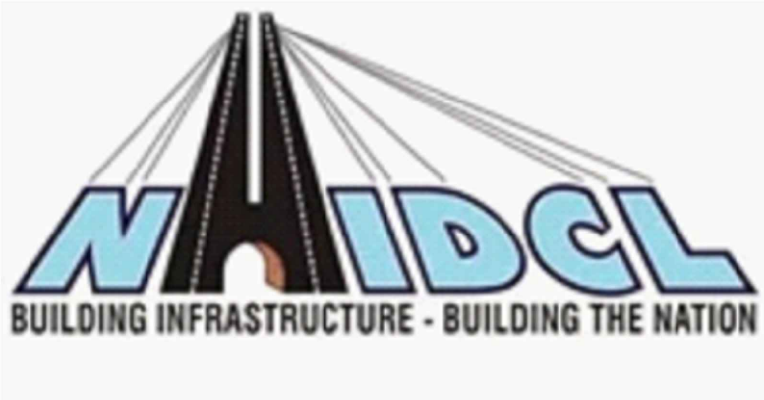
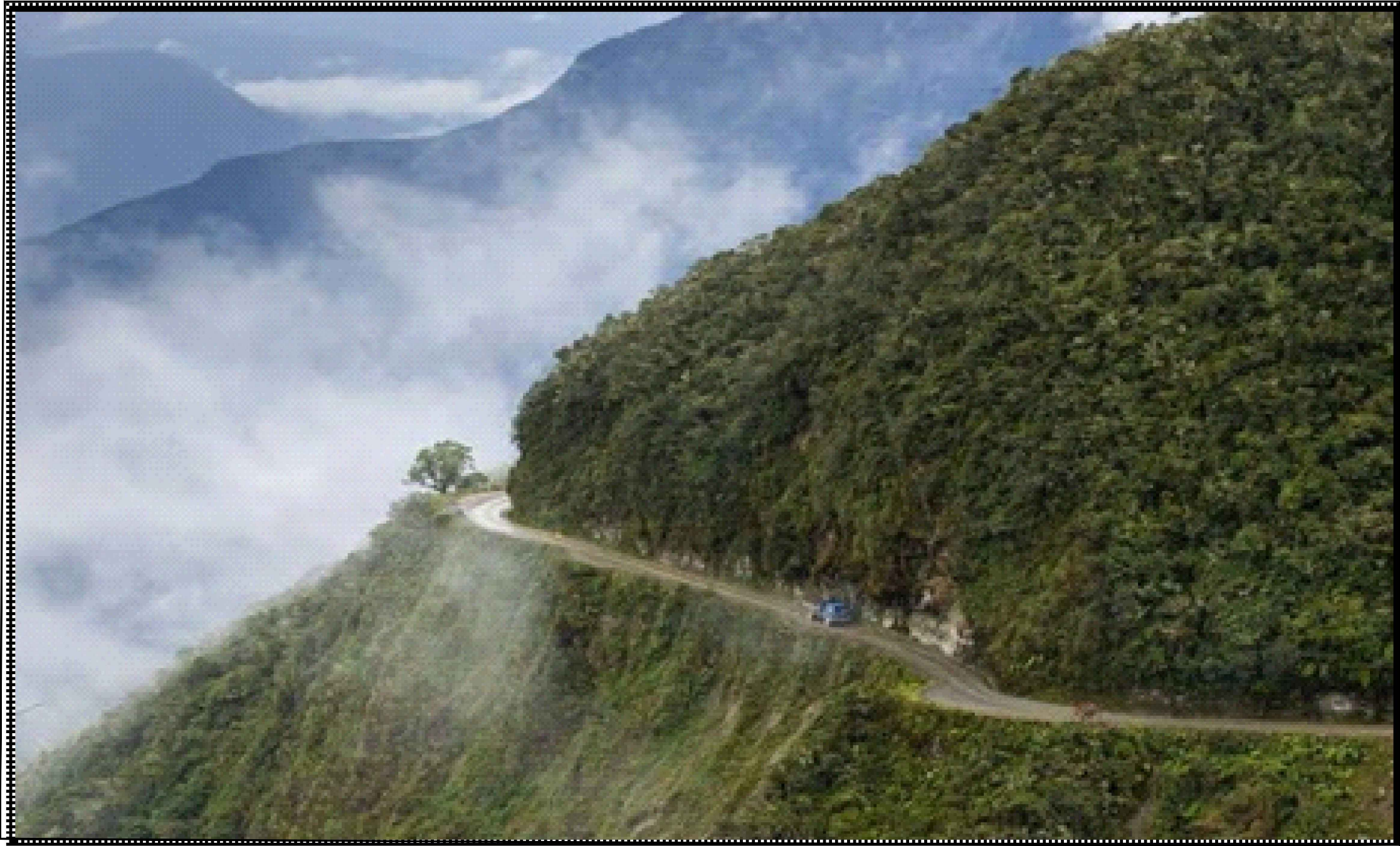




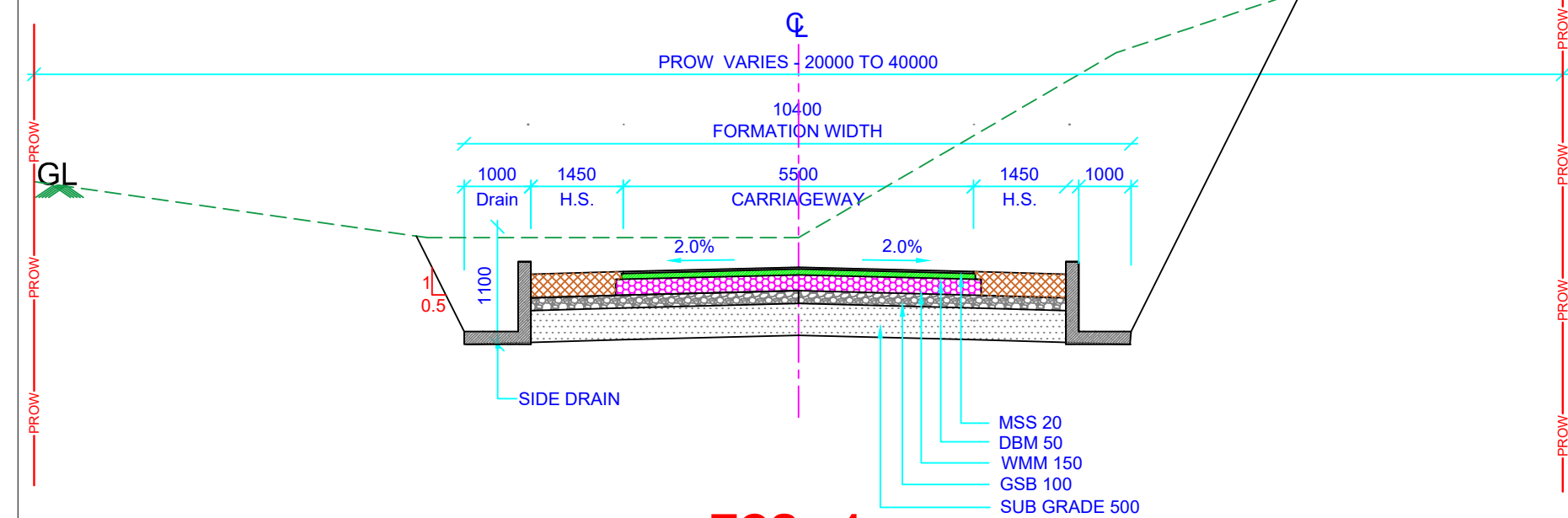
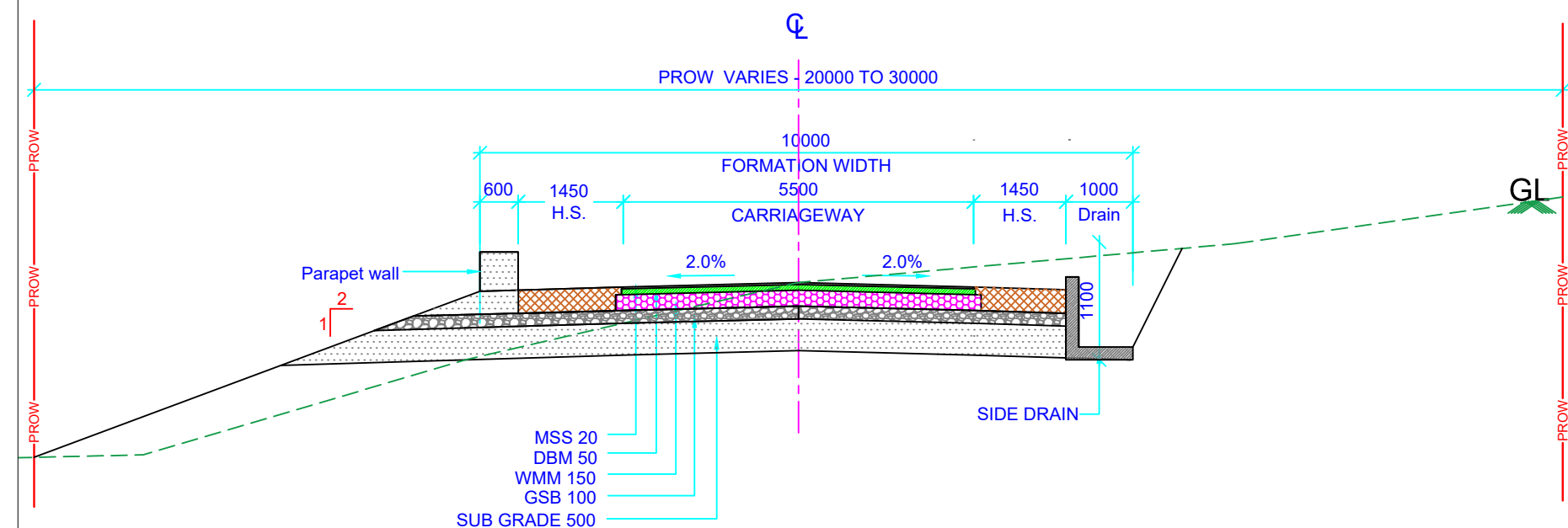
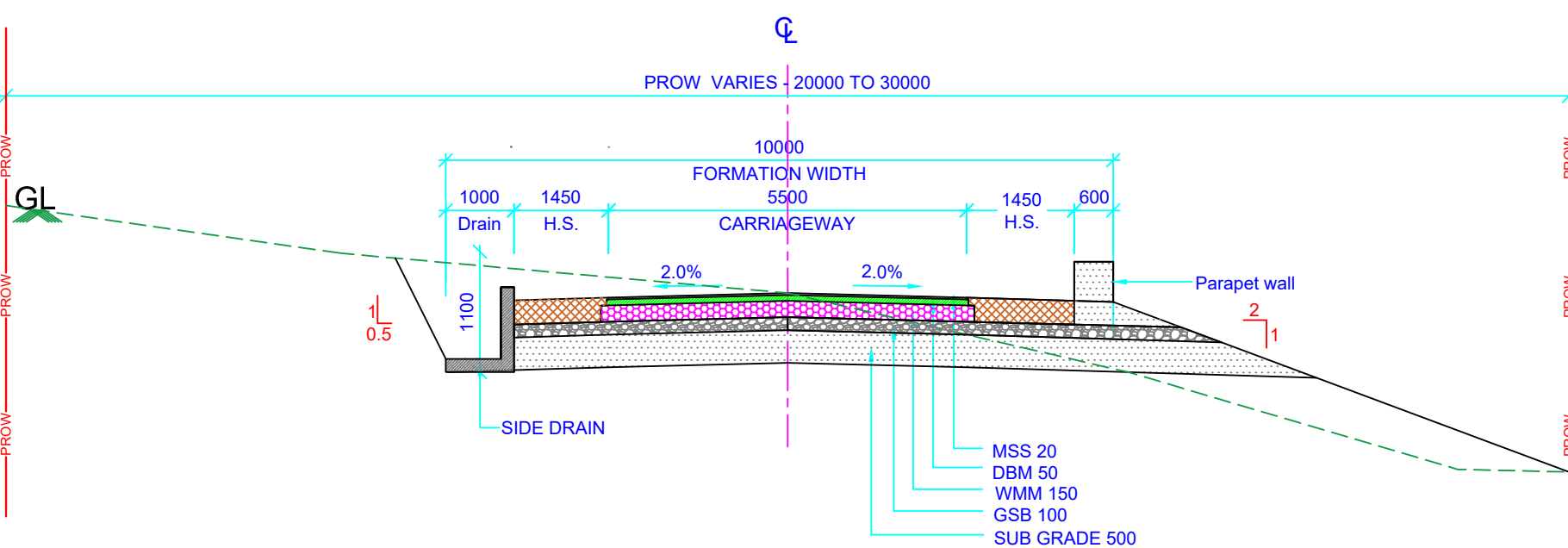
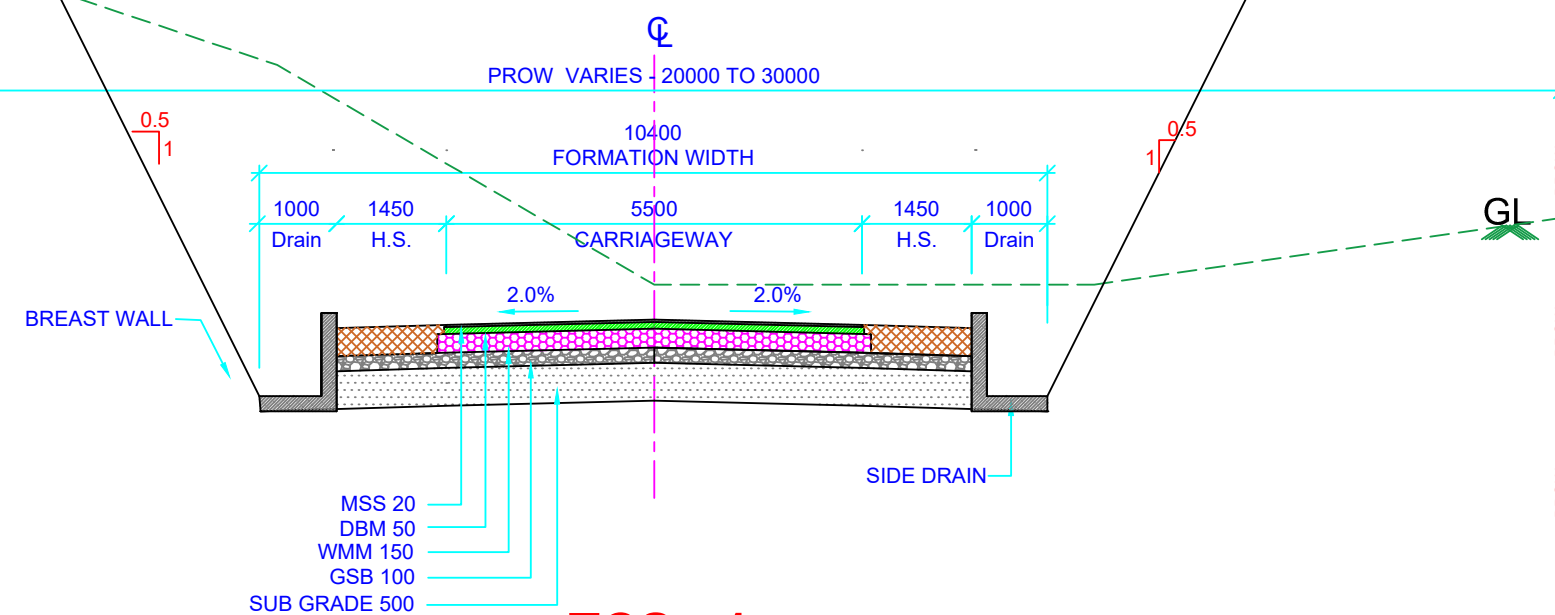
National Highways and Infrastructure Development Corporation Limited



DETAILED PROJECT REPORT
DRAWINGS

CONSULTING ENGINEERS:			DATE		SIGN												CLIENT:			PROJECT:
 M/s TPF Engineering Pvt. Ltd. In association with M/s Zoma Engineers TPF Engineering Pvt. Ltd., 1401, Rupa Sapphire, Plot No. 12, Sector 18, Opp. Sanpada Railway Station, Sion-Panvel Highway, Vashi, Navi Mumbai – 400 705, India. Ph: +91 22 69063300	DRAWN																 National Highways and Infrastructure Development Corporation Limited	Consultancy Services For Prepering of DPR of 2 Laning of propose Frontier highway From Nafra to Vijanagar in the State of Arunachal Pradesh in Packages (Package06-Migging-Tuting-Zido and Singa -Anelih-Hunli 230 Km) Tuting TO Zido Stretch		
	CHECKED																			
	DESIGN																			
	CHECKED																			
	APPROVED																			
	JOB NO.: 1037			SCALE:		REV. NO.	DATE OF ISSUE	REVISION DETAILS	DRAWN	CHKD.	DES.	APRD.								

TYPICAL CROSS SECTION



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS IN METERS, UNLESS WRITTEN OTHERWISE.
2. NO DIMENSIONS SHALL BE SCALED FROM THIS DRAWING ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.

