



**REPUBLIC OF NAMIBIA**

**MINISTRY OF WORKS AND TRANSPORT**

***Feasibility Study for the Trans-Zambezi Railway Extension  
Grootfontein-Rundu-Katima Mulilo  
Final Feasibility Study Report  
(Vol III. Project Drawings)***

March 17<sup>th</sup>, 2022

*Prepared and Submitted by*



***M R Technofin Consultants Ltd.***

954, Irish Moss Rd, Mississauga, Ontario, Canada, L5W1W5

E-mail: [admin@mrtcpl.com](mailto:admin@mrtcpl.com)

Web: [www.mrtcpl.com](http://www.mrtcpl.com)

*In Association with Namibia-based*



***Burmeister & Partners***

*Corner of Andimba Toivo Ya  
Toivo & Van Zyl Streets,  
Suiderhof*

E-mail: [bp@burmeister.com.na](mailto:bp@burmeister.com.na)

Web:

[www.burmeister.com.na](http://www.burmeister.com.na)



***Enviro Dynamics***

*16 Seder Street, Suiderhof  
PO Box 4039, Windhoek,  
Namibia*

E-mail: [info@envirod.com](mailto:info@envirod.com)

Web: [www.envirod.com](http://www.envirod.com)



***Koep & Partners***

*33 Schanzen Road, P. O.  
BOX 3516, Windhoek,  
Namibia*

E-mail: [pfk@koep.com.na](mailto:pfk@koep.com.na)

Web: [www.koep.com.na](http://www.koep.com.na)

*And International Partners*



***University of Cape Town***

*Private Bag X3, Rondebosch 7701, South  
Africa*

E-mail: [marianne.vanderschuren@uct.ac.za](mailto:marianne.vanderschuren@uct.ac.za)

Web: [www.uct.ac.za](http://www.uct.ac.za)



***3TI Progetti***

*Lungotevere V. Gassman 22 00146 – Rome,  
Italy*

E-mail: [info@3tiprogetti.it](mailto:info@3tiprogetti.it)

Web: [www.3tiprogetti.it](http://www.3tiprogetti.it)

### Details of Report

<b>Project Name</b>	:	<b>Feasibility Study for the Trans-Zambezi Railway Extension Grootfontein-Rundu-Katima Mulilo</b>
<b>Contract/ Work Order No.</b>	:	MWT/TIIP/ISCB/20/05
<b>Document Name</b>	:	Final Feasibility Study Report (Vol III. Project Drawings)- Feasibility Study for the Trans-Zambezi Railway Extension Grootfontein-Rundu-Katima Mulilo
<b>Document No.</b>	:	MRTCL/Project/MoWT (GRN)/Final Feasibility Study Report/003C
<b>Report Submitted to</b>	:	Ministry of Works and Transport, Government of Republic of Namibia
<b>Report Submitted by</b>	:	<b>M R Technofin Consultants Limited,</b> Address: 954, Irish Moss Rd, Mississauga, Ontario, Canada, L5W1W5 Contact No.: +1 416-721-9460 Email: <a href="mailto:admin@mrtcpl.com">admin@mrtcpl.com</a> Website: <a href="http://www.mrtcpl.com">www.mrtcpl.com</a>

### Submission of Report

Revision#	Date	Prepared by	Reviewed by	Approved for Issue by
00	17 <sup>th</sup> March, 2022	Project Team	Satish Raina (Railway Bridges and Structural Expert)	Sanjay Mittal (Project Director)

## Letter for Submission of Report

Ref No.: MRTCL/Project/MoWT(GRN)/Final Feasibility Report/003C

March 17<sup>th</sup>, 2022

To,  
Executive Director  
Ministry of Works and Transport  
6719 Corner of Bell Street & Snyman Circle  
Private Bag 13341,  
Windhoek, Namibia

**Project: Feasibility Study for the Trans-Zambezi Railway Extension Grootfontein-Rundu-Katima Mulilo**

**Reference: Contract No. MWT/TIIP/ISCB/20/05 dated March 10<sup>th</sup>, 2021**, Between Ministry of Works and Transport (MoWT) and M. R. Technofin Consultants Ltd.

**Subject: Submission of 'Final Feasibility Study Report – Vol III. Project Drawings'** for Feasibility Study for the Trans-Zambezi Railway Extension Grootfontein-Rundu-Katima Mulilo

Dear Madam,

We are pleased to submit the 'Final Deliverable' for this project – '**Final Feasibility Report – Feasibility Study for the Trans-Zambezi Railway Extension Grootfontein-Rundu-Katima Mulilo**'.

The report is comprised of following volumes:

Vol I. – Preliminary Design Report

Vol II. – Project Feasibility

Vol III. – Project Drawings

This document is Volume-III- 'Project Drawings'.

We thank you for the opportunity to have worked with you on this exciting assignment and look forward to working with you again in the future.

Yours Sincerely,

**For M R Technofin Consultants Ltd.**



**Sanjay Mittal**

**President and Project Director**



## Table of Contents

<b>1</b>	<b>Project Drawings.....</b>	<b>7</b>
1.1	Key Plan (Overall).....	8
1.2	Key Longitudinal Section-Profile (Overall).....	9
1.3	Plan and Longitudinal Section 0 to 25 km .....	10
1.4	Plan and Longitudinal Section 25 to 50 km .....	11
1.5	Plan and Longitudinal Section 50 to 75 km .....	12
1.6	Plan and Longitudinal Section 75 to 100 km .....	13
1.7	Plan and Longitudinal Section 100 to 125 km .....	14
1.8	Plan and Longitudinal Section 125 to 150 km .....	15
1.9	Plan and Longitudinal Section 150 to 175 km .....	16
1.10	Plan and Longitudinal Section 175 to 200 km .....	17
1.11	Plan and Longitudinal Section 200 to 225 km .....	18
1.12	Plan and Longitudinal Section 225 to 250 km .....	19
1.13	Plan and Longitudinal Section 250 to 275 km .....	20
1.14	Plan and Longitudinal Section 275 to 300 km .....	21
1.15	Plan and Longitudinal Section 300 to 325 km .....	22
1.16	Plan and Longitudinal Section 325 to 350 km .....	23
1.17	Plan and Longitudinal Section 350 to 375 km .....	24
1.18	Plan and Longitudinal Section 375 to 400 km .....	25
1.19	Plan and Longitudinal Section 400 to 425 km .....	26
1.20	Plan and Longitudinal Section 425 to 450 km .....	27
1.21	Plan and Longitudinal Section 450 to 475 km .....	28
1.22	Plan and Longitudinal Section 475 to 500 km .....	29
1.23	Plan and Longitudinal Section 500 to 525 km .....	30
1.24	Plan and Longitudinal Section 525 to 550 km .....	31
1.25	Plan and Longitudinal Section 550 to 575 km .....	32
1.26	Plan and Longitudinal Section 575 to 600 km .....	33
1.27	Plan and Longitudinal Section 600 to 625 km .....	34
1.28	Plan and Longitudinal Section 625 to 650 km .....	35
1.29	Plan and Longitudinal Section 650 to 675 km .....	36
1.30	Plan and Longitudinal Section 675 to 700 km .....	37
1.31	Plan and Longitudinal Section 700 to 725 km .....	38
1.32	Plan and Longitudinal Section 725 to 750 km .....	39
1.33	Plan and Longitudinal Section 750 to 772 km .....	40
1.34	Typical Cross Sections – (Cutting & Filling).....	41
1.35	Key Plan of Track Layout for Grootfontein Station .....	42
1.36	Key Plan of Track Layout for Rundu Station .....	43
1.37	Key Plan of Track Layout for Divundu Station .....	44



1.38	Key Plan of Track Layout for Kongola Station.....	45
1.39	Schematic Track Layout for Katima Mulilo Station .....	46
1.40	Key Plan of Track Layout for Two Loop Line Station .....	47

### List of Figures

Figure 1-1:	Key Plan (Overall).....	8
Figure 1-2:	Key Longitudinal Section-Profile (Overall).....	9
Figure 1-3:	Plan and Longitudinal Section 0 to 25 km .....	10
Figure 1-4:	Plan and Longitudinal Section 25 to 50 km .....	11
Figure 1-5:	Plan and Longitudinal Section 50 to 75 km .....	12
Figure 1-6:	Plan and Longitudinal Section 75 to 100 km .....	13
Figure 1-7:	Plan and Longitudinal Section 100 to 125 km .....	14
Figure 1-8:	Plan and Longitudinal Section 125 to 150 km .....	15
Figure 1-9:	Plan and Longitudinal Section 150 to 175 km .....	16
Figure 1-10:	Plan and Longitudinal Section 175 to 200 km .....	17
Figure 1-11:	Plan and Longitudinal Section 200 to 225 km .....	18
Figure 1-12:	Plan and Longitudinal Section 225 to 250 km .....	19
Figure 1-13:	Plan and Longitudinal Section 250 to 275 km .....	20
Figure 1-14:	Plan and Longitudinal Section 275 to 300 km .....	21
Figure 1-15:	Plan and Longitudinal Section 300 to 325 km .....	22
Figure 1-16:	Plan and Longitudinal Section 325 to 350 km .....	23
Figure 1-17:	Plan and Longitudinal Section 350 to 375 km .....	24
Figure 1-18:	Plan and Longitudinal Section 375 to 400 km .....	25
Figure 1-19:	Plan and Longitudinal Section 400 to 425 km .....	26
Figure 1-20:	Plan and Longitudinal Section 425 to 450 km .....	27
Figure 1-21:	Plan and Longitudinal Section 450 to 475 km .....	28
Figure 1-22:	Plan and Longitudinal Section 475 to 500 km .....	29
Figure 1-23:	Plan and Longitudinal Section 500 to 525 km .....	30
Figure 1-24:	Plan and Longitudinal Section 525 to 550 km .....	31
Figure 1-25:	Plan and Longitudinal Section 550 to 575 km .....	32
Figure 1-26:	Plan and Longitudinal Section 575 to 600 km .....	33
Figure 1-27:	Plan and Longitudinal Section 600 to 625 km .....	34
Figure 1-28:	Plan and Longitudinal Section 625 to 650 km .....	35
Figure 1-29:	Plan and Longitudinal Section 650 to 675 km .....	36
Figure 1-30:	Plan and Longitudinal Section 675 to 700 km .....	37
Figure 1-31:	Plan and Longitudinal Section 700 to 725 km .....	38
Figure 1-32:	Plan and Longitudinal Section 725 to 750 km .....	39
Figure 1-33:	Plan and Longitudinal Section 750 to 772 km .....	40



Figure 1-34: Typical Cross Sections – (Cutting & Filling).....	41
Figure 1-35: Key Plan of Track Layout for Grootfontein Station .....	42
Figure 1-36: Key Plan of Track Layout for Rundu Station .....	43
Figure 1-37: Key Plan of Track Layout for Divundu Station .....	44
Figure 1-38: Key Plan of Track Layout for Kongola Station.....	45
Figure 1-39: Schematic Track Layout for Katima Mulilo Station .....	46
Figure 1-40: Key Plan of Track Layout for Two Loop Line Station .....	47

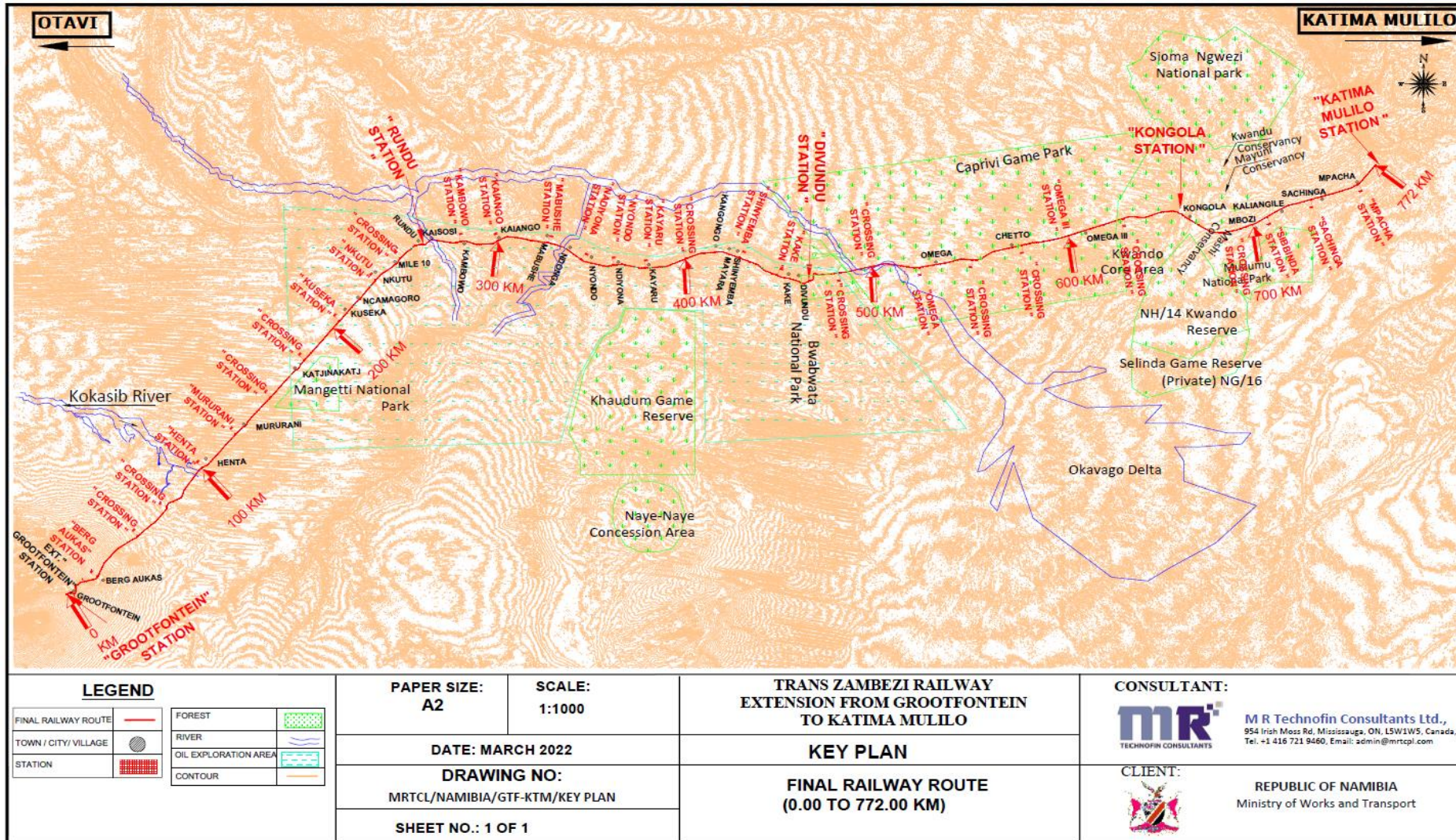


# 1 Project Drawings



## 1.1 Key Plan (Overall)

Figure 1-1: Key Plan (Overall)

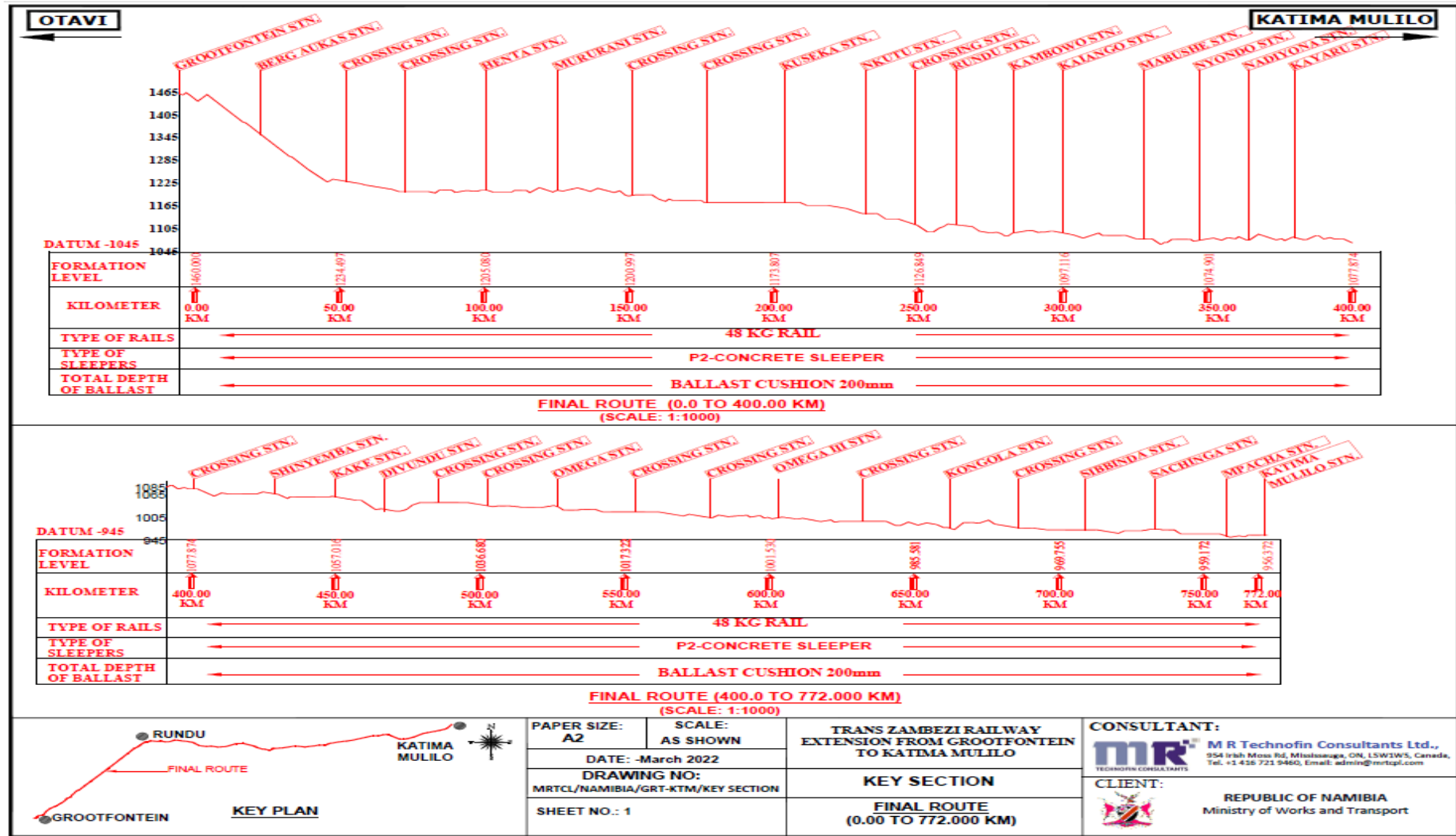






## 1.2 Key Longitudinal Section-Profile (Overall)

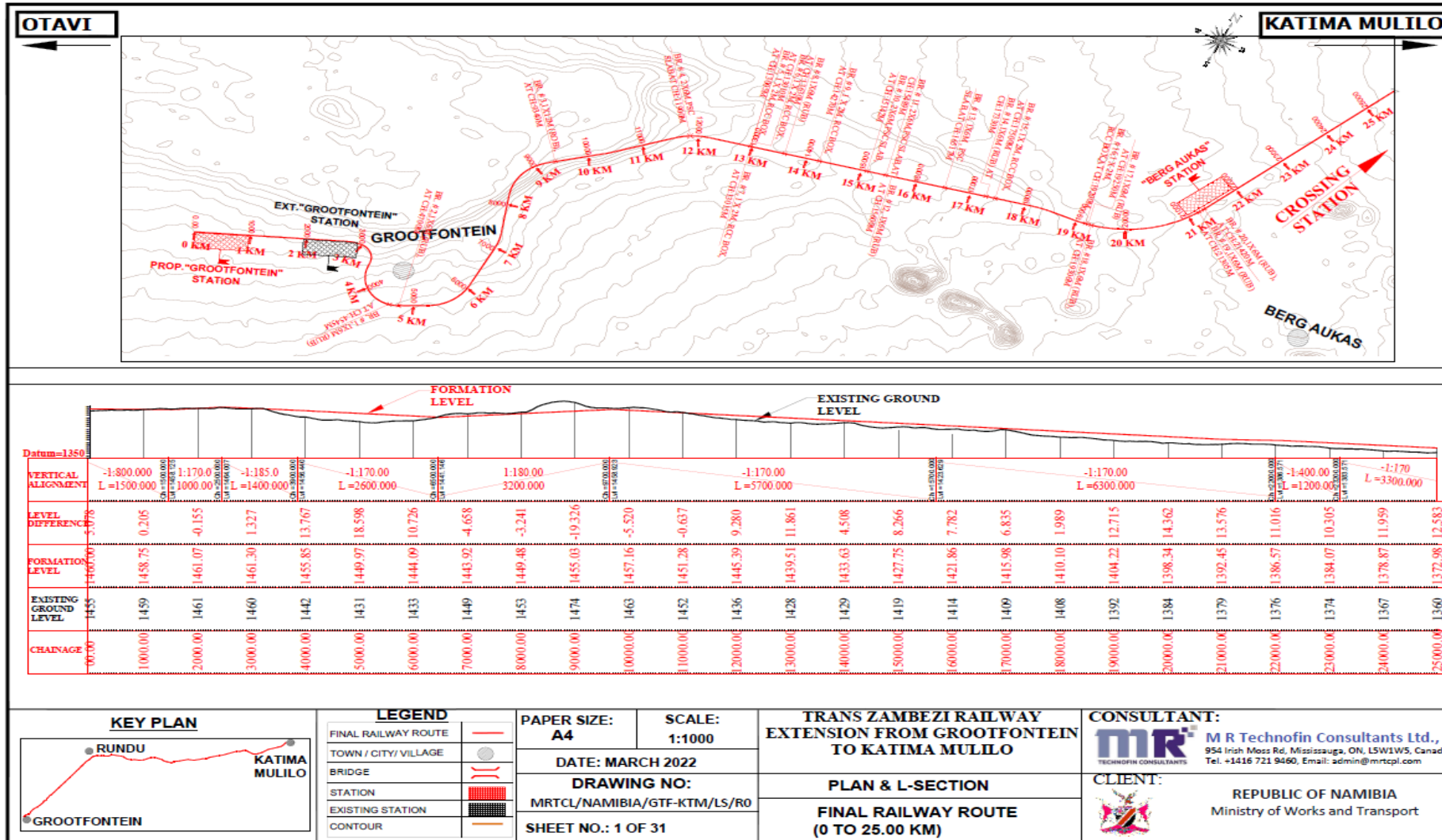
Figure 1-2: Key Longitudinal Section-Profile (Overall)





