

PREPARATION OF A DETAILED ESTIMATE BASED ON THE ASSESSMENT REPORT OF TECHNICAL CONSULTANT NIT AGARTALA FOR THE ESSENTIAL RESTORATION OF DAMAGES STRETCHES AND PLAN AND PROFILE FOR THE PROPOSED RAISING OF FRL ON OVERTOPPED STRETCHES INCLUDING THE CROSS-DRAINAGE STRUCTURE AND THE RIVER TRAINING /PROTECTIVE WORKS ON VARIOUS ROADS/BRIDGE PROJECTS UNDER PMU UDAIPUR



DRAWING VOLUME OVERTOPPED AREA

SUBMITTED TO



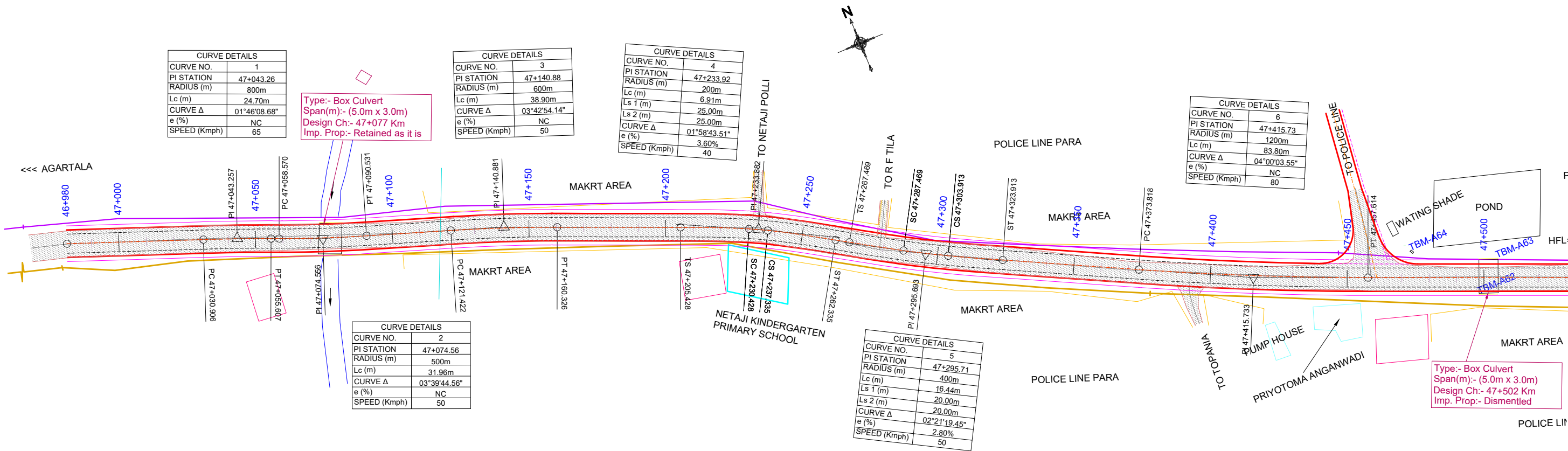
NATIONAL HIGHWAYS INFRUSTRUCTURE
DEVELOPMENT CORPORATION LIMITED

PREPARED BY

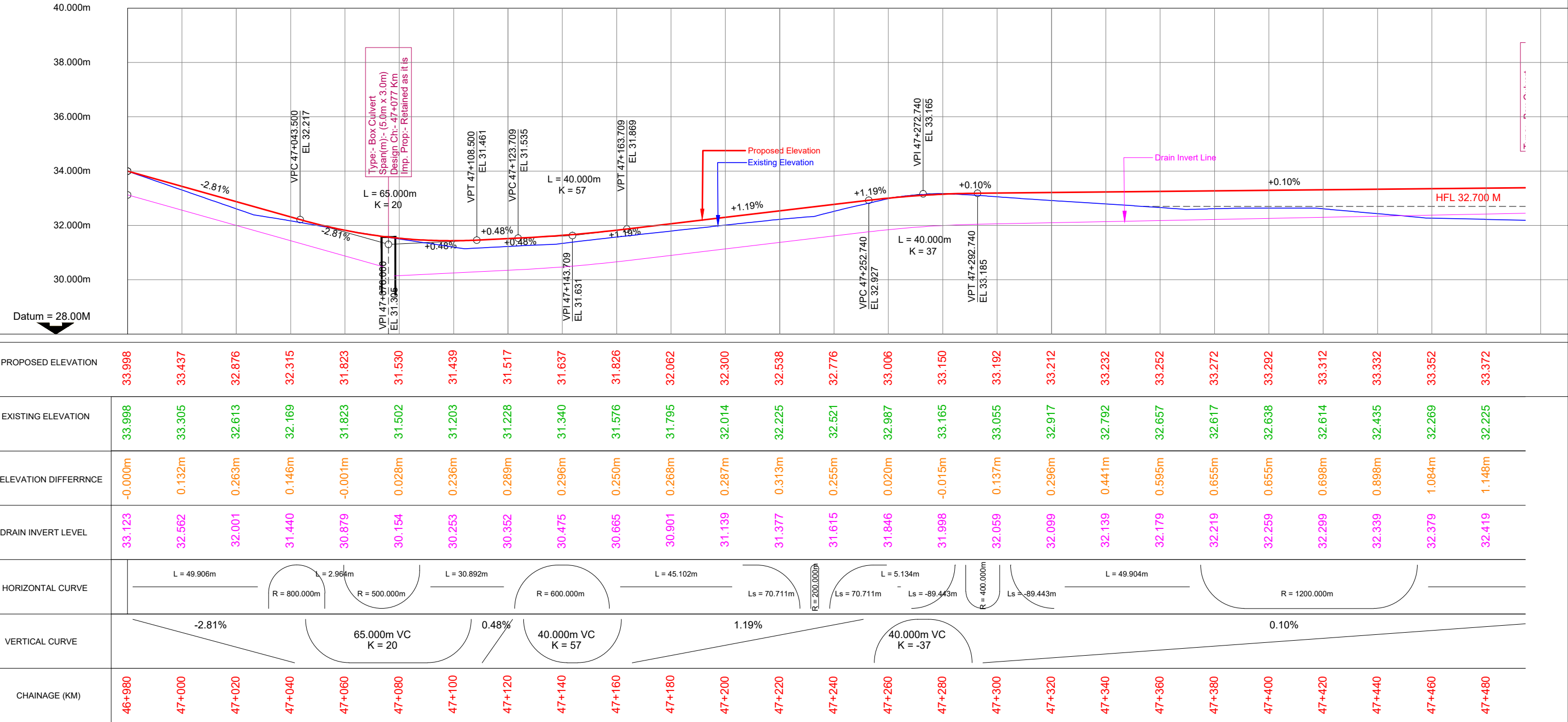


C. E. Testing Company Pvt. Ltd.
124-A, NSC Bose Road, Kolkata 700092

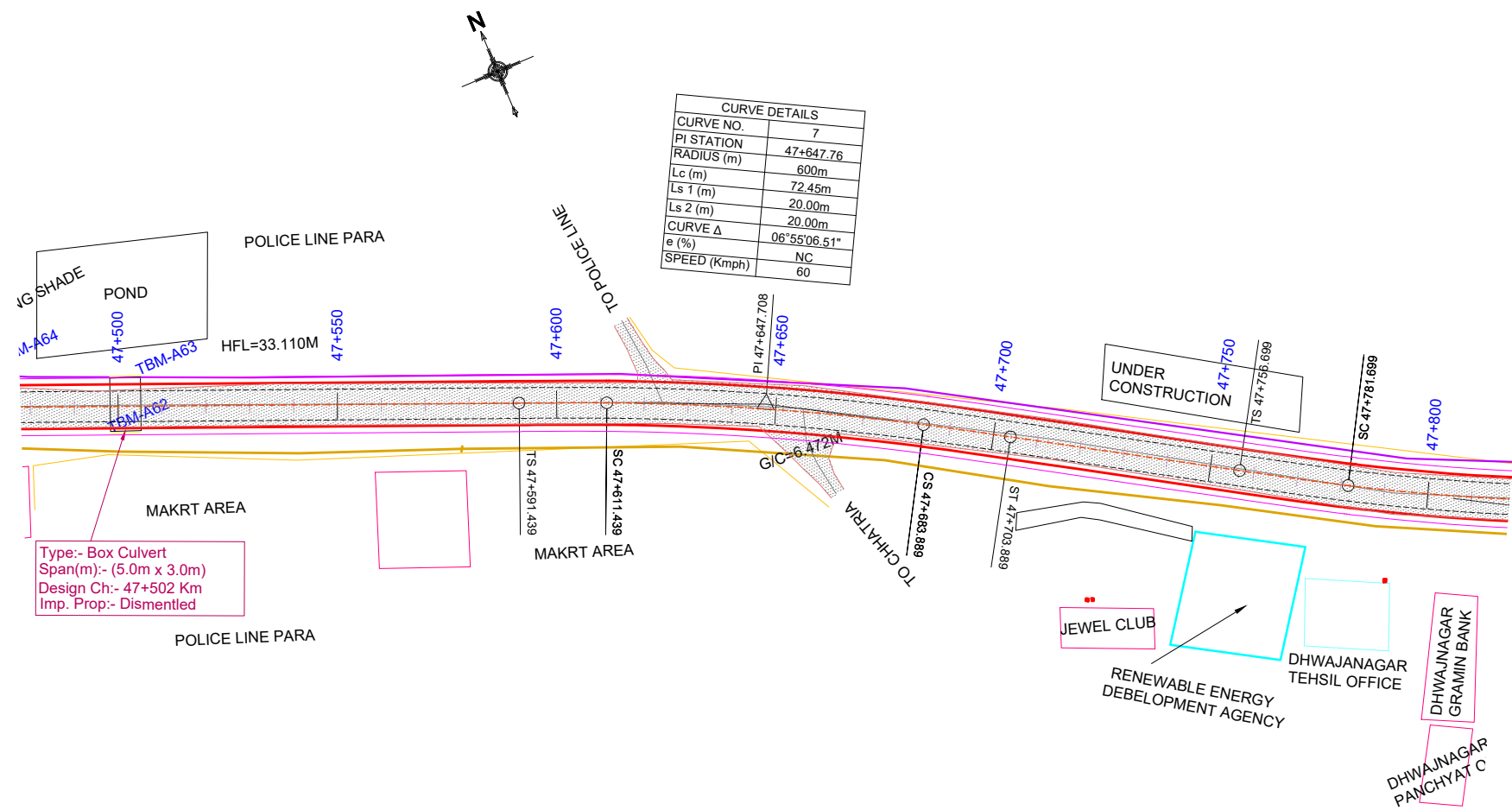
AGARTALA - SABROOM (NH-08)
Km. 46+980 TO Km. 47+940



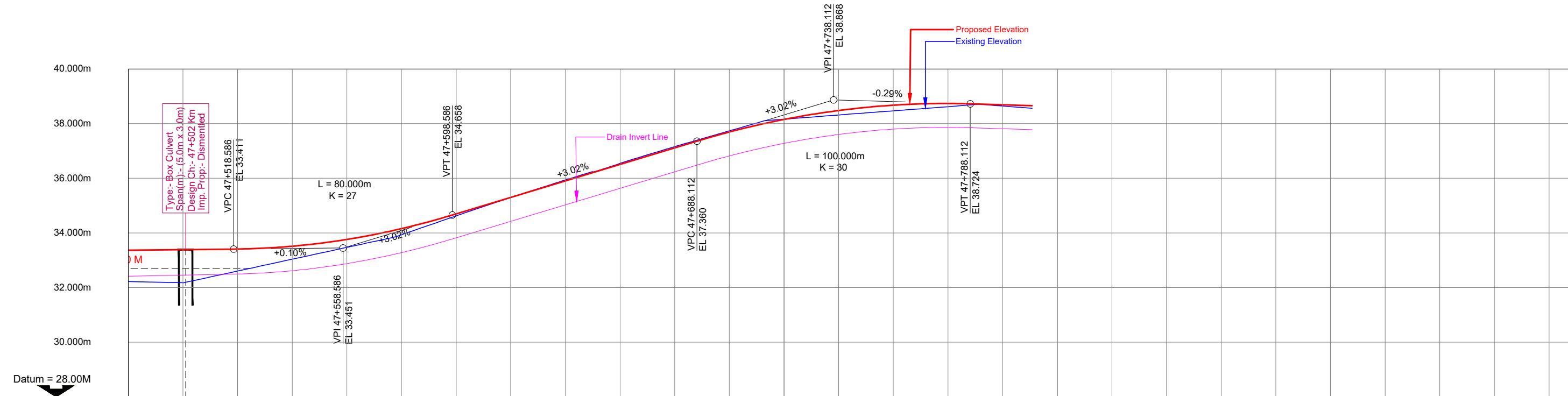
					 NHIDCL BUILDING INFRASTRUCTURE - BUILDING THE NATION	CLIENT: NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED (NHIDCL) Tower-A, World Trade Centre, Naurojni Nagar Market, Block G, Nauroji Nagar, Safdarjung Enclave, New Delhi, Delhi 110029	PLAN & PROFILE Km. 46+980 TO Km. 47+940	CONSULTANT :  CE TESTING COMPANY PVT. LTD. 124-A, N.S.C. Bose Road Kolkata - 700092.	Dwg. No. CET/2025/4669/NH-08/PP_1			
MKD.	DATE	DESCRIPTION	CHKD.	APPRD.					Drawn By.	Design By.	Checked By.	Approved By.