CONSULTING ENGINEERS:

[illegible]

CLIENT:



**National Highways and Infrastructure
Development Corporation Limited**

PROJECT:	CONSULTANCY SERVICES FOR PREPERING OF DPR OF 2 LANING OF PROPOSE FRONTIER HIGHWAY FROM NAFRA TO VIJANAGAR IN THE STATE OF ARUNACHAL PRADESH IN PACKAGES (PACKAGE06-MIGGING-TUTING-ZIDO AND SINGA -ANELIH-HUNLI 230 KM)
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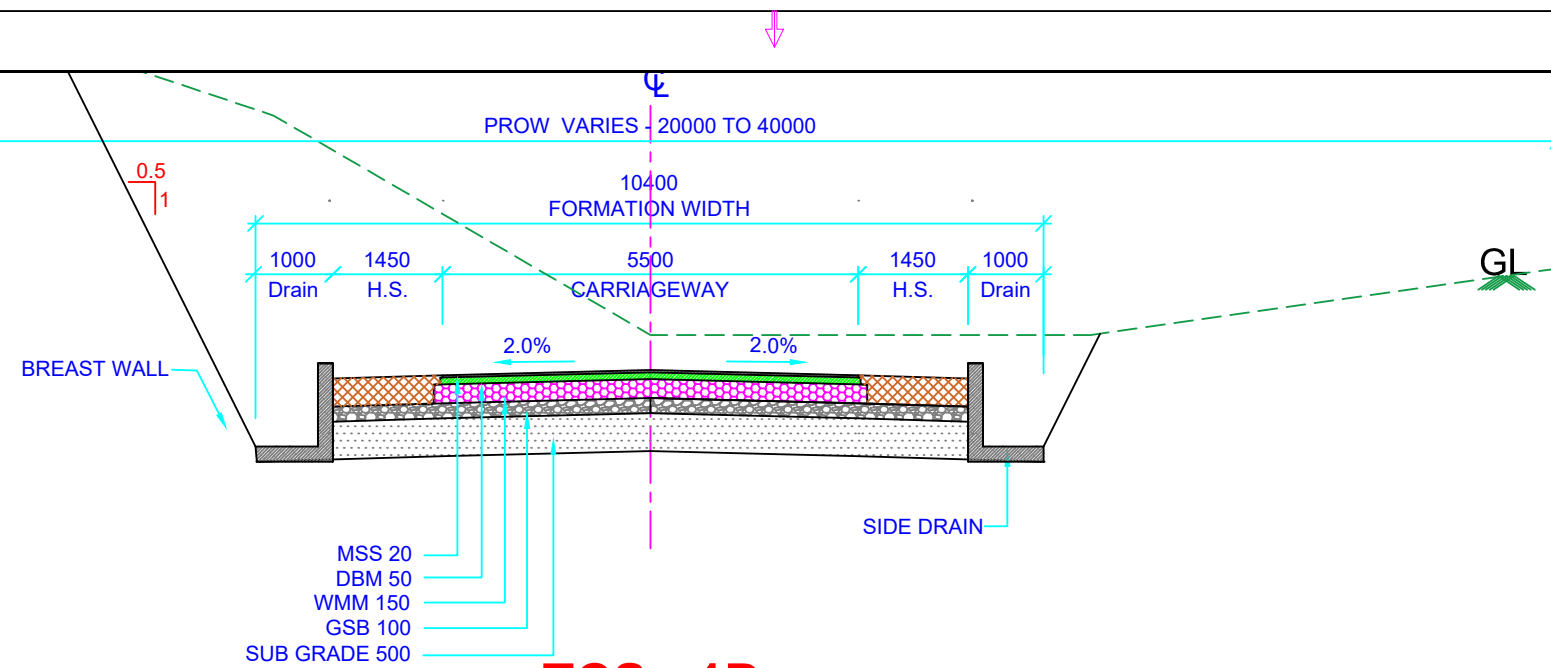
TUTTING-ZIDO STRETCH

TITLE: TYPICAL CROSS SECTION

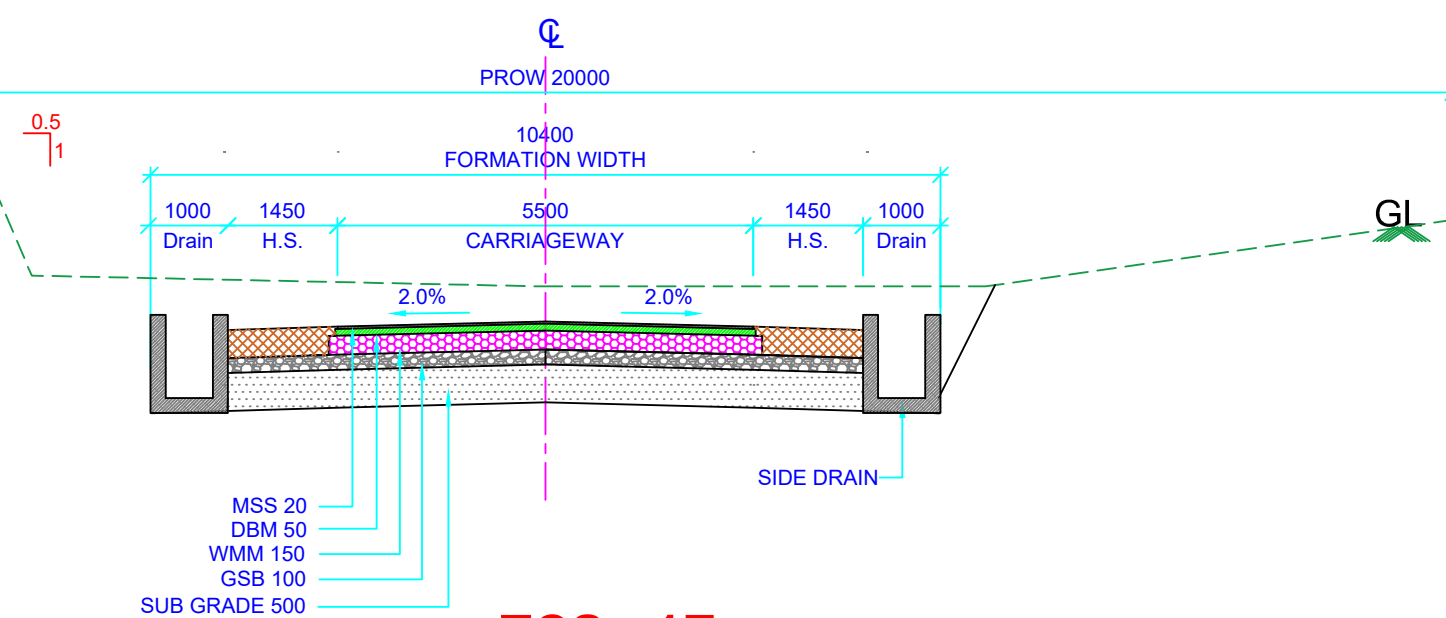
DRG. NO.: NHIDCL/DPR-Nafra-to-Vijaynagar-Pkg-6-Arunachal-Pradesh/TRANS
-DES-PLA-EST/2020-21/P3291/1037/TCS/1037002/R0/ 1 OF 5

REV.	A2	D FILE:
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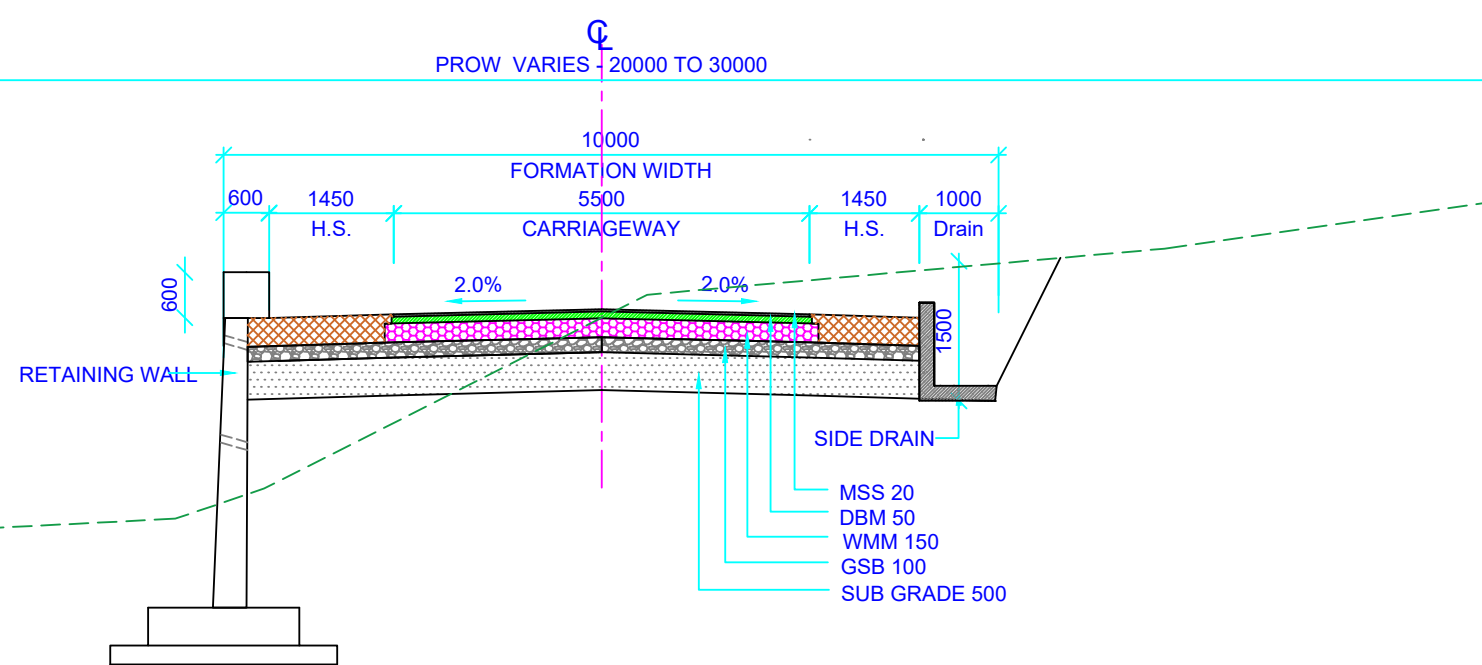
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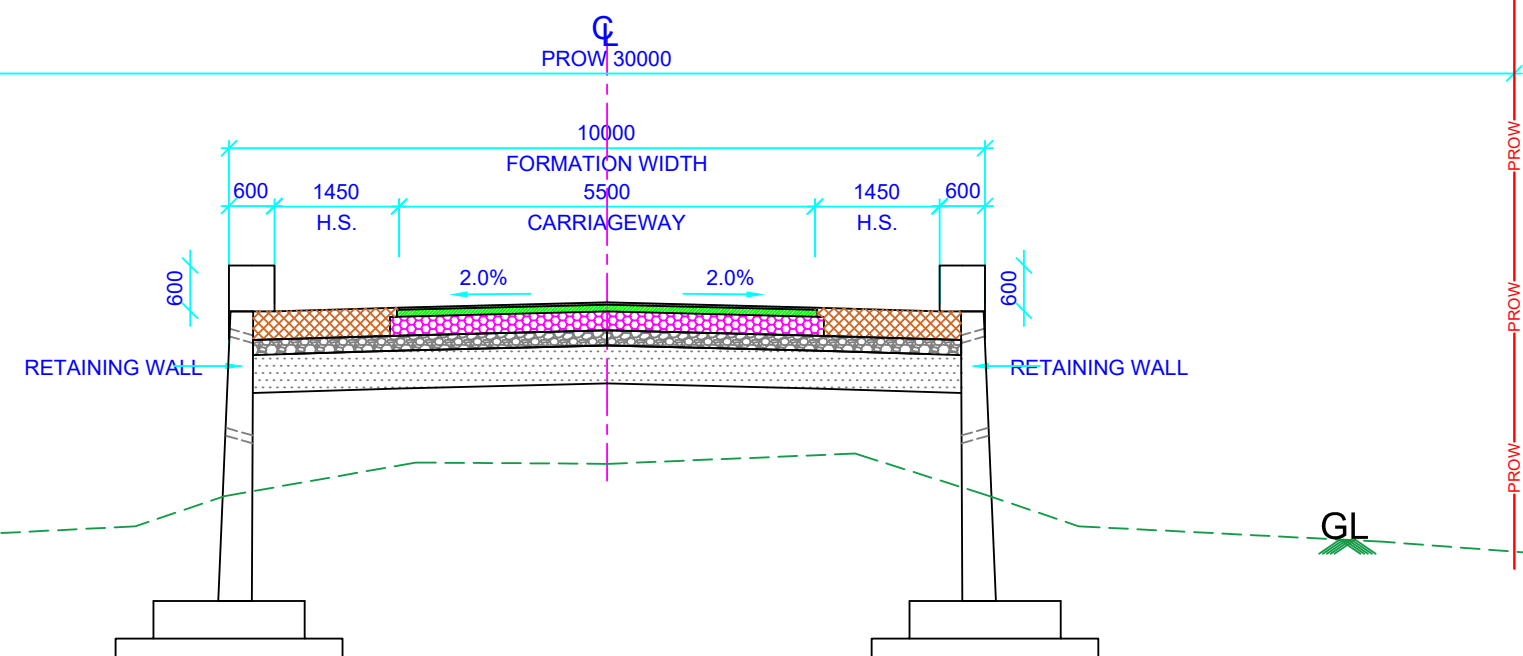
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TYPICAL CROSS SECTION IN CUTTING -CBWC CE



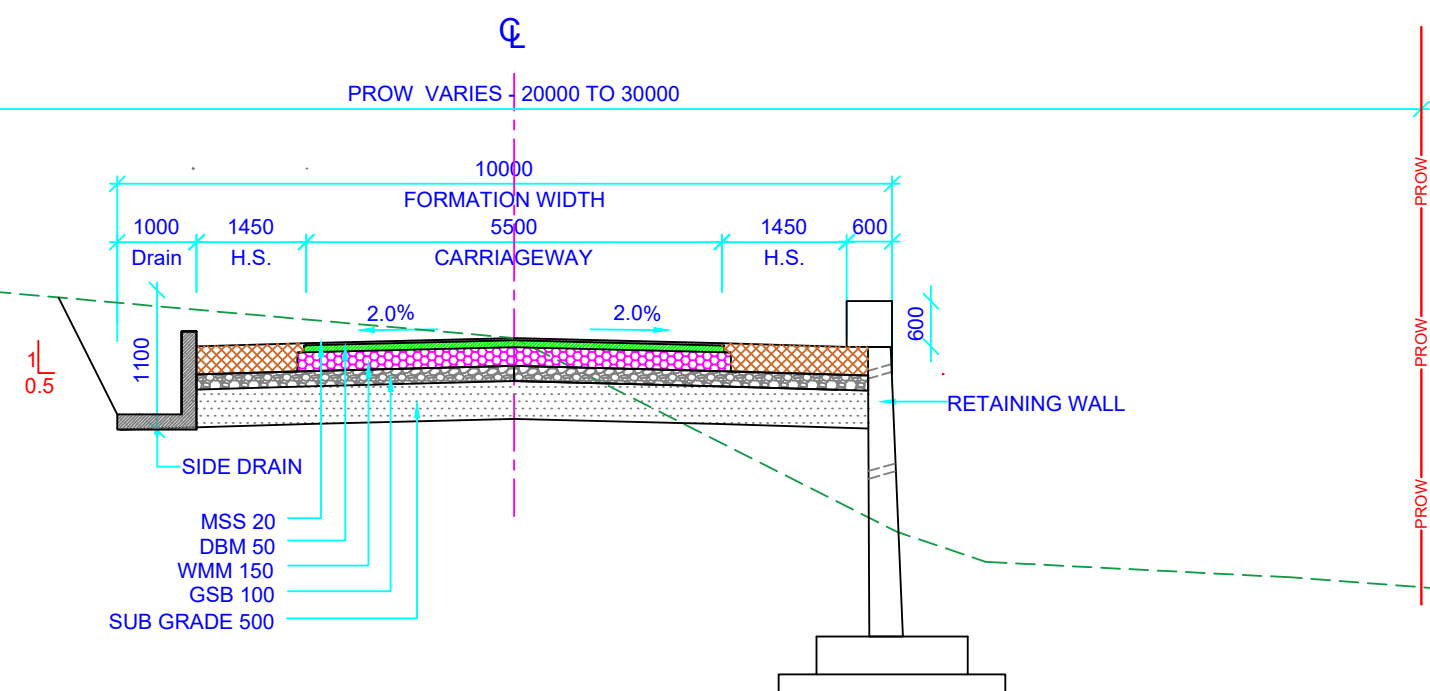
TCS - 1E



TCS - 2B
TYPICAL CROSS SECTION - FR CE



TCS - 2
TYPICAL CROSS SECTION - FR FR



TCS - 2A
TYPICAL CROSS SECTION -CE FR

- NOTES:**
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CONSULTING ENGINEERS:

TPF ENGINEERING PVT. LTD.
(Formerly known as S.N.BHOBE & ASSOCIATES Pvt. Ltd.)
1401, Rupa Sapphire, Plot no. 12, Sector-18,
Opposite Sanpada Railway Station, Sion - Panvel Highway,
Vashi, Navi Mumbai - 400705
Tel: +91-22-6906 3300/ 30
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DATE	27.03.2023	SIGN	
DRAWN	SRB		
CHECKED	SM		
DESIGN	SM		
CHECKED	AAB		
APPROVED	AAB		

JOB NO.:
1037

SCALE:
1:1250

REV. NO. DATE OF ISSUE

REVISION DETAILS

DRAWN CHKD. DES. APRD.

CLIENT:



**National Highways and Infrastructure
Development Corporation Limited**

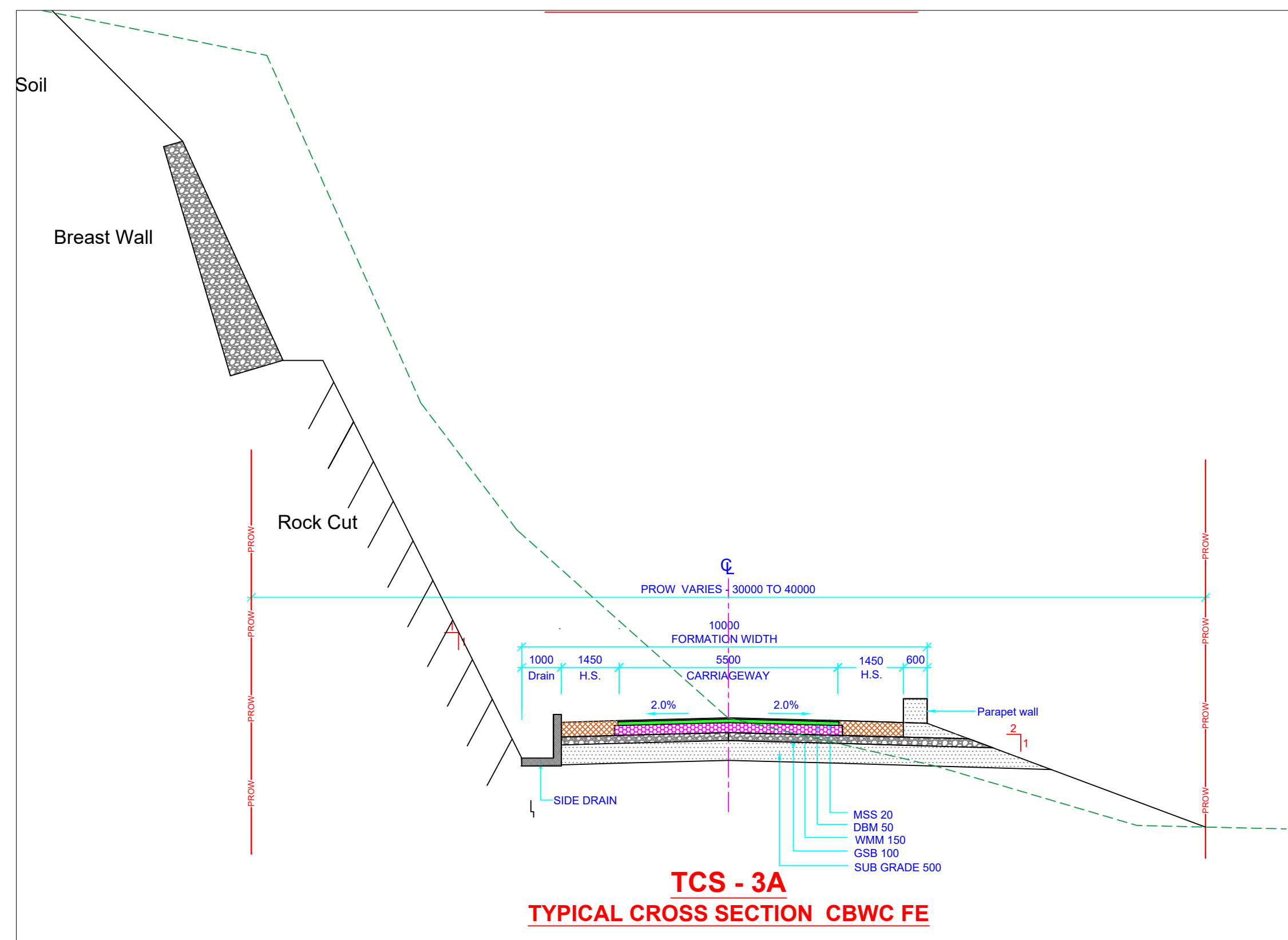
PROJECT:
CONSULTANCY SERVICES FOR PREPERING OF DPR OF 2 LANING OF PROPOSE FRONTIER
HIGHWAY FROM NAFRA TO VIJANAGAR IN THE STATE OF ARUNACHAL PRADESH IN
PACKAGES (PACKAGE06-MIGGING-TUTING-ZIDO AND SINGA -ANELIH-HUNLI 230 KM)

TUTTING-ZIDO STRETCH

TITLE: TYPICAL CROSS SECTION

DRG. NO.:NHIDCL/DPR-Nafra-to-Vijaynagar-Pkg-6-Arunachal-Pradesh/TRANS
-DES-PLA-EST/2020-21/P3291/1037/TCS/1037002/R0/2 OF 5

REV. R0 A2



NOTES:

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 Tel: +91-22-6906 3300/ 30
www.tpfpl.com - www.tpf.eu

[illegible]