### 1.3 Plan and Longitudinal Section 0 to 25 km

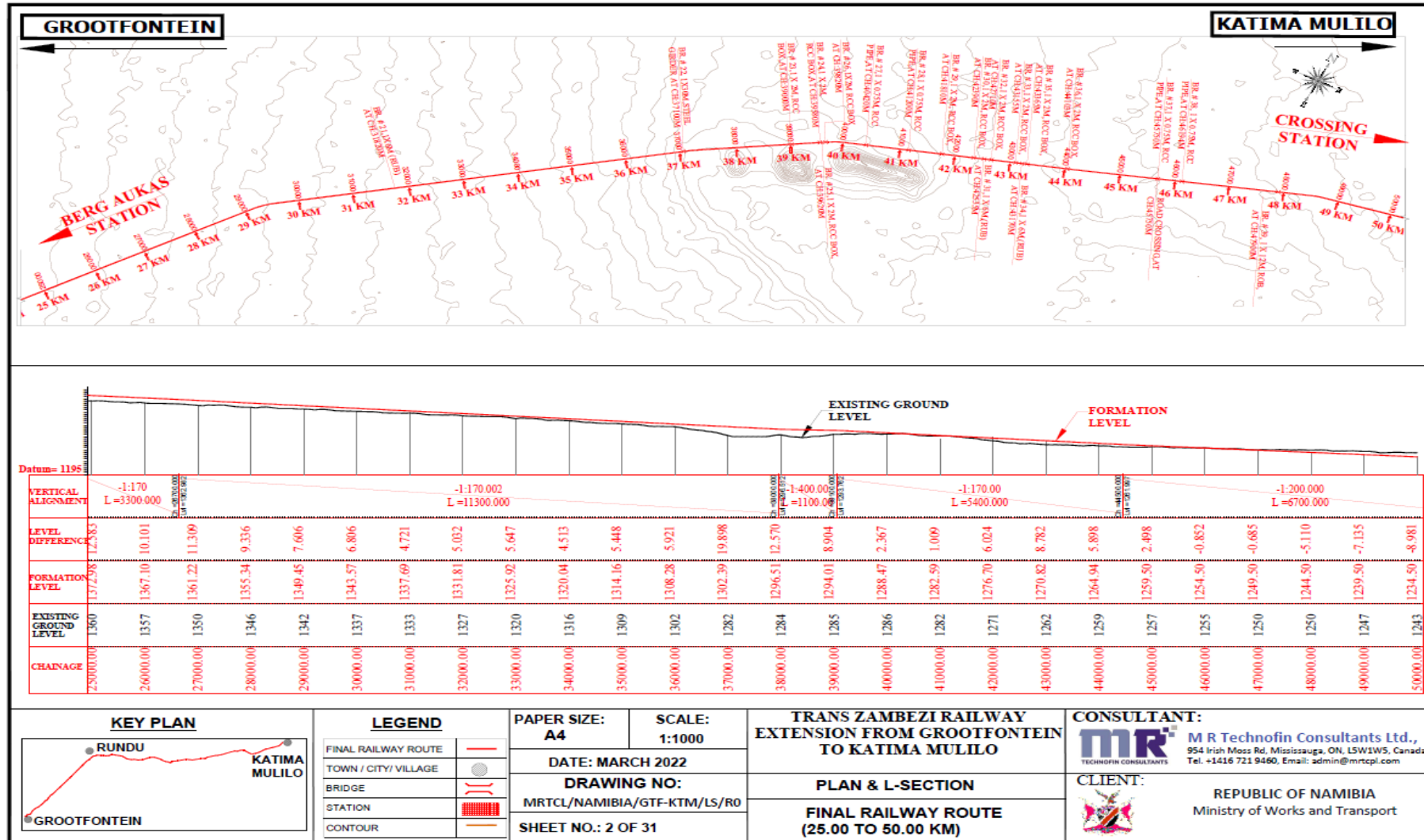
Figure 1-3: Plan and Longitudinal Section 0 to 25 km





1.4 Plan and Longitudinal Section 25 to 50 km

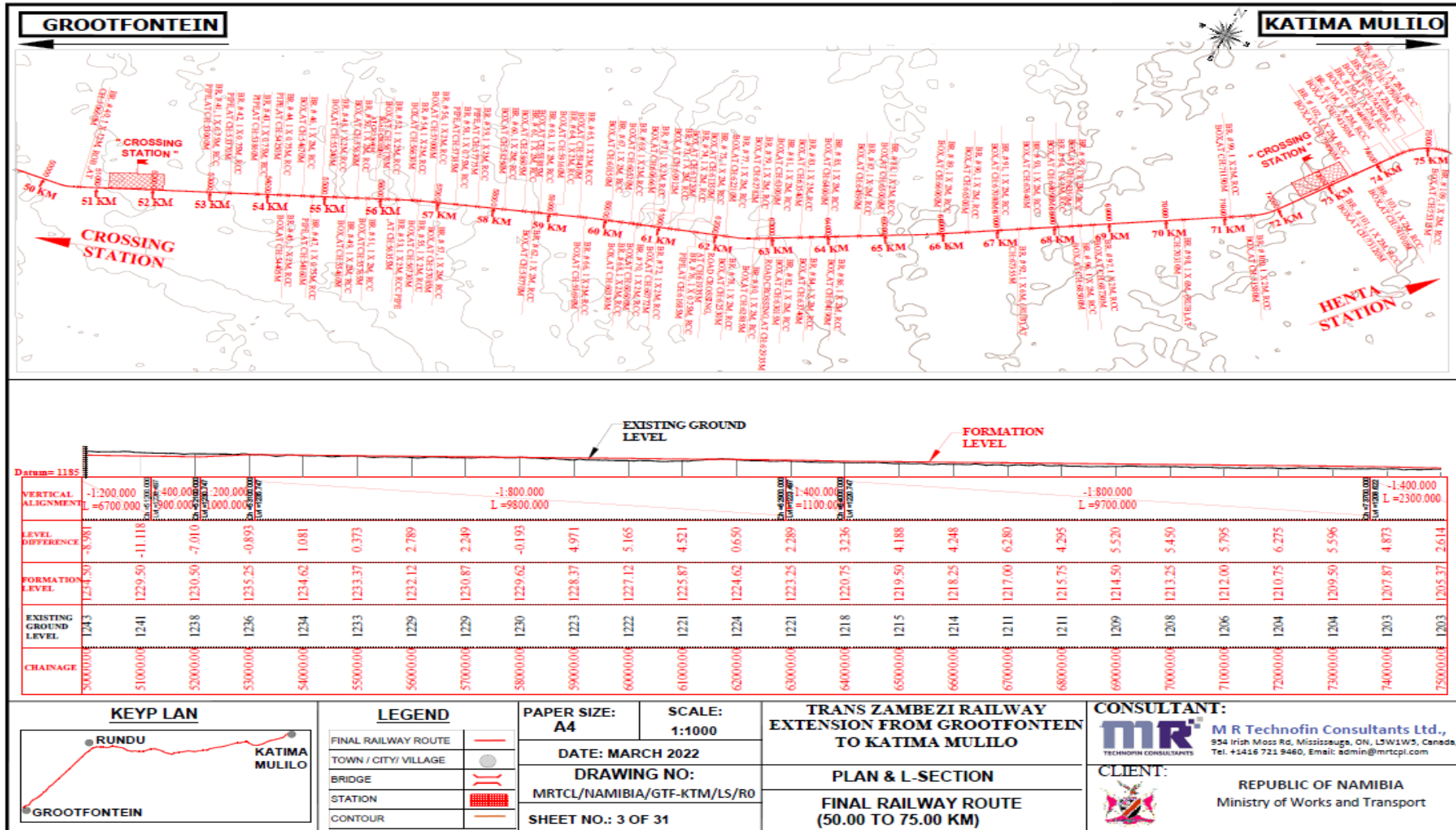
Figure 1-4: Plan and Longitudinal Section 25 to 50 km





## 1.5 Plan and Longitudinal Section 50 to 75 km

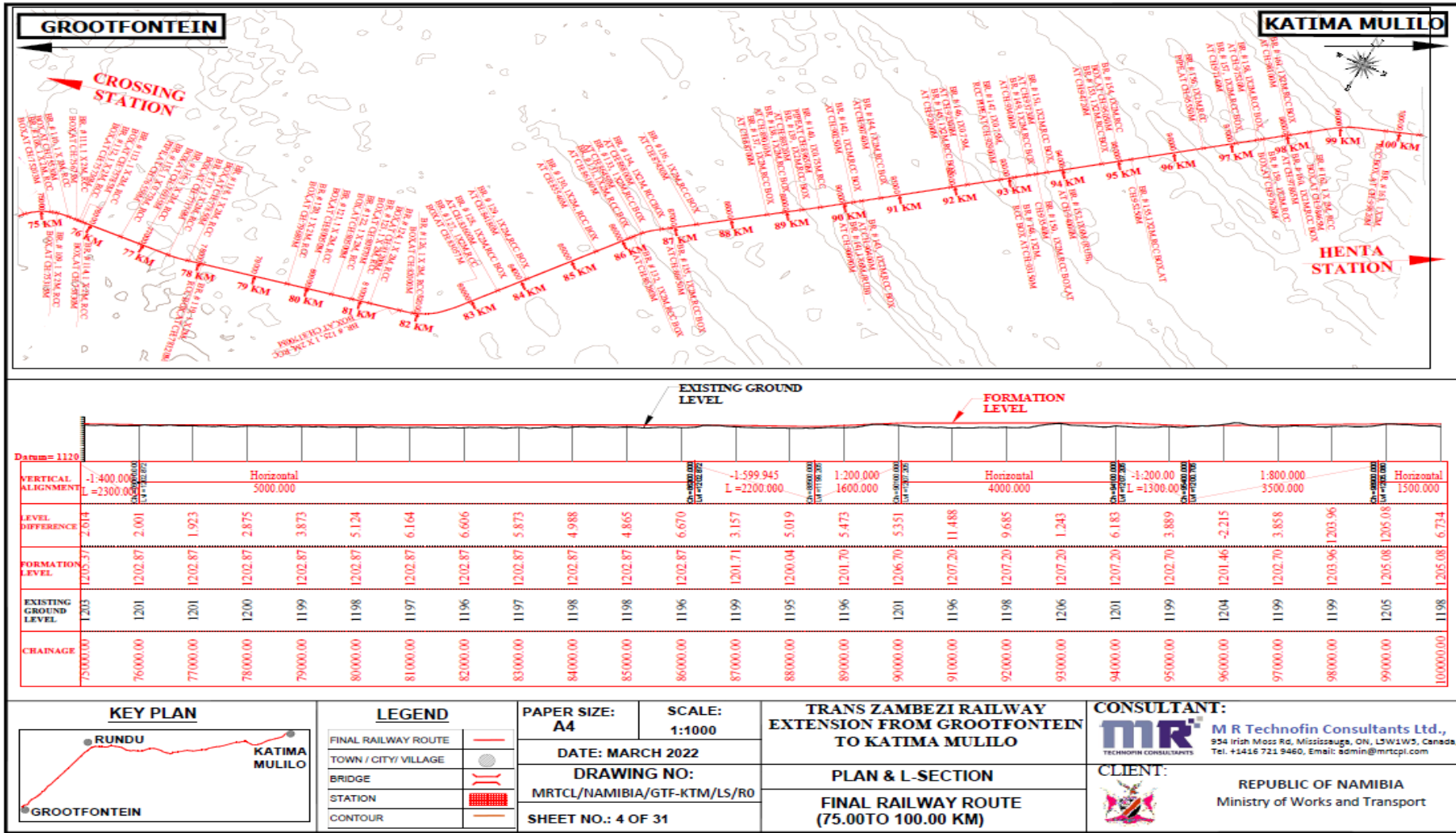
Figure 1-5: Plan and Longitudinal Section 50 to 75 km





## 1.6 Plan and Longitudinal Section 75 to 100 km

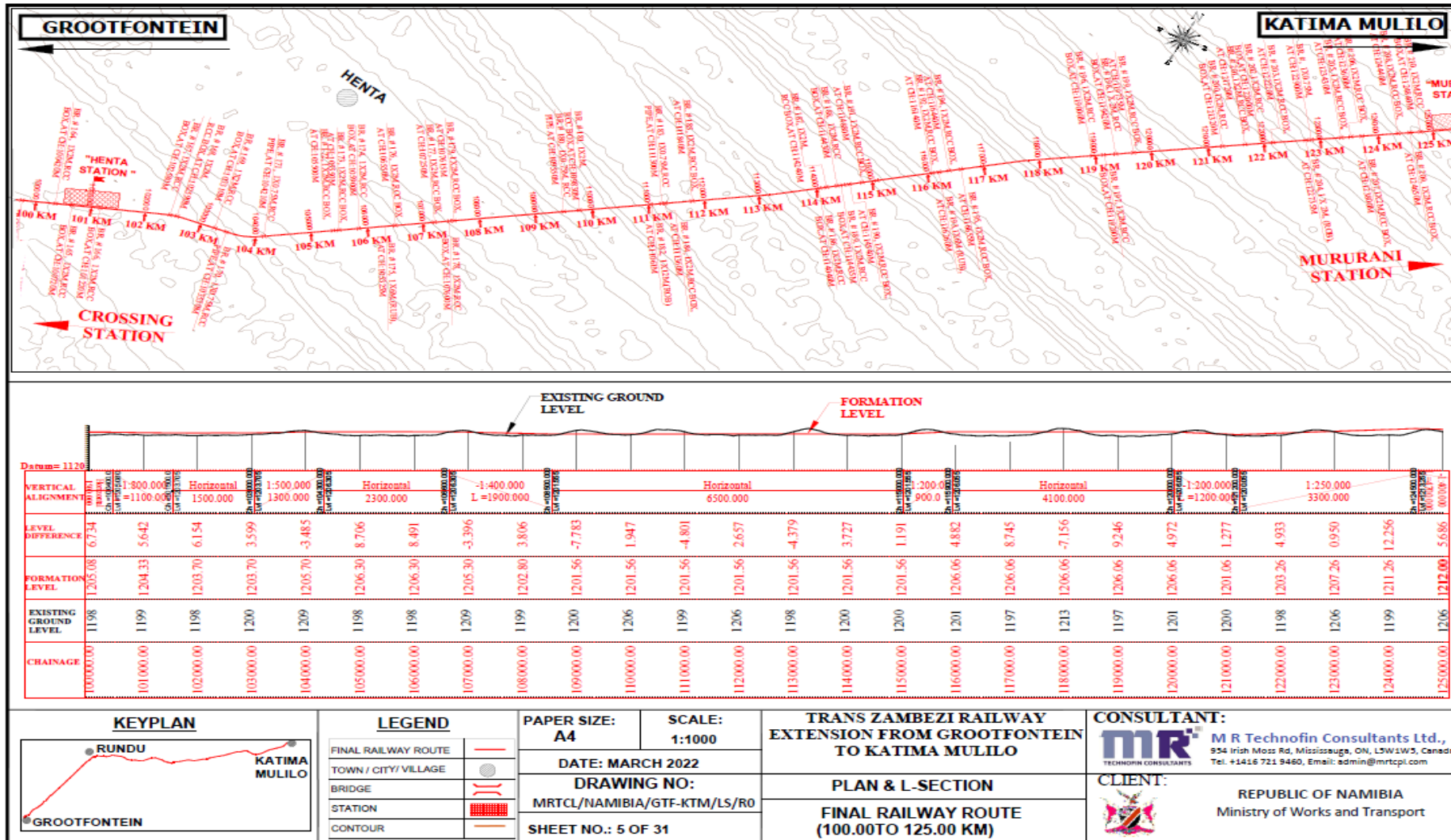
Figure 1-6: Plan and Longitudinal Section 75 to 100 km





