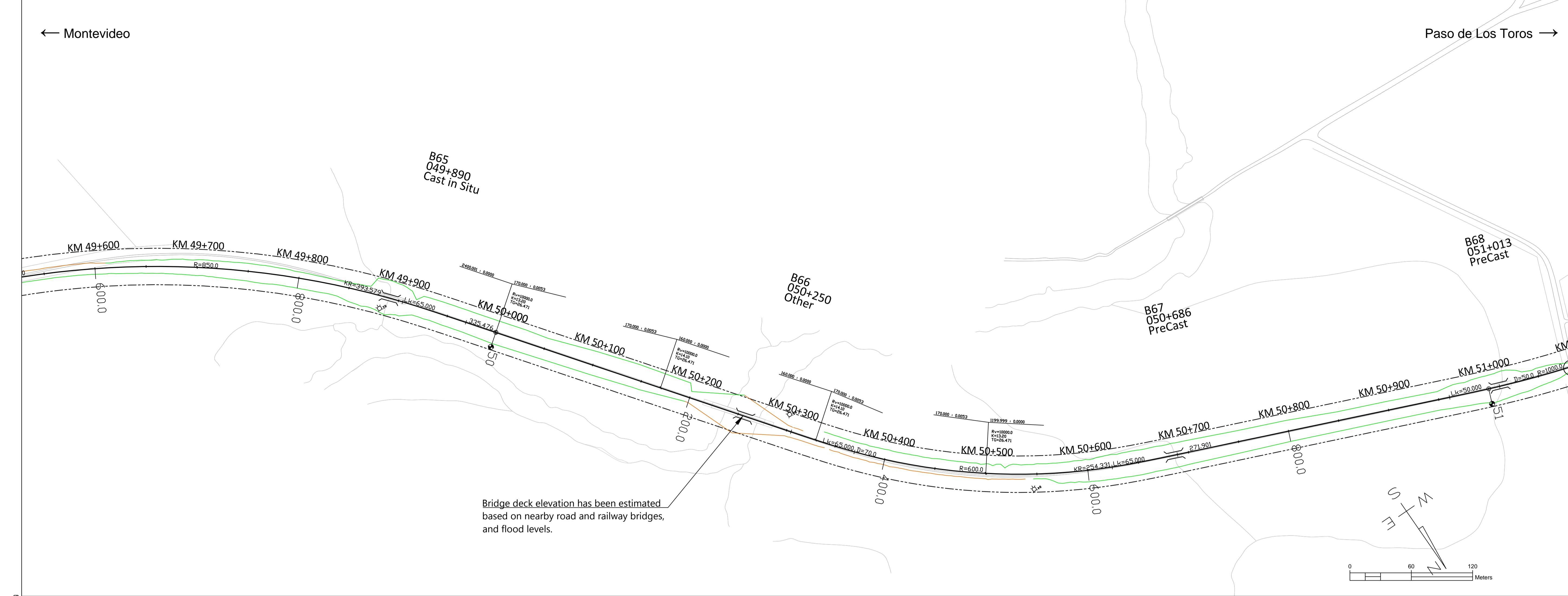
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Revision	Explanation	Date	Designer	Date	Acceptor
Customer	Railway Project				
Supplier	MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS				
Drawer	15.12.2017	UPa	Scale map 1:2000, profile 1:2000 / 1:200		
Designer	15.12.2017	HMa / MLo	Coordinate system WGS 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		
					35 195

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Bridge deck elevation has been estimated based on nearby road and railway bridges, and flood levels.

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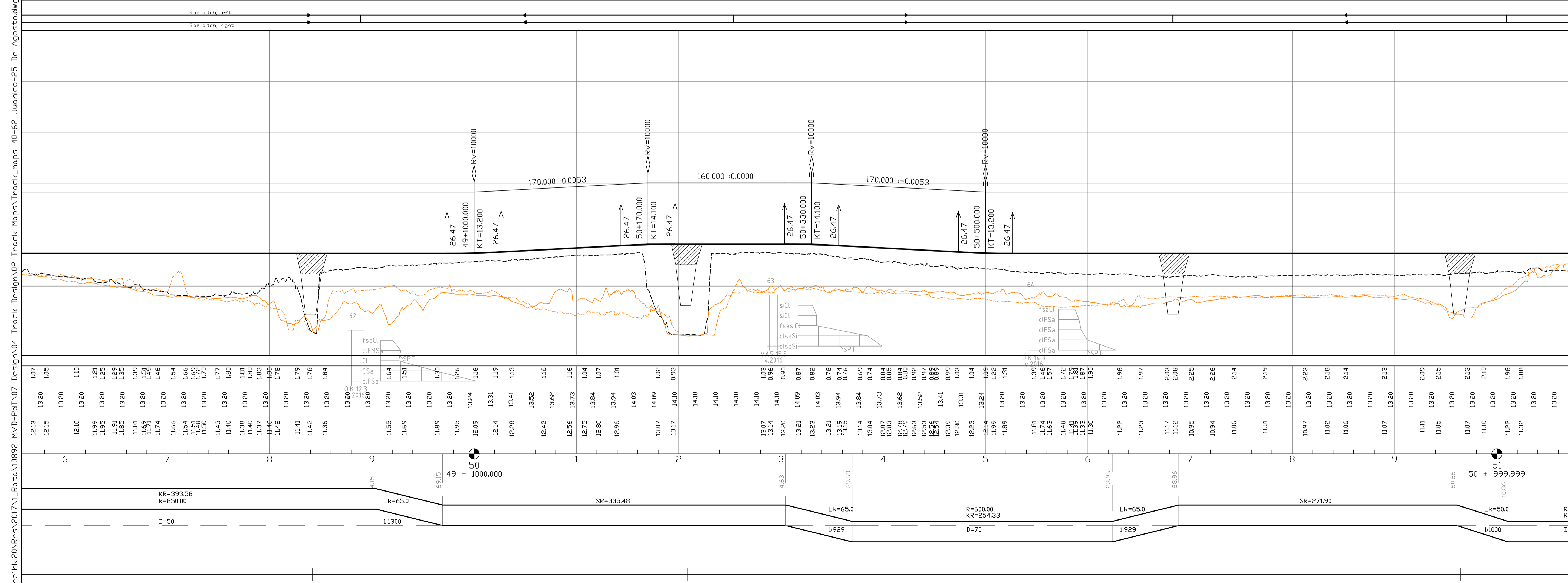
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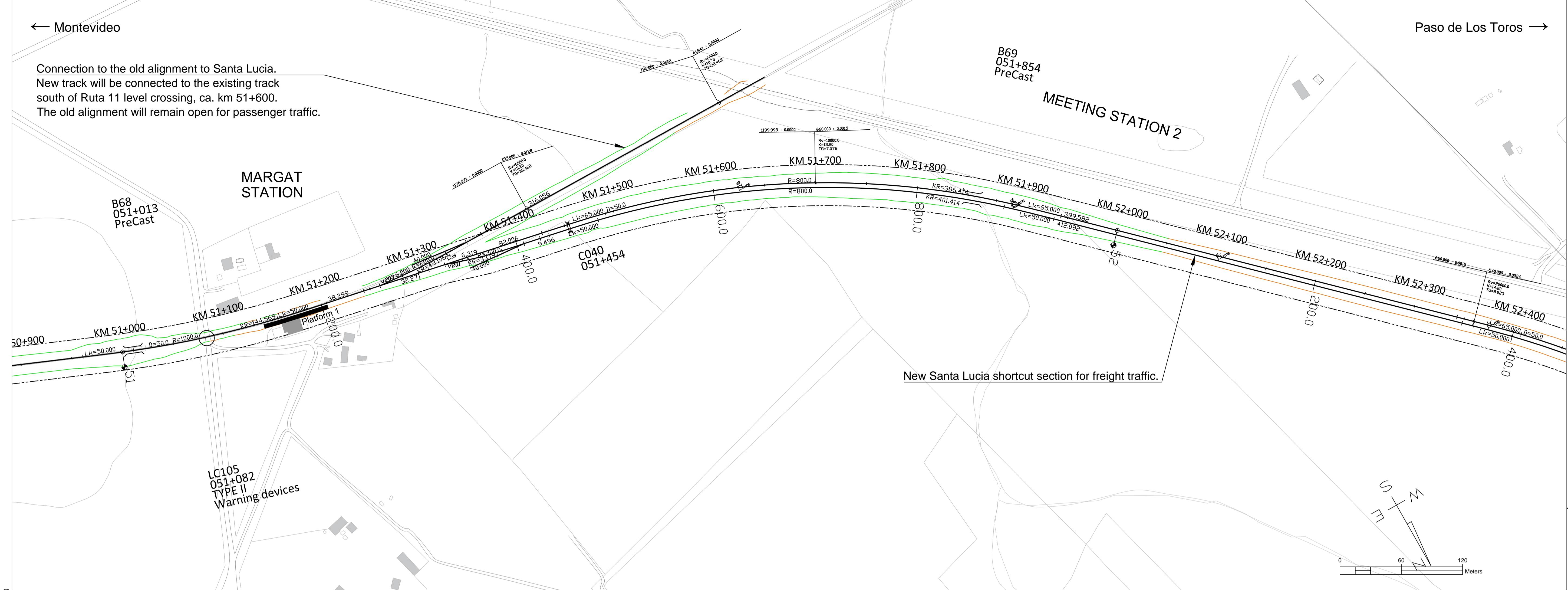
Customer	MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS	Project	Railway Project
Design phase	Pre-engineering, Phase 2	Content	Track map and profile
Supplier	VR TRACK	Scale	map 1:2000, profile 1:2000 / 1:200
Drawer	15.12.2017 UPa	Coordinate system	WGS 84 UTM 21 S, Local orthometric height
Designer	15.12.2017 HMa / MLe	Elevation reference system	
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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← Montevideo