CLIENT:



**National Highways and Infrastructure
Development Corporation Limited**

PROJECT:	DIRECTIONS SHALL BE FOLLOWED
CONSULTANCY SERVICES FOR PREPERING OF DPR OF 2 LANING OF PROPOSE FRONTIER HIGHWAY FROM NAFRA TO VIJANAGAR IN THE STATE OF ARUNACHAL PRADESH IN PACKAGES (PACKAGE06-MIGGING-TUTING-ZIDO AND SINGA -ANELIH-HUNLI 230 KM)	

TUTTING-ZIDO STRETCH

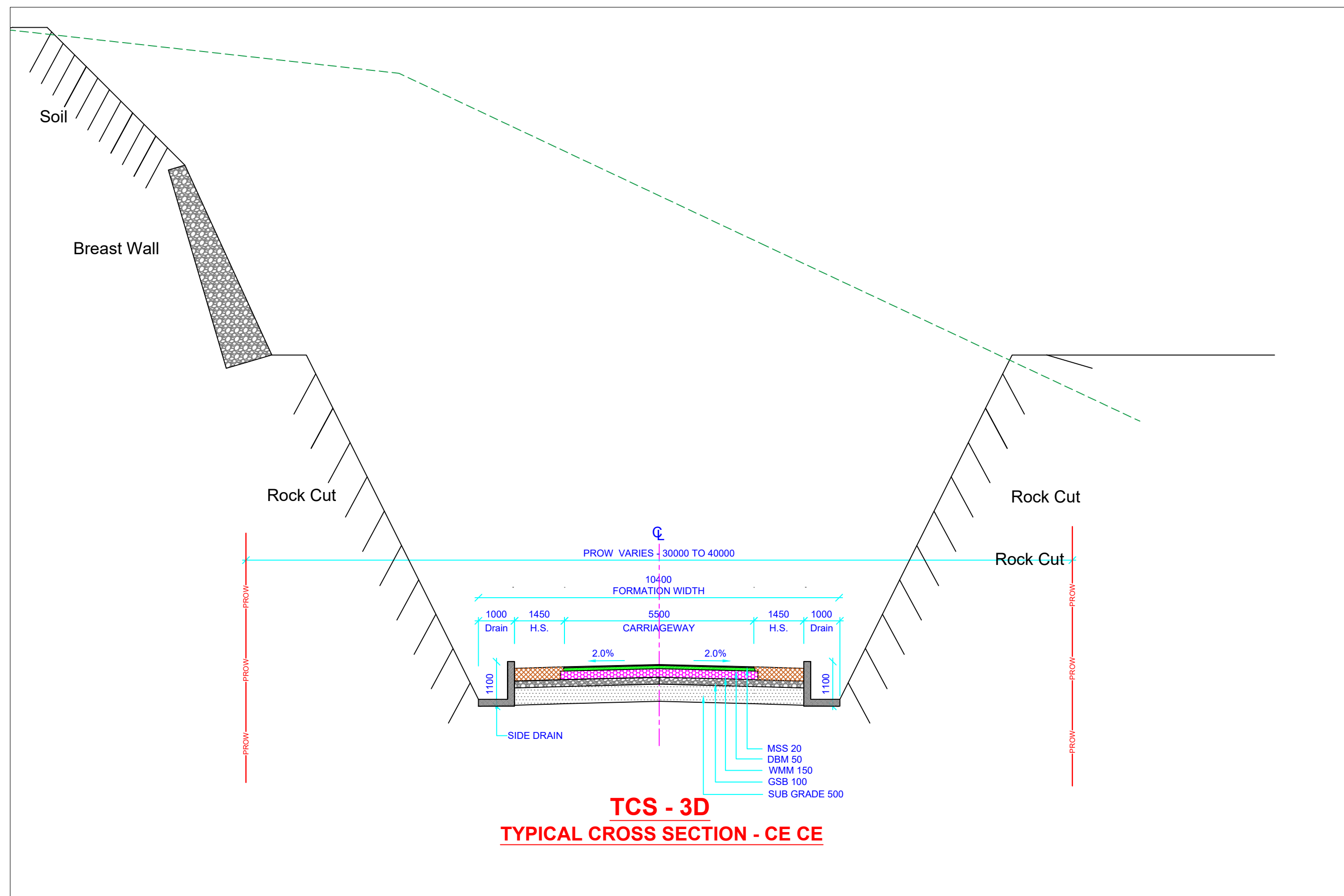
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DRG. NO.:NHIDCL/DPR-Nafra-to-Vijaynagar-Pkg-6-Arunachal-Pradesh/TRANS
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R0	

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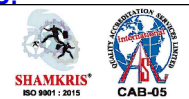
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www.tpfepl.com - www.tpf.eu

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CLIENT:



**National Highways and Infrastructure
Development Corporation Limited**

PROJECT:	CONSULTANCY SERVICES FOR PREPERING OF DPR OF 2 LANE OF PROPOSE FRONTIER HIGHWAY FROM NAFA TO VIJANAGAR IN THE STATE OF ARUNACHAL PRADESH IN PACKAGES (PACKAGE06-MIGGING-TUTING-ZIDO AND SINGA -ANELIH-HUNLI 230 KM)
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TUTTING-ZIDO STRETCH

TITLE: TYPICAL CROSS SECTION

DRG. NO.:NHIDCL/DPR-Nafra-to-Vijaynagar-Pkg-6-Arunachal-Pradesh/TRANS
-DES-PLA-EST/2020-21/P3291/1037/TCS/1037002/R0/ 5 OF 5

REV.	A2
R0	

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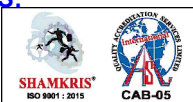
(Formerly known as S.N.BHOBE & ASSOCIATES Pvt. Ltd.)

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DATE	27.03.2023	SIGN	
DRAWN	SRB		
CHECKED	SM		
DESIGN	SM		
CHECKED	AAB		
APPROVED	AAB		

JOB NO.:	SCALE:
1037	1:1250

REV. NO.	DATE OF ISSUE
R0	

REVISION DETAILS

DRAWN	CHKD.	DES.	APRD.
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CLIENT:



National Highways and Infrastructure
Development Corporation Limited

PROJECT:
CONSULTANCY SERVICES FOR PREPERING OF DPR OF 2 LANING OF PROPOSE FRONTIER
HIGHWAY FROM NAFRA TO VIJANAGAR IN THE STATE OF ARUNACHAL PRADESH IN
PACKAGES (PACKAGE06-MIGGING-TUTING-ZIDO AND SINGA -ANELIH-HUNLI 230 KM)

TUTTING-ZIDO STRETCH

TITLE: TYPICAL CROSS SECTION

DRG. NO.,NHIDCL/DPR-Nafra-to-Vijaynagar-Pkg-6-Arunachal-Pradesh/TRANS
-DES-PLA-EST/2020-21/P3291/1037/TCS/1037002/R0/ 5 OF 5

REV.	A2
R0	

N OF T - 00 OF 00

CAD FILE

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS
AND LEVELS IN METERS, UNLESS
WRITTEN OTHERWISE.
2. NO DIMENSIONS SHALL BE SCALED
FROM THIS DRAWING ONLY WRITTEN
DIMENSIONS SHALL BE FOLLOWED.

TCS - 4A
TYPICAL CROSS SECTION CBWC FE

Soil

Breast Wall

Soil

Breast Wall

Rock Cut

BREAST WALL

SIDE DRAIN

MSS 20
DBM 50
WMM 150
GSB 100
SUB GRADE 500

Parapet wall

PROW VARIES 30000 TO 50000

10000
FORMATION WIDTH

5500
CARRIAGEWAY

1000
Drain

1450
H.S.

2.0%

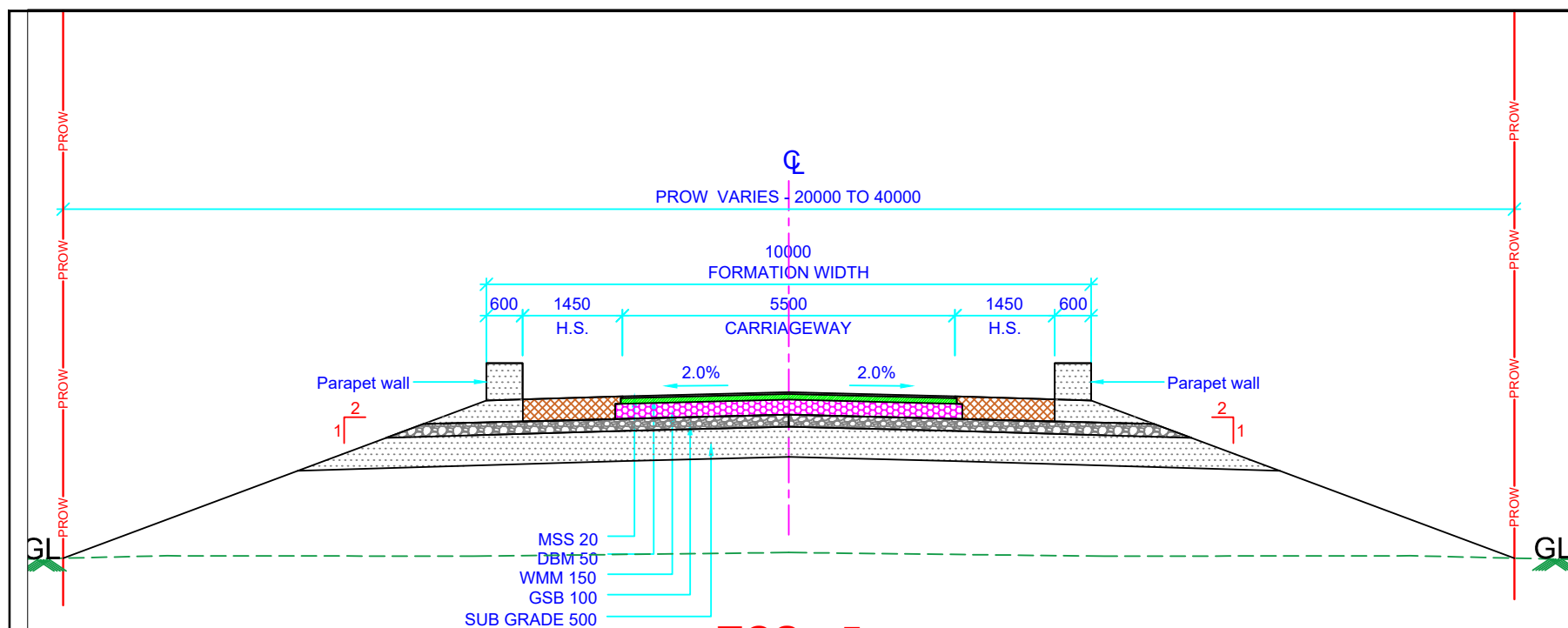
2.0%

1450
H.S.

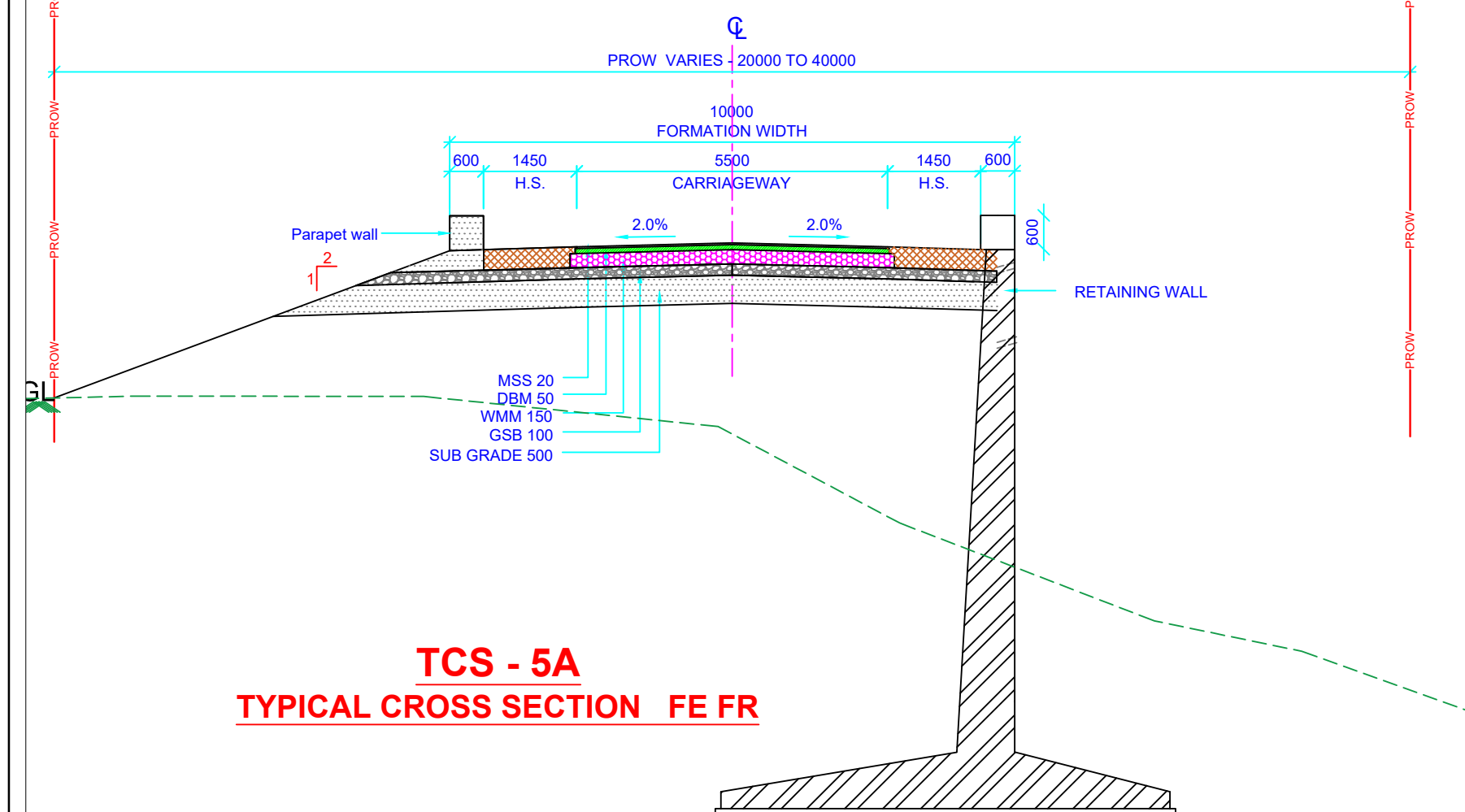
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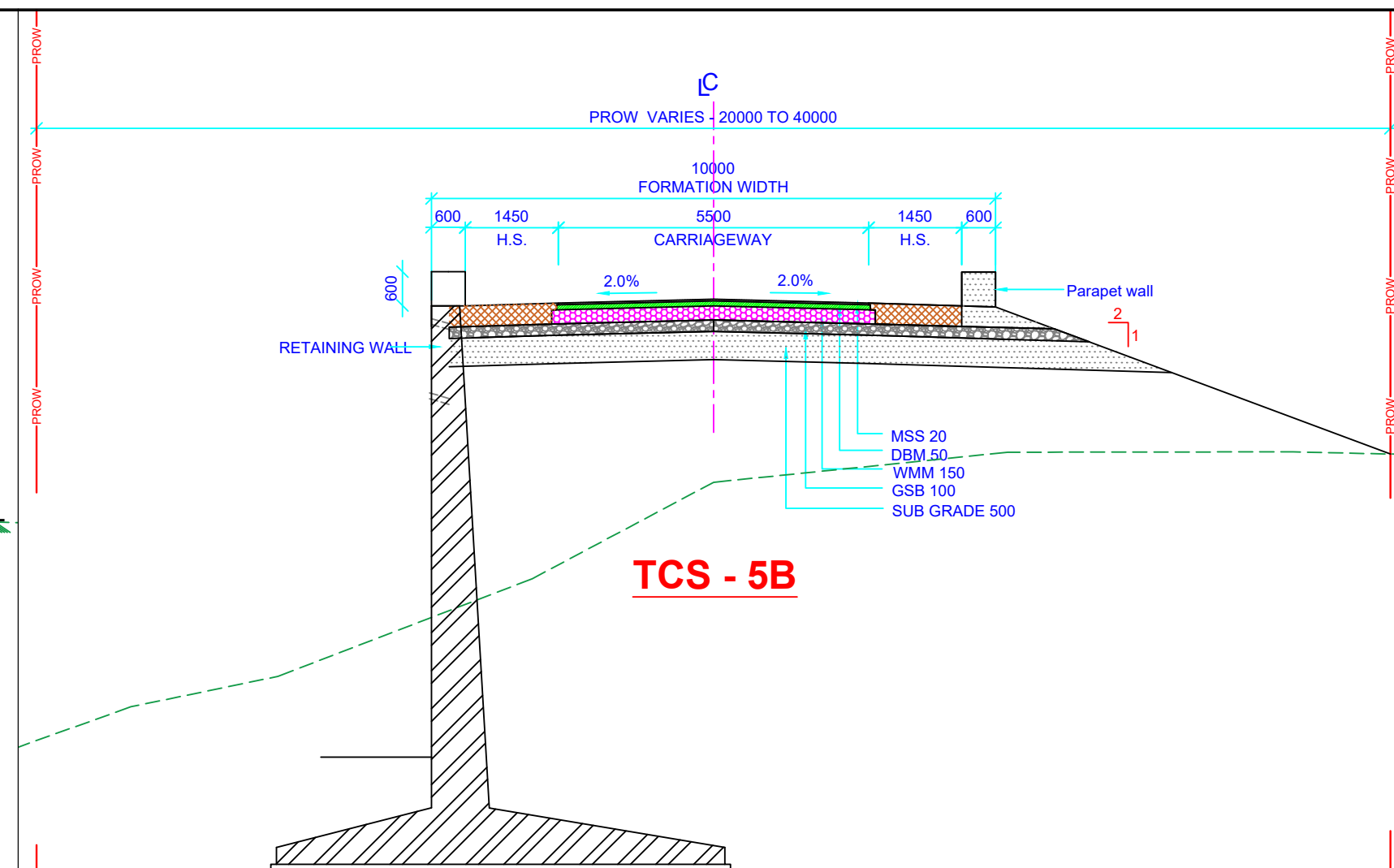
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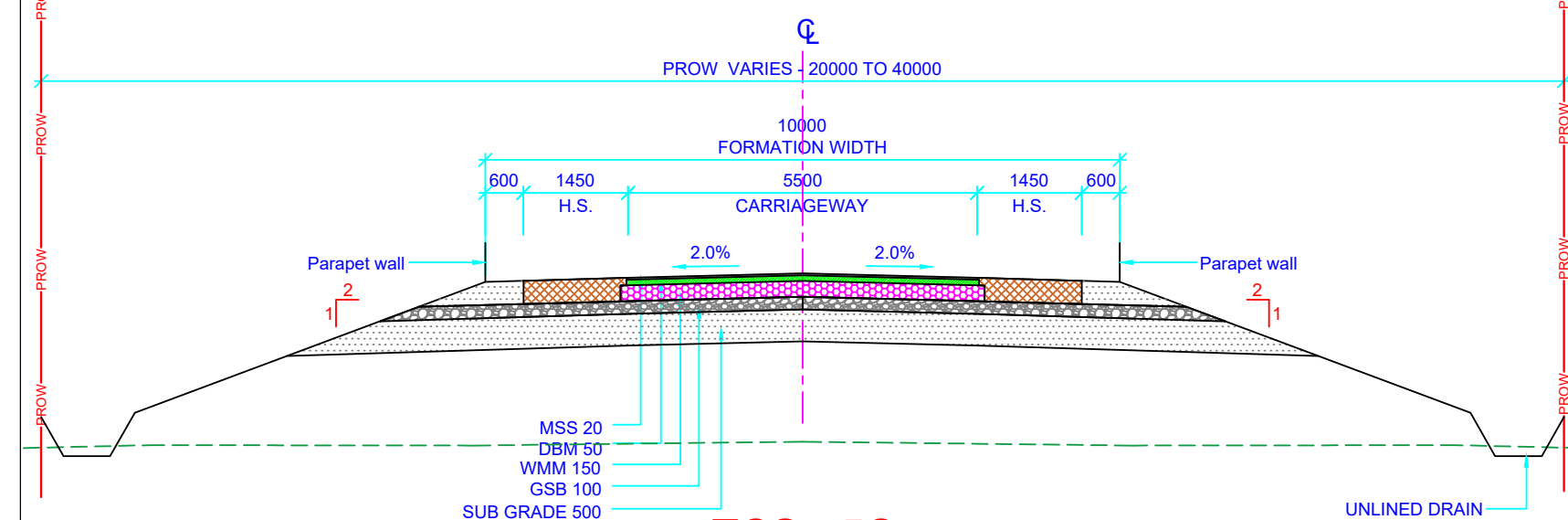
TCS - 5
TYPICAL CROSS SECTION FE FE