1.7 Plan and Longitudinal Section 100 to 125 km

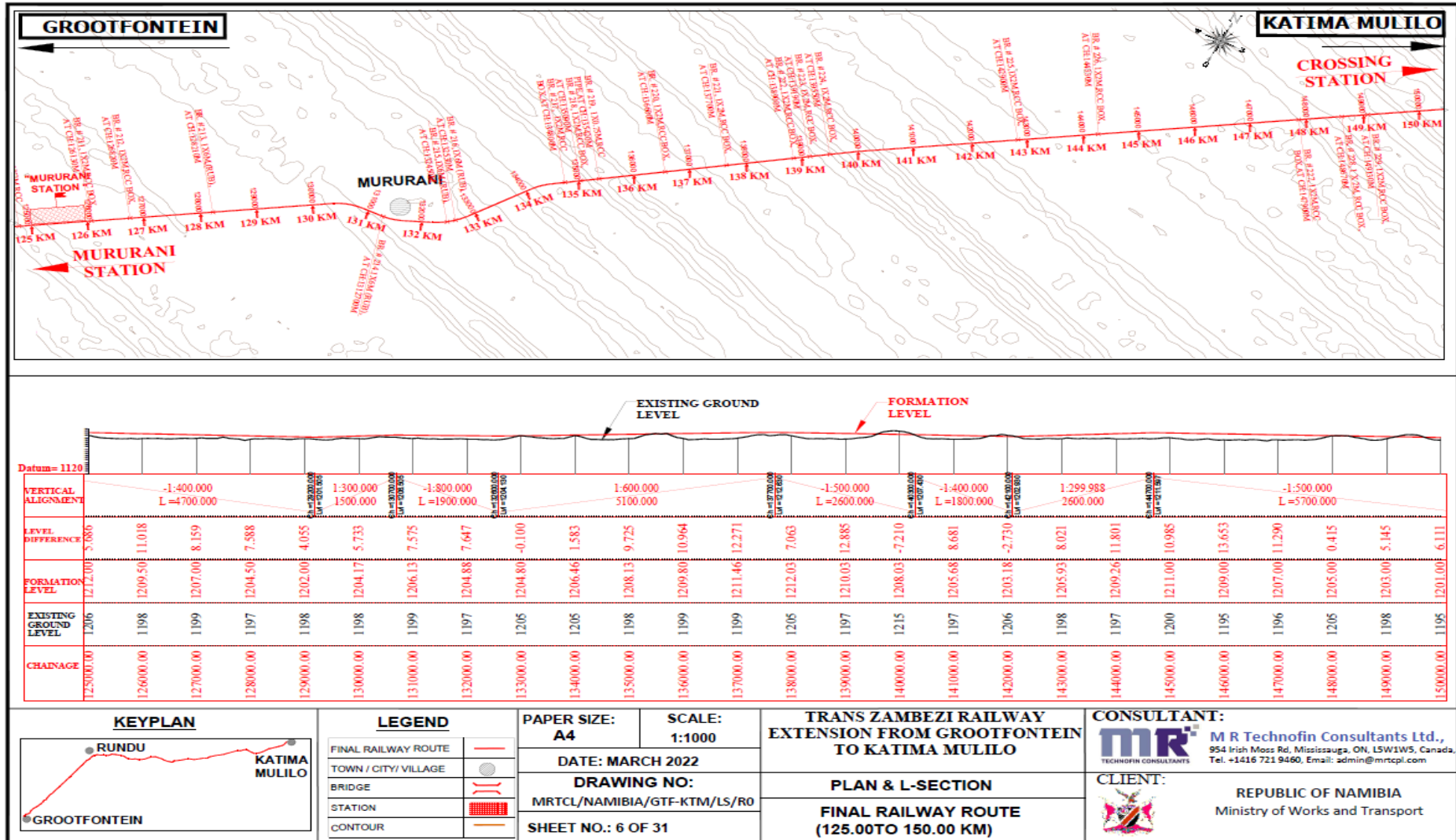
Figure 1-7: Plan and Longitudinal Section 100 to 125 km





## 1.8 Plan and Longitudinal Section 125 to 150 km

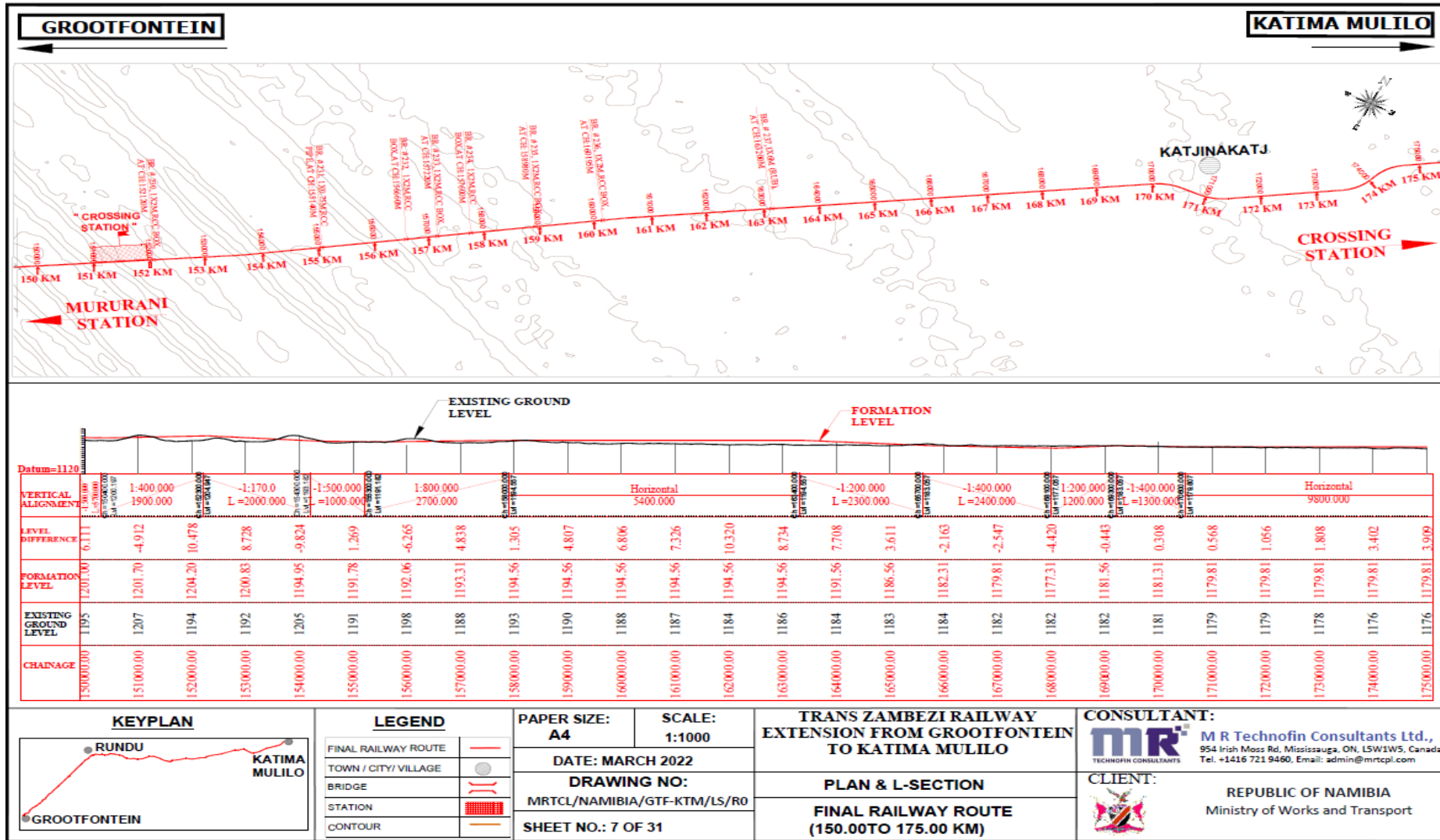
Figure 1-8: Plan and Longitudinal Section 125 to 150 km





## 1.9 Plan and Longitudinal Section 150 to 175 km

Figure 1-9: Plan and Longitudinal Section 150 to 175 km

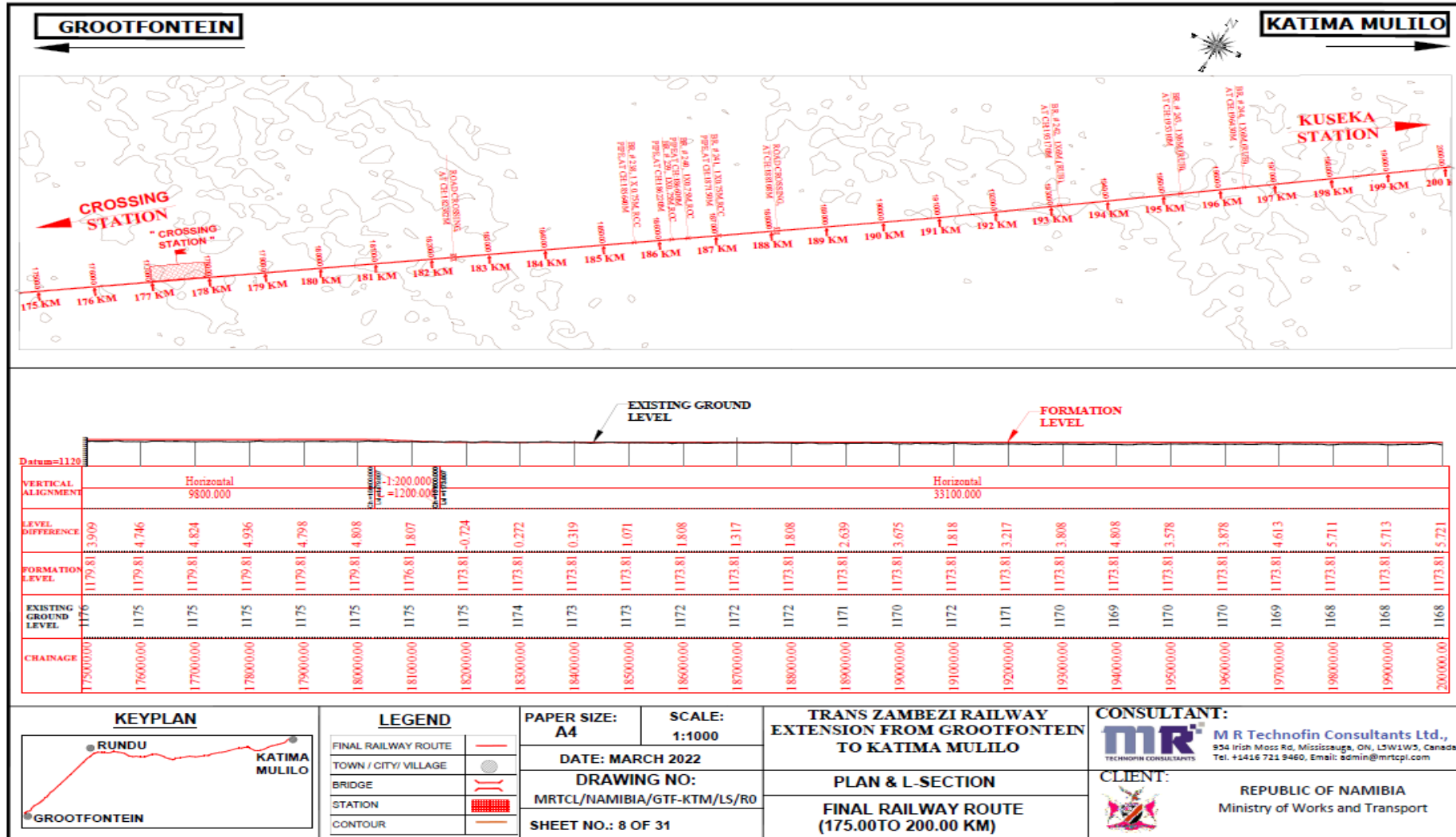






## 1.10 Plan and Longitudinal Section 175 to 200 km

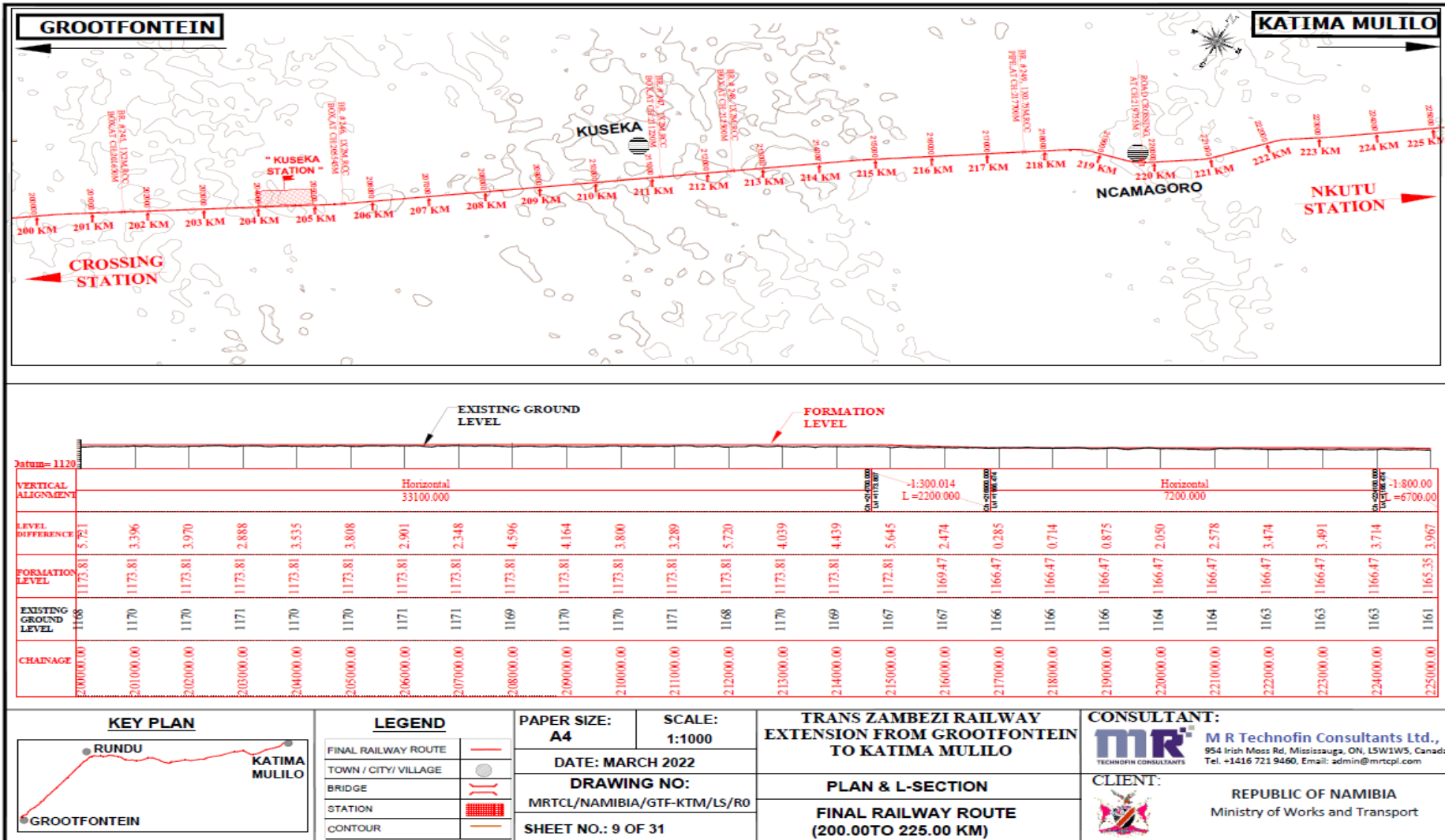
Figure 1-10: Plan and Longitudinal Section 175 to 200 km





1.11 Plan and Longitudinal Section 200 to 225 km

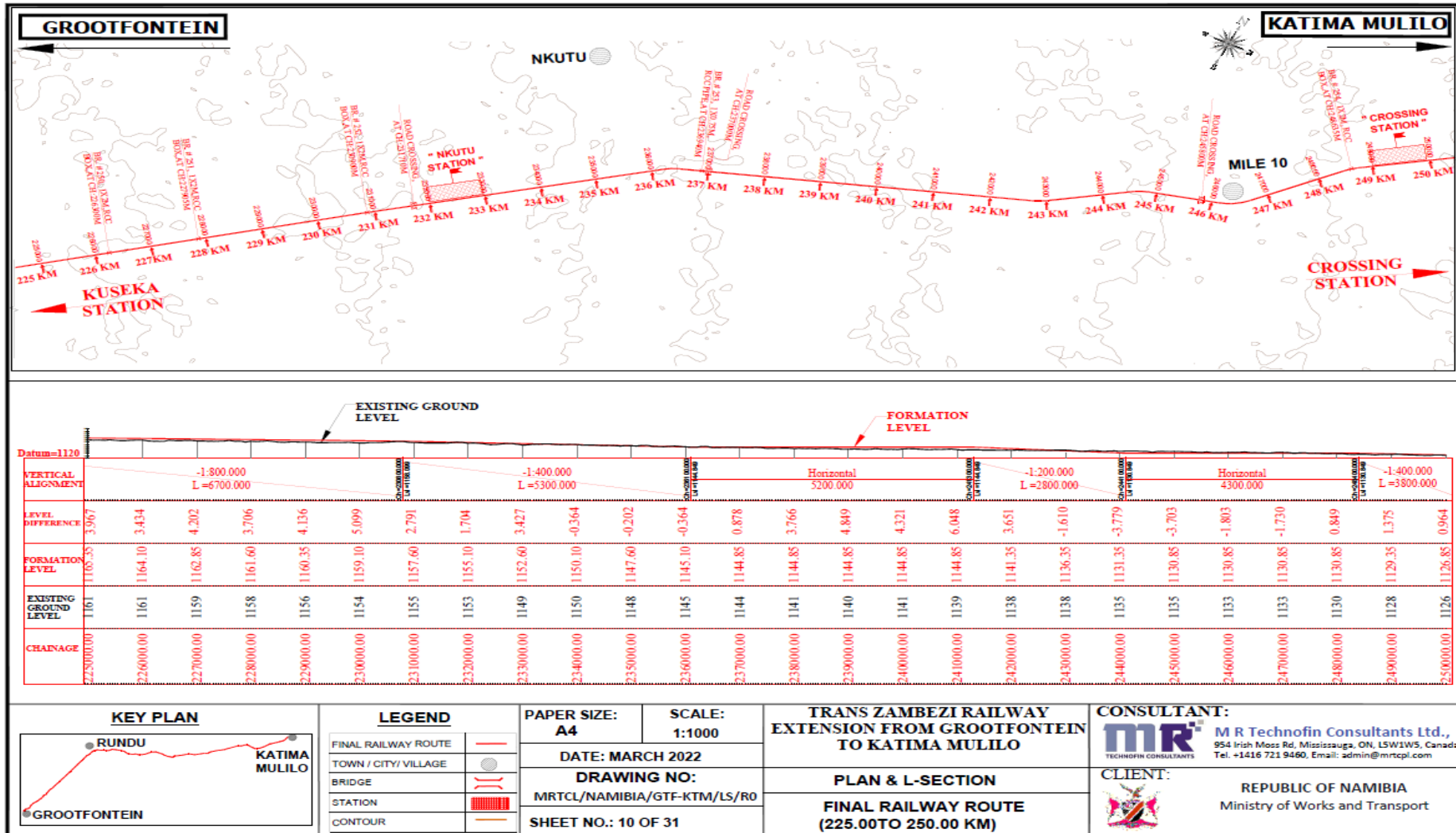
Figure 1-11: Plan and Longitudinal Section 200 to 225 km





## 1.12 Plan and Longitudinal Section 225 to 250 km

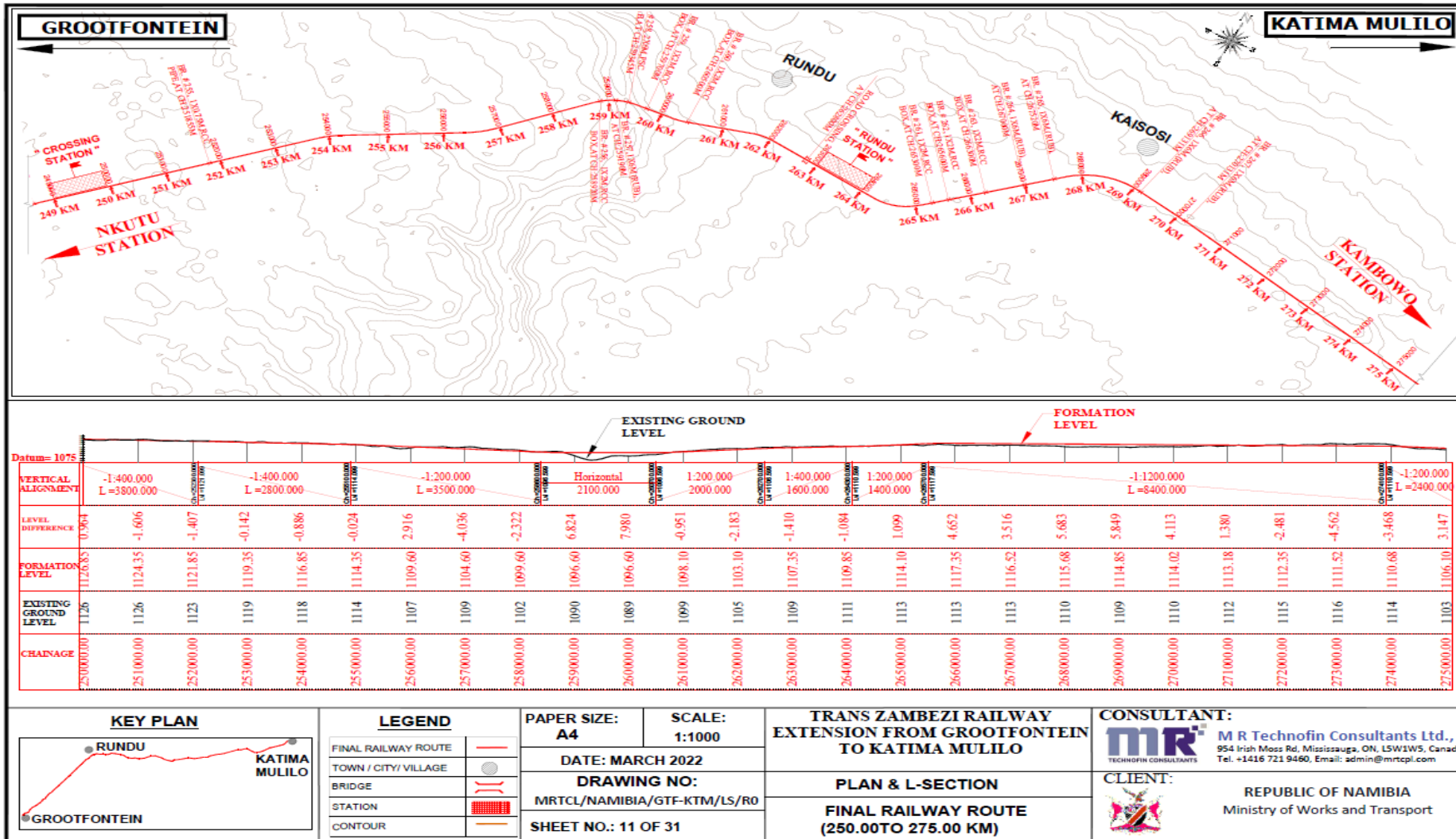
Figure 1-12: Plan and Longitudinal Section 225 to 250 km