REVISIONS					DATE: April ,2025	PROJECT: Preparation of a detailed estimate based on the assessment report of technical consultant NIT Agartala for the essential restoration of damages stretches and Plan & Profile for the proposed raising of FRL on overtopped stretches including the cross drainage structure and the river training / protective works on various roads / bridge projects under PMU Udaipur	ROAD NAME: AGARTALA TO SABROOM		G.Banerjee	B.Das	S.Dev	A.Nayek



					SCALE: HOR - 1:1000 VER - 1:100		CLIENT: NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED (NHIDCL) Tower-A, World Trade Centre, Naurojni Nagar Market, Block G, Nauroji Nagar, Safdarjung Enclave, New Delhi, Delhi 110029		PLAN & PROFILE Km. 46+980 TO Km. 47+800		CONSULTANT : CETEST CE TESTING COMPANY PVT. LTD. Engineering Consultants As ISO 9001, 14001 & 45001 Certified Company 124-A, N.S.C. Bose Road Kolkata - 700092.		Dwg. No. CET/2025/4669/NH-08/PP_1A	
					DATE: April ,2025		PROJECT: Preparation of a detailed estimate based on the assessment report of technical consultant NIT Agartala for the essential restoration of damages stretches and Plan & Profile for the proposed raising of FRL on overtopped stretches including the cross drainage structure and the river training / protective works on various roads / bridge projects under PMU Udaipur		ROAD NAME: AGARTALA TO SABROOM				Drawn By.	Design By.
													Checked By.	Approved By.
													G.Banerjee	A.Nayek