TCS - 5A
TYPICAL CROSS SECTION FE FR



TCS - 5B



TCS - 5C

NOTES:

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CONSULTING ENGINEERS:



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Tel: +91-22-6906 3300/ 30

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SHANKER'S
NO. 9811 / 1012

7' 8" U
CAB-05

[illegible]

CLIENT:



**National Highways and Infrastructure
Development Corporation Limited**

PROJECT:	DIMENSIONS SHALL BE FOLLOWED:
CONSULTANCY SERVICES FOR PREPERING OF DPR OF 2 LANE OF PROPOSE FRONTIER HIGHWAY FROM NAFA TO VIJANAGAR IN THE STATE OF ARUNACHAL PRADESH IN PACKAGES (PACKAGE06-MIGGING-TUTING-ZIDO AND SINGA -ANELIH-HUNLI 230 KM)	

TUTTING-ZIDO STRETCH

TITLE: TYPICAL CROSS SECTION

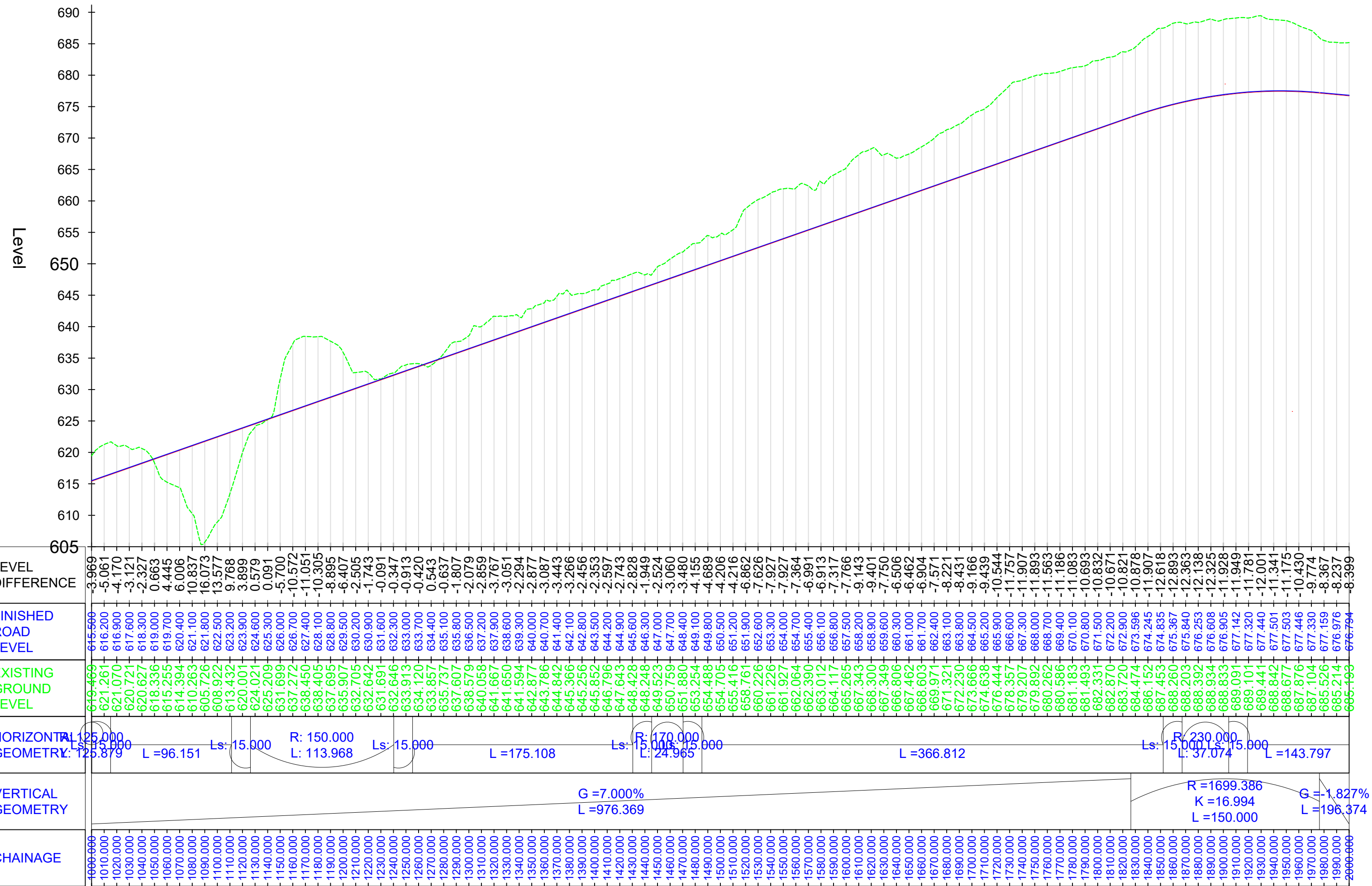
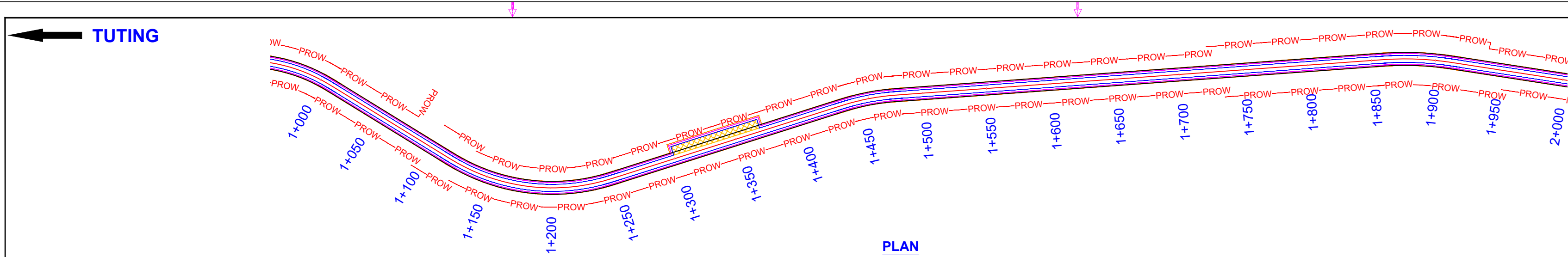
DRG. NO..NHIDCL/DPR-Nafra-to-Vijaynagar-Pkg-6-Arunachal-Pradesh/TRANS
-DES-PLA-EST/2020-21/P3291/1037/TCS/1037002/R0/ 5 OF 5

REV.	A2
R0	

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PLAN AND PROFILE DRAWINGS



LEGENDS

SURVEY	
ROAD CENTER LINE	—————
ROAD EDGE LINE	—————
SHOULDER EDGE LINE	—————
COMPOUND WALL	———□———
DRAIN LINE	———□———
GAS PIPE LINE	———□———
HT LINE	———□———
ELECTRIC LINE OR POLE	———□———
RIVER/NALLAH	~~~~~
PROPOSED ROW	———
EXISTING ROW	———
LIGHT POLE	———
TREE	✻ ✻ ✻
STRUCTURE	———
RAILWAY TRACK	=====
CULVERT	———
BRIDGE	———
KM STONE	———
HAND PUMP	———
WELL	———
GATE	———
JUNCTION	———

LEGENDS	
PLAN	
CENTER LINE	---
MEDIAN	—
SHYNESS	—
LANE MARKING	---
MAIN CARRIAGEWAY EDGE	—
PAVED SHOULDER	—
EARTHEN SHOULDER	—
CRASH BARRIER	—
RETAINING WALL	—
SERVICE ROAD EDGE	—
FOOTPATH / DRAIN	—
UNLINE DRAIN	—
SPACE FOR UTILITY	—
PROPOSED ROW	—PROW—
EXISTING ROW	—EROW—

PROFILE

PROPOSED RTL	—————
EXISTING RTL	- - - - -
GROUND LEVEL	—————
GROUND LEVEL RHS	- - - - -
GROUND LEVEL LHS	- - - - -

NOTATIONS	
<u>HORIZONTAL GEOMETRY</u>	
Δ	- DELTA ANGLE/DEFLECTION ANGLE
AC	- DELTA ANGLE/CIRCULAR CURVE
ΔS	- DELTA ANGLE/CIRCULAR SPIRAL
RC	- RADIUS OF CURVE
NC	- NORMAL CROWN
HIP	- HORIZONTAL INTERSECTION POINT
LS	- LENGTH OF SPIRAL
LC	- LENGTH OF CIRCULAR
E	- SUPER ELEVATION
S	- SHIFT
TS	- TANGENT DISTANCE
ES	- APEX DISTANCE

<u>VERTICAL GEOMETRY</u>	
G	- GRADIENT
L	- LENGTH
PVI	- POINT OF VERTICAL INTERSECTION
LVC	- LENGTH OF VERTICAL CURVE
BVC	- BEGINNING OF VERTICAL CURVE
EVC	- END OF VERTICAL CURVE

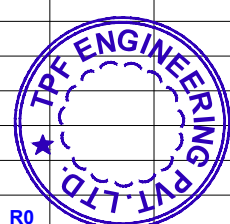
NOTES:

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CONSULTING ENGINEERS:



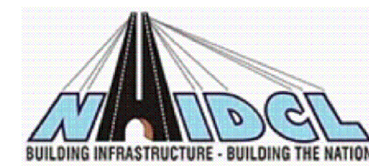
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DRAWN	PDC	
CHECKED	NVL	
DESIGN	SDS	
CHECKED	ADT	
APPROVED	DBJ	



REV. NO.	DATE OF ISSUE	REVISION DETAILS
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	DRAWN	CHKD.	DES.	APRD.
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CLIENT:

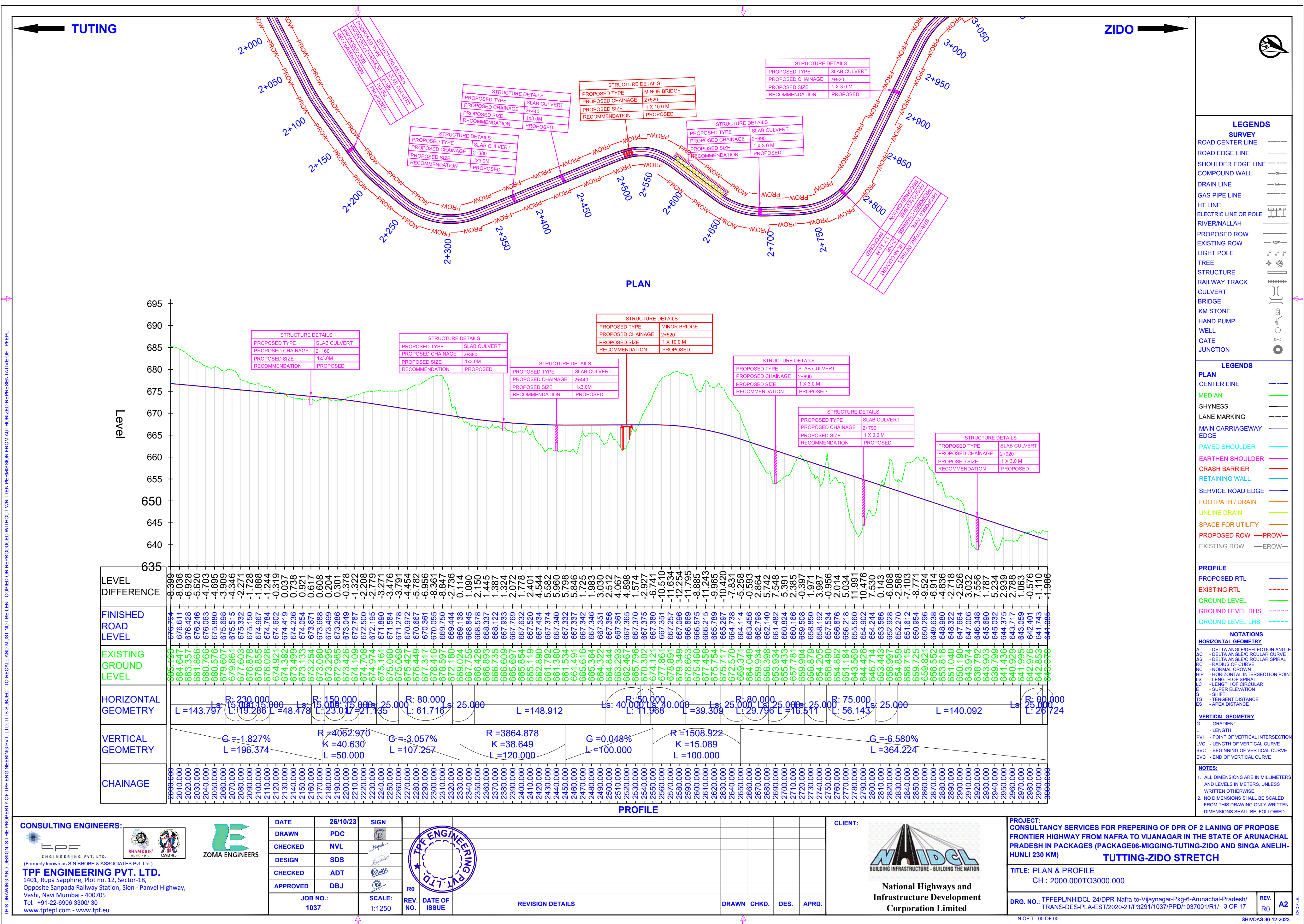


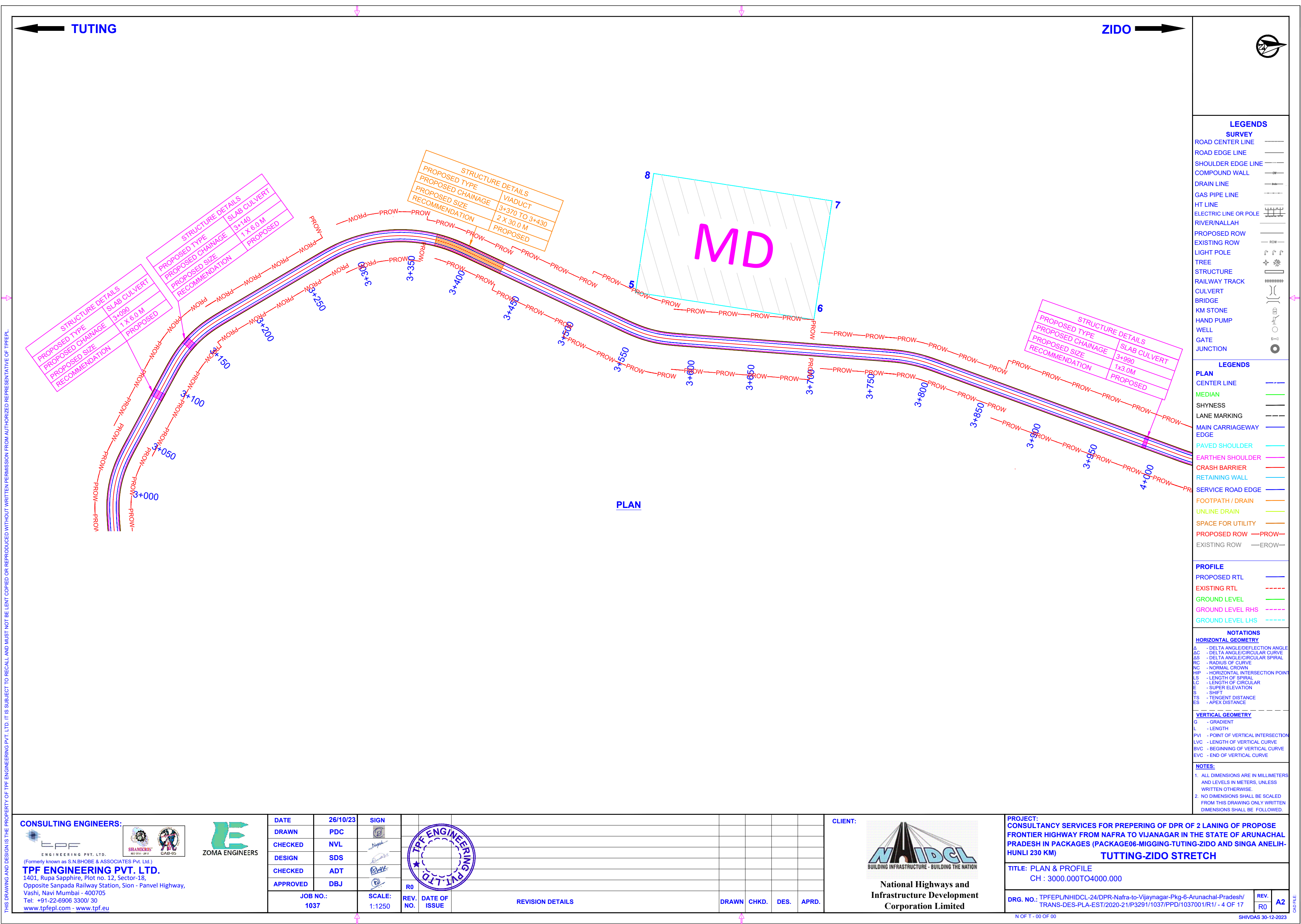
**National Highways and
Infrastructure Development
Corporation Limited**