1.13 Plan and Longitudinal Section 250 to 275 km

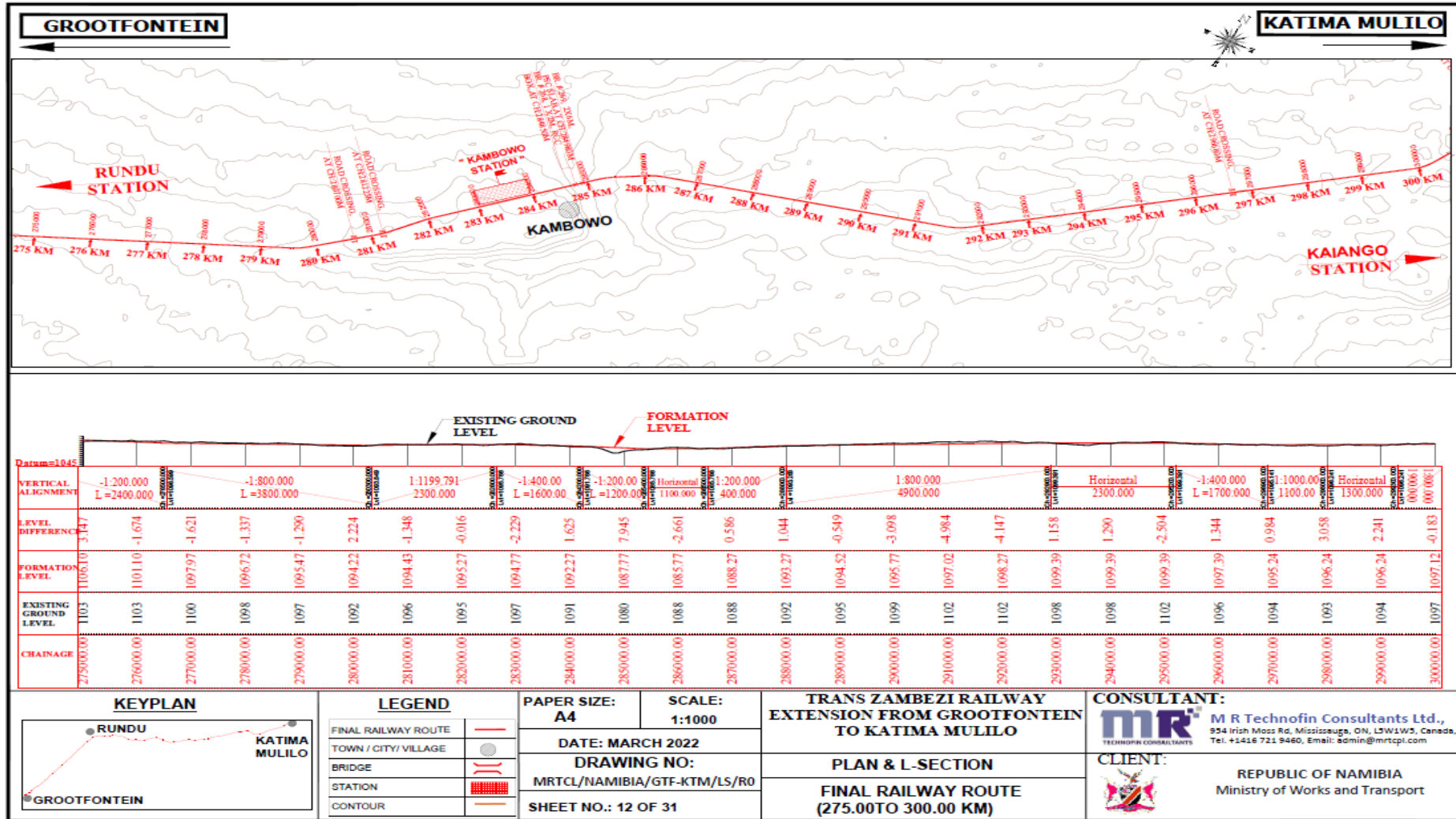
Figure 1-13: Plan and Longitudinal Section 250 to 275 km





1.14 Plan and Longitudinal Section 275 to 300 km

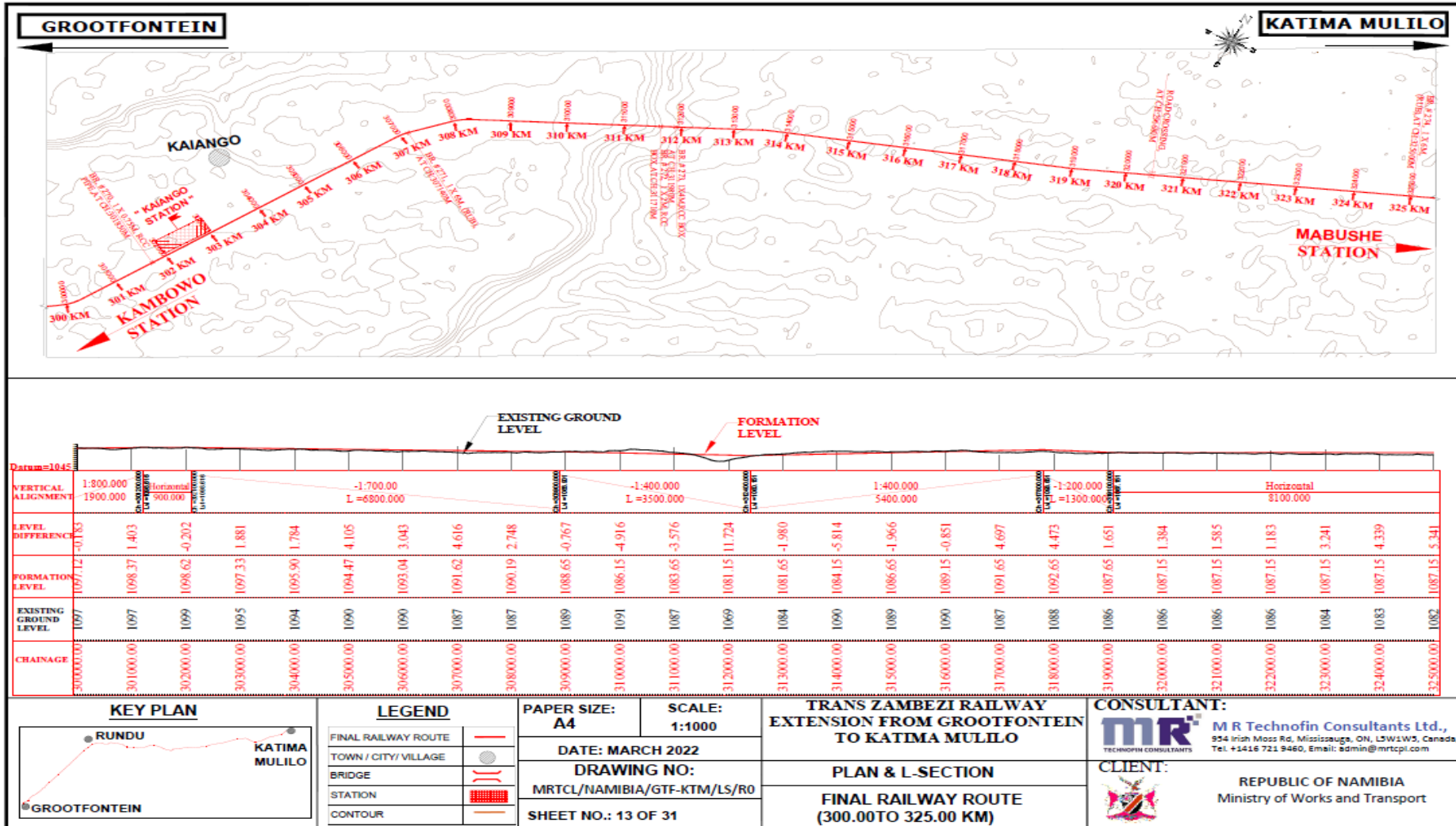
Figure 1-14: Plan and Longitudinal Section 275 to 300 km





## 1.15 Plan and Longitudinal Section 300 to 325 km

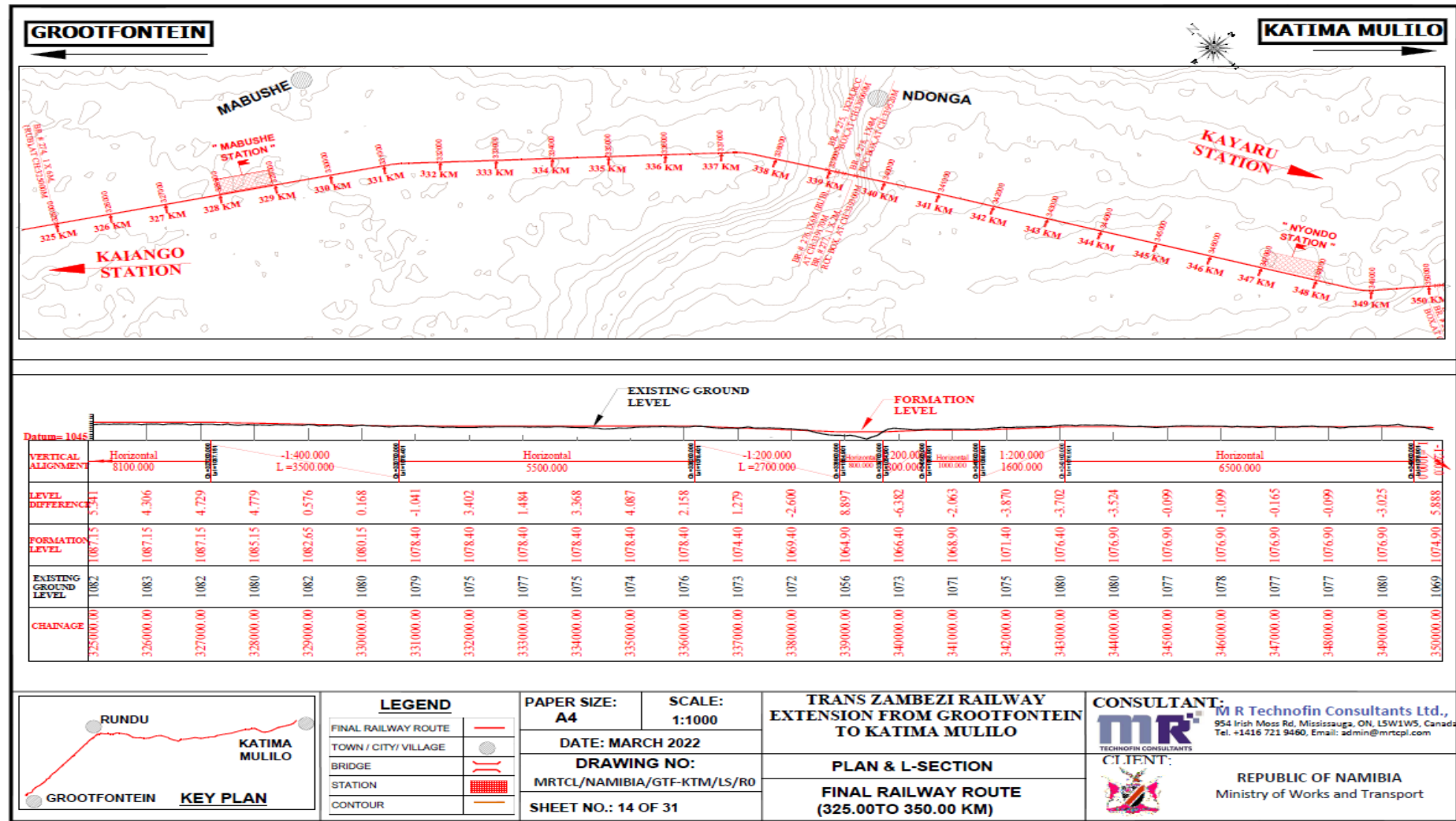
Figure 1-15: Plan and Longitudinal Section 300 to 325 km





## 1.16 Plan and Longitudinal Section 325 to 350 km

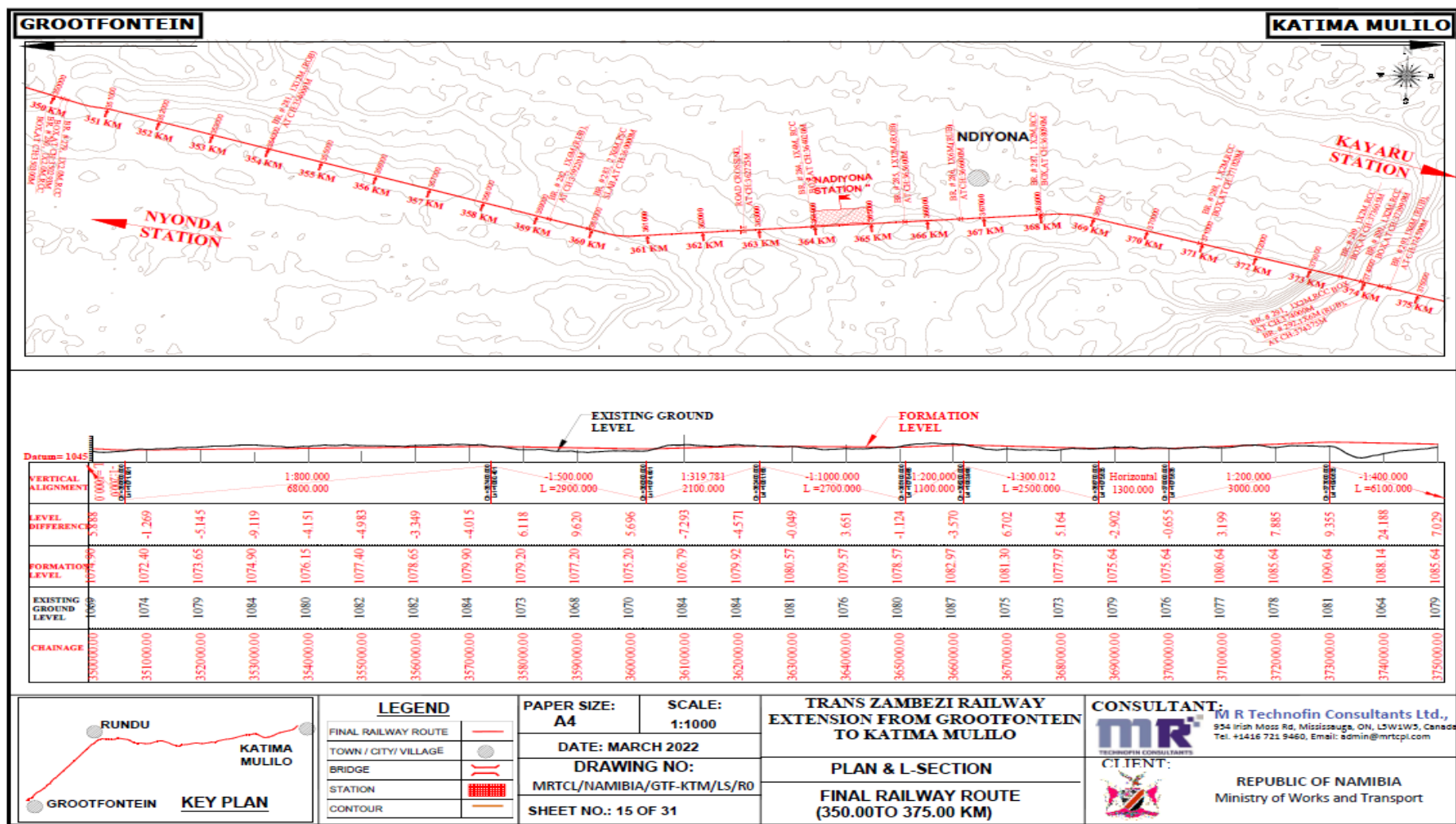
Figure 1-16: Plan and Longitudinal Section 325 to 350 km