Paso de Los Toros →

Connection to the old alignment to Santa Lucia.
New track will be connected to the existing track south of Ruta 11 level crossing, ca. km 51+600.
The old alignment will remain open for passenger traffic.



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

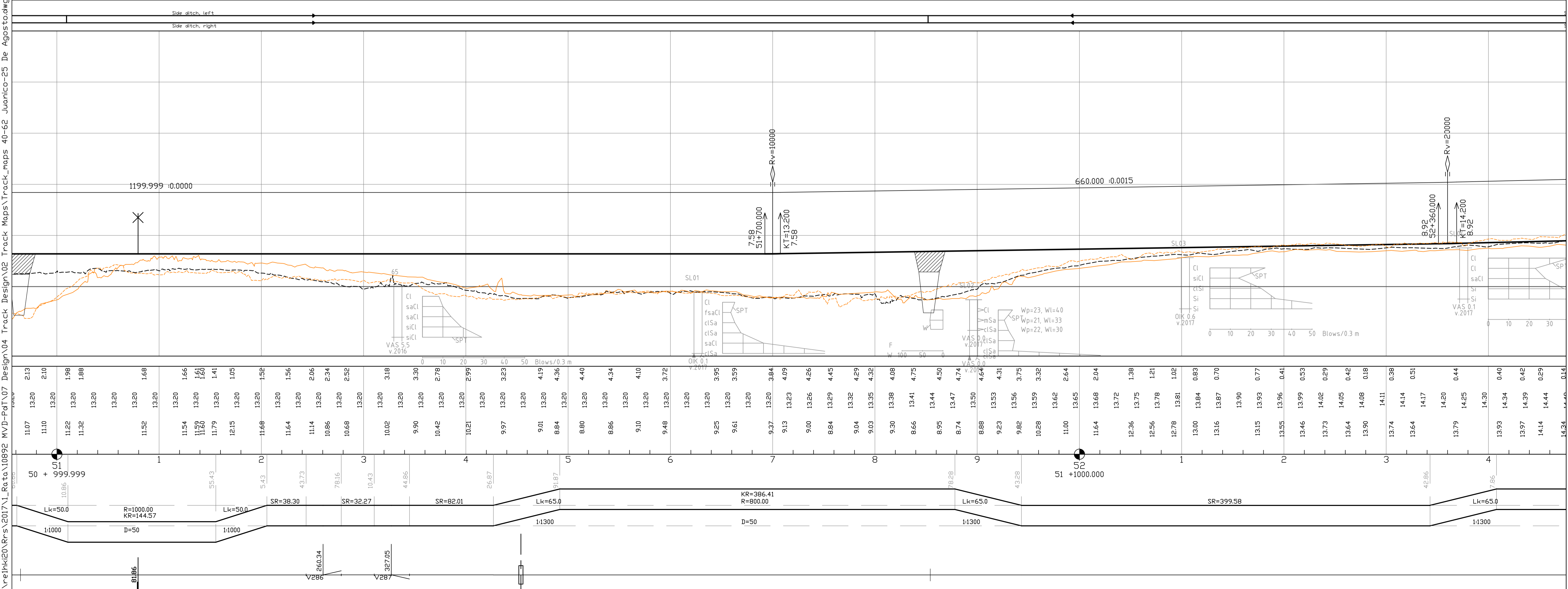
- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)
- Rv= radius of vertical curve
- K= elevation
- TG= length of tangent
- 123.345= length of straight line (m)

Legend for symbols:

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

Legend for soundings:

- 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= TRO2: year of investigation
- TRO2= 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: TRACK

Project Name: Km 51+0000 - 52+0400

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

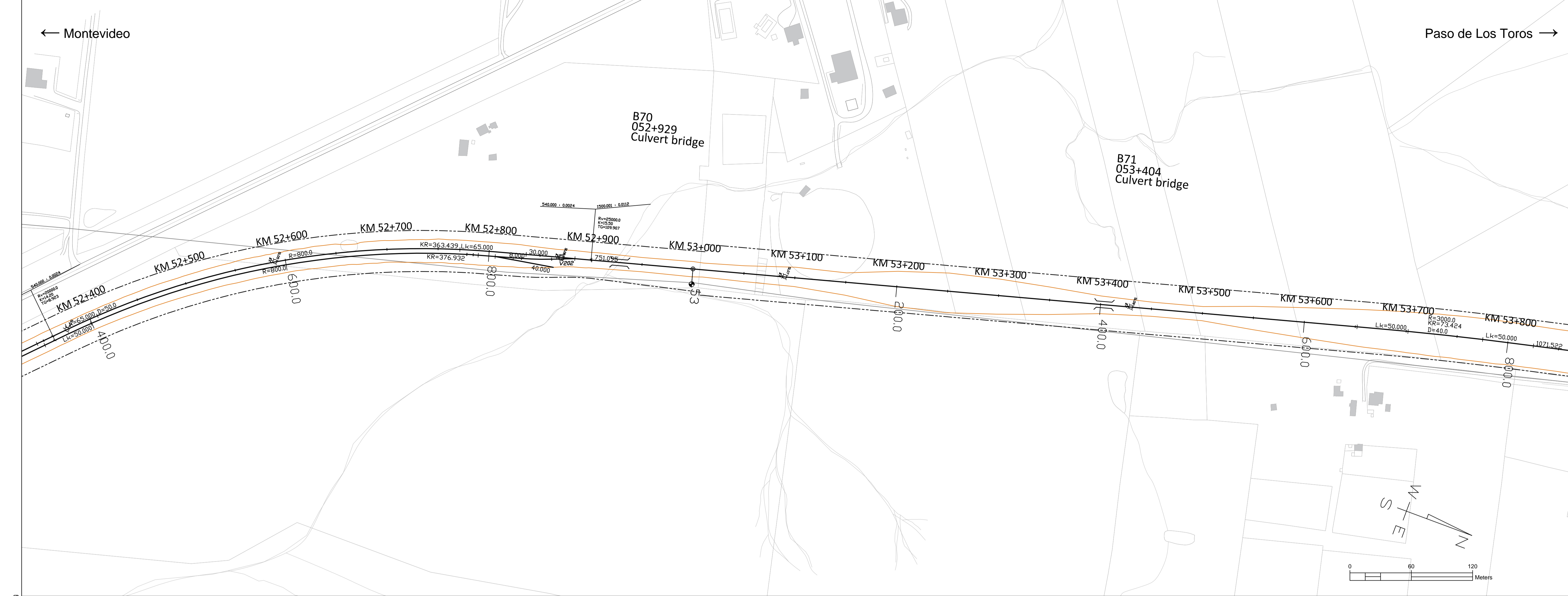
Designer	Date	Author	Coordinate system
HM/a / MLe	15.12.2017	HM/a / MLe	WGS 84 UTM 21 S, Local orthometric height