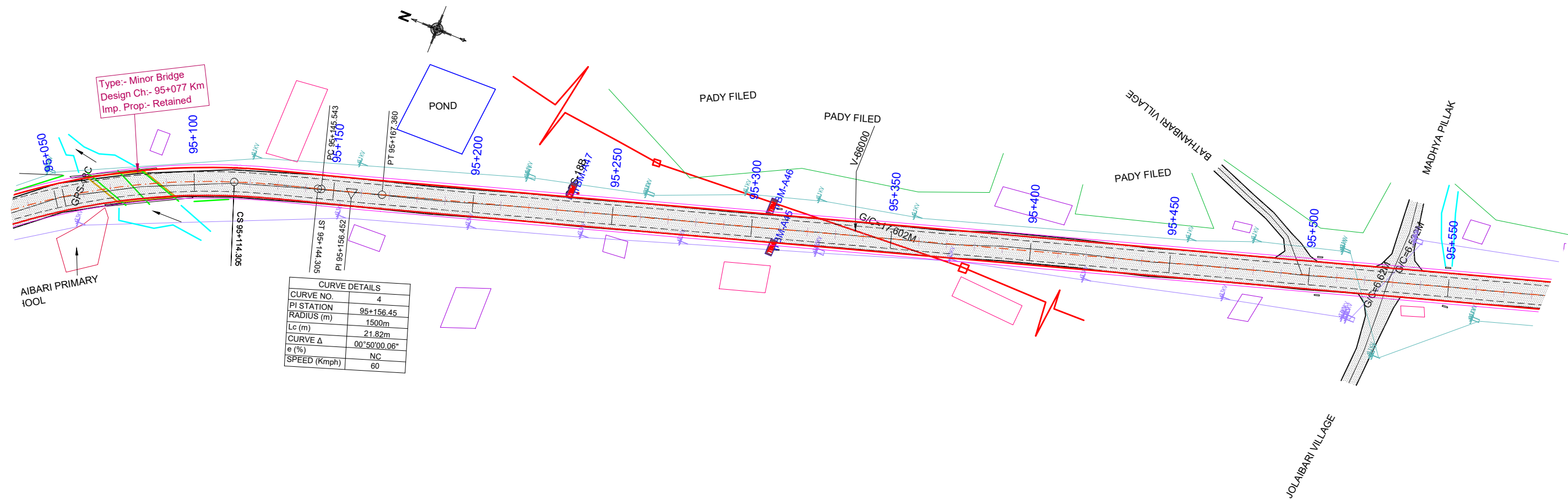
					SCALE: HOR - 1:1000 VER - 1:100 	CLIENT: NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED (NHIDCL) Tower-A, World Trade Centre, Nauroji Nagar Market, Block G, Nauroji Nagar, Safdarjung Enclave, New Delhi, Delhi 110029	PLAN & PROFILE Km. 46+980 To Km. 47+940		CONSULTANT :  CE TESTING COMPANY PVT. LTD. 124-A, N.S.C. Bose Road Kolkata - 700092.	Dwg. No. CET/2025/4669/NH-08/PP_2			
MKD.	DATE	DESCRIPTION	CHKD.	APPRD.			ROAD NAME: AGARTALA TO SABROOM			Drawn By.	Design By.	Checked By.	Approved By.
REVISIONS					DATE: April ,2025	PROJECT: Preparation of a detailed estimate based on the assessment report of technical consultant NIT Agartala for the essential restoration of damages stretches and Plan & Profile for the proposed raising of FRL on overtopped stretches including the cross drainage structure and the river training / protective works on various roads / bridge projects under PMU Udaipur				G.Banerjee	B.Das	S.Dev	A.Nayek



PROPOSED ELEVATION	33.372	33.392	33.413	33.516	33.765	34.160	34.701	35.304	35.908	36.511	37.115	37.695	38.154	38.480	38.675	38.737	38.690
EXISTING ELEVATION	32.225	32.180	32.608	33.041	33.474	33.937	34.627	35.300	35.941	36.551	37.159	37.737	38.164	38.317	38.469	38.620	38.643
ELEVATION DIFFERRNCE	1.148m	1.213m	0.805m	0.475m	0.291m	0.223m	0.074m	0.004m	-0.033m	-0.040m	-0.044m	-0.042m	-0.010m	0.163m	0.206m	0.117m	0.047m
DRAIN INVERT LEVEL	32.419	32.459	32.499	32.620	32.881	33.283	33.826	34.429	35.033	35.636	36.240	36.820	37.278	37.605	37.799	37.861	37.815
HORIZONTAL CURVE	L = 133.824m Ls = 109.545m R = 600.000m Ls = 109.545m L = 52.810m Ls = -111.803m																
VERTICAL CURVE	80.000m VC K = 27 3.02% 100.000m VC K = -30																
CHAINAGE (KM)	47+480	47+500	47+520	47+540	47+560	47+580	47+600	47+620	47+640	47+660	47+680	47+700	47+720	47+740	47+760	47+780	47+800

					SCALE: HOR - 1:1000 VER - 1:100	 CLIENT: NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED (NHIDCL) Tower-A, World Trade Centre, Nauroji Nagar Market, Block G, Nauroji Nagar, Safdarjung Enclave, New Delhi, Delhi 110029	PLAN & PROFILE Km. 46+980 To Km. 47+800		CONSULTANT :  CE TESTING COMPANY PVT. LTD. 124-A, N.S.C. Bose Road Kolkata - 700092.	Dwg. No. CET/2025/4669/NH-08/PP_2A			
MKD.	DATE	DESCRIPTION	CHKD.	APPRD.	DATE: April ,2025		ROAD NAME: AGARTALA TO SABROOM			Drawn By.	Design By.	Checked By.	Approved By.
REVISIONS					PROJECT: Preparation of a detailed estimate based on the assessment report of technical consultant NIT Agartala for the essential restoration of damages stretches and Plan & Profile for the proposed raising of FRL on overtopped stretches including the cross drainage structure and the river training / protective works on various roads / bridge projects under PMU Udaipur					G.Banerjee	B.Das	S.Dev	A.Nayek

AGARTALA - SABROOM (NH-08)
Km 95+050 to Km 95+930



CURVE DETAILS	
CURVE NO.	4
PI STATION	95+156.45
RADIUS (m)	1500m
Lc (m)	21.82m
CURVE Δ	00°50'00.06"
e (%)	NC
SPEED (Kmph)	60



CLIENT: NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED (NHIDCL)
Tower-A, World Trade Centre, Naurojni Nagar Market, Block G, Naurojni Nagar, Safdarjung Enclave, New Delhi, Delhi 110029

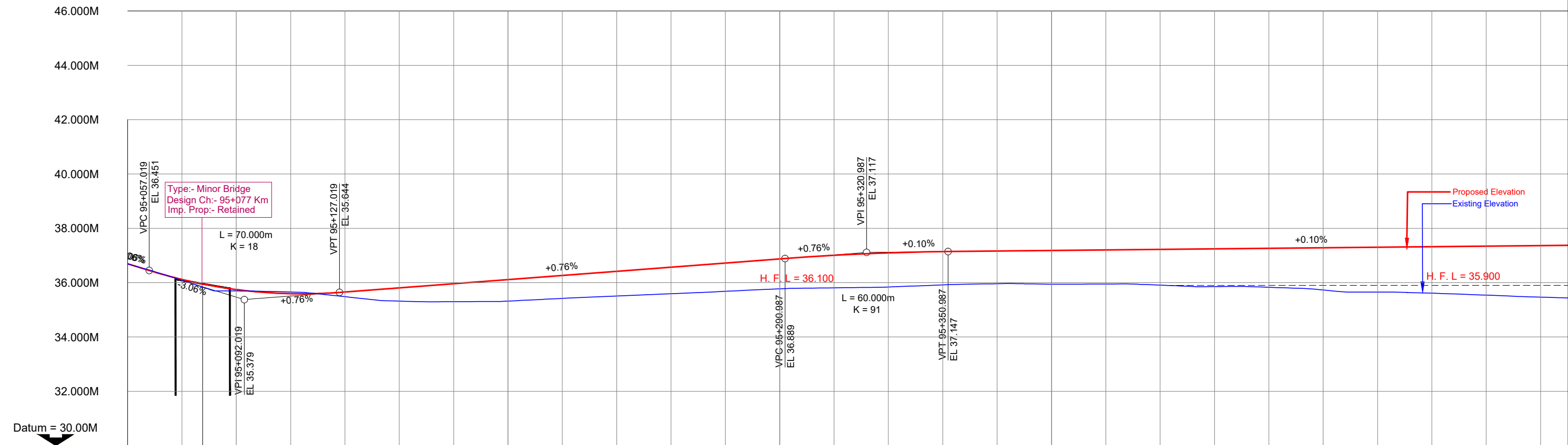
PROJECT:
Preparation of a detailed estimate based on the assessment report of technical consultant NIT Agartala for the essential restoration of damages stretches and Plan & Profile for the proposed raising of FRL on overtopped stretches including the cross drainage structure and the river training / protective works on various roads / bridge projects under PMU Udaipur