## 1.17 Plan and Longitudinal Section 350 to 375 km

Figure 1-17: Plan and Longitudinal Section 350 to 375 km



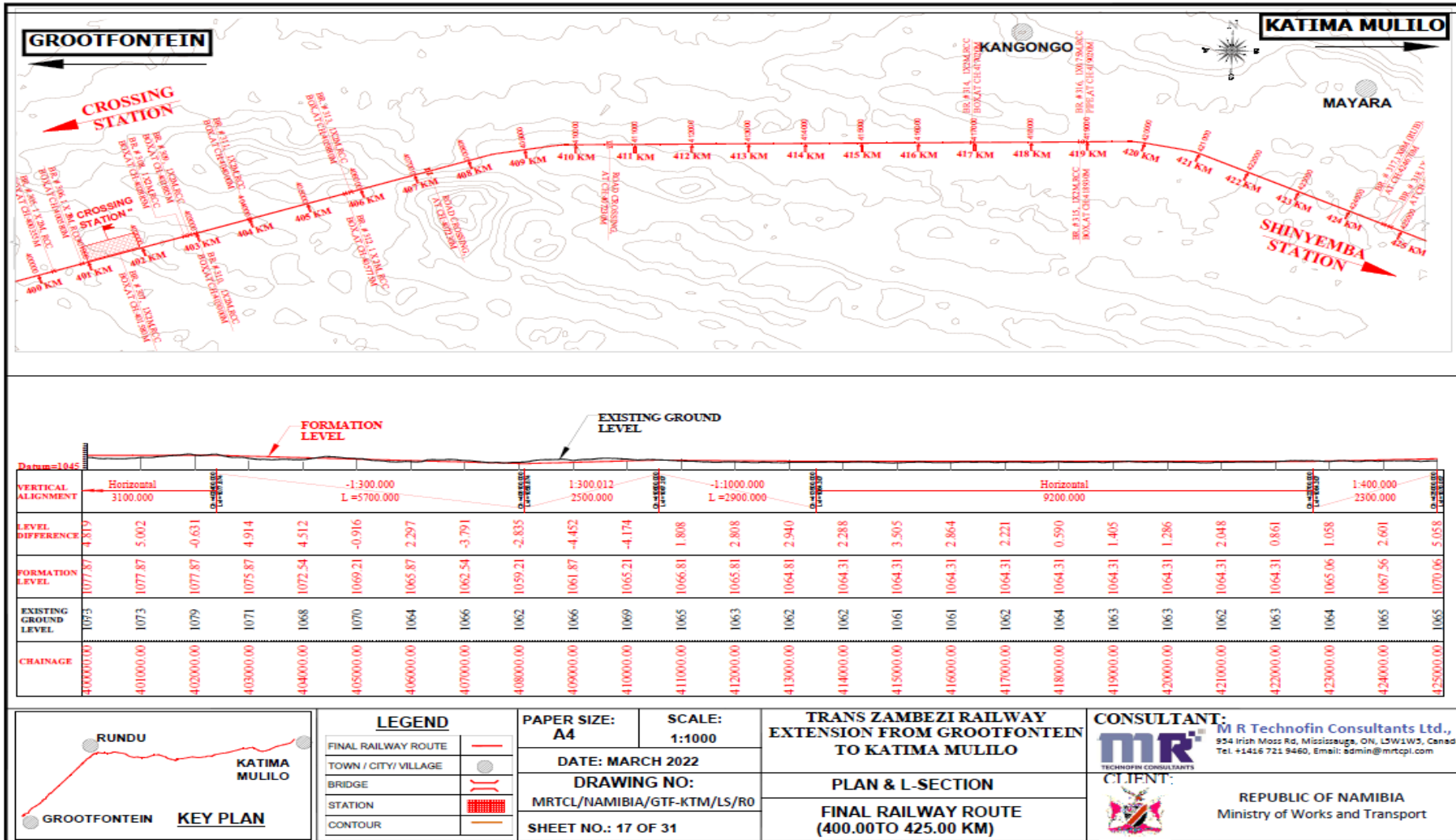






## 1.19 Plan and Longitudinal Section 400 to 425 km

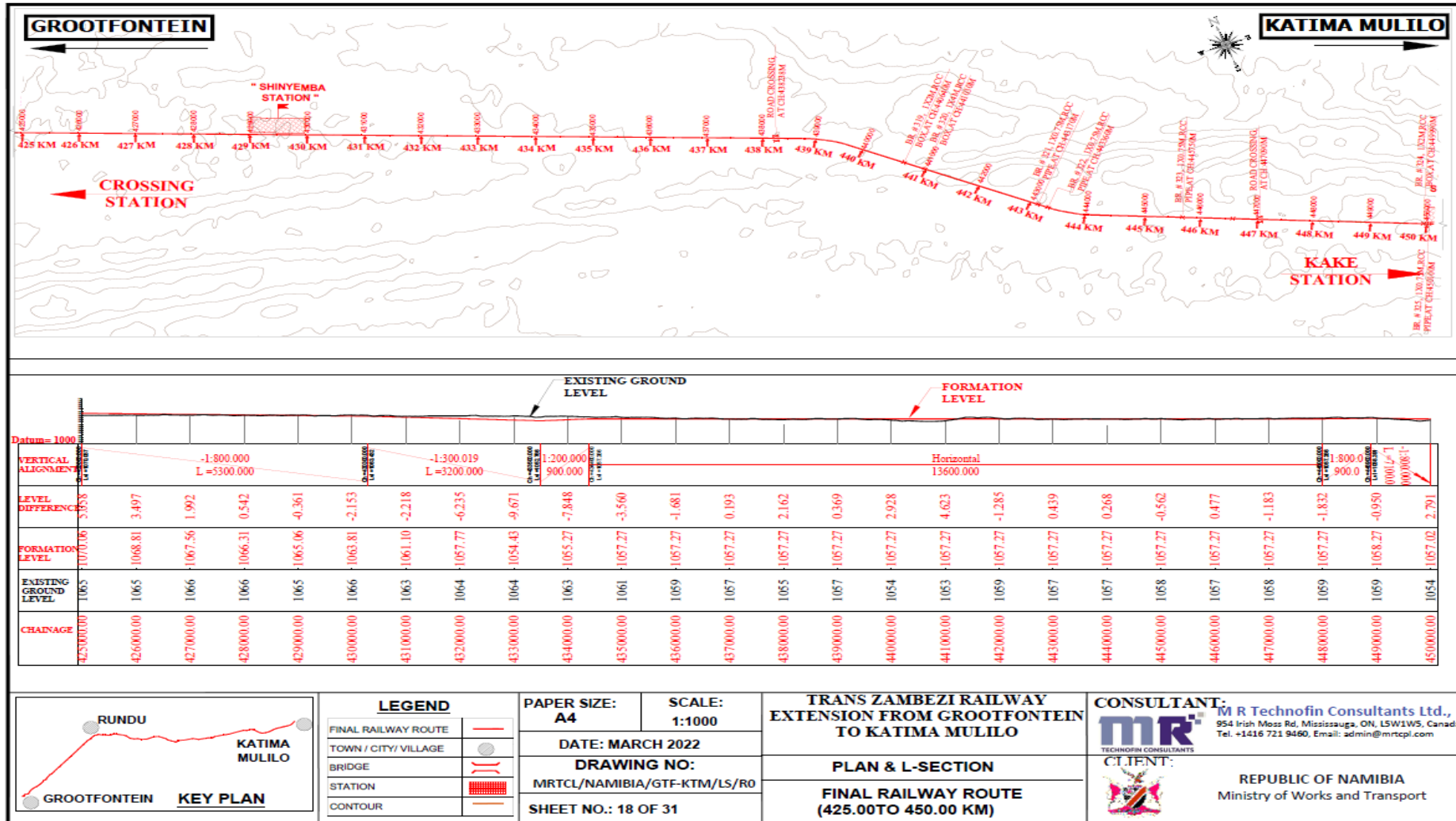
Figure 1-19: Plan and Longitudinal Section 400 to 425 km





## 1.20 Plan and Longitudinal Section 425 to 450 km

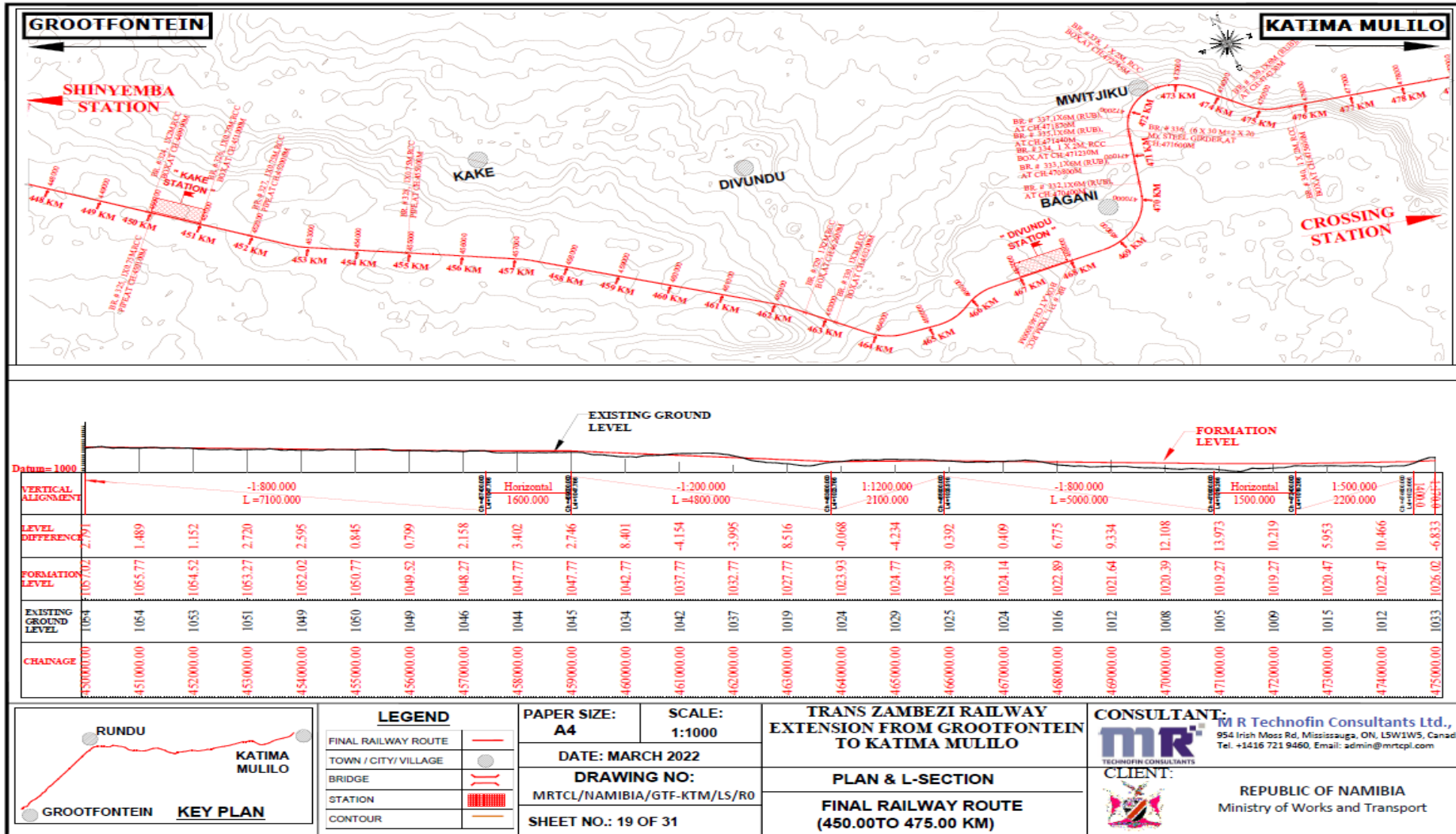
Figure 1-20: Plan and Longitudinal Section 425 to 450 km





## 1.21 Plan and Longitudinal Section 450 to 475 km

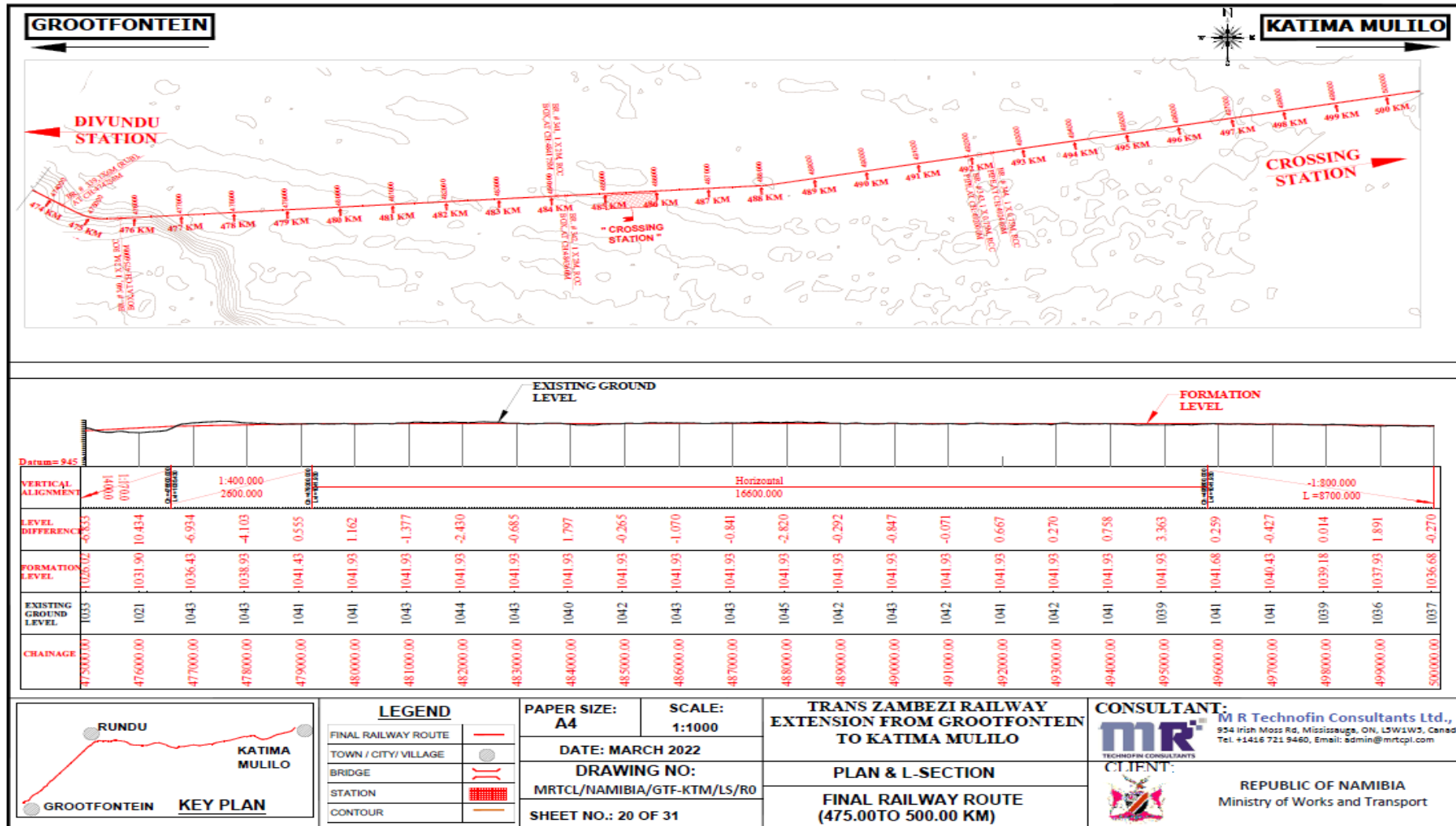
Figure 1-21: Plan and Longitudinal Section 450 to 475 km





1.22 Plan and Longitudinal Section 475 to 500 km

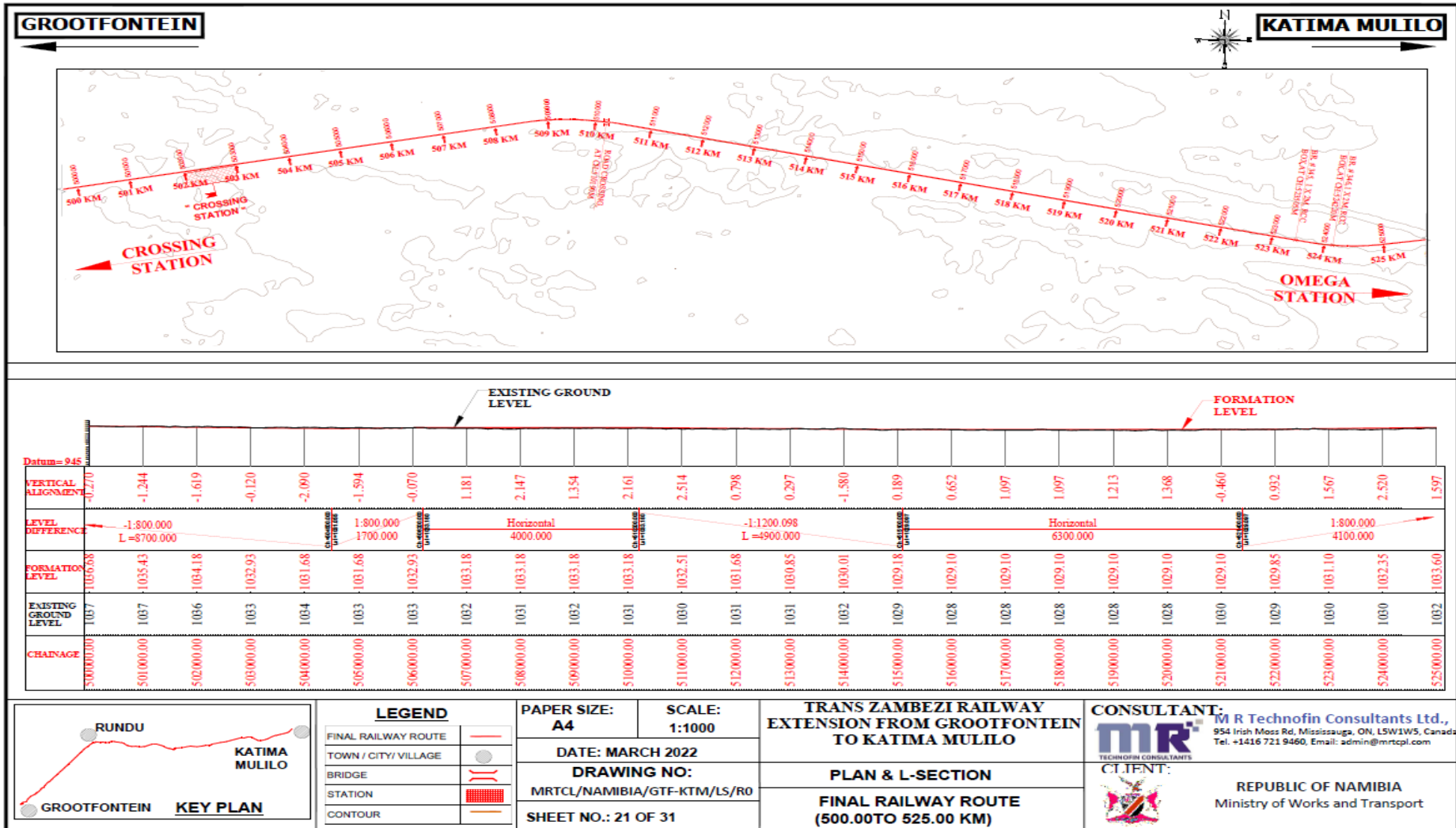
Figure 1-22: Plan and Longitudinal Section 475 to 500 km





### 1.23 Plan and Longitudinal Section 500 to 525 km

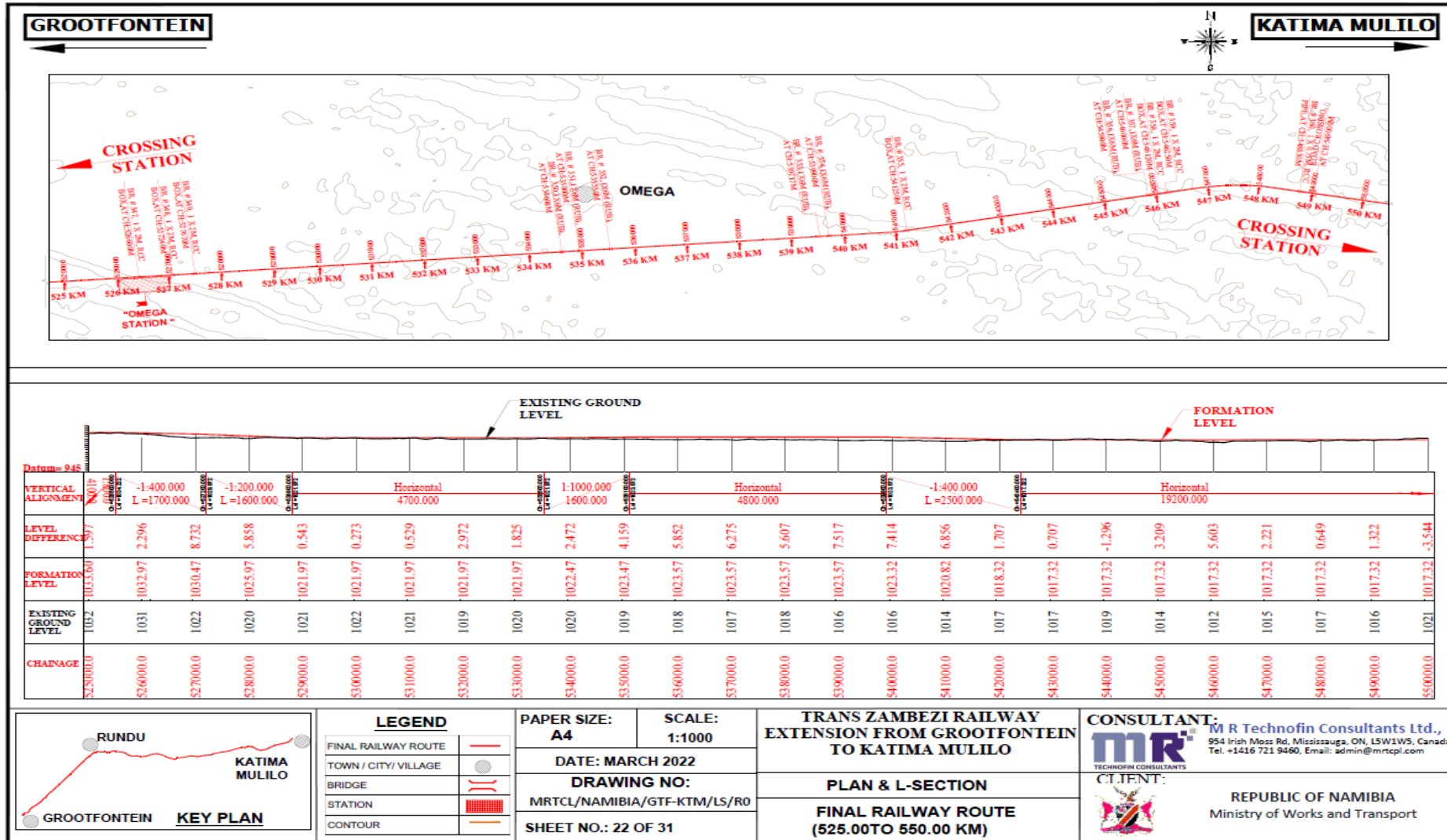
Figure 1-23: Plan and Longitudinal Section 500 to 525 km