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

Accept.	Rev.	Sheet	Sheets total

Owner acc.

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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

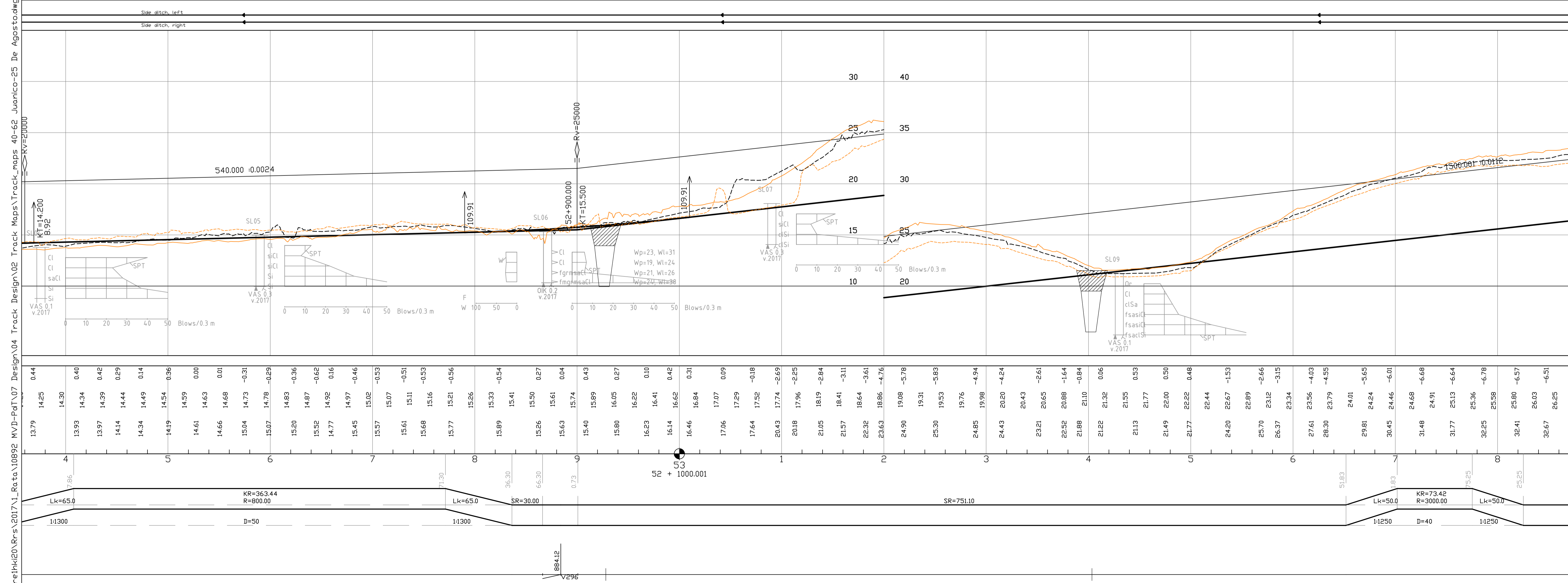
- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
- Lk= length of transition curve (m)
- Rv= radius of vertical curve
- K= elevation
- TG= length of tangent
- 123.345= length of straight line (m)

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)
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- Level crossing
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- Elevation figures
- Difference between existing ground and designed track elevation
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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	Content	Km 52+0400 - 53+0800

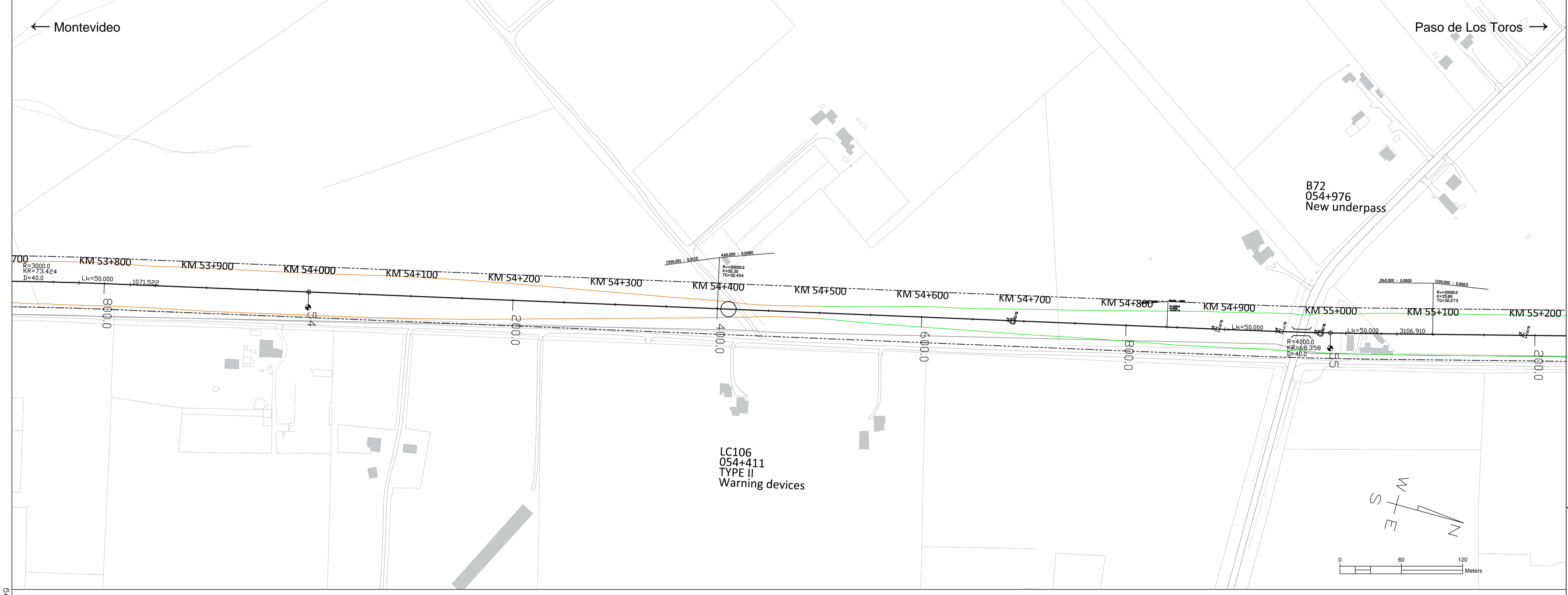
Drawer	Date	Scale	Scale
UPa	15.12.2017	map 1:2000, profile 1:2000 / 1:200	