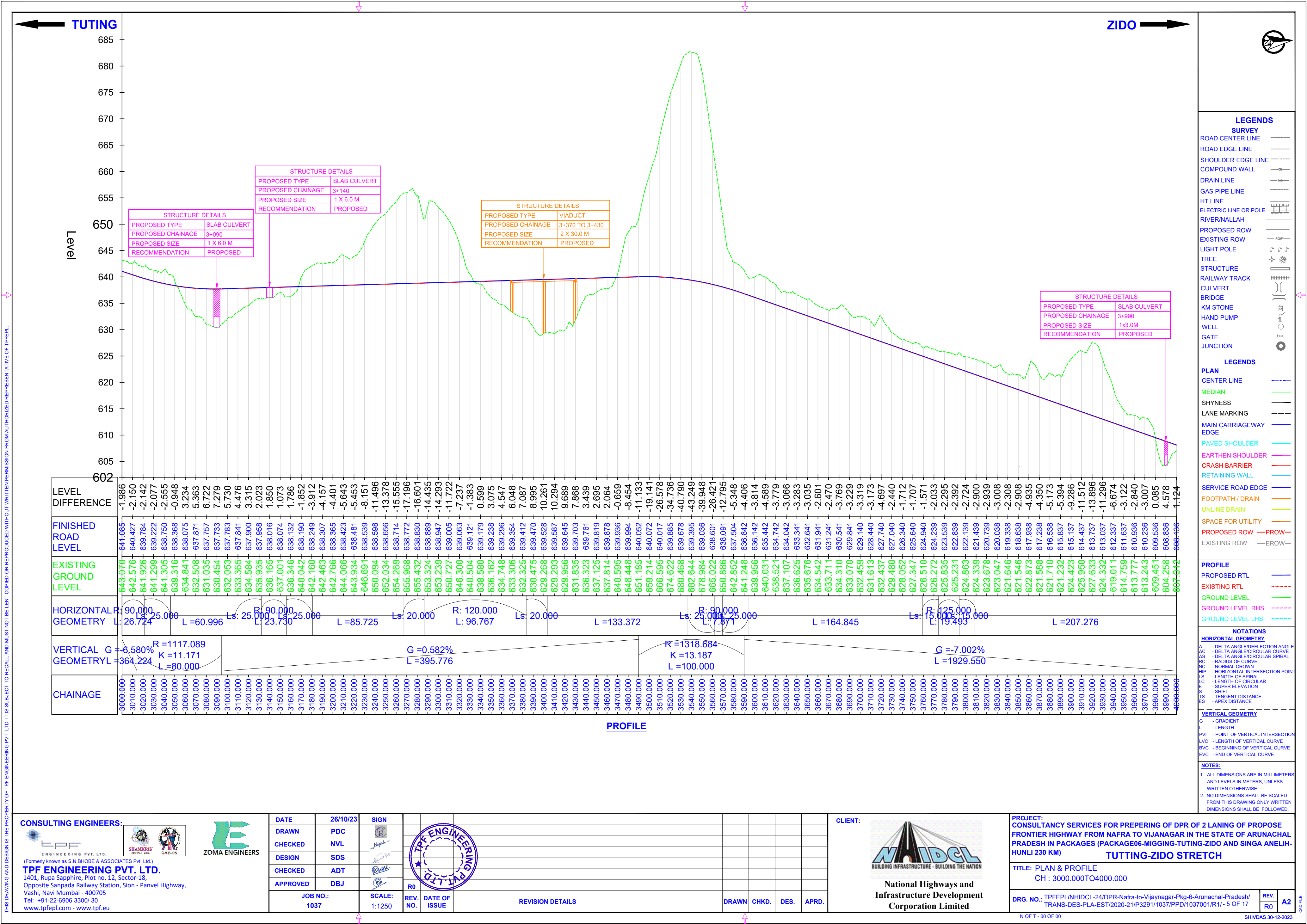
PROJECT:
CONSULTANCY SERVICES FOR PREPERING OF DPR OF 2 LANING OF PROPOSE
FRONTIER HIGHWAY FROM NAFRA TO VIJANAGAR IN THE STATE OF ARUNACHAL
PRADESH IN PACKAGES (PACKAGE06-MIGGING-TUTING-ZIDO AND SINGA ANELIH-
HUNLI 230 KM)
TUTTING-ZIDO STRETCH

TITLE: PLAN & PROFILE
CH : 1000.000TO2000.000

DRG. NO.: TPFEP/LNHIDCL-24/DPR-Nafra-to-Vijaynagar-Pkg-6-Arunachal-Pradesh/ TRANS-DES-PLA-EST/2020-21/P3291/1037/PPD/1037001/R1/-2 OF 17	REV.	A2
	R0	







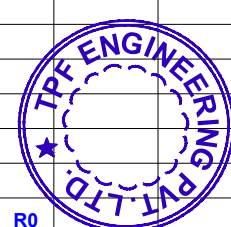
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DATE	26/10/23	SIGN
DRAWN	PDC	
CHECKED	NVL	
DESIGN	SDS	
CHECKED	ADT	
APPROVED	DBJ	

JOB NO.:	SCALE:
1037	1:1250

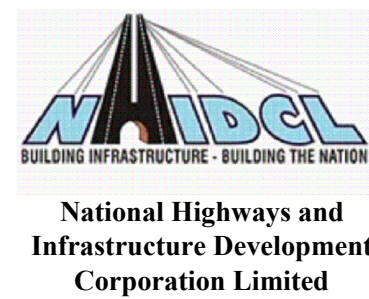


REV. NO.	DATE OF ISSUE

REVISION DETAILS

DRAWN CHKD. DES. APRD.

CLIENT:



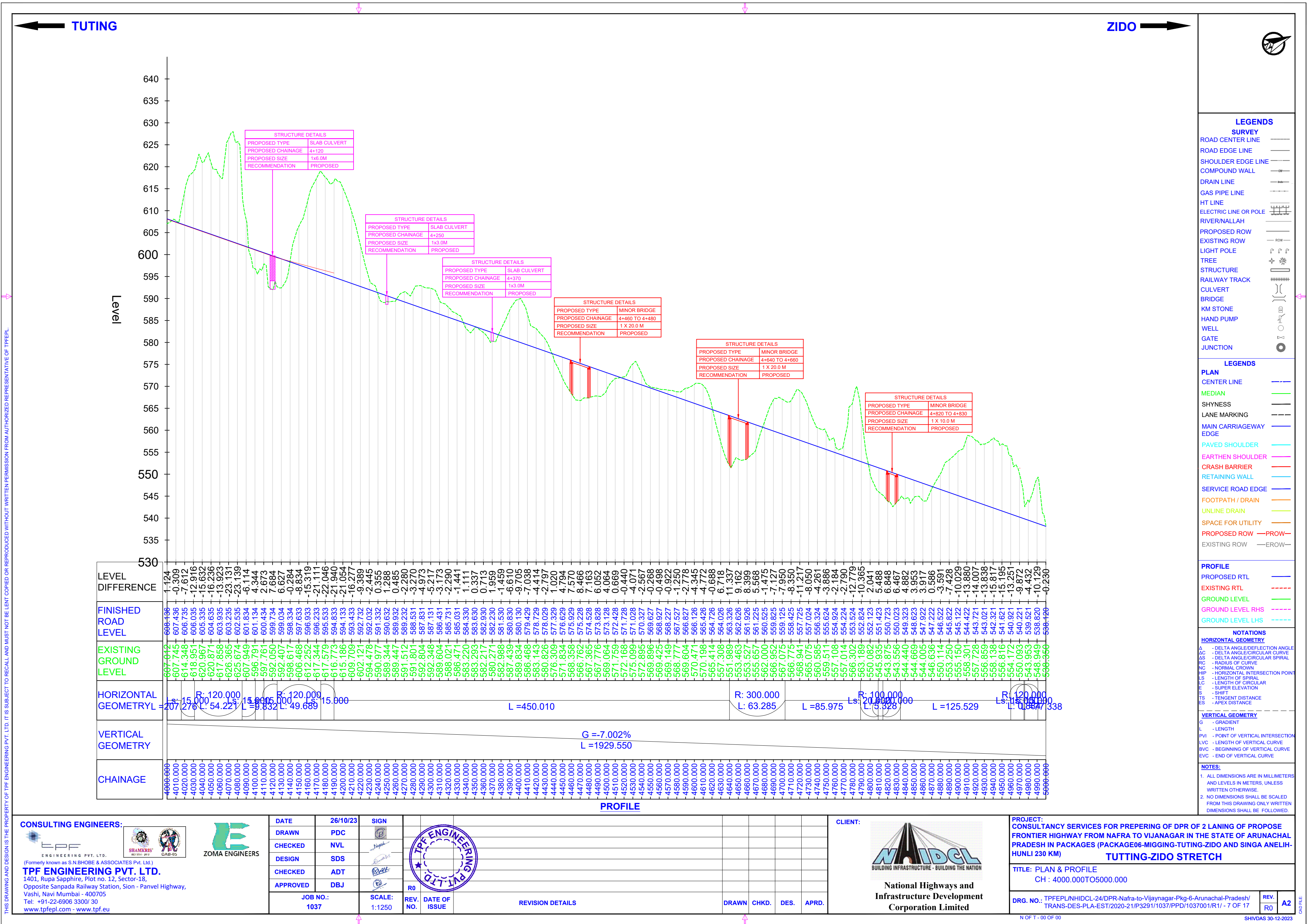
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PRADESH IN PACKAGES (PACKAGE06-MIGGING-TUTTING-ZIDO AND SINGA ANELIH-
HUNLI 230 KM)
TUTTING-ZIDO STRETCH

TITLE: PLAN & PROFILE
CH : 3000.000TO4000.000

DRG. NO.: TPFEPL/NHIDCL-24/DPR-Nafra-to-Vijaynagar-Pkg-6-Arunachal-Pradesh/
TRANS-DES-PLA-EST/2020-21/P3291/1037/PPD/1037001/R1/- 5 OF 17
REV. R0 A2

N OF T - 00 OF 00

SHVADS 30-12-2023



ZIDO



SURVEY

- ## GENDS

CENTER L

- ## PROFILE

- ## NOTATIONS

- ## VERTICAL GEOMETRY

- NOTES:

- CONSULTING ENGINEERS:**



SIGN

REV. NO.	DATE OF ISSUE	
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REVISION DETAILS

DRAWN	CHKD.	DES.	APRD
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CLIENT



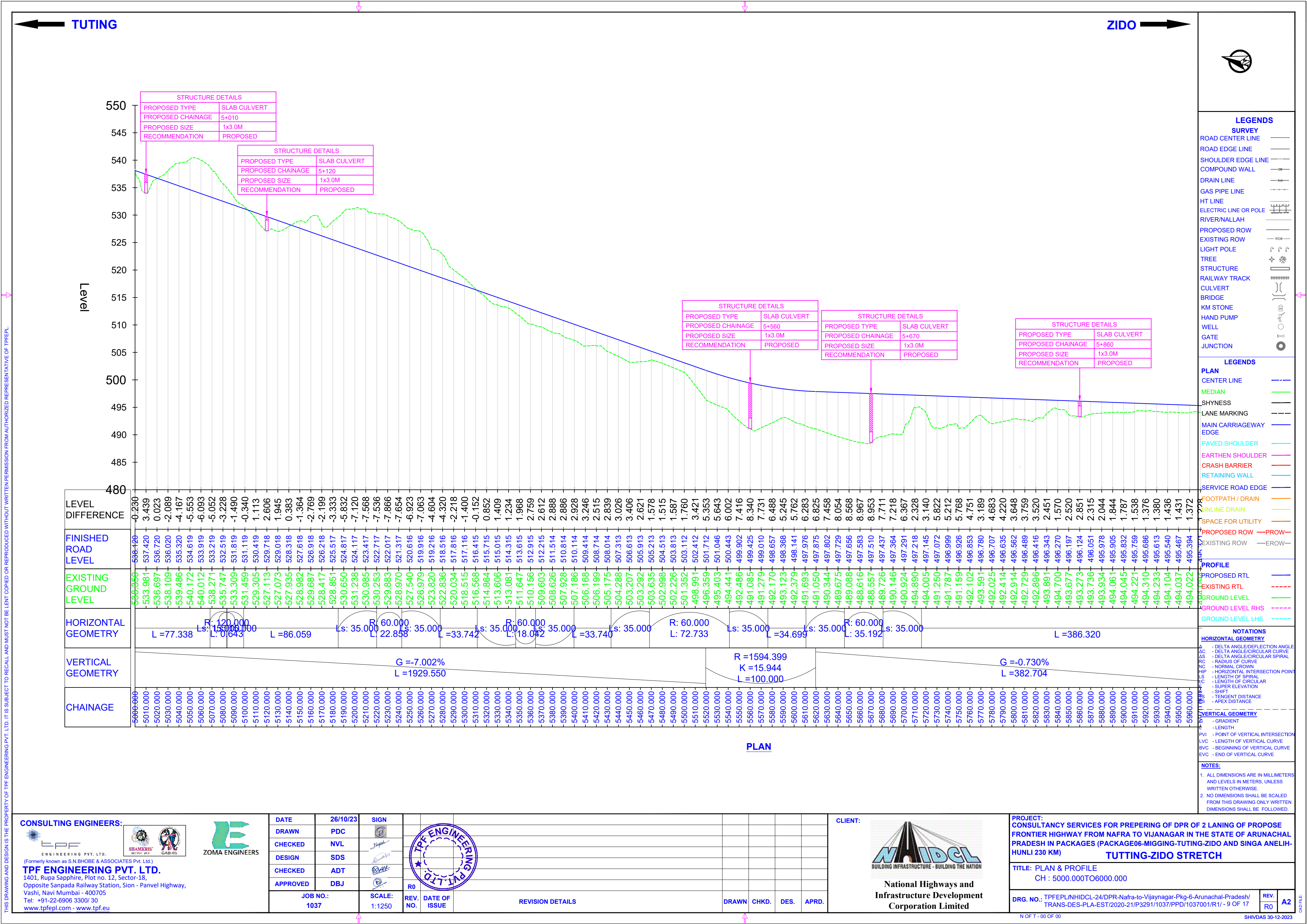
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DRG. NO.: TPFEPL/NHIDCL-24/DPR-Nafra-to-Vijaynagar-Pkg-6-Arunachal-Pradesh/ TRANS-DES-PLA-EST/2020-21/P3291/1037/PPD/1037001/R1/ - 8 OF 17	REV. R0	A2
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JOB NO.:

1037

SCALE:

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REV. NO.

01

DATE OF ISSUE

26/10/23

REVISION DETAILS

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CLIENT:

NHIDCL

NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED

PROJECT:

CONSULTANCY SERVICES FOR PREPERING OF DPR OF 2 LANING OF PROPOSE FRONTIER HIGHWAY FROM NAFRA TO VIJAYNAGAR IN THE STATE OF ARUNACHAL PRADESH IN PACKAGES (PACKAGE06-MIGGING-TUTING-ZIDO AND SINGA ANELIH-HUNLI 230 KM)

TUTTING-ZIDO STRETCH

TITLE: PLAN & PROFILE

CH : 5000.000TO6000.000

DRG. NO.: TPFEPL/NHIDCL-24/DPR-Nafra-to-Vijaynagar-Pkg-6-Arunachal-Pradesh/TRANS-DES-PLA-EST/2020-21/P3291/1037/PPD/1037001/R1/- 9 OF 17

REV. NO.

A2

N OF T - 00 OF 00

SHIVDAS 30-12-2023

ZIDO



LEGENDS

SURVEY

- ROAD CENTER LINE
- ROAD EDGE LINE
- SHOULDER EDGE LINE
- COMPOUND WALL
- DRAIN LINE
- GAS PIPE LINE
- HT LINE
- ELECTRIC LINE OR POLE
- RIVER/NALLAH
- PROPOSED ROW
- EXISTING ROW
- LIGHT POLE
- TREE
- STRUCTURE
- RAILWAY TRACK
- CULVERT
- BRIDGE
- KM STONE
- HAND PUMP
- WELL
- GATE
- JUNCTION

LEGENDS

PLAN

CENTER LINE	
MEDIAN	
SHYNESS	
LANE MARKING	
MAIN CARRIAGEWAY EDGE	
PAVED SHOULDER	
EARTHEN SHOULDER	
CRASH BARRIER	
RETAINING WALL	
SERVICE ROAD EDGE	
FOOTPATH / DRAIN	
UNLINED DRAIN	
SPACE FOR UTILITY	
PROPOSED ROW —PROW—	
EXISTING ROW —EROW—	

PROFILE

PROPOSED RTL ———

EXISTING RTL - - - - -

GROUND LEVEL ———

GROUND LEVEL RHS - - - - -

GROUND LEVEL LHS - - - - -

NOTATIONS

HORIZONTAL GEOMETRY

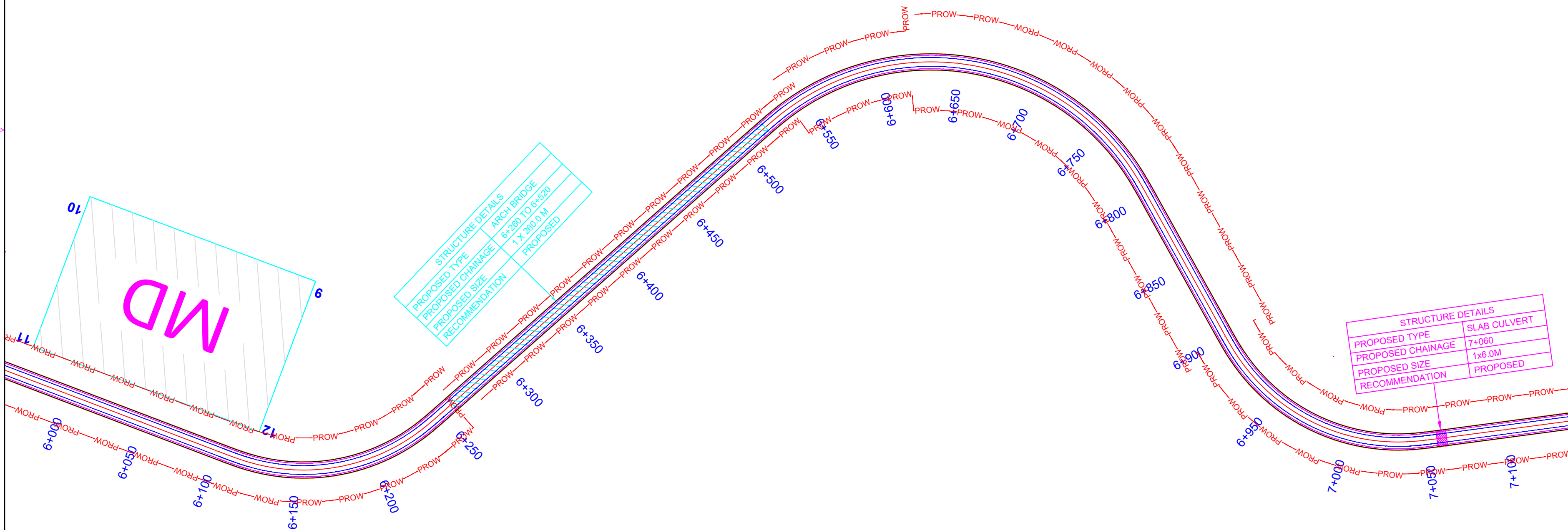
Δ	- DELTA ANGLE/DEFLECTION ANGLE
AC	- DELTA ANGLE/CIRCULAR CURVE
AS	- DELTA ANGLE/CIRCULAR SPIRAL
RC	- RADIUS OF CURVE
NC	- NORMAL CROWN
HIP	- HORIZONTAL INTERSECTION POINT
LS	- LENGTH OF SPIRAL
LC	- LENGTH OF CIRCULAR
E	- SUPER ELEVATION
S	- SHIFT
TS	- TANGENT DISTANCE
ES	- APEX DISTANCE

VERTICAL GEOMETRY

- G - GRADIENT
- L - LENGTH
- PVI - POINT OF VERTICAL INTERSECTION
- LVC - LENGTH OF VERTICAL CURVE
- BVC - BEGINNING OF VERTICAL CURVE
- EVC - END OF VERTICAL CURVE

NOTES:

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[illegible]

CLIENT:



**National Highways and
Infrastructure Development
Corporation Limited**

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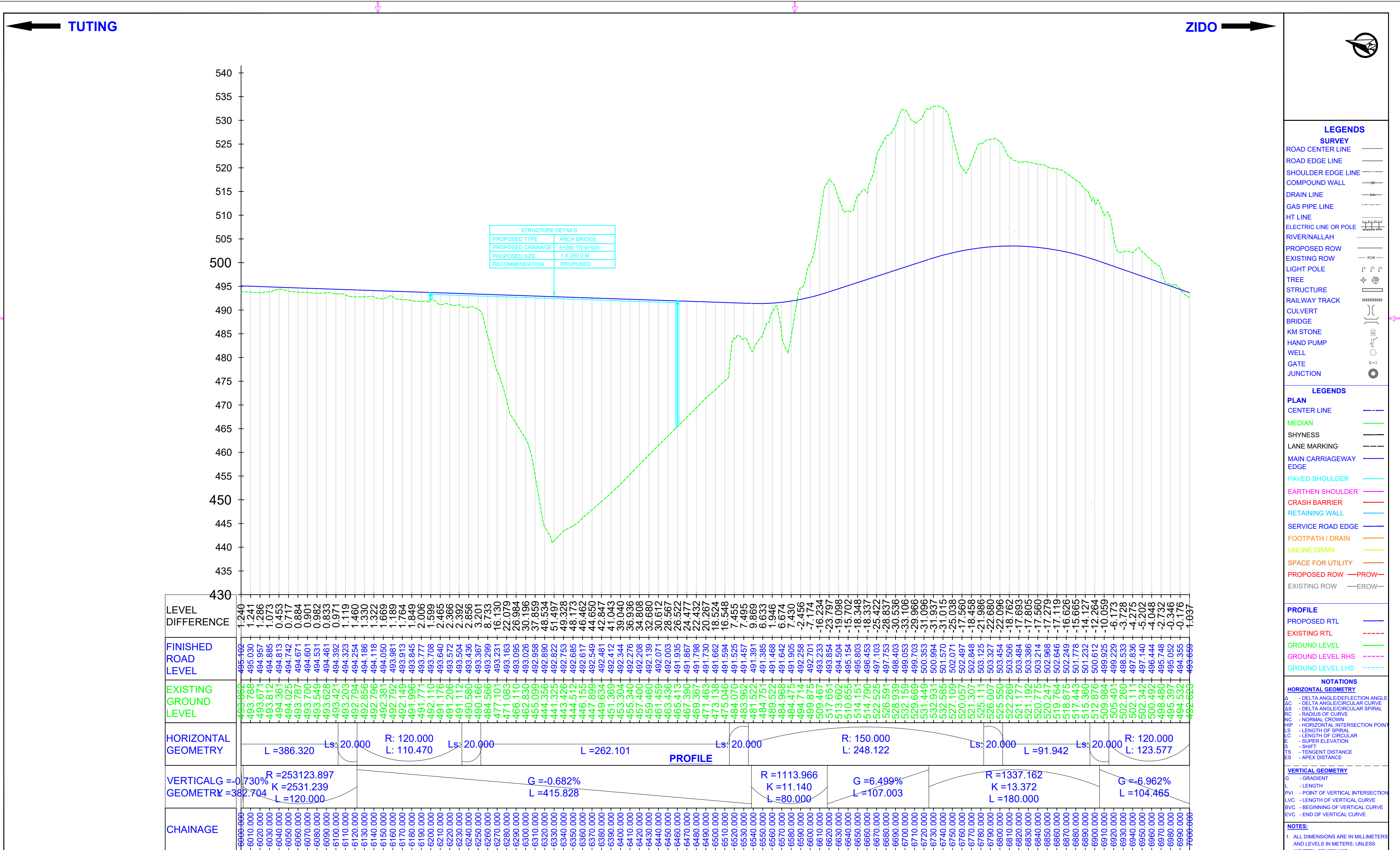
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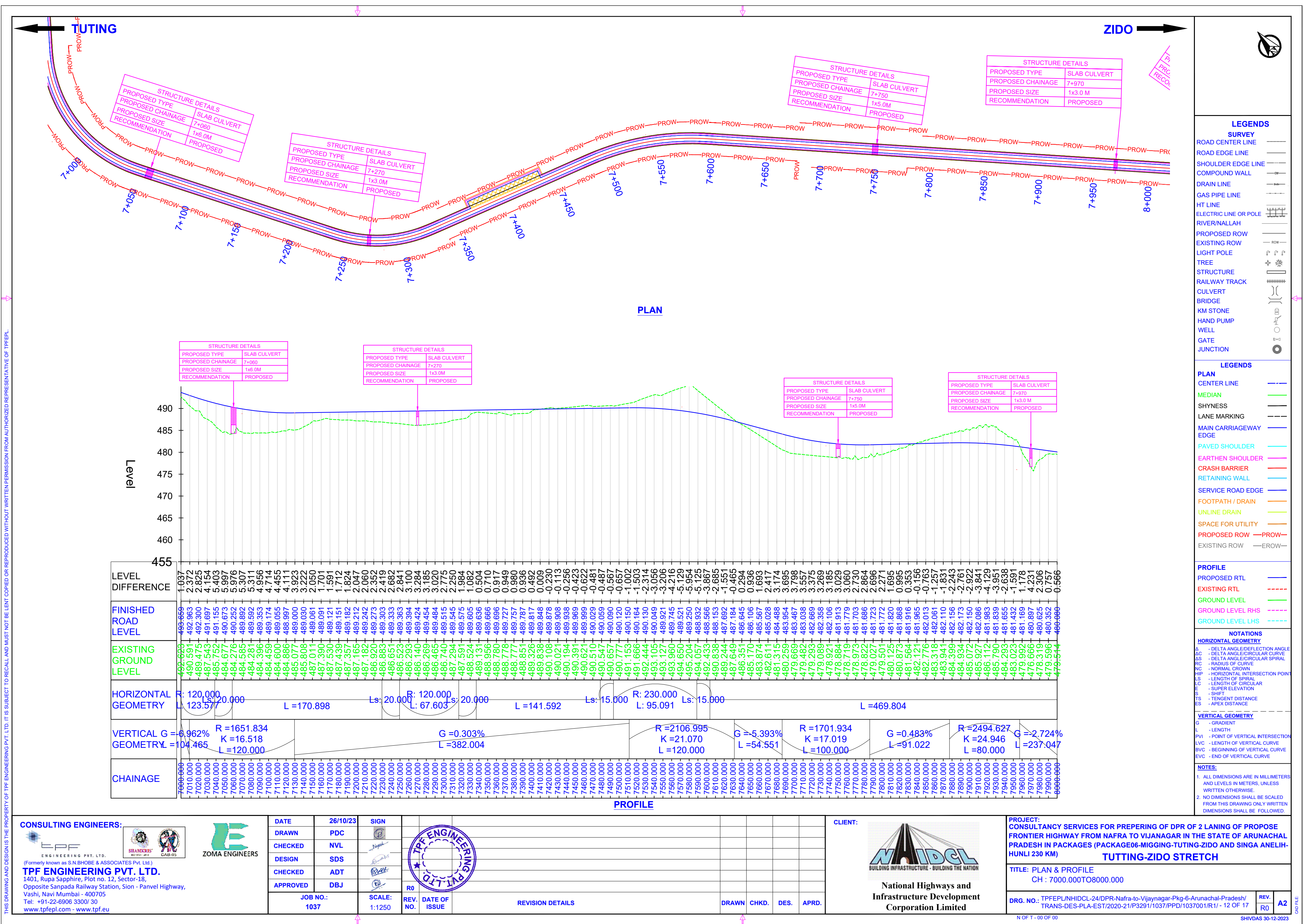
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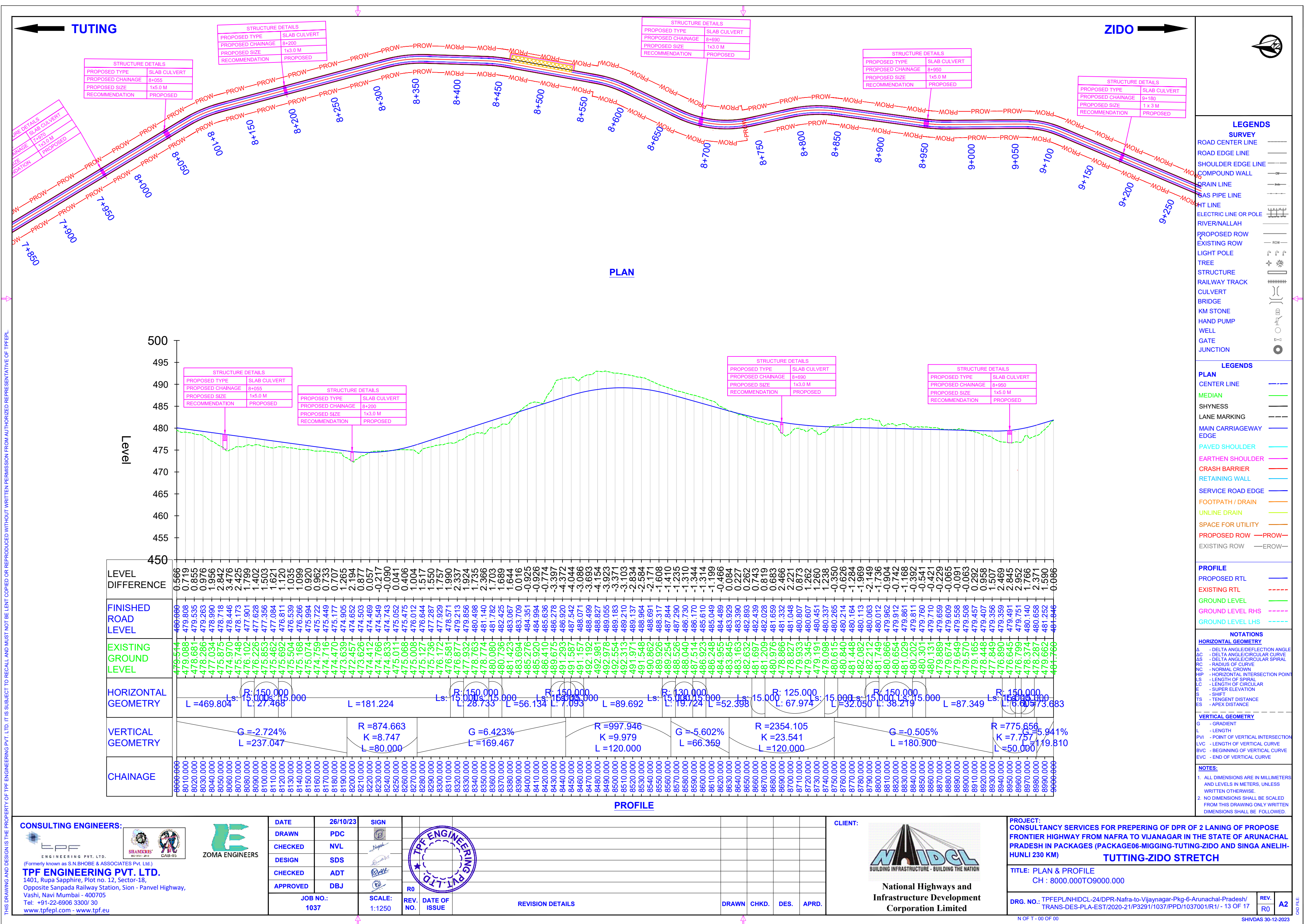
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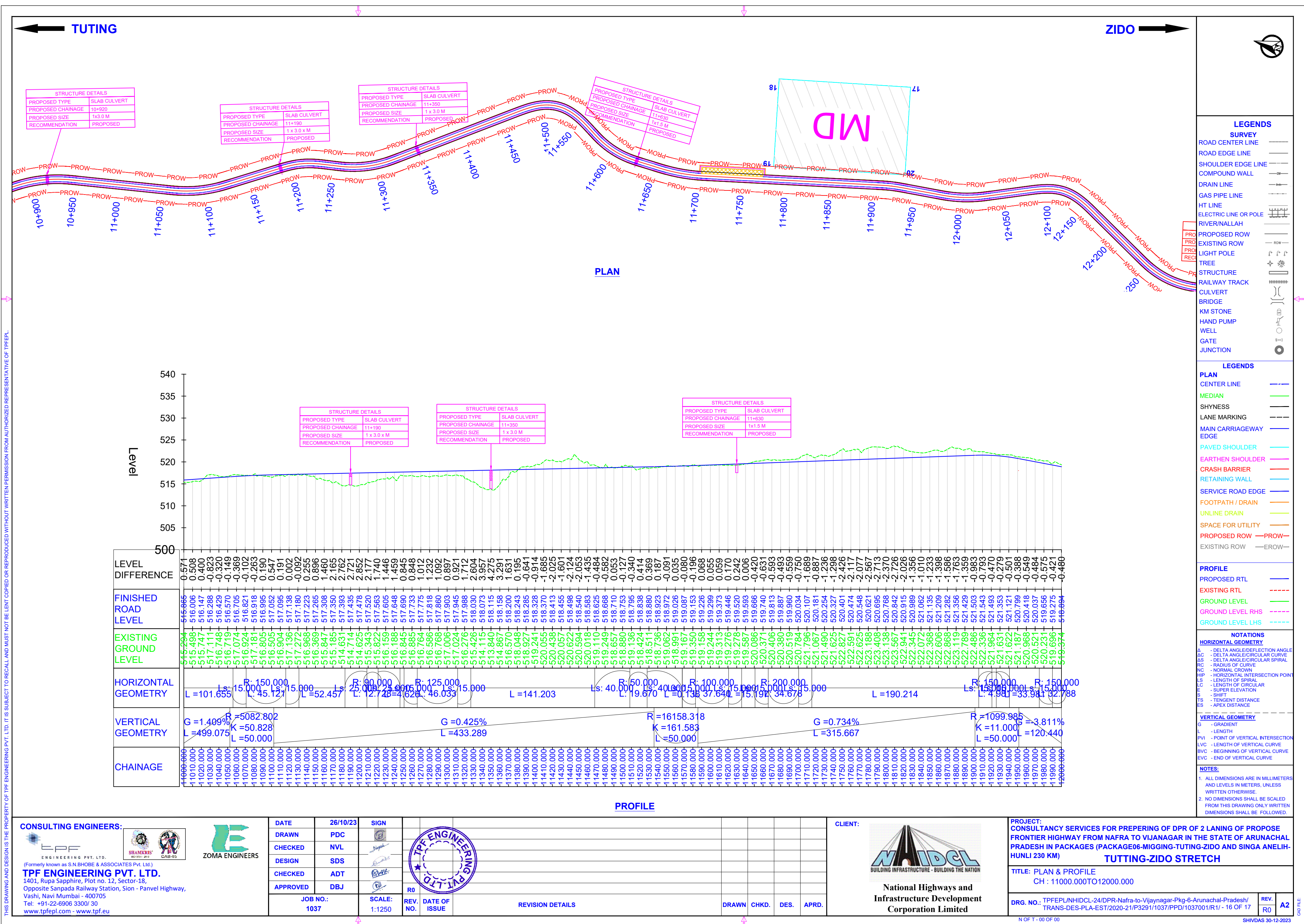
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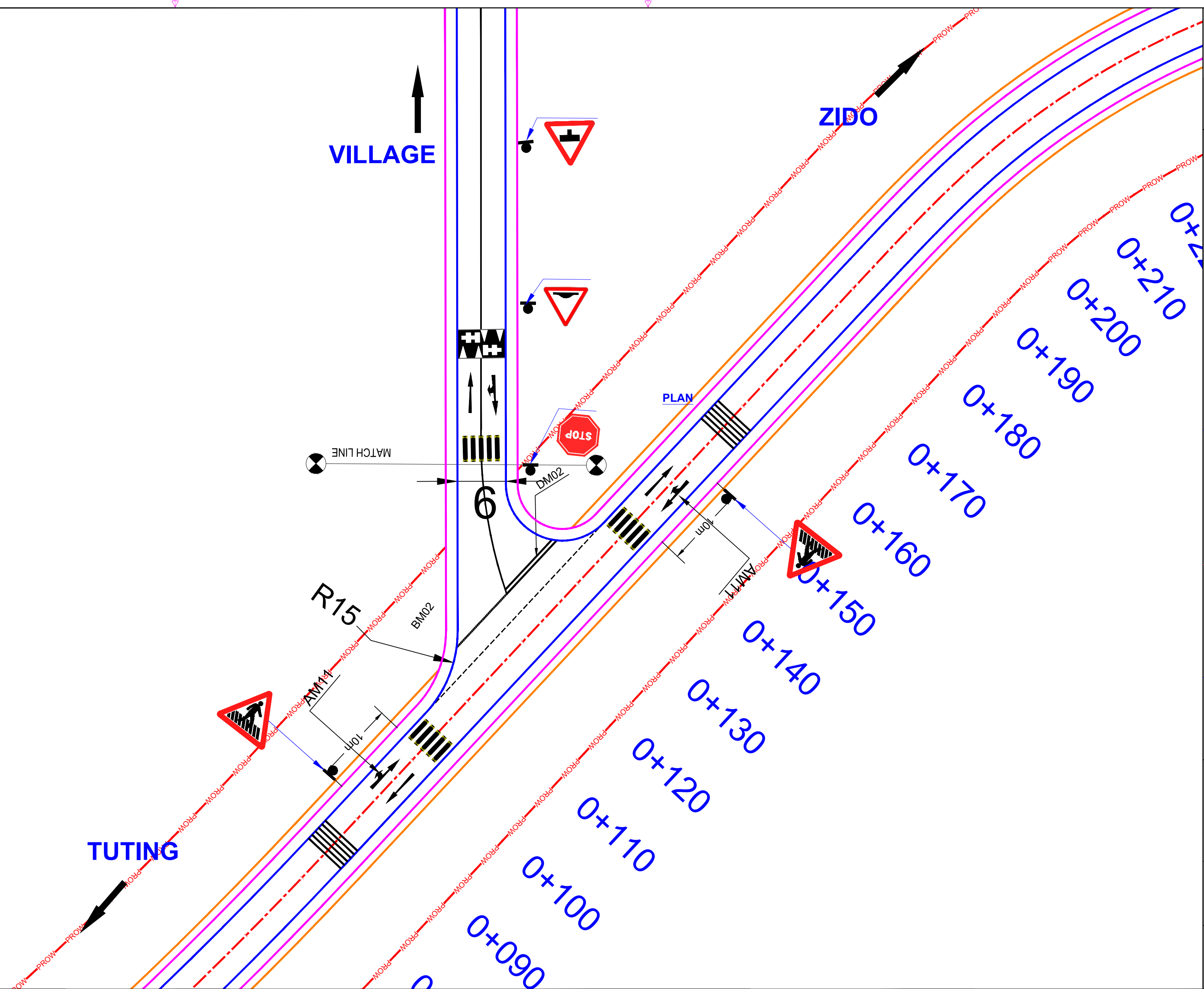








JUNCTION DRAWINGS



LEGENDS

SURVEY	—————
ROAD CENTER LINE	—————
ROAD EDGE LINE	—————
SHOULDER EDGE LINE	—————
COMPOUND WALL	——— ———
DRAIN LINE	——— ———
GAS PIPE LINE	——— ———
HT LINE	——— ———
ELECTRIC LINE OR POLE	——— ———
RIVER/NALLAH	~~~~~
PROPOSED ROW	——— ———
EXISTING ROW	——— ———
LIGHT POLE	——— ———
TREE	⊕ ⊗
STRUCTURE	—————
RAILWAY TRACK	
CULVERT	()
BRIDGE	()
KM STONE	
HAND PUMP	
WELL	○
GATE	
JUNCTION	⊙

LEGENDS	
PLAN	
CENTER LINE	— — — —
MEDIAN	— — — —
SHYNESS	— — — —
LANE MARKING	— — — —
MAIN CARRIAGEWAY	— — — —
EDGE	— — — —
PAVED SHOULDER	— — — —
EARTHEN SHOULDER	— — — —
CRASH BARRIER	— — — —
RETAINING WALL	— — — —
SERVICE ROAD EDGE	— — — —
FOOTPATH / DRAIN	— — — —
UNLINE DRAIN	— — — —
SPACE FOR UTILITY	— — — —
PROPOSED ROW	—PROW—
EXISTING ROW	—EROW—

PROFILE	
PROPOSED RTL	————
EXISTING RTL	- - - - -
GROUND LEVEL	————
GROUND LEVEL RHS	- - - - -
GROUND LEVEL LHS	- - - - -