1.24 Plan and Longitudinal Section 525 to 550 km

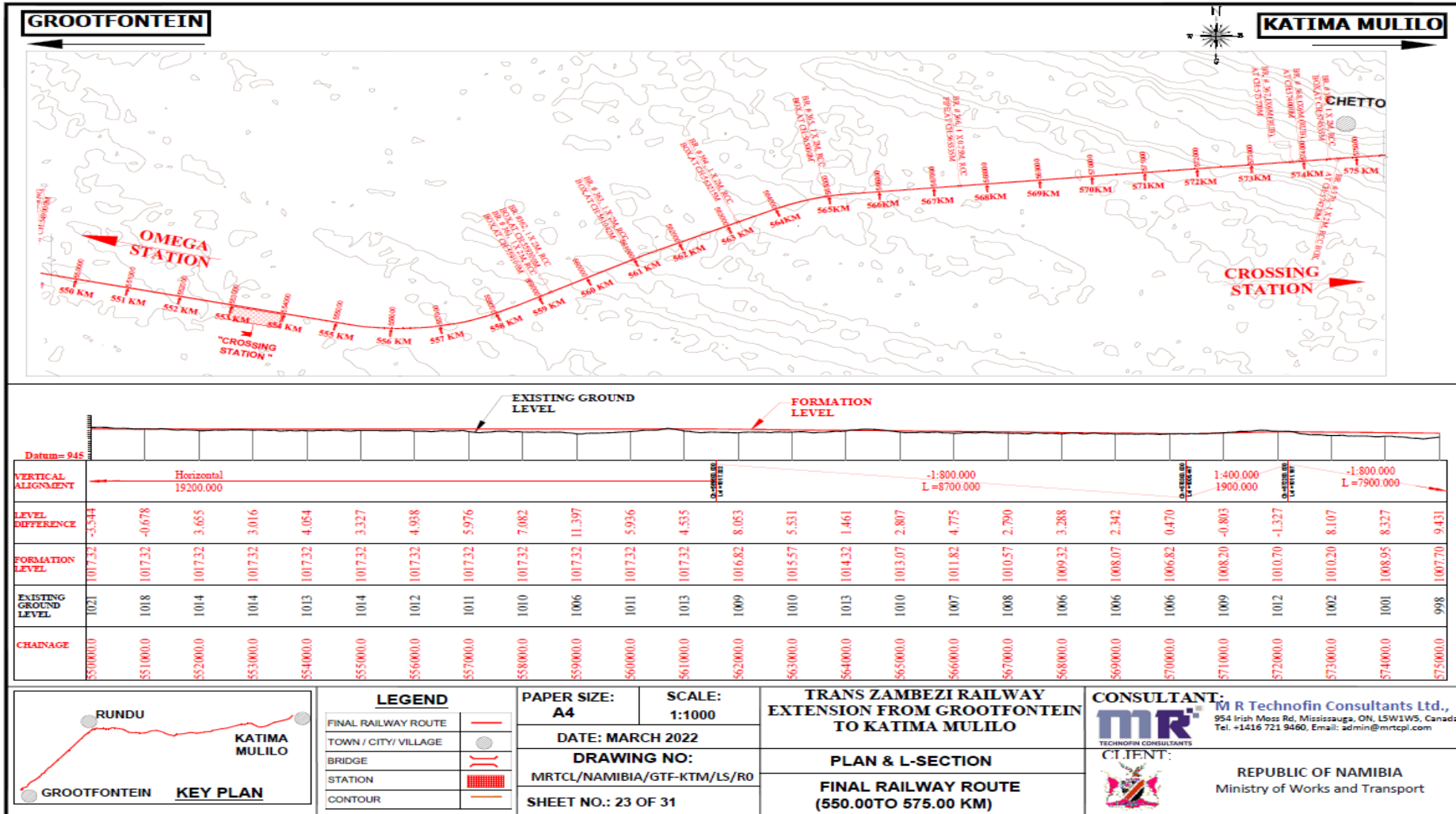
Figure 1-24: Plan and Longitudinal Section 525 to 550 km





1.25 Plan and Longitudinal Section 550 to 575 km

Figure 1-25: Plan and Longitudinal Section 550 to 575 km

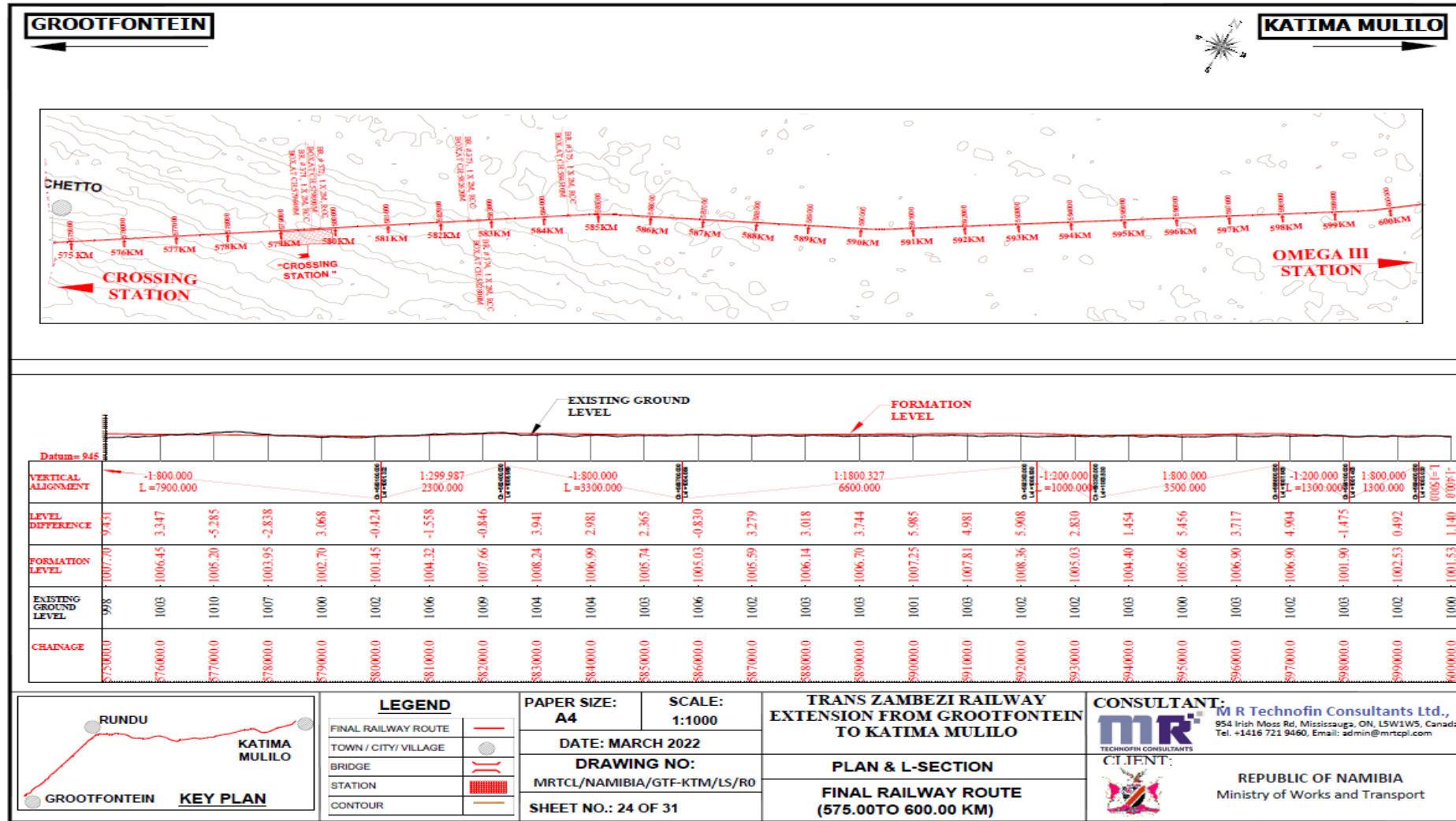






## 1.26 Plan and Longitudinal Section 575 to 600 km

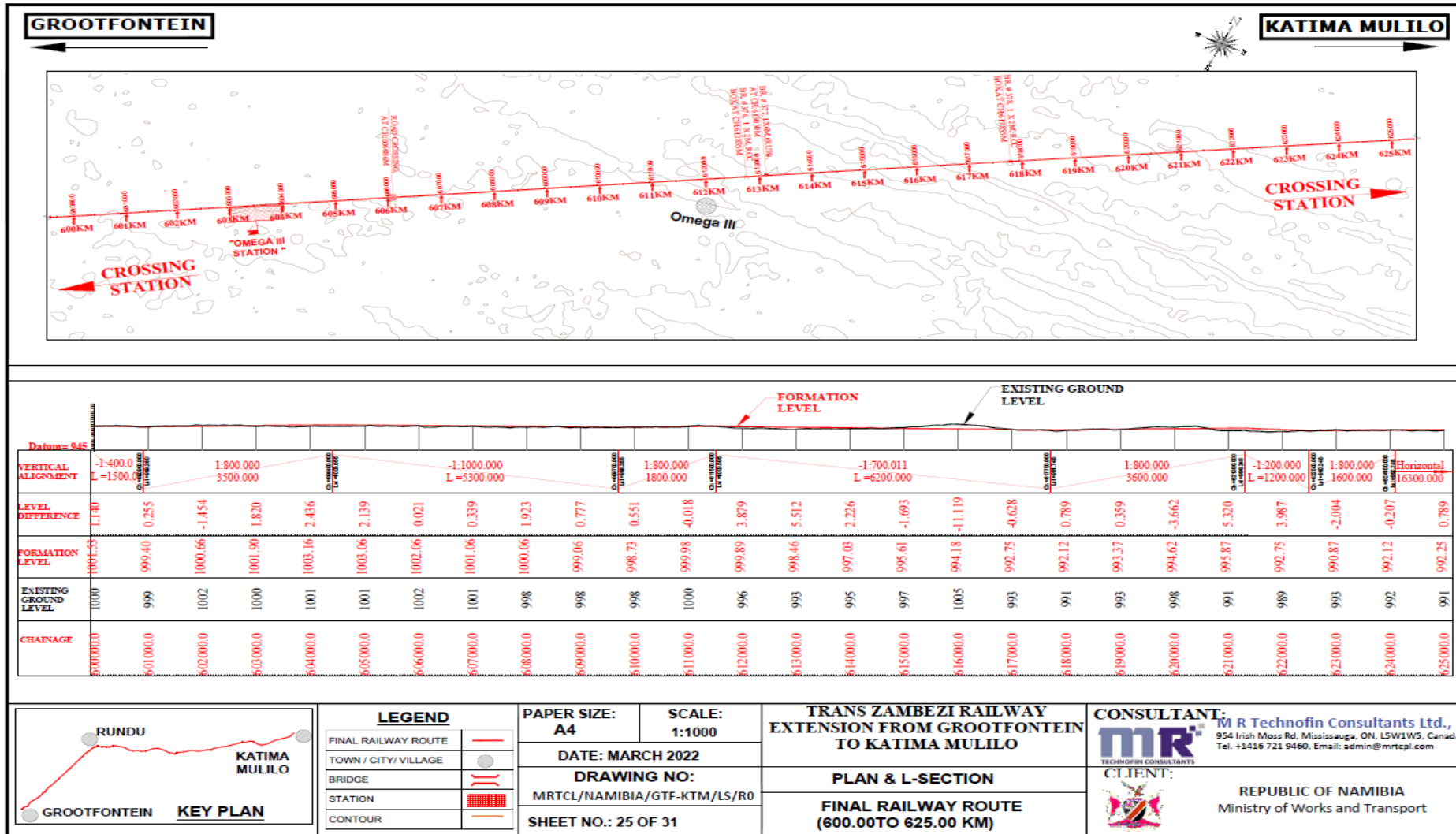
Figure 1-26: Plan and Longitudinal Section 575 to 600 km





## 1.27 Plan and Longitudinal Section 600 to 625 km

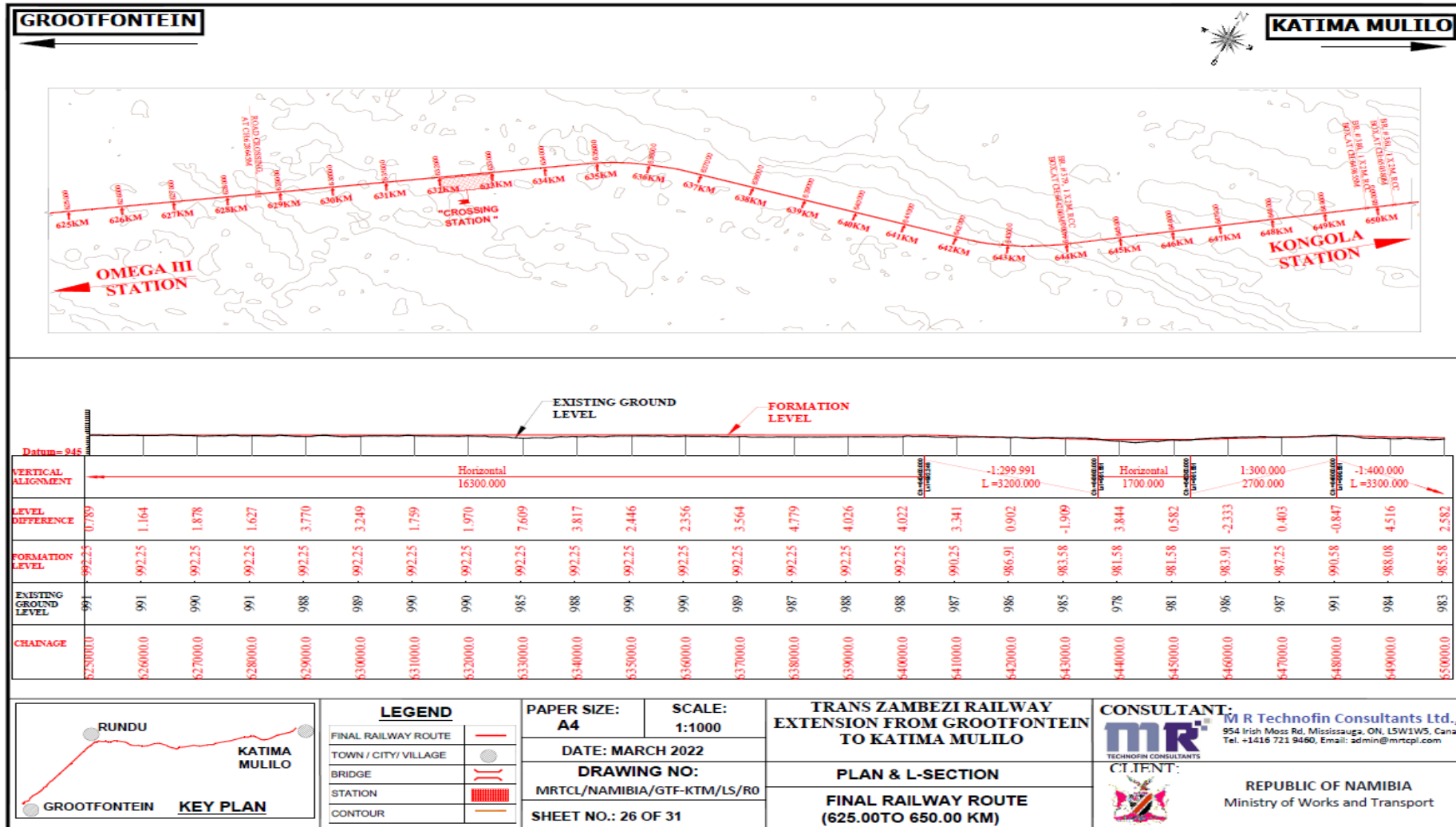
Figure 1-27: Plan and Longitudinal Section 600 to 625 km





1.28 Plan and Longitudinal Section 625 to 650 km

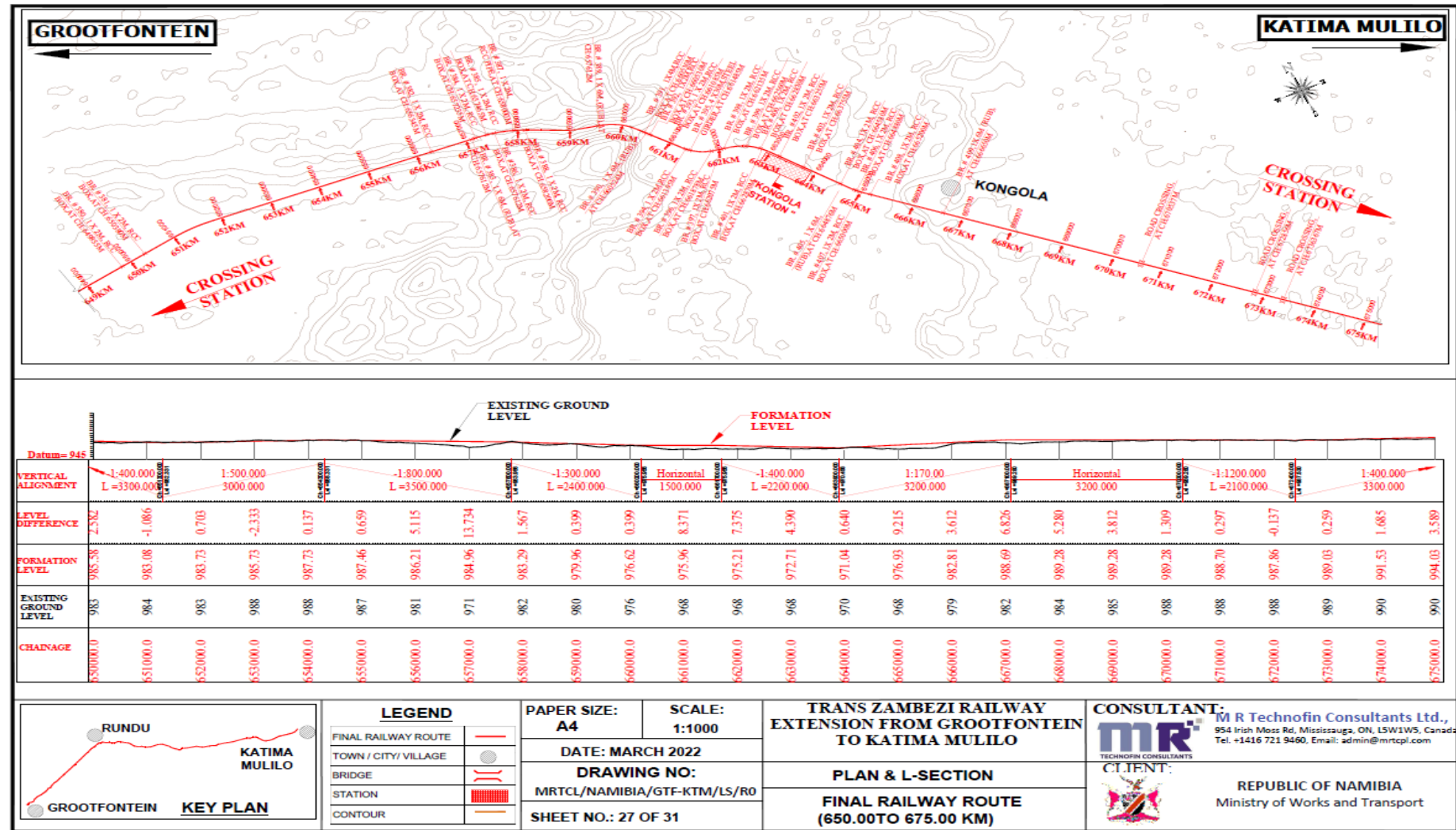
Figure 1-28: Plan and Longitudinal Section 625 to 650 km