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

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

Accept.	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
- 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

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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- 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

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

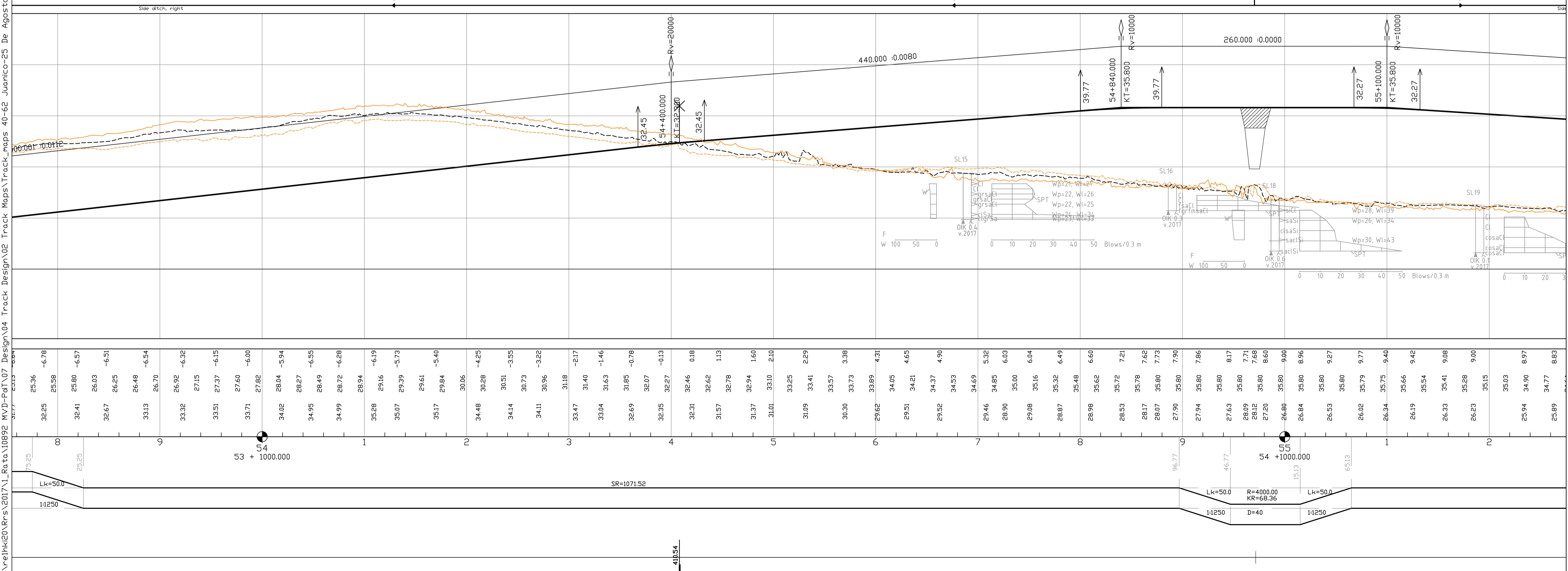
Project: Km 53+0800 - 55+0200

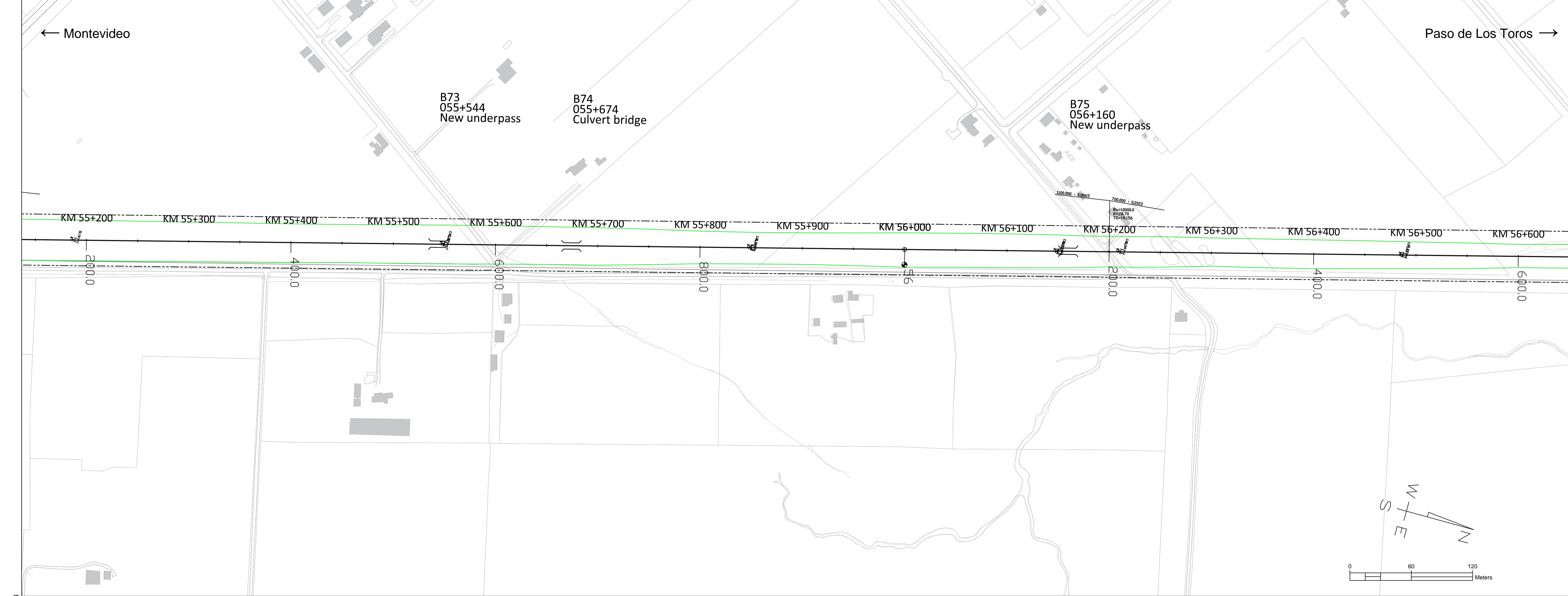
Drawer	Date	Author	Scale
UPa	15.12.2017		map 1:2000, profile 1:2000 / 1:200

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.	Archive	Type	Number	Rev.	Sheet	Sheets
					39	195





LEGEND, MAP

- New railway alignment
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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