NOTATIONS

<u>HORIZONTAL GEOMETRY</u>	
Δ	- DELTA ANGLE/DEFLECTION ANGLE
ΔC	- DELTA ANGLE/CIRCULAR CURVE
ΔS	- DELTA ANGLE/CIRCULAR SPIRAL
RC	- RADIUS OF CURVE
NC	- NORMAL CROWN
HP	- HORIZONTAL INTERSECTION POINT
LS	- LENGTH OF SPIRAL
LC	- LENGTH OF CIRCULAR
E	- SUPER ELEVATION
S	- SHIFT
TS	- TANGENT DISTANCE
ES	- APEX DISTANCE

<u>VERTICAL GEOMETRY</u>	
G	- GRADIENT
L	- LENGTH
PVI	- POINT OF VERTICAL INTERSECTION
LVC	- LENGTH OF VERTICAL CURVE
BVC	- BEGINNING OF VERTICAL CURVE
EVC	- END OF VERTICAL CURVE

NOTES:

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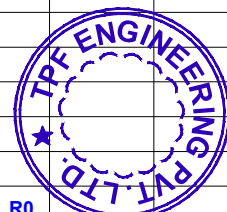
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1037	1:1250



REV.	DATE OF
NO.	ISSUE

	REVISION DETAILS	DRAWN	CHKD.	DES.	APRD.
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CLIENT:



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TUTTING-ZIDO STRETCH

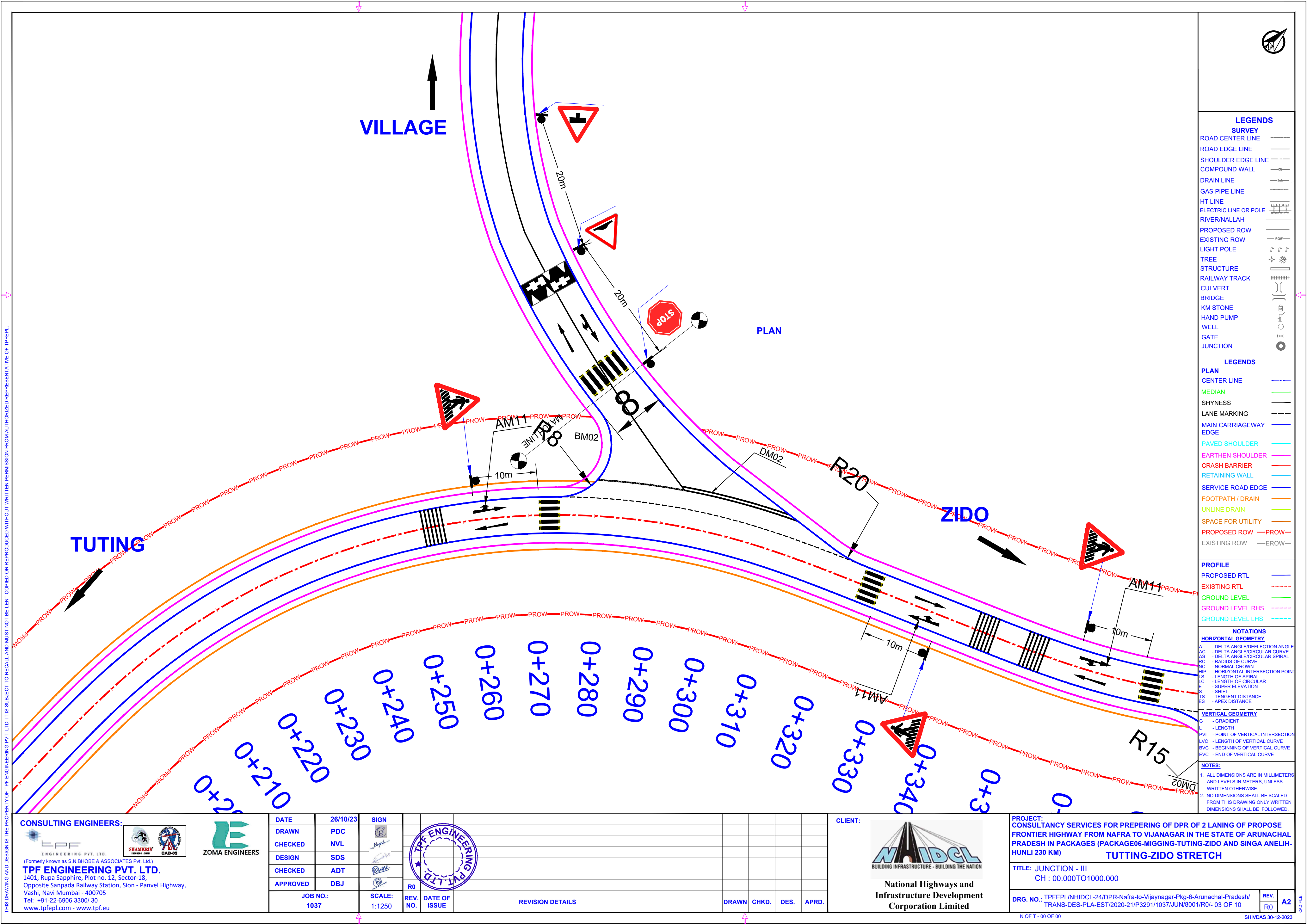
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DRG. NO.: TPFEPL/NHIDCL-24/DPR-Nafra-to-Vijaynagar-Pkg-6-Arunachal-Pradesh
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LEGENDS

SURVEY

- ROAD CENTER LINE
- ROAD EDGE LINE
- SHOULDER EDGE LINE
- COMPOUND WALL
- DRAIN LINE
- GAS PIPE LINE
- HT LINE
- ELECTRIC LINE OR POLE
- RIVER/NALLAH
- PROPOSED ROW
- EXISTING ROW
- LIGHT POLE
- TREE
- STRUCTURE
- RAILWAY TRACK
- CULVERT
- BRIDGE
- KM STONE
- HAND PUMP
- WELL
- GATE
- JUNCTION

LEGENDS

- PLAN
- CENTER LINE
- MEDIAN
- SHYNESS
- LANE MARKING
- MAIN CARRIAGEWAY
- EDGE
- PAVED SHOULDER
- EARTHEN SHOULDER
- CRASH BARRIER
- RETAINING WALL
- SERVICE ROAD EDGE
- FOOTPATH / DRAIN
- UNLINE DRAIN
- SPACE FOR UTILITY
- PROPOSED ROW
- EXISTING ROW

PROFILE

- PROPOSED RTL
- EXISTING RTL
- GROUND LEVEL
- GROUND LEVEL RHS
- GROUND LEVEL LHS

NOTATIONS

- A - DELTA ANGLE/DEFLECTION ANGLE
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- TS - TANGENT DISTANCE
- ES - APEX DISTANCE

VERTICAL GEOMETRY

- G - GRADIENT
- L - LENGTH
- PVI - POINT OF VERTICAL INTERSECTION
- LVC - LENGTH OF VERTICAL CURVE
- BVC - BEGINNING OF VERTICAL CURVE
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NOTES:

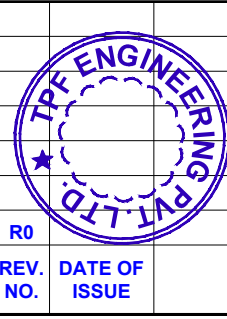
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DESIGN	SDS	
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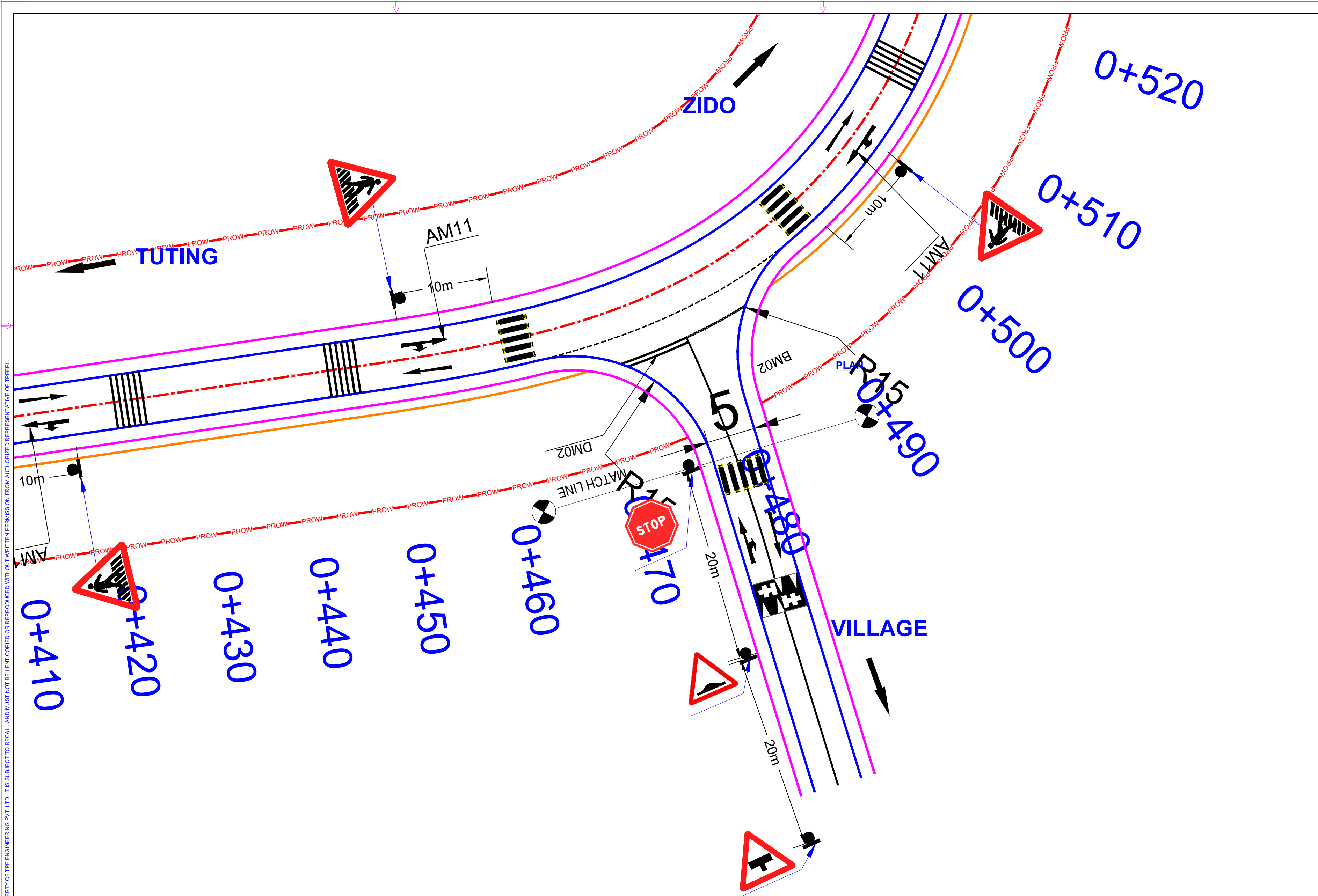
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CLIENT:

NHIDCL
BUILDING INFRASTRUCTURE - BUILDING THE NATION
National Highways and Infrastructure Development Corporation Limited

PROJECT: CONSULTANCY SERVICES FOR PREPERING OF DPR OF 2 LANING OF PROPOSE FRONTIER HIGHWAY FROM NAFRA TO VIJAYNAGAR IN THE STATE OF ARUNACHAL PRADESH IN PACKAGES (PACKAGE06-MIGGING-TUTTING-ZIDO AND SINGA ANELIH-HUNLI 230 KM)
TUTTING-ZIDO STRETCH
TITLE: JUNCTION - III
CH : 00.000TO1000.000
DRG. NO.: TPFEPL/NHIDCL-24/DPR-Nafra-to-Vijaynagar-Pkg-6-Arunachal-Pradesh/ TRANS-DES-PLA-EST/2020-21/P3291/1037/JUN/8001/R0/- 03 OF 10
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LEGENDS

SURVEY

- ROAD CENTER LINE
- ROAD EDGE LINE
- SHOULDER EDGE LINE
- COMPOUND WALL
- DRAIN LINE
- GAS PIPE LINE
- HT LINE
- ELECTRIC LINE OR POLE
- RIVER/NALLAH
- PROPOSED ROW
- EXISTING ROW
- LIGHT POLE
- TREE
- STRUCTURE
- RAILWAY TRACK
- CULVERT
- BRIDGE
- KM STONE
- HAND PUMP
- WELL
- GATE
- JUNCTION

LEGENDS

PLAN

- CENTER LINE
- MEDIAN
- SHYNESS
- LANE MARKING
- MAIN CARRIAGEWAY
- EDGE
- PAVED SHOULDER
- EARTHEN SHOULDER
- CRASH BARRIER
- RETAINING WALL
- SERVICE ROAD EDGE
- FOOTPATH / DRAIN
- UNLINE DRAIN
- SPACE FOR UTILITY
- PROPOSED ROW
- EXISTING ROW

PROFILE

- PROPOSED RTL
- EXISTING RTL
- GROUND LEVEL
- GROUND LEVEL RHS
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NOTATIONS

HORIZONTAL GEOMETRY

- A - DELTA ANGLE/DEFLECTION ANGLE
- AC - DELTA ANGLE/CIRCULAR CURVE
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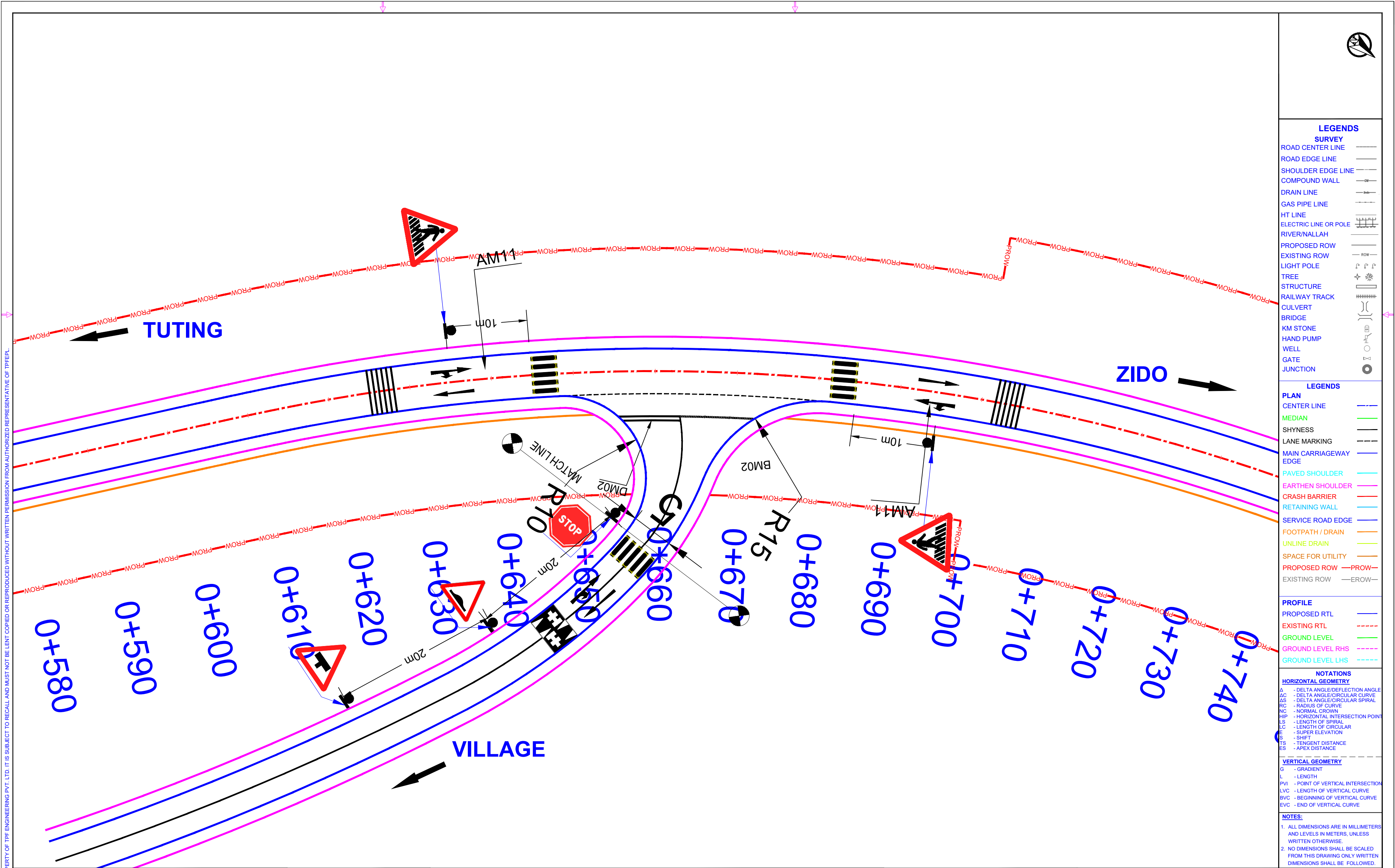
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VERTICAL GEOMETRY
G - GRADIENT
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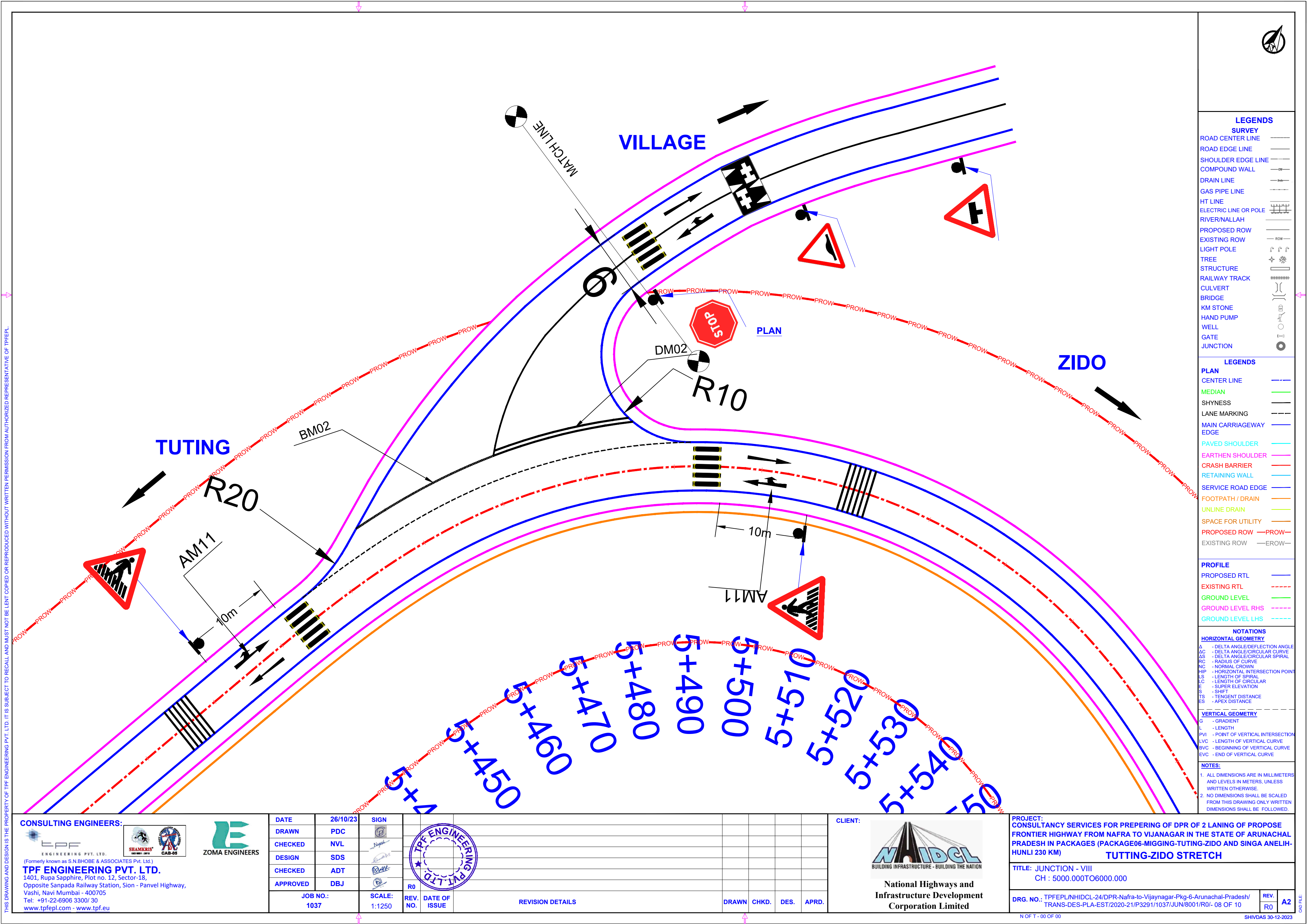
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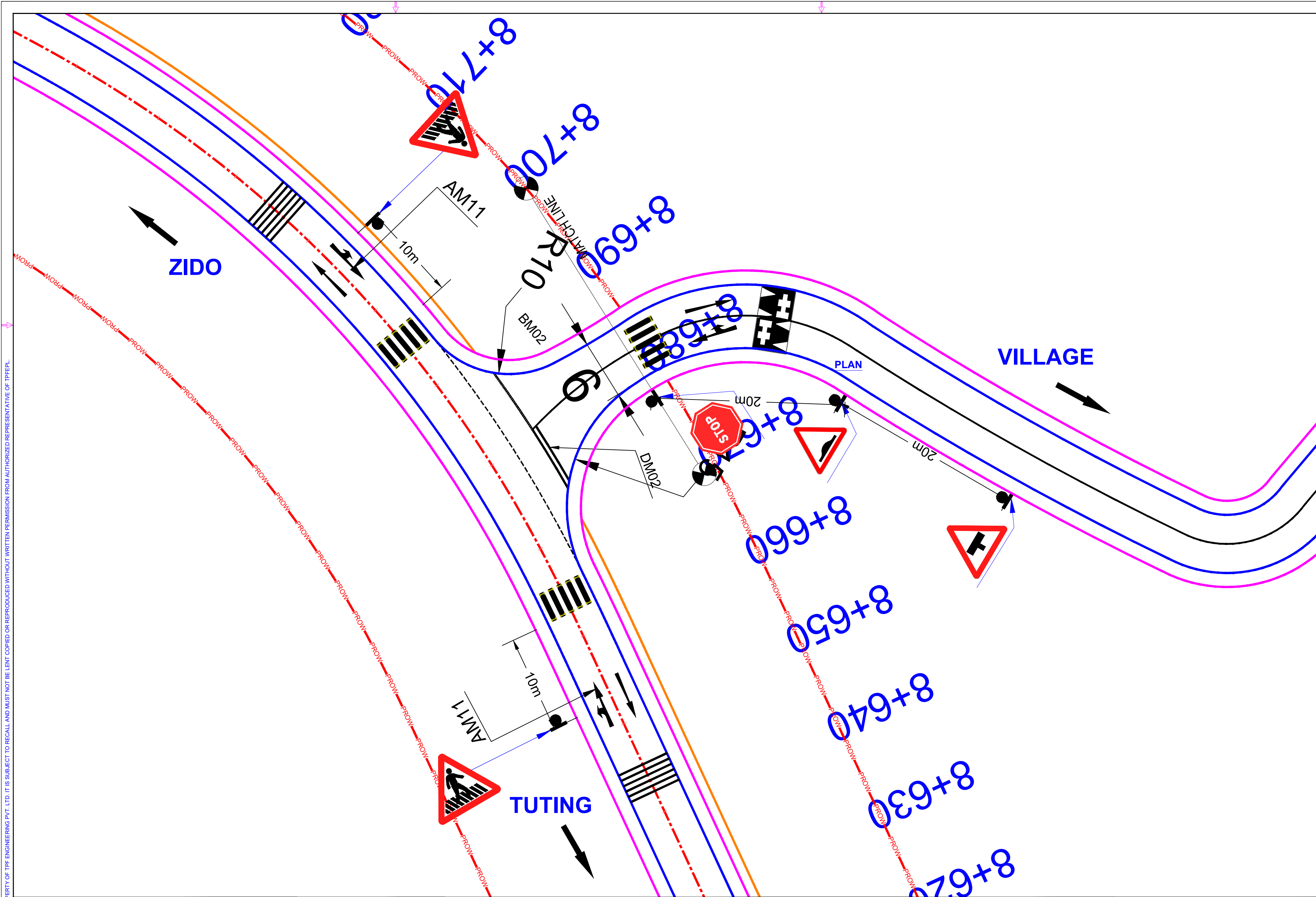
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LEGENDS