PLAN & PROFILE
Km 95+050 to Km 95+930

ROAD NAME:
AGARTALA TO SABROOM

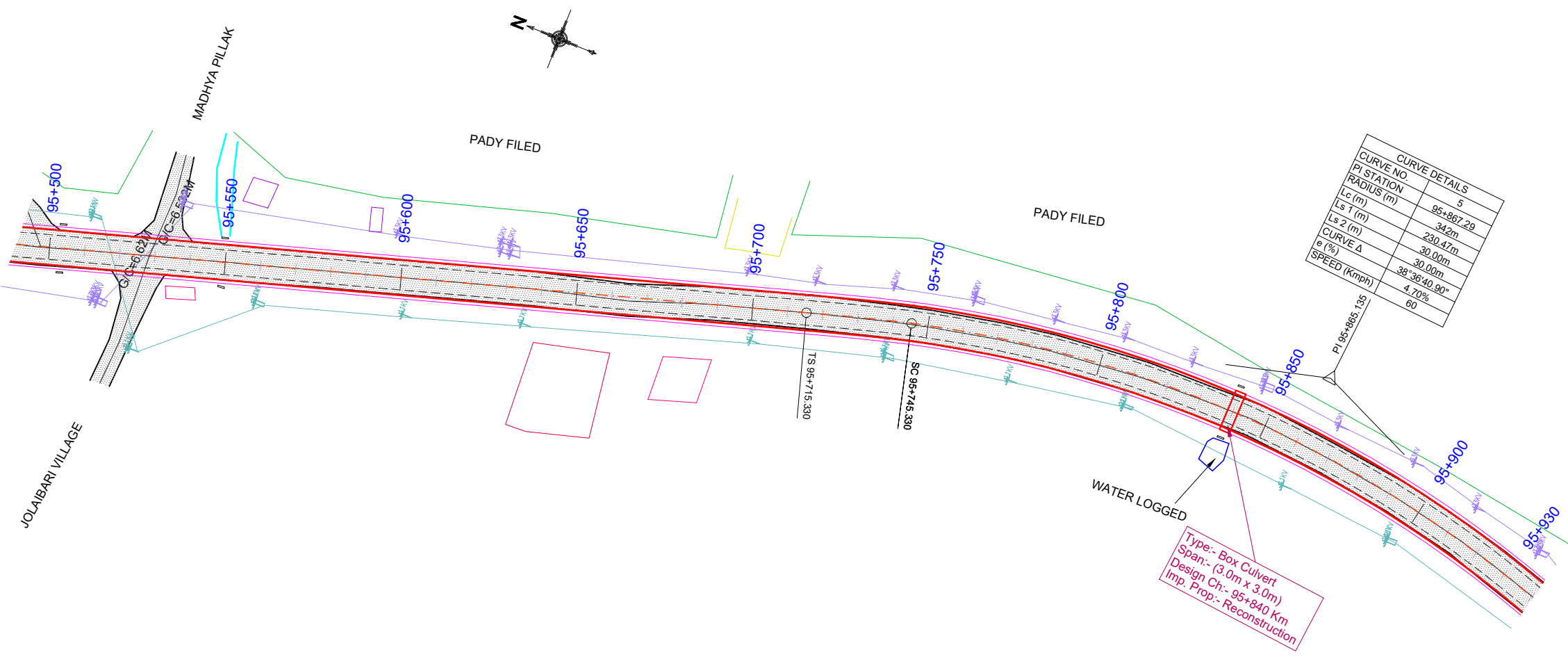
CONSULTANT :
CETEST CE TESTING COMPANY PVT. LTD.
Engineering Consultants
An ISO 9001, 14001 & 45001 Certified Company
124-A, N.S.C. Bose Road
Kolkata - 700092.

Dwg. No.		CET/2025/4669/NH-08/PP_1	
Drawn By.	Design By.	Checked By.	Approved By.
G.Banerjee	B.Das	S.Dev	A.Nayek



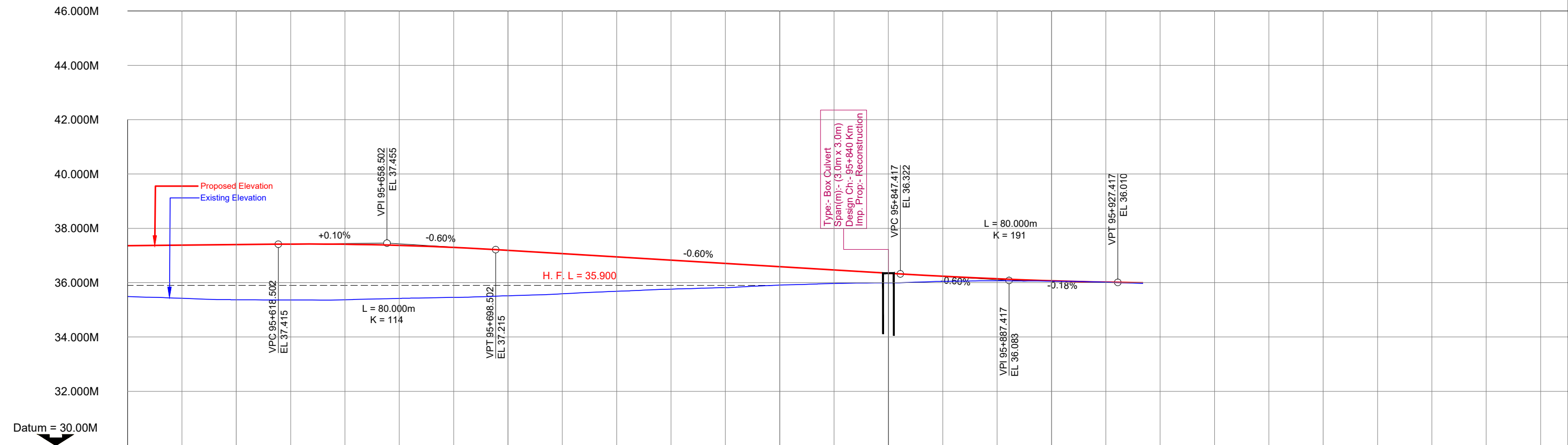
PROPOSED ELEVATION		36.276		35.839		35.619		35.618		35.766		35.918		36.070		36.222		36.373		36.525		36.677		36.829		36.973		37.076		37.136		37.159		37.179		37.199		37.219		37.239		37.259		37.279		37.299		37.319		37.339		37.359		37.379		
EXISTING ELEVATION		36.580		36.283		35.698		35.676		35.550		35.339		35.298		35.309		35.393		35.487		35.569		35.654		35.749		35.805		35.828		35.897		35.953		35.954		35.949		35.935		35.849		35.853		35.784		35.655		35.631		35.565		35.487		35.424
ELEVATION DIFFERRNCE		-0.007m		0.141m		-0.056m		0.068m		0.427m		0.620m		0.760m		0.829m		0.887m		0.956m		1.023m		1.080m		1.168m		1.248m		1.239m		1.206m		1.225m		1.250m		1.284m		1.390m		1.406m		1.496m		1.645m		1.689m		1.775m		1.872m		1.955m		
HORIZONTAL CURVE		L = 547.970m																																																						
VERTICAL CURVE		0.06% 70.000m VC K = 18 0.76% 60.000m VC K = -91 0.10%																																																						
CHAINAGE (KM)		95+050	95+060	95+080	95+100	95+120	95+140	95+160	95+180	95+200	95+220	95+240	95+260	95+280	95+300	95+320	95+340	95+360	95+380	95+400	95+420	95+440	95+460	95+480	95+500	95+520	95+540	95+560	95+580																											