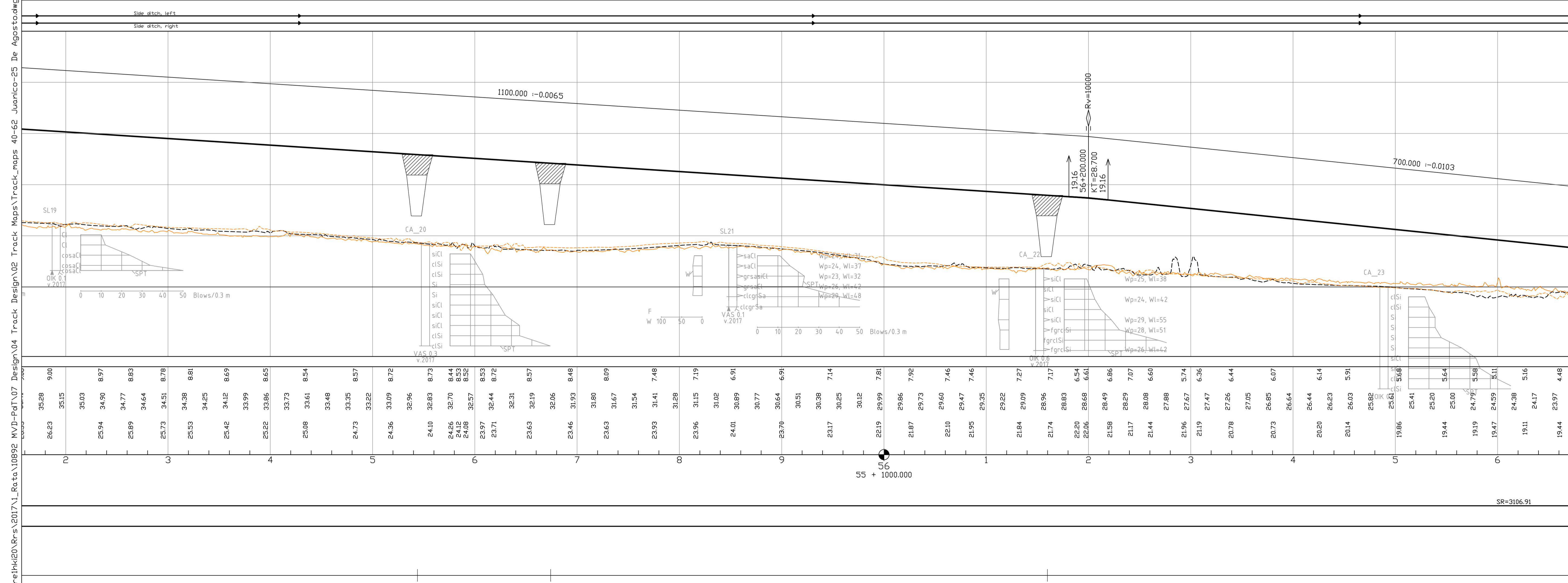
Symbols

- 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)

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

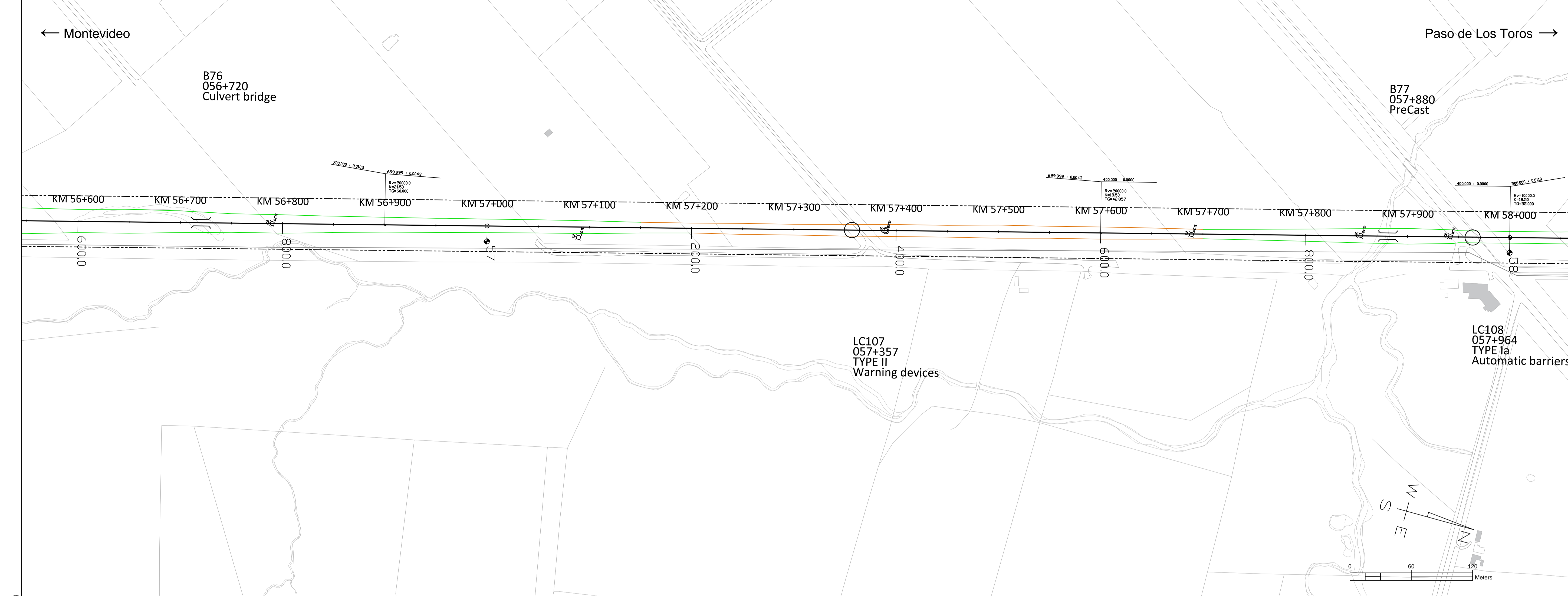
SR= length of straight line (m)
 R= curve radius (m)
 KR= length of curve (m)
 D= track cant (mm)
 Lk= length of transition curve (m)

Version 15.12.2017

Revision	Explanation	Date	Designer	Date	Accepter

MINISTERIO DE TRANSPORTE Y OBRAS PÚBLICAS	Project	Railway Project		
	Design phase	Pre-engineering, Phase 2		
Supplier				
Content	Track map and profile			
Supplier	Km 55+0200 - 56+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	
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)
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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
- Railway bridge or underpass, Flyover
- Culvert
- Level crossing

Track alignment with design geometry figures

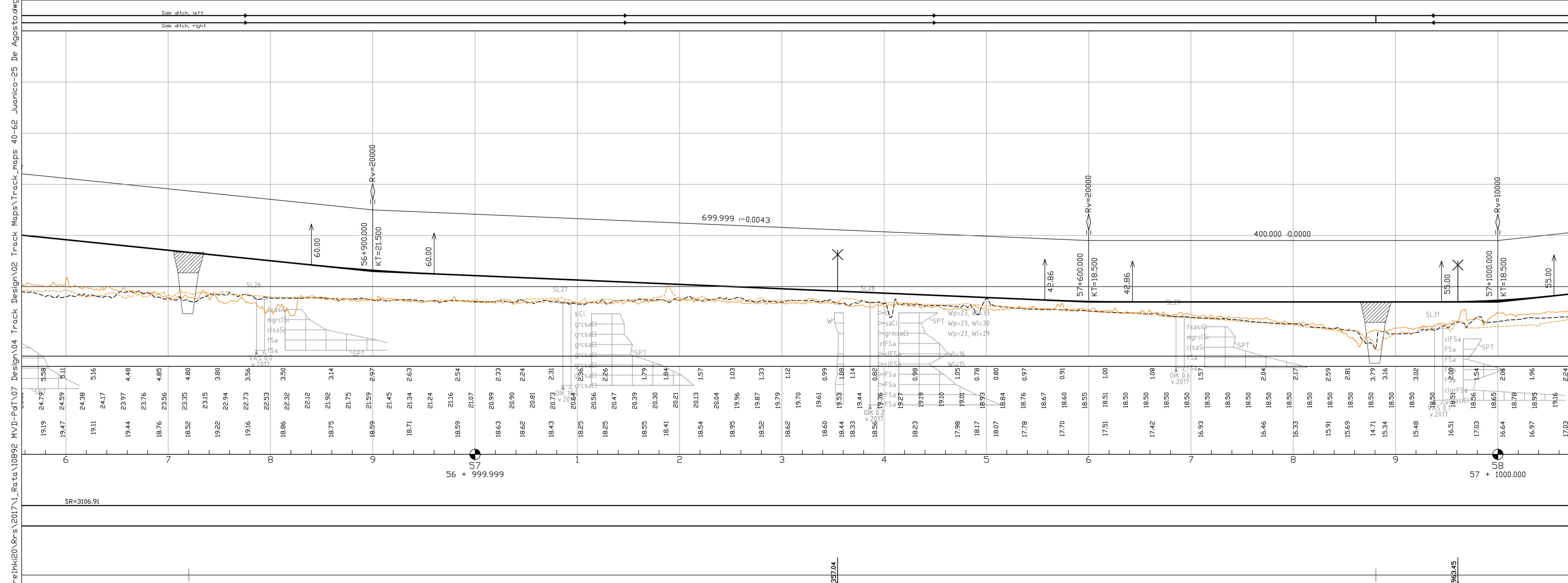
R= curve radius (m)
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LEGEND, PROFILE