1.29 Plan and Longitudinal Section 650 to 675 km

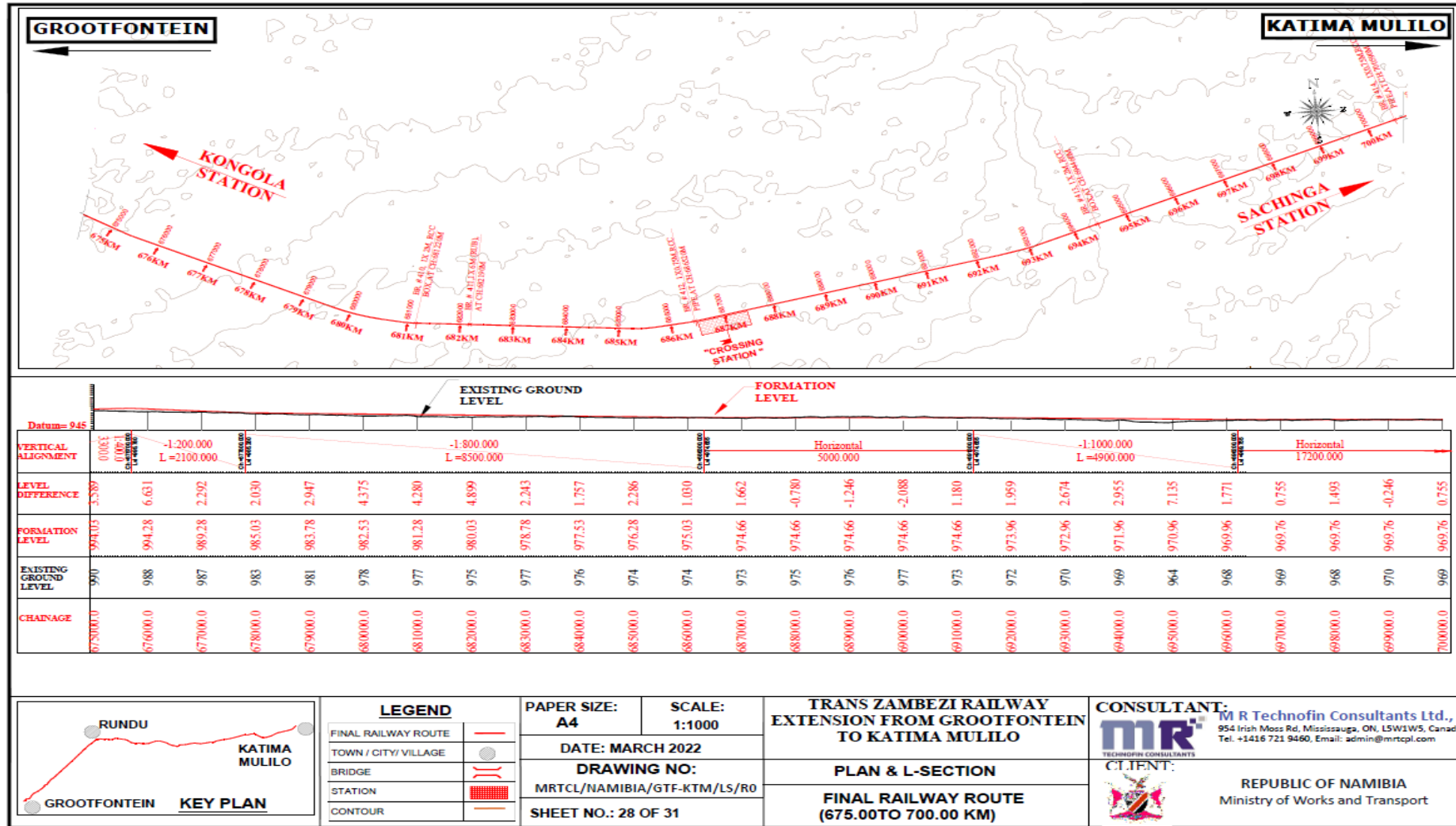
Figure 1-29: Plan and Longitudinal Section 650 to 675 km





### 1.30 Plan and Longitudinal Section 675 to 700 km

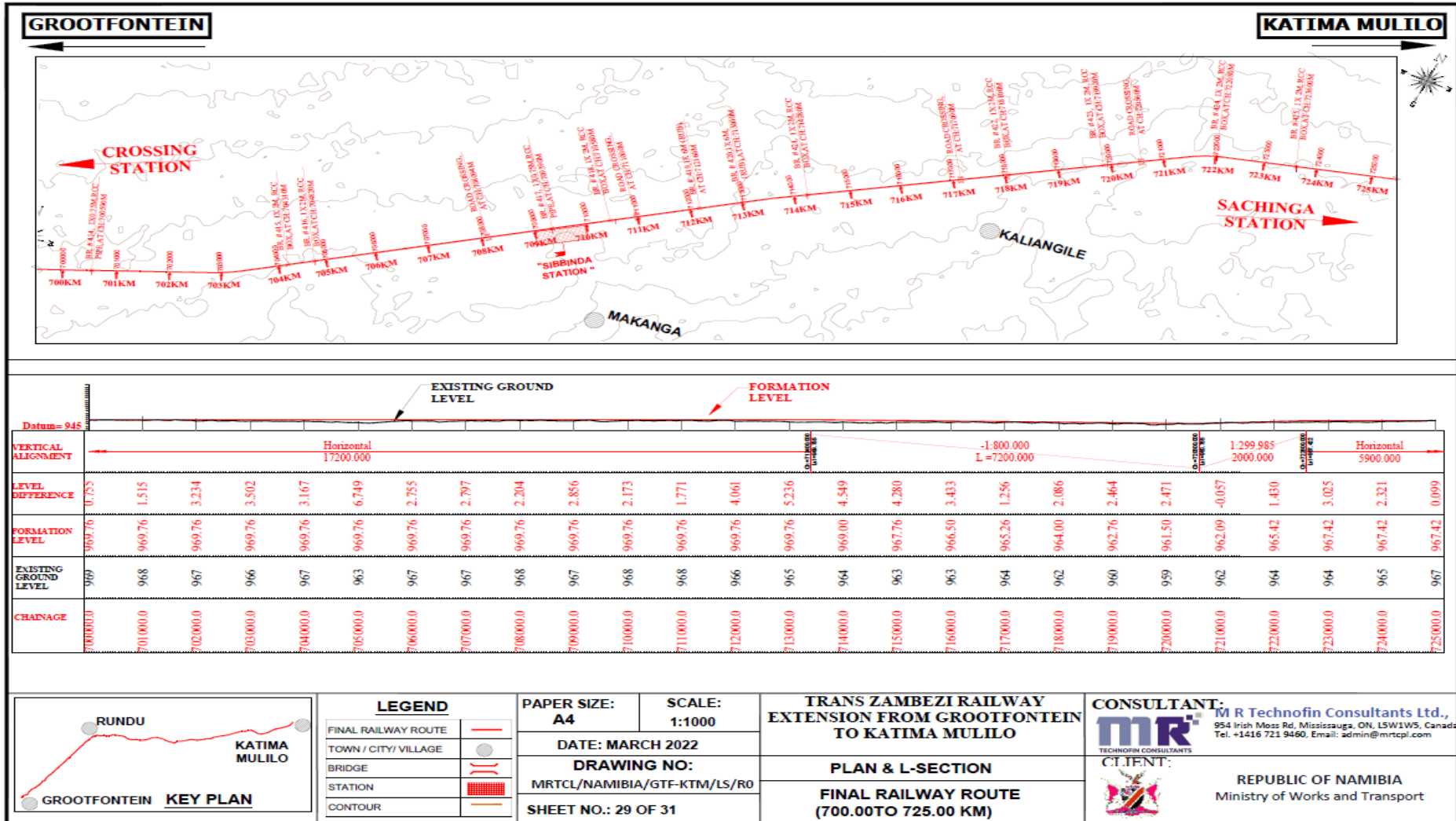
Figure 1-30: Plan and Longitudinal Section 675 to 700 km





### 1.31 Plan and Longitudinal Section 700 to 725 km

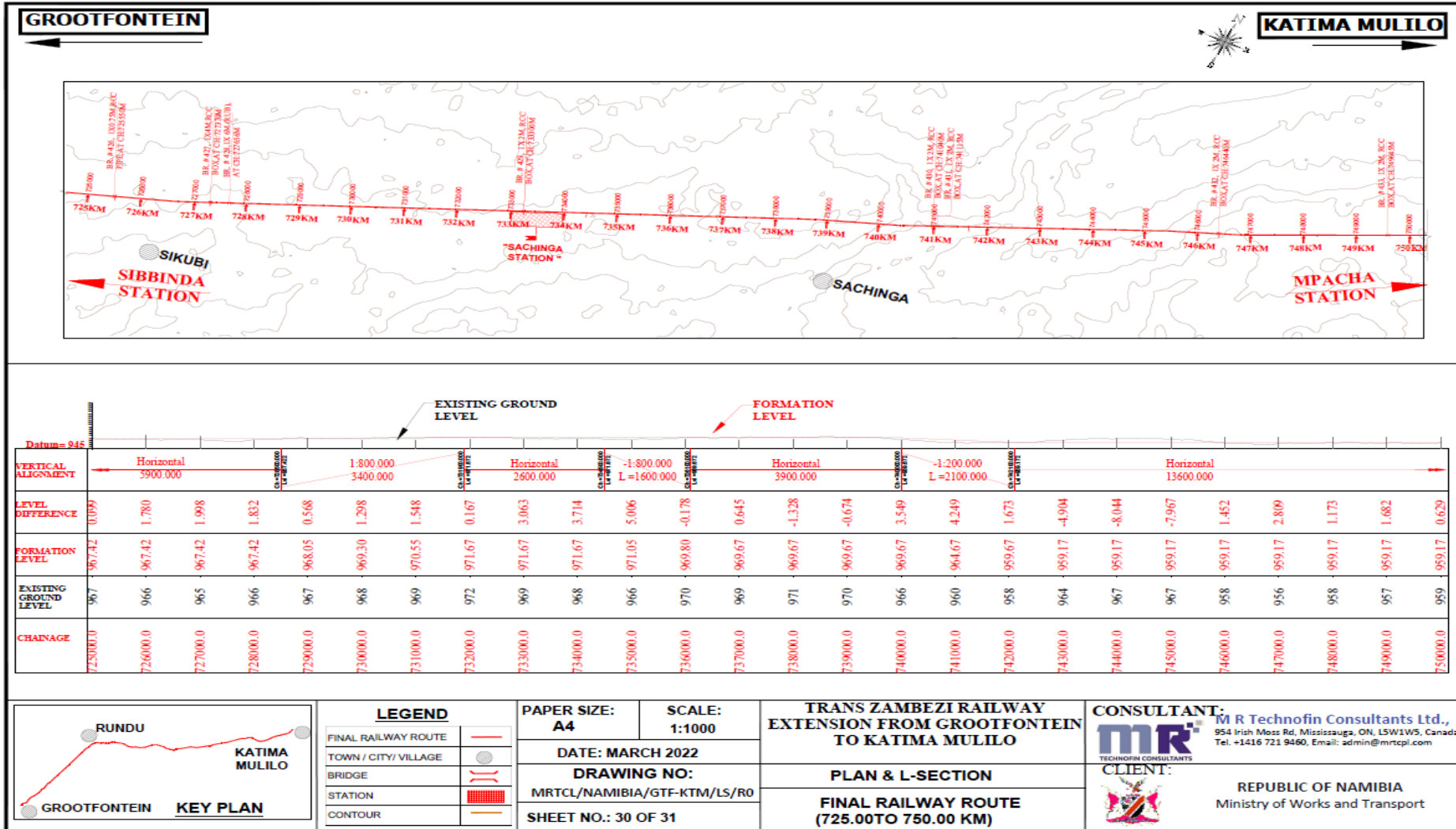
Figure 1-31: Plan and Longitudinal Section 700 to 725 km





### 1.32 Plan and Longitudinal Section 725 to 750 km

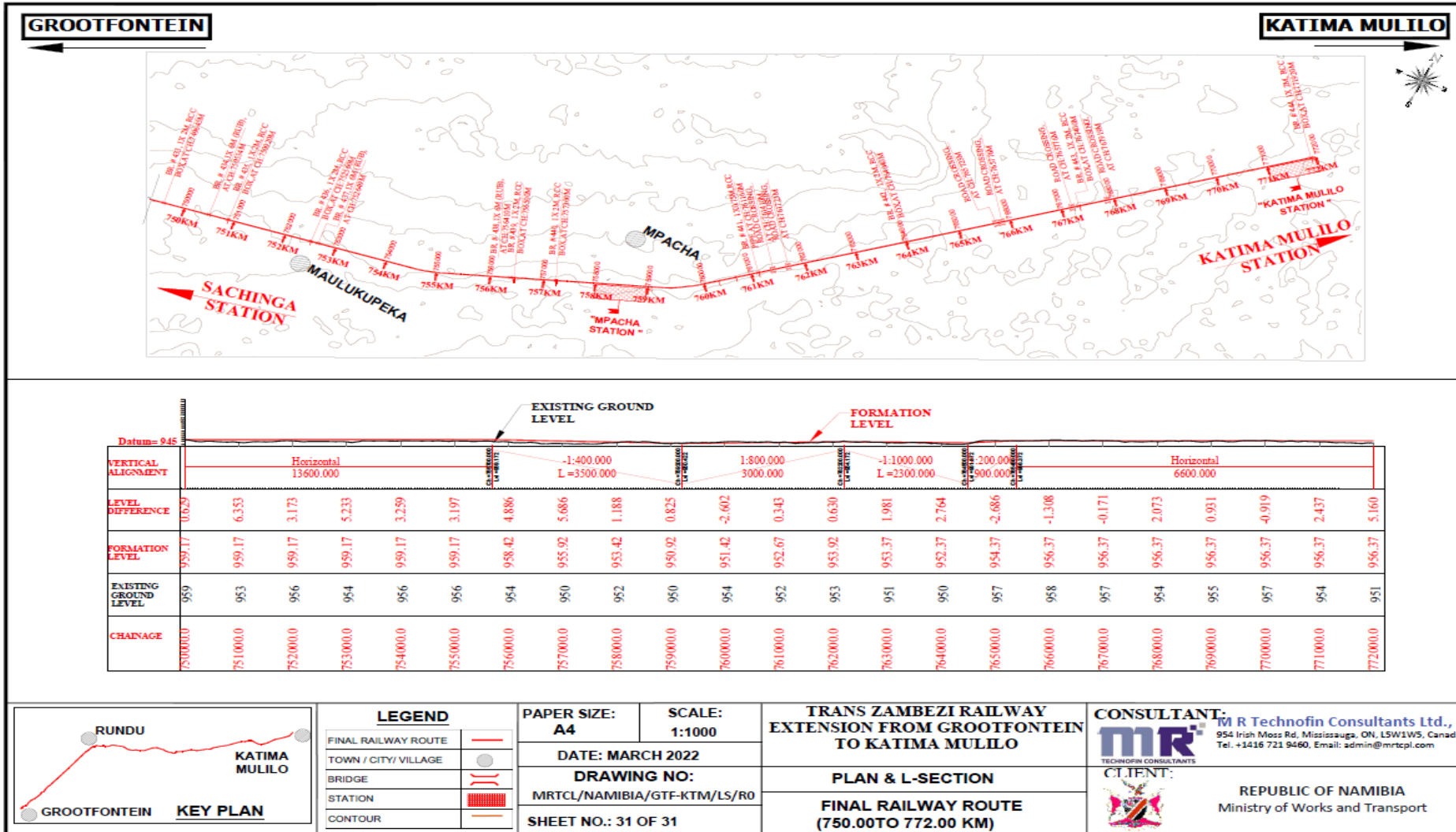
Figure 1-32: Plan and Longitudinal Section 725 to 750 km