					SCALE: HOR - 1:1000 VER - 1:100		CLIENT: NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED (NHIDCL) Tower-A, World Trade Centre, Nauronji Nagar Market, Block G, Nauronji Nagar, Safdarjung Enclave, New Delhi, Delhi 110029	PLAN & PROFILE Km 95+050 to Km 95+930		CONSULTANT :  CE TESTING COMPANY PVT. LTD. 124-A, N.S.C. Bose Road Kolkata - 700092.	Dwg. No. CET/2025/4669/NH-08/PP_1A			
MKD.	DATE	DESCRIPTION	CHKD.	APPRD.	DATE: March ,2025			ROAD NAME: AGARTALA TO SABROOM			Drawn By.	Design By.	Checked By.	Approved By.
REVISIONS						PROJECT: Preparation of a detailed estimate based on the assessment report of technical consultant NIT Agartala for the essential restoration of damages stretches and Plan & Profile for the proposed raising of FRL on overtopped stretches including the cross drainage structure and the river training / protective works on various roads / bridge projects under PMU Udaipur					G.Banerjee	B.Das	S.Dev	A.Nayek



CURVE DETAILS	
CURVE NO.	5
PI STATION	95+867.29
RADIUS (m)	5
Lc (m)	34.2m
Ls 1 (m)	230.47m
Ls 2 (m)	30.00m
CURVE Δ	38°36'40.90"
e (%)	4.70%
SPEED (Kmph)	60

					SCALE: HOR - 1:1000 VER - 1:100  CLIENT: NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED (NHIDCL) Tower-A, World Trade Centre, Naurojni Nagar Market, Block G, Nauroji Nagar, Safdarjung Enclave, New Delhi, Delhi 110029	PLAN & PROFILE Km 95+050 to Km 95+930	CONSULTANT : CETEST Engineering Consultants As ISO 9001, 14001 & 45001 Certified Company CE TESTING COMPANY PVT. LTD. 124-A, N.S.C. Bose Road Kolkata - 700092.	Dwg. No. CET/2025/4669/NH-08/PP_2			
MKD.	DATE	DESCRIPTION	CHKD.	APPRD.				Drawn By.	Design By.	Checked By.	Approved By.
REVISIONS					DATE: March ,2025	PROJECT: Preparation of a detailed estimate based on the assessment report of technical consultant NIT Agartala for the essential restoration of damages stretches and Plan & Profile for the proposed raising of FRL on overtopped stretches including the cross drainage structure and the river training / protective works on various roads / bridge projects under PMU Udaipur	ROAD NAME: AGARTALA TO SABROOM				
								G.Banerjee	B.Das	S.Dev	A.Nayek



PROPOSED ELEVATION	37.359	37.379	37.399	37.419	37.413	37.373	37.297	37.188	37.068	36.948	36.828	36.708	36.589	36.469	36.349	36.235	36.142	36.070	36.019	
EXISTING ELEVATION	35.487	35.424	35.372	35.363	35.372	35.421	35.458	35.518	35.591	35.683	35.762	35.818	35.911	35.970	35.993	36.047	36.068	36.059	36.016	35.987
ELEVATION DIFFERRNCE	1.872m	1.955m	2.027m	2.056m	2.041m	1.951m	1.840m	1.670m	1.477m	1.265m	1.066m	0.890m	0.678m	0.499m	0.356m	0.188m	0.074m	0.011m	0.003m	
HORIZONTAL CURVE									Ls = 101.292m R = 342.000m											
VERTICAL CURVE	80.000m VC K = -114						-0.60%				80.000m VC K = 191									
CHAINAGE (KM)	95+560	95+580	95+600	95+620	95+640	95+660	95+680	95+700	95+720	95+740	95+760	95+780	95+800	95+820	95+840	95+860	95+880	95+900	95+920	95+930

					SCALE: HOR - 1:1000 VER - 1:100		CLIENT: NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED (NHIDCL) Tower-A, World Trade Centre, Nauronji Nagar Market, Block G, Nauronji Nagar, Safdarjung Enclave, New Delhi, Delhi 110029	PLAN & PROFILE Km 95+050 to Km 95+930		CONSULTANT :  CE TESTING COMPANY PVT. LTD. 124-A, N.S.C. Bose Road Kolkata - 700092.	Dwg. No. CET/2025/4669/NH-08/PP_2A			
MKD.	DATE	DESCRIPTION	CHKD.	APPRD.	DATE: March , 2025			ROAD NAME: AGARTALA TO SABROOM			Drawn By.	Design By.	Checked By.	Approved By.
REVISIONS					PROJECT: Preparation of a detailed estimate based on the assessment report of technical consultant NIT Agartala for the essential restoration of damages stretches and Plan & Profile for the proposed raising of FRL on overtopped stretches including the cross drainage structure and the river training / protective works on various roads / bridge projects under PMU Udaipur						G.Banerjee B.Das S.Dev A.Nayek			

PLAN

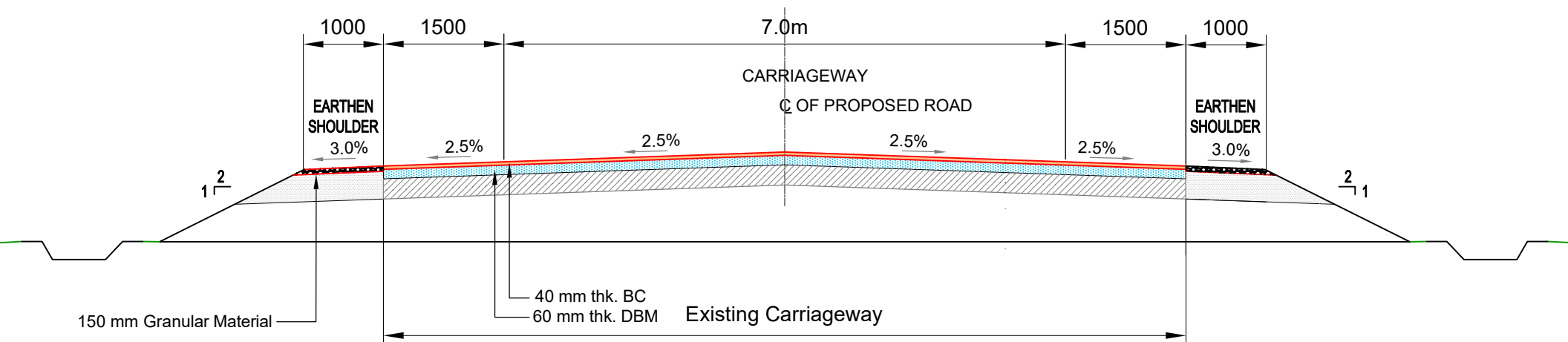
CH. 88.700 KM TO 88.790 KM



					SCALE: HOR - 1:500  CLIENT: NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED (NHIDCL) Tower-A, World Trade Centre, Naurojni Nagar Market, Block G, Nauroji Nagar, Safdarjung Enclave, New Delhi, Delhi 110029	PLAN Km 88+700 to Km 88+790		CONSULTANT : CE TESTING COMPANY PVT. LTD. 124-A, N.S.C. Bose Road Kolkata - 700092.		Dwg. No. CET/2025/PLAN/01			
MKD.	DATE	DESCRIPTION	CHKD.	APPRD.		ROAD NAME: AGARTALA TO SABROOM				Drawn By.	Design By.	Checked By.	Approved By.
REVISIONS					PROJECT: Preparation of a detailed estimate based on the assessment report of technical consultant NIT Agartala for the essential restoration of damages stretches and Plan & Profile for the proposed raising of FRL on overtopped stretches including the cross drainage structure and the river training / protective works on various roads / bridge projects under PMU Udaipur					G.Banerjee	B.Das	S.Dev	A.Nayek