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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)

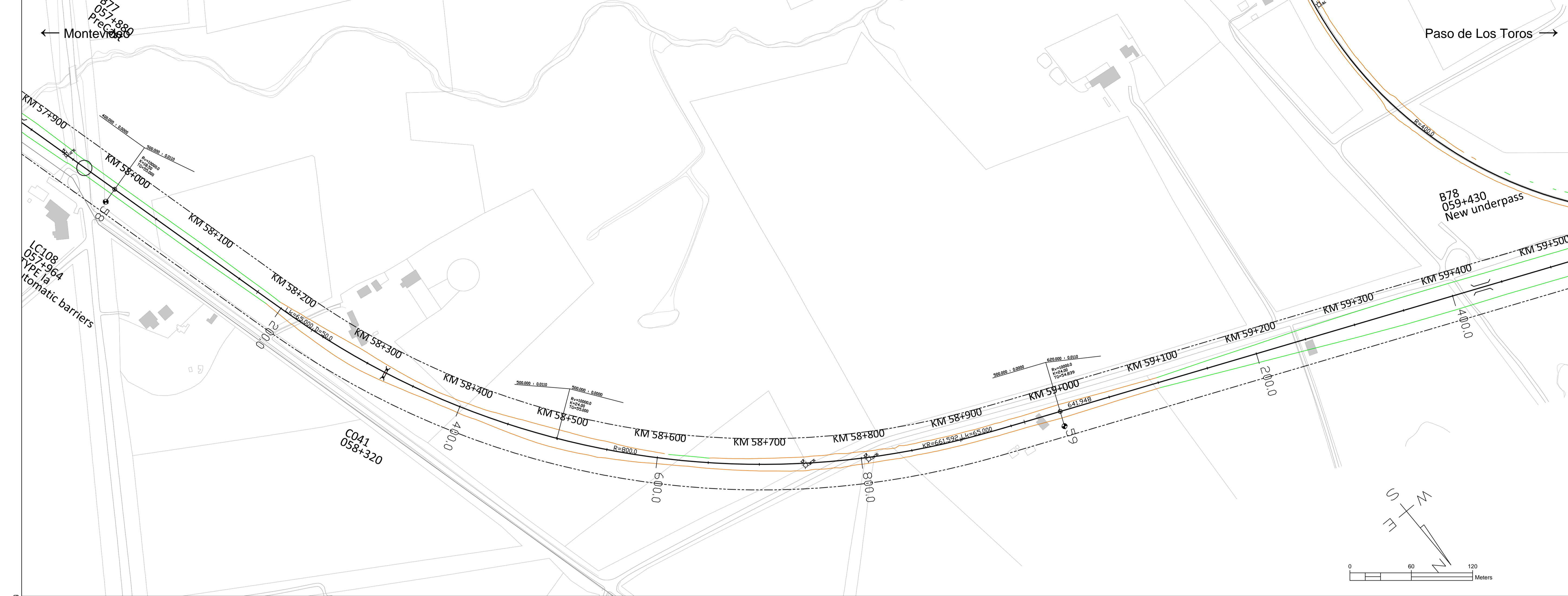


Version 15.12.2017

Revision	Explanation	Date	Designer	Date	Acceptor

Customer	MTOP 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 56+0600 - 58+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
- 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

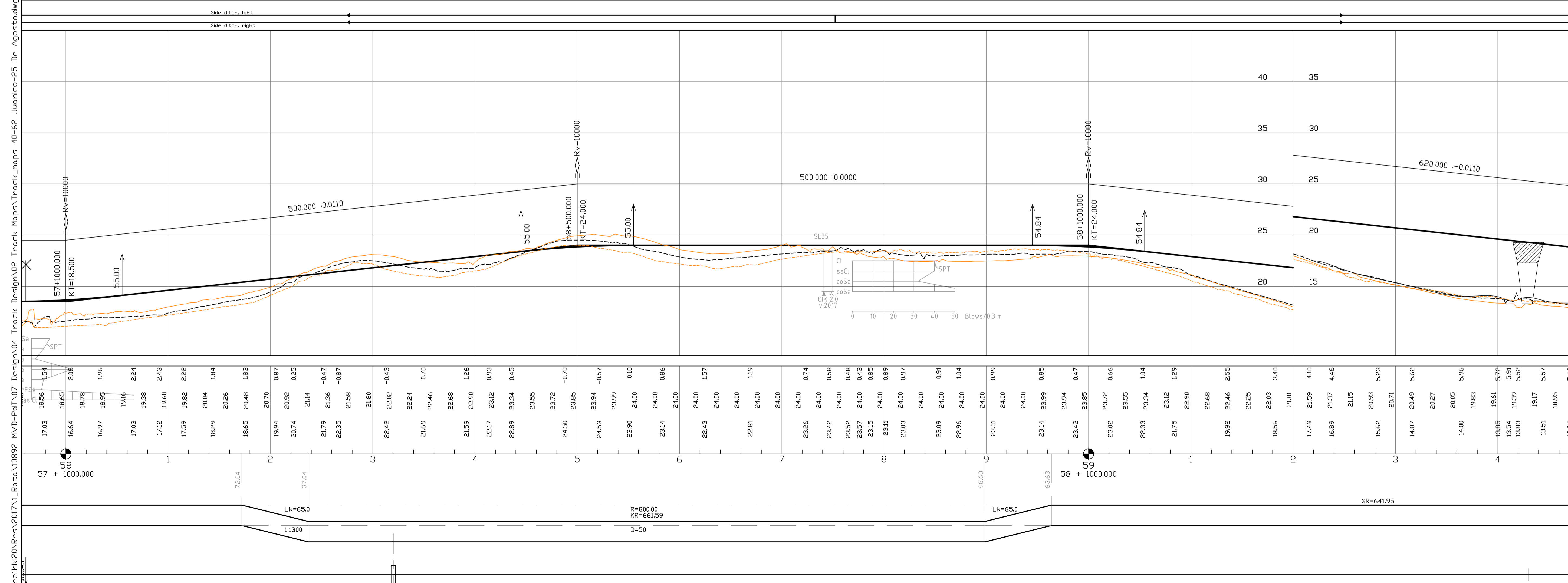
- BXXX BXXX: Railway bridge or underpass, Flyover
- CXXX: Culvert
- LCXXX: Level crossing