### 1.33 Plan and Longitudinal Section 750 to 772 km

Figure 1-33: Plan and Longitudinal Section 750 to 772 km

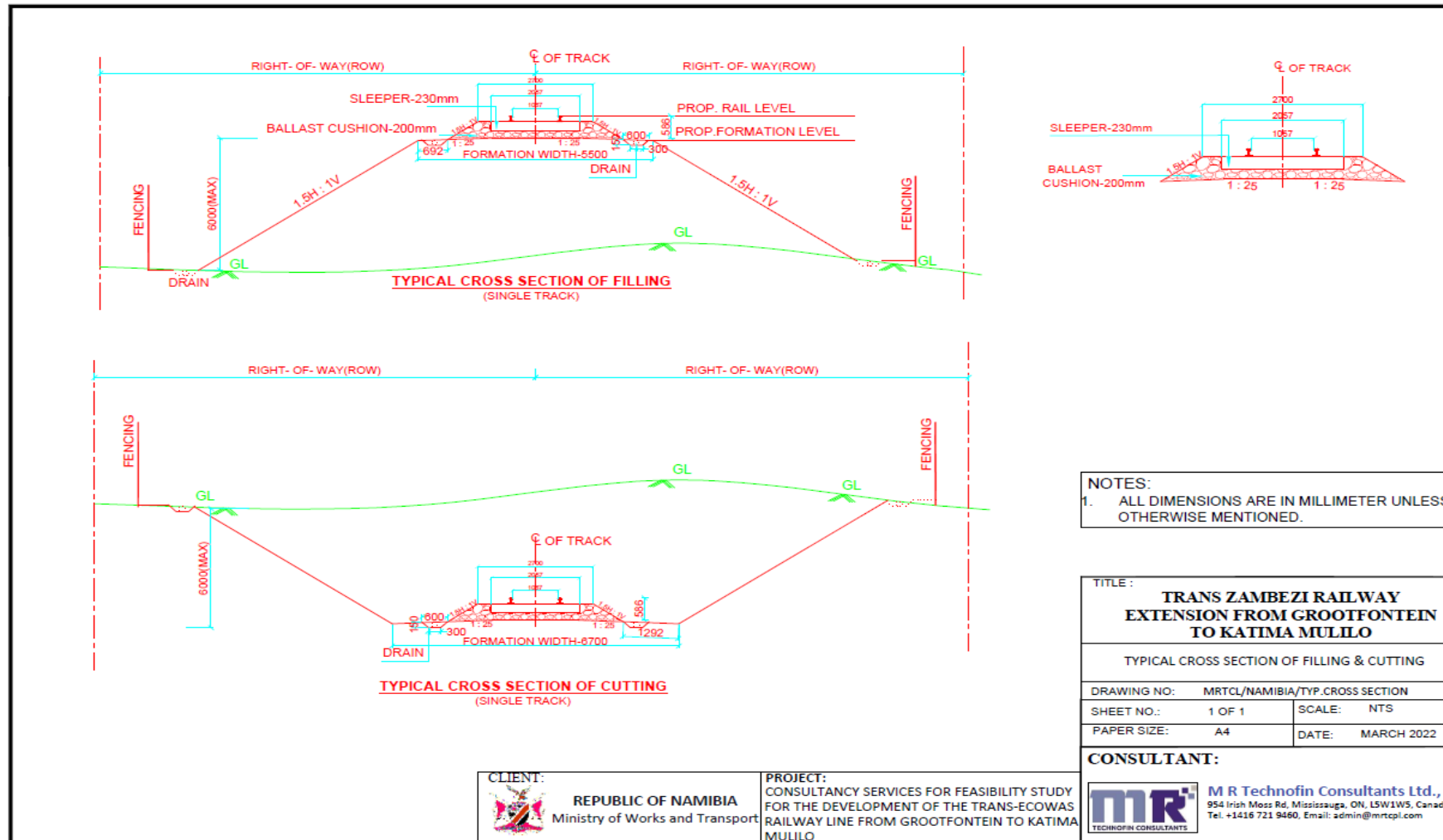






## 1.34 Typical Cross Sections – (Cutting & Filling)

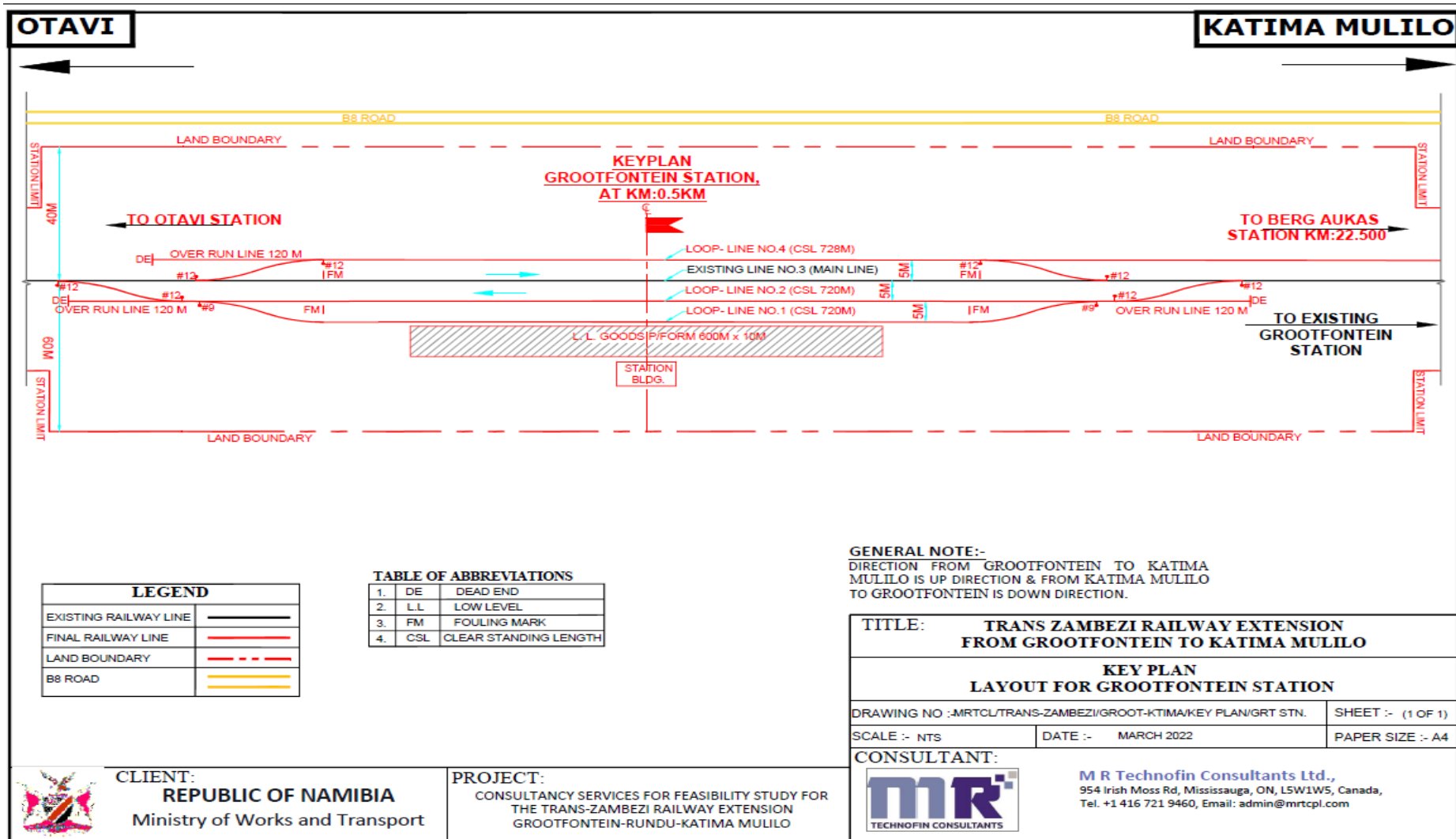
Figure 1-34: Typical Cross Sections – (Cutting & Filling)





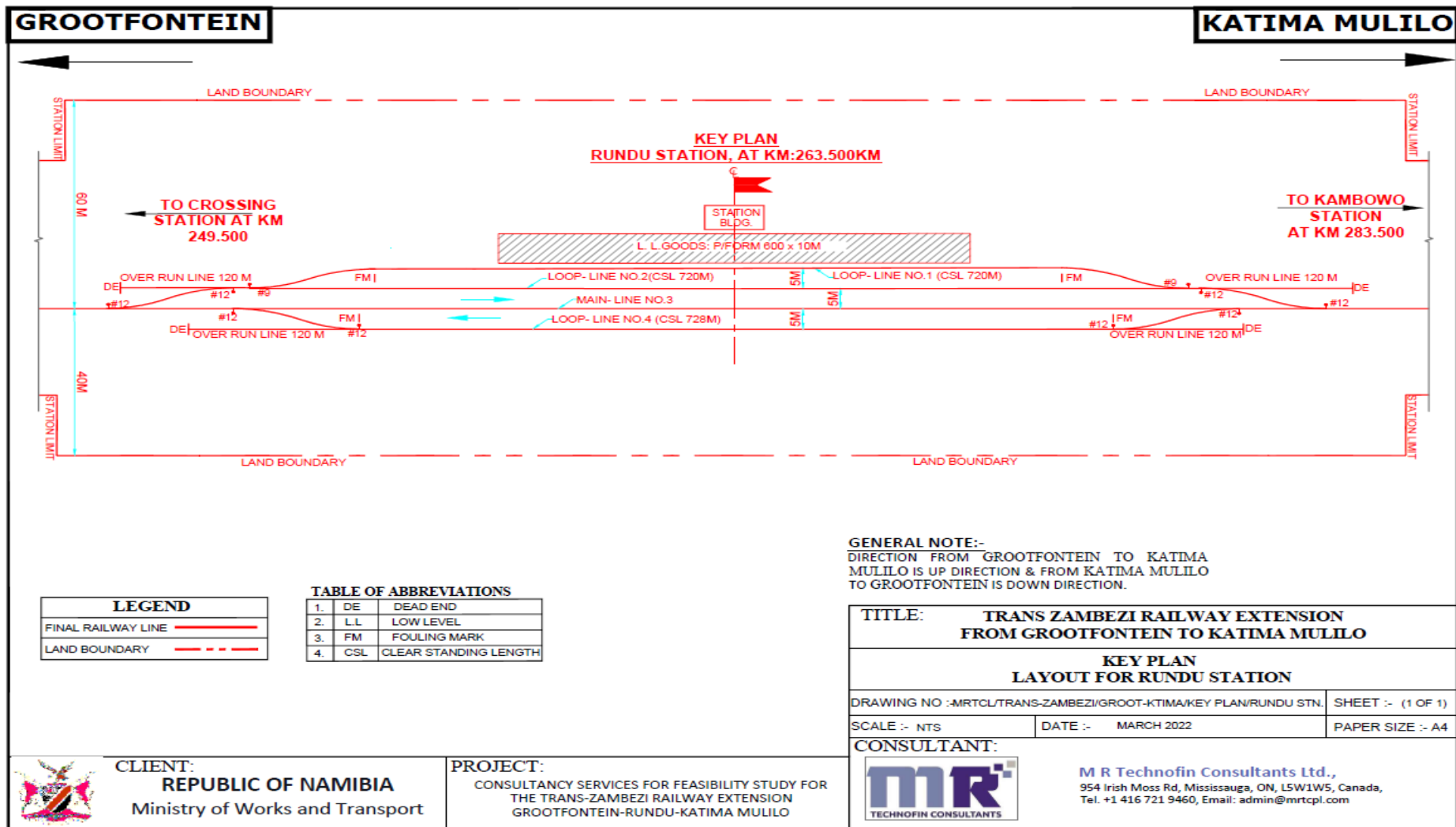
## 1.35 Key Plan of Track Layout for Grootfontein Station

Figure 1-35: Key Plan of Track Layout for Grootfontein Station



### 1.36 Key Plan of Track Layout for Rundu Station

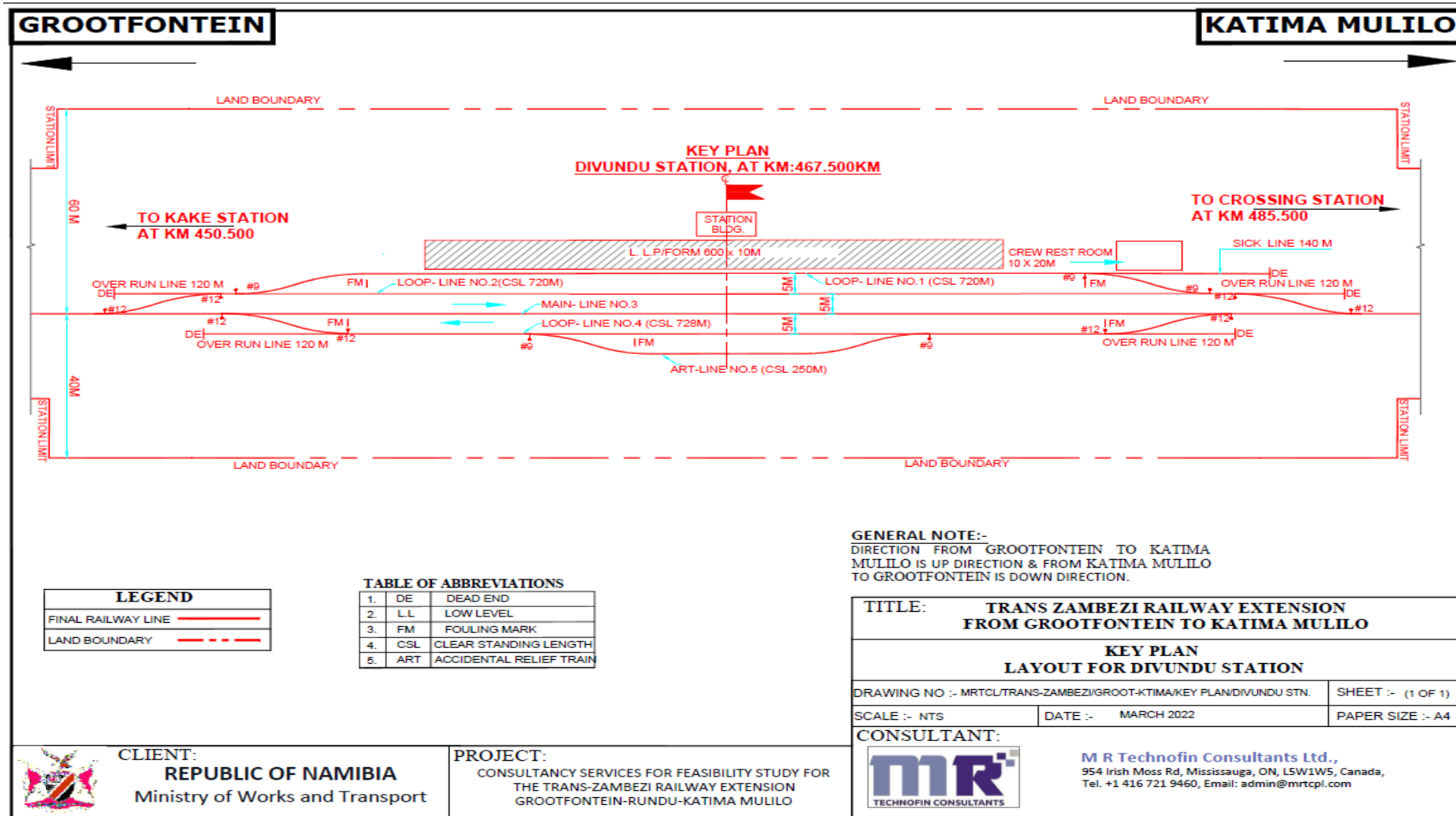
Figure 1-36: Key Plan of Track Layout for Rundu Station





### 1.37 Key Plan of Track Layout for Divundu Station

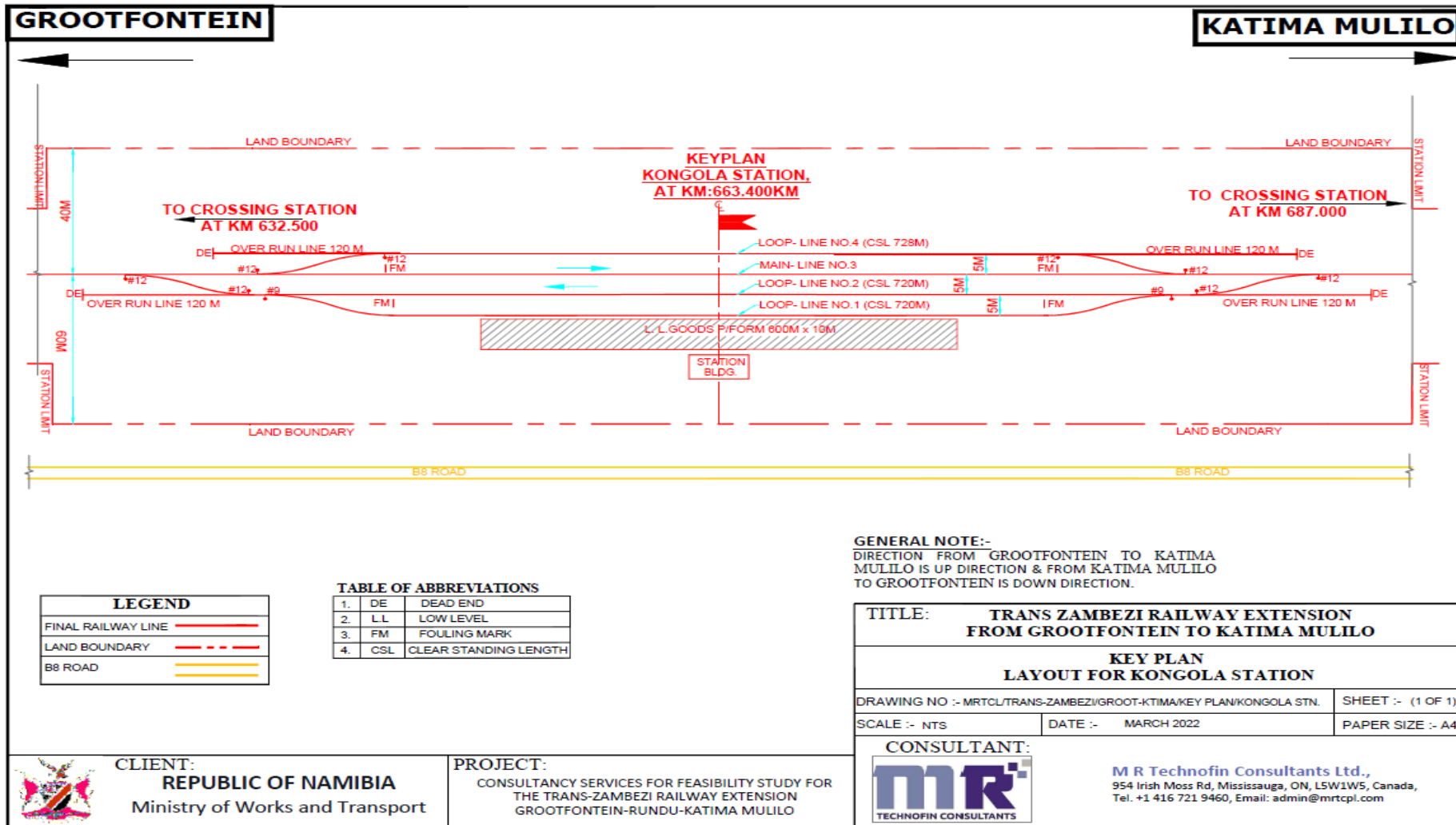
Figure 1-37: Key Plan of Track Layout for Divundu Station





## 1.38 Key Plan of Track Layout for Kongola Station

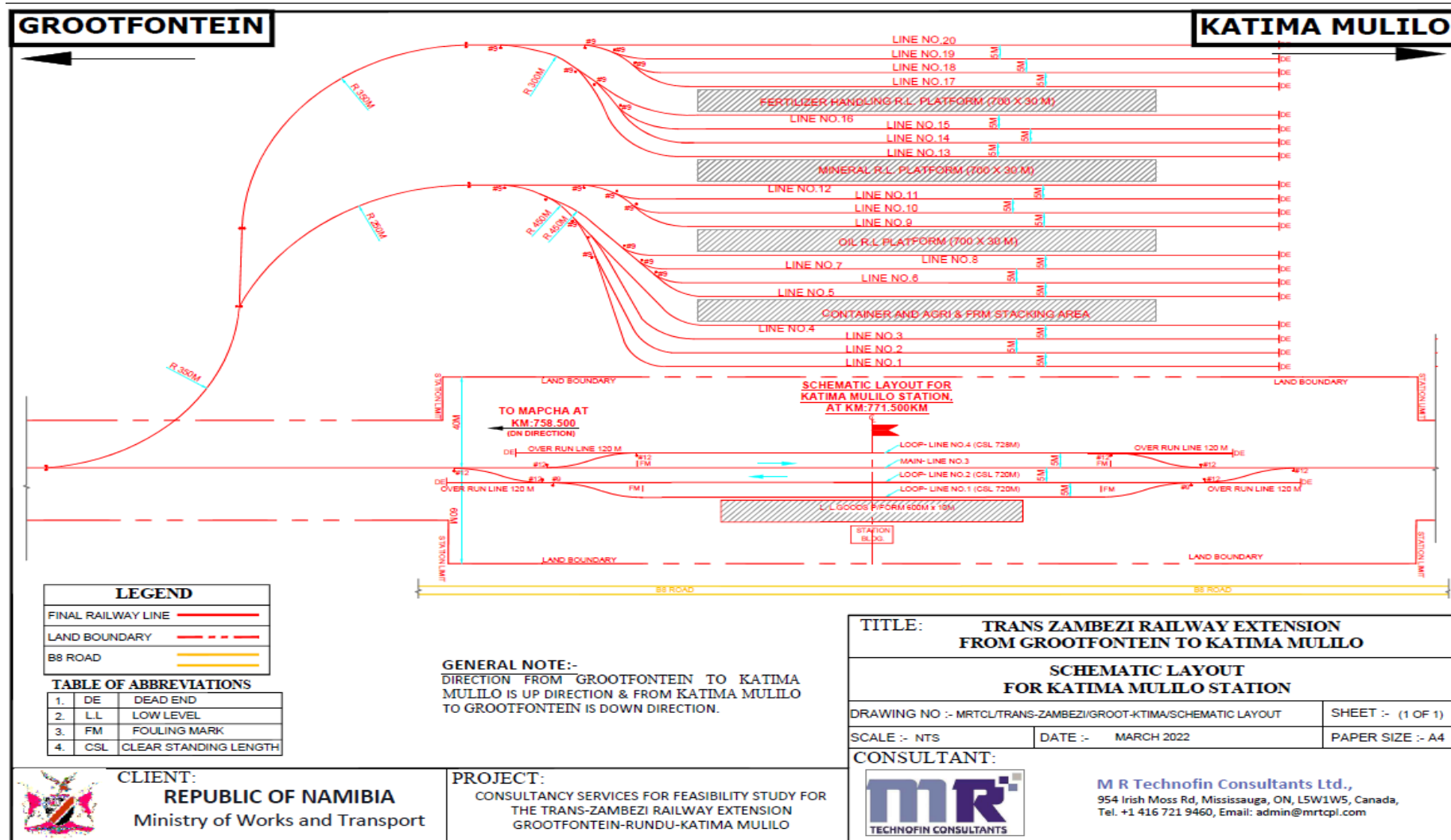
Figure 1-38: Key Plan of Track Layout for Kongola Station





### 1.39 Schematic Track Layout for Katima Mulilo Station

Figure 1-39: Schematic Track Layout for Katima Mulilo Station





## 1.40 Key Plan of Track Layout for Two Loop Line Station

Figure 1-40: Key Plan of Track Layout for Two Loop Line Station