CROSS SECTION

CH. - 88.700 KM TO 88.790KM

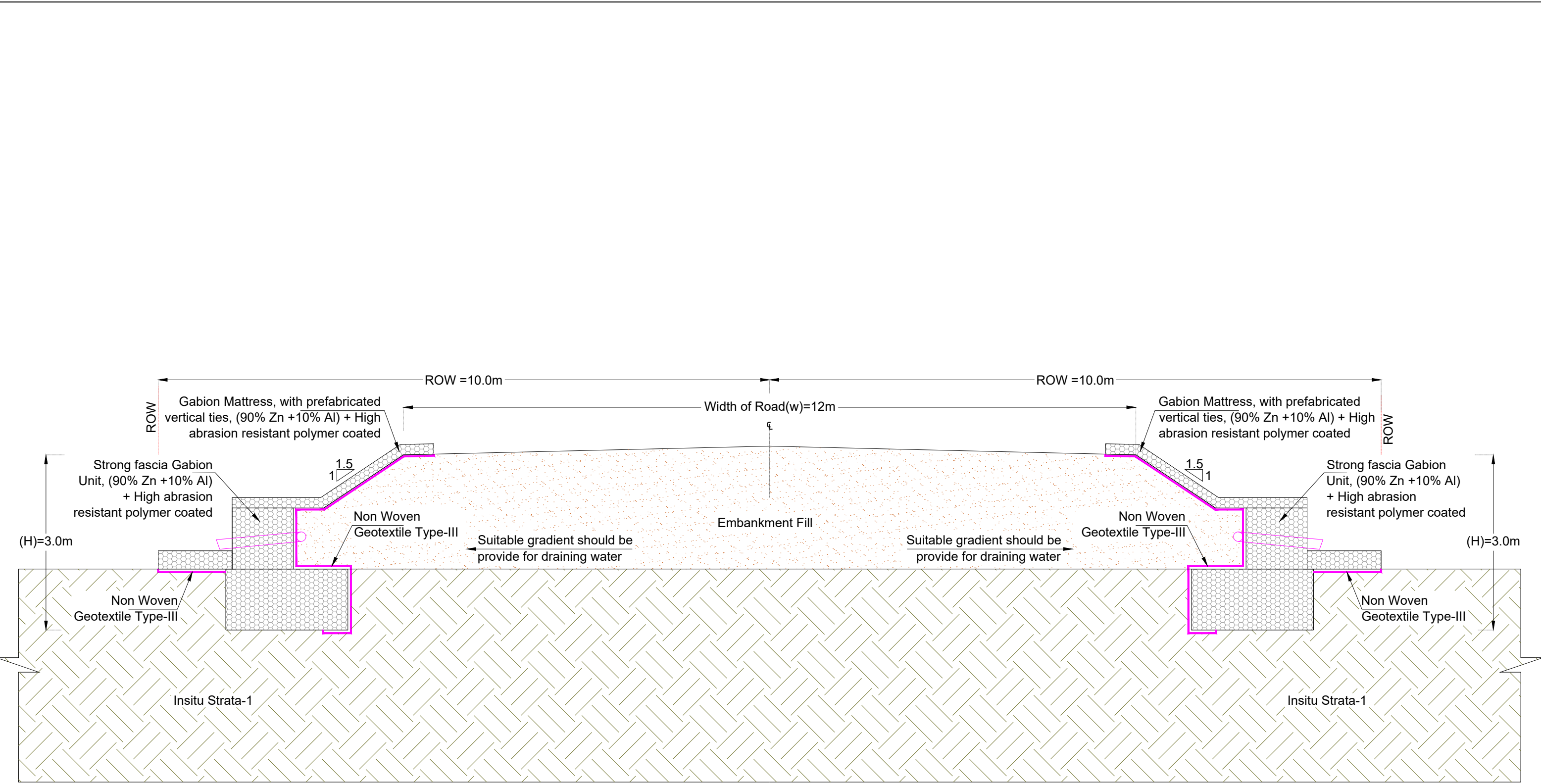


**TCS-1 : TYPICAL CROSS SECTION OF 2-LANE CARRIAGEWAY WITH PAVED SHOULDER IN RURAL AREA
APPLICABLE FOR PLAIN/ROLLING TERRAIN (OVERLAY WITH 60mm DBM+ 40mm BC)**



Chainage		Length	TCS
From	To		
46+980	47+940	960	TCS-2
Total length = 960 m			

					SCALE: NTS		CLIENT: NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED (NHIDCL) Tower-A, World Trade Centre, Naurojni Nagar Market, Block G, Nauroji Nagar, Safdarjung Enclave, New Delhi, Delhi 110029	TYPICAL CROSS SECTION km. 46+980 to km. 47+940		CONSULTANT :  CE TESTING COMPANY PVT. LTD. 124-A, N.S.C. Bose Road Kolkata - 700092.	Dwg. No. CET/2025/4669/NH-08/TCS			
					DATE: April 2025			PROJECT: Preparation of a detailed estimate based on the assessment report of technical consultant NIT Agartala for the essential restoration of damages stretches and Plan & Profile for the proposed raising of FRL on overtopped stretches including the cross drainage structure and the river training / protective works on various roads / bridge projects under PMU Udaipur	ROAD NAME: AGARTALA - SUBROOM		Drawn By.	Design By.	Checked By.	Approved By.
MKD.	DATE	DESCRIPTION	CHKD.	APP'RD.										
REVISIONS														



TCS-3 TYPICAL CROSS SECTION OF EMBANKMENT PROTECTION AT POND LOCATION

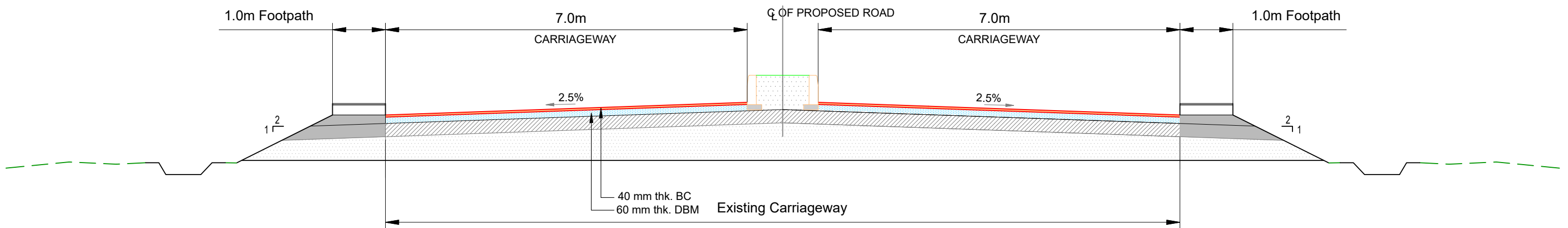
Chainage		Length	TCS
From	To		
87+700	87+790	90	TCS 3
Total length = 90 m			