Track alignment with design geometry figures

- R= curve radius (m)
- KR= length of curve (m)
- D= track cant (mm)
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- 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
- y. 2017= 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

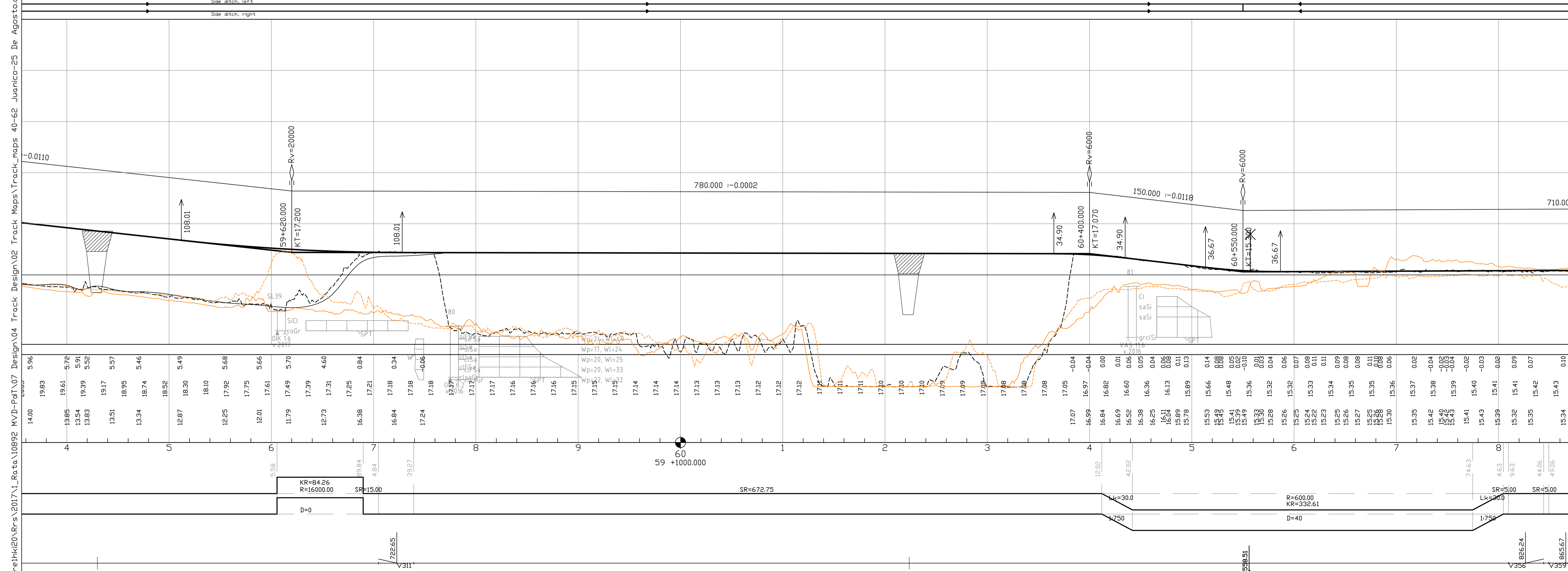
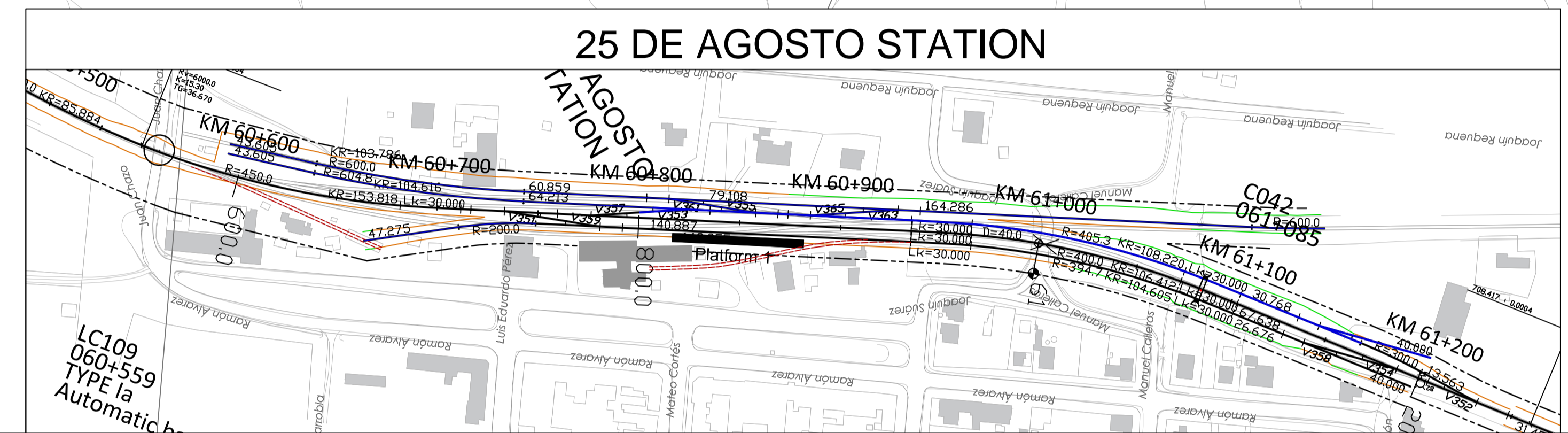
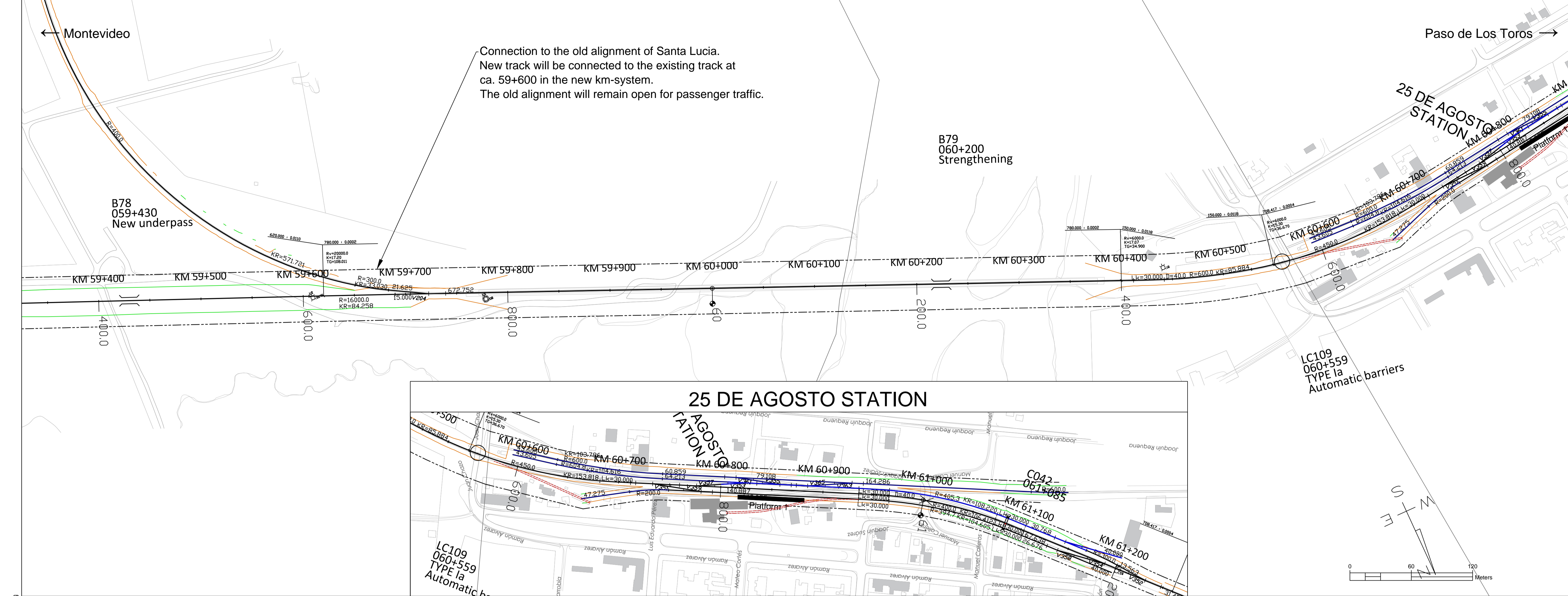
Horizontal alignment, schematic