SURVEY

ROAD CENTER LINE ———

ROAD EDGE LINE ———

SHOULDER EDGE LINE ———

COMPOUND WALL ———

DRAIN LINE ———

GAS PIPE LINE ———

HT LINE ———

ELECTRIC LINE OR POLE ———

RIVER/NALLAH ———

PROPOSED ROW ———

EXISTING ROW ———

LIGHT POLE ———

TREE ———

STRUCTURE ———

RAILWAY TRACK ———

CULVERT ———

BRIDGE ———

KM STONE ———

HAND PUMP ———

WELL ———

GATE ———

JUNCTION ———

LEGENDS

PLAN

CENTER LINE ———

MEDIAN ———

SHYNESS ———

LANE MARKING ———

MAIN CARRIAGEWAY EDGE ———

PAVED SHOULDER ———

EARTHEN SHOULDER ———

CRASH BARRIER ———

RETAINING WALL ———

SERVICE ROAD EDGE ———

FOOTPATH / DRAIN ———

UNLINE DRAIN ———

SPACE FOR UTILITY ———

PROPOSED ROW ———

EXISTING ROW ———

PROFILE

PROPOSED RTL ———

EXISTING RTL ———

GROUND LEVEL ———

GROUND LEVEL RHS ———

GROUND LEVEL LHS ———

NOTATIONS

HORIZONTAL GEOMETRY

A - DELTA ANGLE/DEFLECTION ANGLE

AC - DELTA ANGLE/CIRCULAR CURVE

AS - DELTA ANGLE/CIRCULAR SPIRAL

RC - RADIUS OF CURVE

NC - NORMAL CROWN

HIP - HORIZONTAL INTERSECTION POINT

LS - LENGTH OF SPIRAL

LC - LENGTH OF CIRCULAR

E - SUPER ELEVATION

S - SHIFT

TS - TANGENT DISTANCE

ES - APEX DISTANCE

VERTICAL GEOMETRY

G - GRADIENT

L - LENGTH

PVI - POINT OF VERTICAL INTERSECTION

LVC - LENGTH OF VERTICAL CURVE

BVC - BEGINNING OF VERTICAL CURVE

EVC - END OF VERTICAL CURVE

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS IN METERS, UNLESS WRITTEN OTHERWISE.

2. NO DIMENSIONS SHALL BE SCALED FROM THIS DRAWING ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED.

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ZOMA ENGINEERS

DATE	26/10/23	SIGN	
DRAWN	PDC		
CHECKED	NVL		
DESIGN	SDS		
CHECKED	ADT		
APPROVED	DBJ		
JOB NO.: 1037	SCALE: 1:1250	REV. NO.	DATE OF ISSUE
REVISION DETAILS		DRAWN	CHKD.
		DES.	APRD.

CLIENT:

National Highways and Infrastructure Development Corporation Limited

PROJECT: CONSULTANCY SERVICES FOR PREPERING OF DPR OF 2 LANING OF PROPOSE FRONTIER HIGHWAY FROM NAFRA TO VIJAYNAGAR IN THE STATE OF ARUNACHAL PRADESH IN PACKAGES (PACKAGE06-MIGGING-TUTING-ZIDO AND SINGA ANELIH-HUNLI 230 KM)

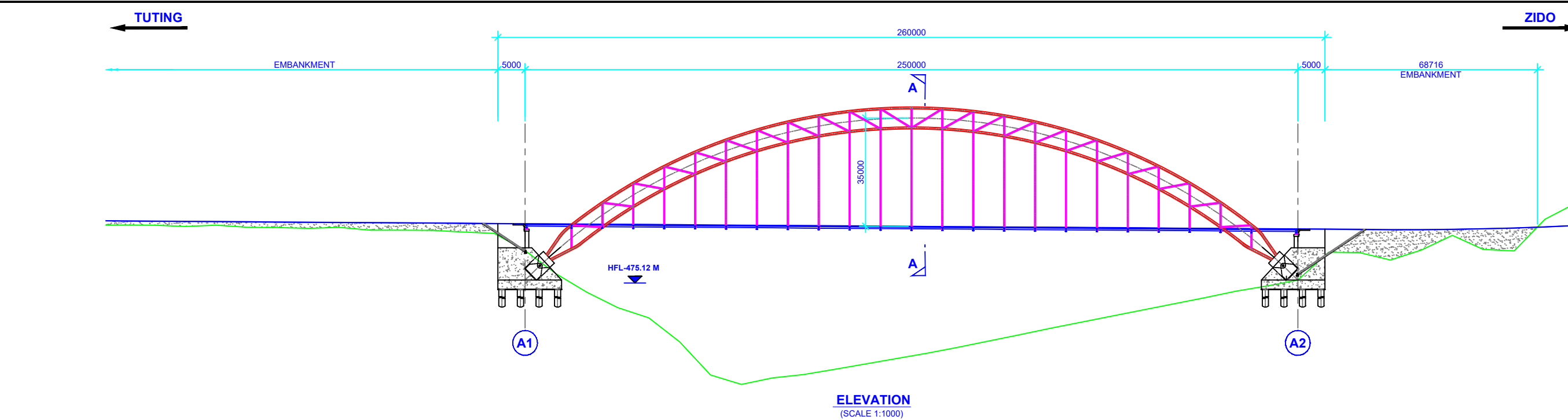
TUTTING-ZIDO STRETCH

TITLE: JUNCTION - IX
CH : 8000.000TO9000.000

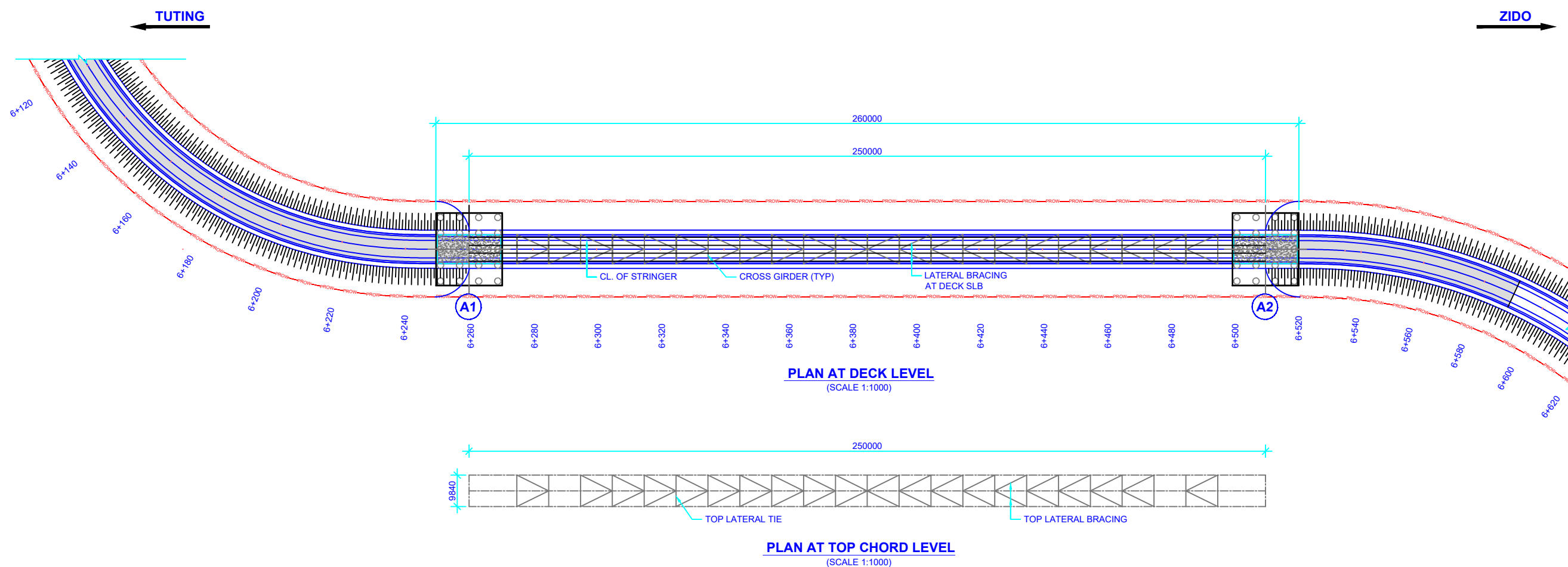
DRG. NO.: TPFEPL/NHIDCL-24/DPR-Nafra-to-Vijaynagar-Pkg-6-Arunachal-Pradesh/ TRANS-DES-PLA-EST/2020-21/P3291/1037/JUN/8001/R0/- 09 OF 10

REV. R0 A2

GENERAL ARRANGEMENT DRAWINGS



CHAINAGE	VERTICAL GEOMETRY	HORIZONTAL GEOMETRY	EXISTING GROUND LEVEL	FINISHED ROAD LEVEL	LEVEL DIFFERENCE
6130.000	G = -0.682% L = 415.828	R = 120.000 L = 110.470	492.856	494.186	1.330
6140.000			492.796	494.118	1.322
6150.000			492.381	494.050	1.669
6160.000			492.792	493.981	1.189
6170.000			492.149	493.913	1.764
6180.000			491.996	493.845	1.849
6190.000			491.771	493.777	2.006
6200.000			492.110	493.708	1.599
6210.000			491.176	493.640	2.465
6220.000			491.206	493.572	2.366
6230.000			491.112	493.504	2.392
6240.000			490.580	493.436	2.856
6250.000			490.166	493.367	3.201
6260.000			489.586	493.299	8.733
6270.000			477.101	493.231	16.130
6280.000			471.033	493.163	22.079
6290.000	466.110	493.095	26.984		
6300.000	462.830	493.026	30.196		
6310.000	455.089	492.958	37.859		
6320.000	444.356	492.890	48.534		
6330.000	441.325	492.822	51.497		
6340.000	443.426	492.753	49.328		
6350.000	444.512	492.685	48.173		
6360.000	446.155	492.617	46.462		
6370.000	447.899	492.549	44.650		
6380.000	449.634	492.481	42.847		
6390.000	451.389	492.412	41.043		
6400.000	453.304	492.344	39.040		
6410.000	455.340	492.276	36.936		
6420.000	457.400	492.208	34.808		
6430.000	459.460	492.139	32.660		
6440.000	461.459	492.071	30.612		
6450.000	463.436	492.003	28.567		
6460.000	465.413	491.935	26.522		
6470.000	467.390	491.867	24.477		
6480.000	469.367	491.798	22.432		
6490.000	471.463	491.730	20.267		
6500.000	473.138	491.662	18.524		
6510.000	475.046	491.594	16.548		
6520.000	480.070	491.525	7.465		
6530.000	483.962	491.457	7.495		
6540.000	481.522	491.391	9.869		
6550.000	484.751	491.385	6.633		
6560.000	489.522	491.468	1.946		
6570.000	489.988	491.542	6.674		
6580.000	489.475	491.505	7.430		
6590.000	490.714	492.258	-2.468		



NOTES:-

- a. ALL DIMENSIONS ARE IN MM AND LEVELS IN METRES UNLESS OTHERWISE MENTIONED ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED NO DIMENSION ARE TO BE SCALED.
- a. GRADE OF CONCRETE SHALL BE AS FOLLOWS :
 - b. FOR LEVELING COURSE : M10
 - c. FOR DECK SLAB : M40
 - d. FOR SUB-STRUCTURE : M40
 - e. FOR FOUNDATION : M35
 - f. CRASH BARRIER : M40
 - g. APPROACH SLAB: M30
- a. GRADE OF CRS STEEL SHALL BE FE-500D (HYSD) AS PER IS-1786 WITH LATEST AMENDMENTS
- a. WEARING COAT OF BITUMINOUS CONCRETE 65MM THK.
BACK FILL BEHIND RETURN WALL LINE SHOULD CONSIST OF SELECTED EARTH CONFORMING TO APPENDIX 6 OF IRC. 78 HAVING PROPERTIES $C = 0$, $\phi \approx 30^\circ$, $\gamma_D = 20 \text{ KN/M}^3$.
- a. STRIP SEAL TYPE EXPANSION JOINT SHALL BE PROVIDED.
POT-PTFE BEARING SHALL BE ADOPTED
- a. REFER SEPARATE DRAWING FOR REINFORCEMENT DETAILS & RE WALL
- a. FRL AS WELL AS CAMBER GIVEN IN THE DRAWING SHALL BE VERIFIED WITH HIGHWAY PLAN & PROFILE DRAWINGS BEFORE EXECUTION.
- a. EXPOSURE CONDITION MODERATE EXPOSURE.
- a. SEISMIC ZONE CONSIDERED IS ZONE-V
- a. THE DIMENSIONS OF VARIOUS MEMBERS, TYPE OF FOUNDATION & FOUNDING LEVEL SHOWN ARE TENTATIVE & MAY GET CHANGED DURING DETAILED DESIGN. HOWEVER OBLIGATORY PROVISIONS GIVEN IN TENDER DOCUMENT SHALL BE MAINTAINED.
- a. DESIGN CRITERIA:
 - b. DESIGN SHALL B ACCORDING TO THE FOLLOWING CODES (LATEST EDITION)
 - c. IRC: 5:2015 - FOR GENERAL DESIGN FEATURES
 - d. IRC: 8:2017 - FOR LOADS AND STRESSES
 - e. IRC: 112:2020-
 - f. IRC: 78:2014- FOR SUBSTRUCTURE AND FOUNDATIONS
 - g. IRC 83-(PART III):2016 - FOR POT-PTFE BEARINGS
 - h. IRC 24:2010 STEEL STRUCTURE
 - i. IRC 22:2015 STEEL COMPOSITE STRUCTURE
 - j. ALL INDIVIDUAL MEMBER COMPONENTS ARE BUILT-UP WITH WELDED CONSTRUCTION.
 - k. PART 11-3 IS SHAPE OF BEARING TYPE OF PROPERTY CLASS 8 & 9 CONFORMING TO IS : 1367
 - l. PART II - 2002, IS : 3757 & IS : 4000-1992 UNLESS NOTED OTHERWISE.
 - m. GRADE OF STRUCTURAL STEEL E-350
 - n. HIGH FLOOD LEVEL IS 475.12 M

PROJECT: FOR PREPARATION OF DPR OF 2-LANING OF THE PROPOSED RONTIER HIGHWAY FROM NAFRA TO VIJAYNAGAR IN THE STATE OF RUNACHAL PRADESH IN 9 PACKAGES (PACKAGE-6): DPR/HF/AR.P/020/06: MIGGING – TUTING – ZIDO AND SINGA - ANELYE – HUNLI, 230 KM).

TITLE: GENERAL ARRANGEMENT DRAWING OF ARCH BRIDGE
AT Ch+260 - Ch6+520 Km

REV.	
RO	A

IRG. NO.:

CONSULTING ENGINEERS:



tpef
ENGINEERING PVT. LTD.



SHANKAR'S
CIVIL & MECH. ENGRS.



SMB
ENGRS.

(Formerly known as S.N.BHOBE & ASSOCIATES Pvt. Ltd.)

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