Details TCS mentioned as TCS 3A

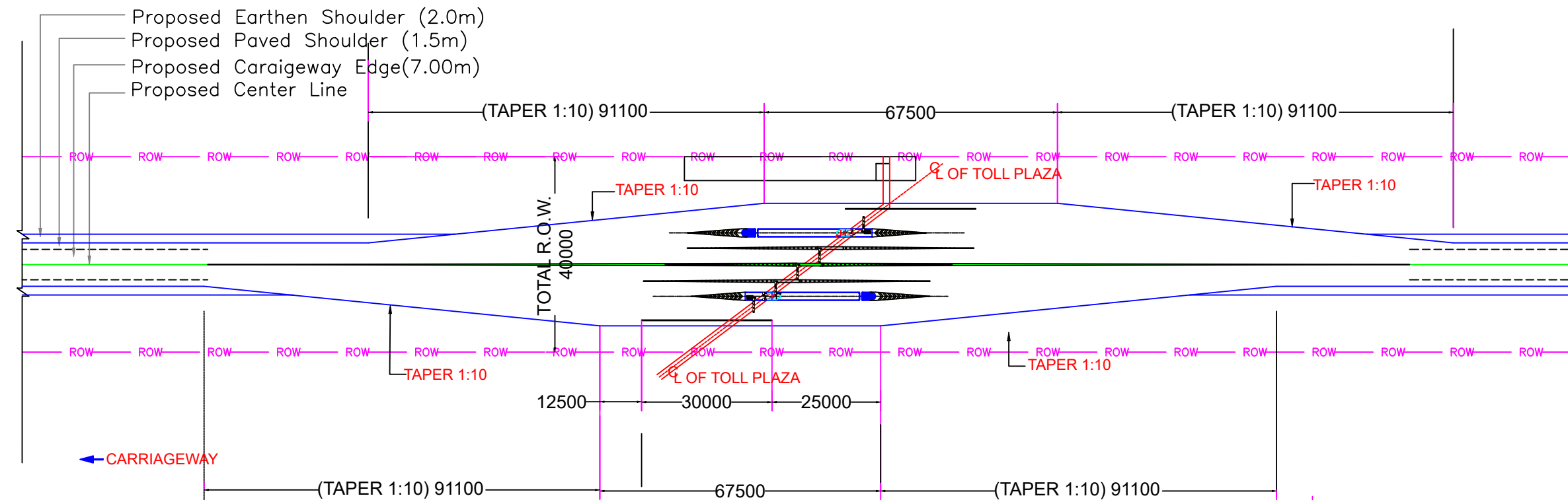
PROJECT TITLE : PREVENTIVE MEASURES FOR EROSION CONTROL AND SLOPE PROTECTION AT RASTARMATHA, UDAIPUR-MELAGHAR AND UDAIPUR-SABROOM SECTION OF NH-08 AND NH-208 LOCATION IN THE STATE OF TRIPURA

CONSULTANT: NIT AGARTALA

DRAWING NO. IND-ET-2024-00XXXXX-GSY-01	
SCALE: N.T.S	SHEET NO. 9 OF 10
REV. R0	DATE: 16.06.2025
T.C.S NOT FOR CONSTRUCTION 117	

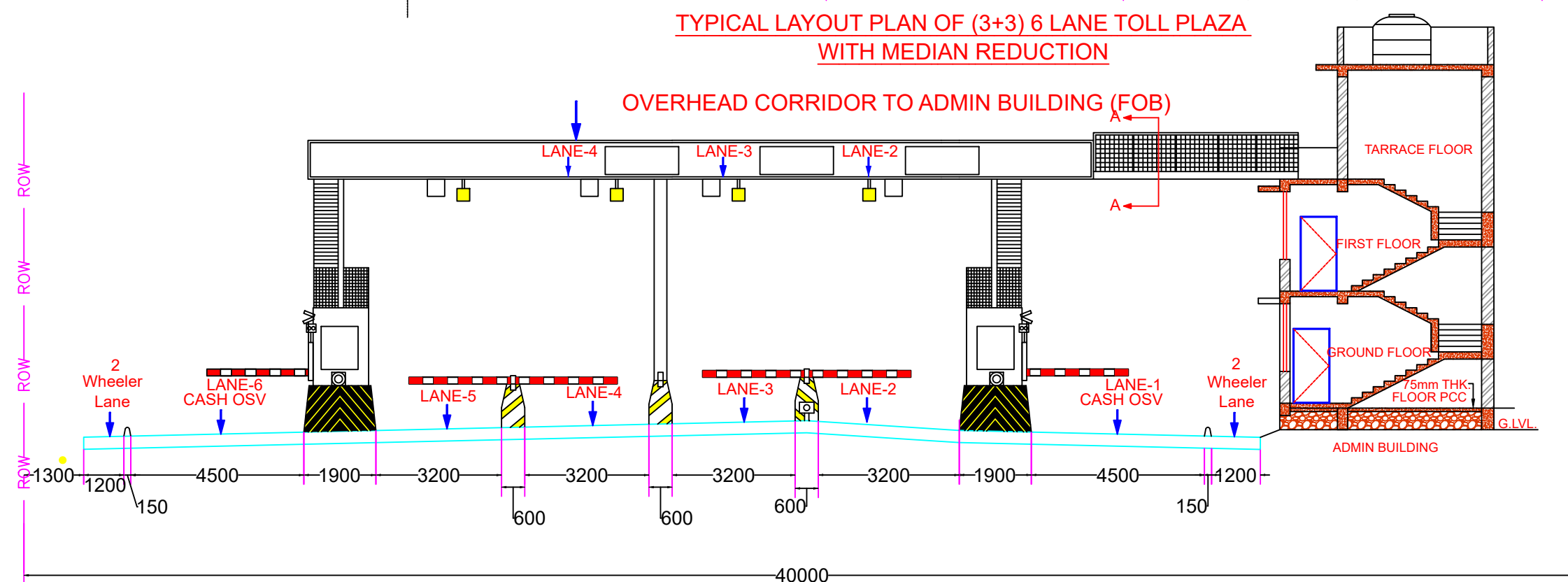


TCS-4 : TYPICAL CROSS SECTION OF 4-LANE CARRIAGEWAY IN RURAL AREA APPLICABLE FOR PLAIN/ROLLING TERRAIN (OVERLAY WITH 60mm DBM+ 40mm BC)