- SR= length of straight line (m)
- R= curve radius (m)
- KR= length of curve (m)
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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
Supplier	VR TRACK	Design phase	Pre-engineering, Phase 2
Content	Track map and profile	Content	Km 58+0000 - 59+0400
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
			42 195



LEGEND, MAP

- New railway alignment
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- New passenger platforms
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- Level crossing
- Track alignment with design geometry figures
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 - Rv= radius of vertical curve
 - K= elevation
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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
 - y. 2017
 - Disturbed Sample
 - TR02= year of investigation
 - point number

LEGEND, PROFILE

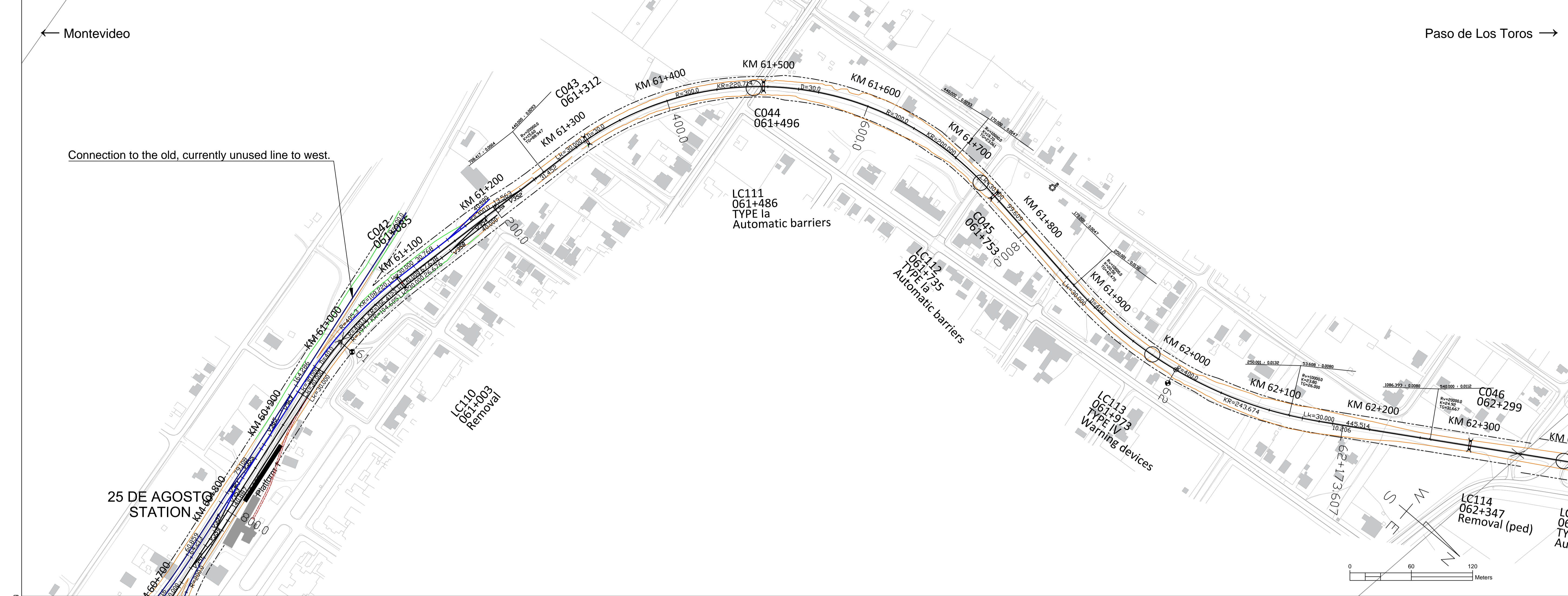
- Vertical railway alignment (S=radius of vertical curve, KT=elevation point)
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- Horizontal alignment, schematic
 - SR= length of straight line (m)
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 - KR= length of curve (m)
 - D= track cant (mm)
 - 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 59+0400 - 60+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	Elevation reference system	Railway line
Accept.		Railway line	Montevideo - Paso de Los Toros
Owner acc.		Archive	Type Number Rev. Sheet Sheets total
			43 195

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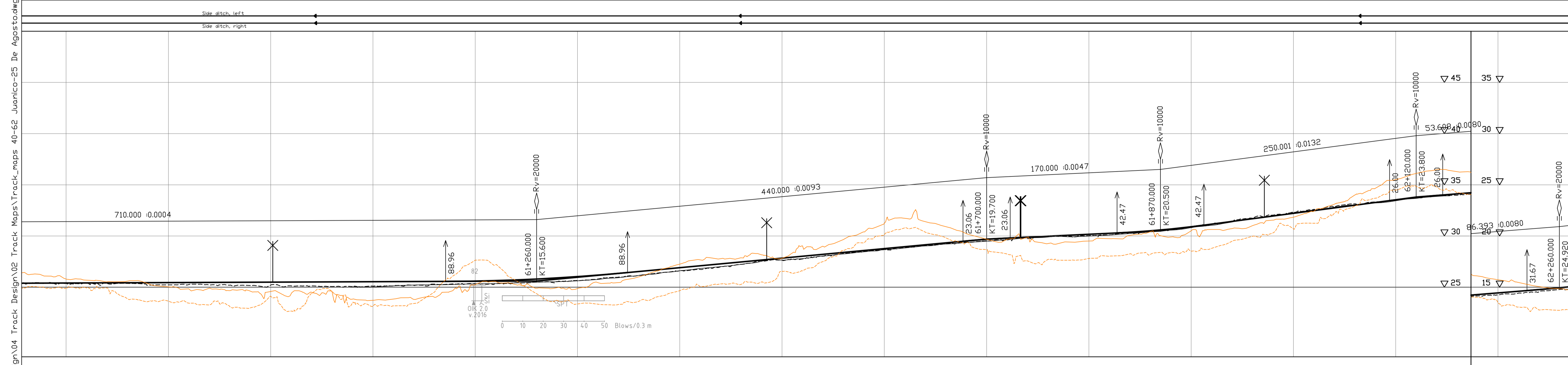


LEGEND, MAP

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- Existing stations or passenger platforms
- New passenger platforms
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- Railway bridge or underpass, Flyover
- Culvert
- Level crossing
- 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
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- Km stationing
- Horizontal alignment, schematic

SR = length of straight line (m)
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 LK = length of transition curve (m)

Stationing	SR	R	KR	D	LK	RV	KT	Elevation
60+1000.000	1750	130.83	220.71	40	30.0	10000	15.600	24.15
61+000.000	1750	130.83	220.71	40	30.0	10000	15.600	24.15
62+000.000	1750	130.83	220.71	40	30.0	10000	15.600	24.15
62+020.000	1750	130.83	220.71	40	30.0	10000	15.600	24.15

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: Km 60+0800 - 62+0200

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

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