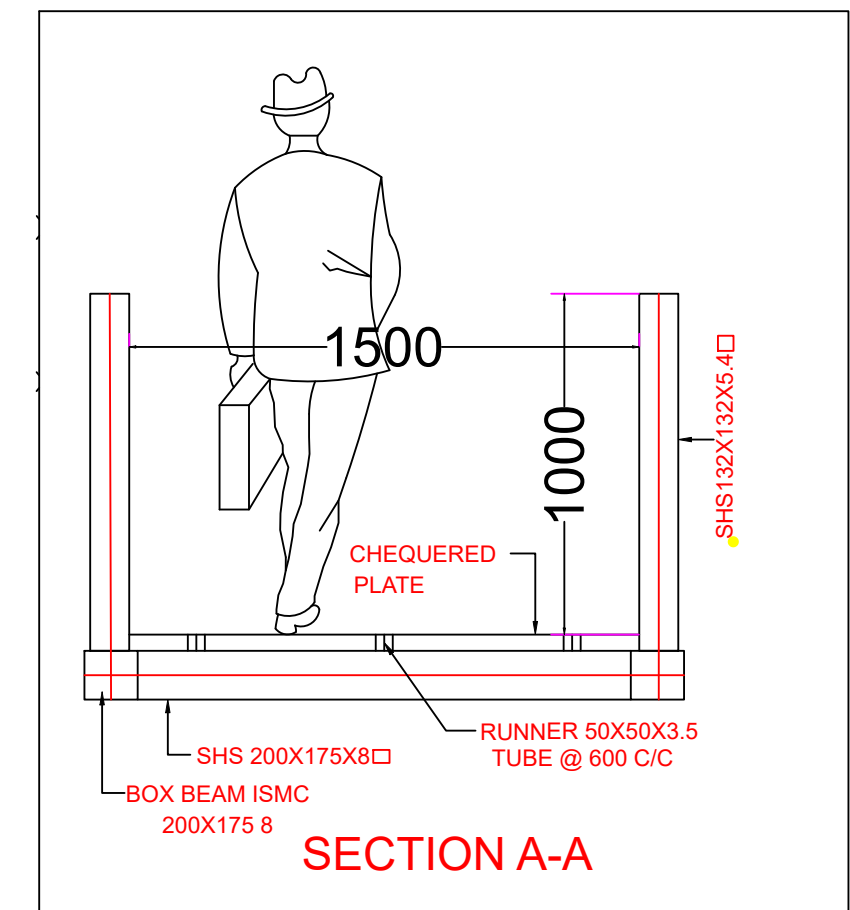


TYPICAL LAYOUT PLAN OF (3+3) 6 LANE TOLL PLAZA WITH MEDIAN REDUCTION

TOTAL PQC AREA (LHS+RHS)=5736.18 Sqm

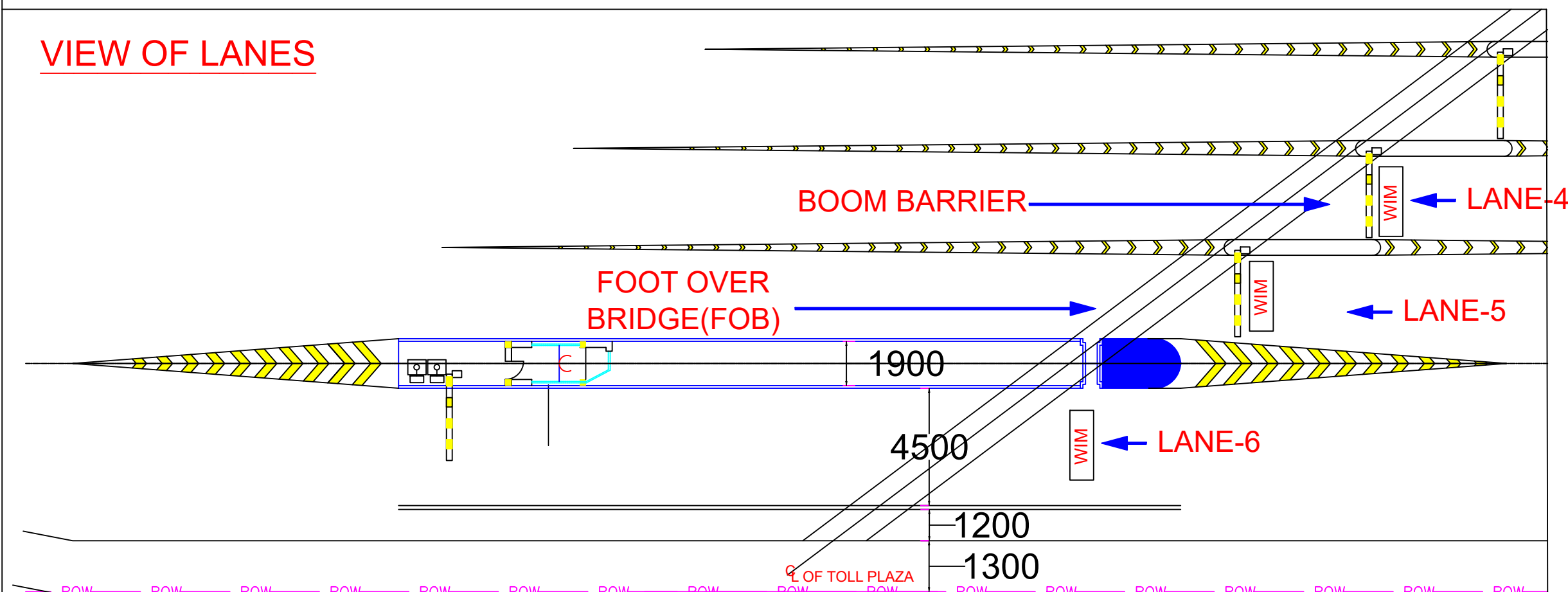


SECTIONAL ELEVATION OF (3+3) 6 LANE TOLL PLAZA WITH MEDIAN REDUCTION



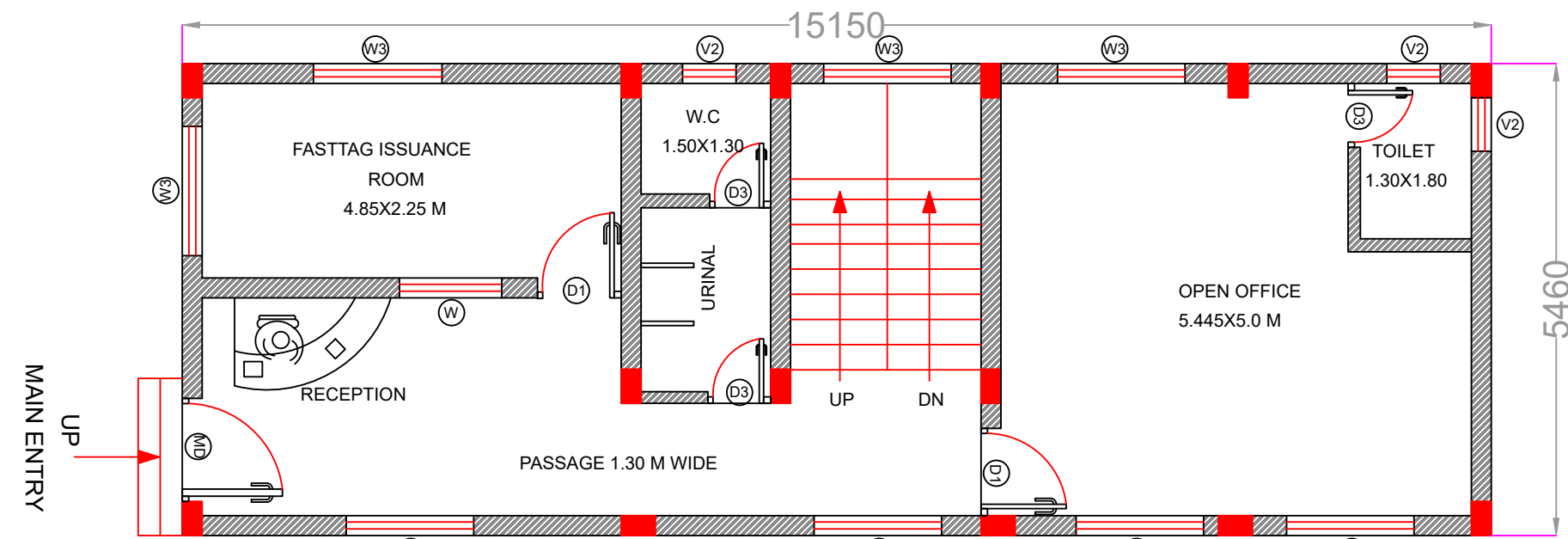
SECTION A-A

VIEW OF LANES

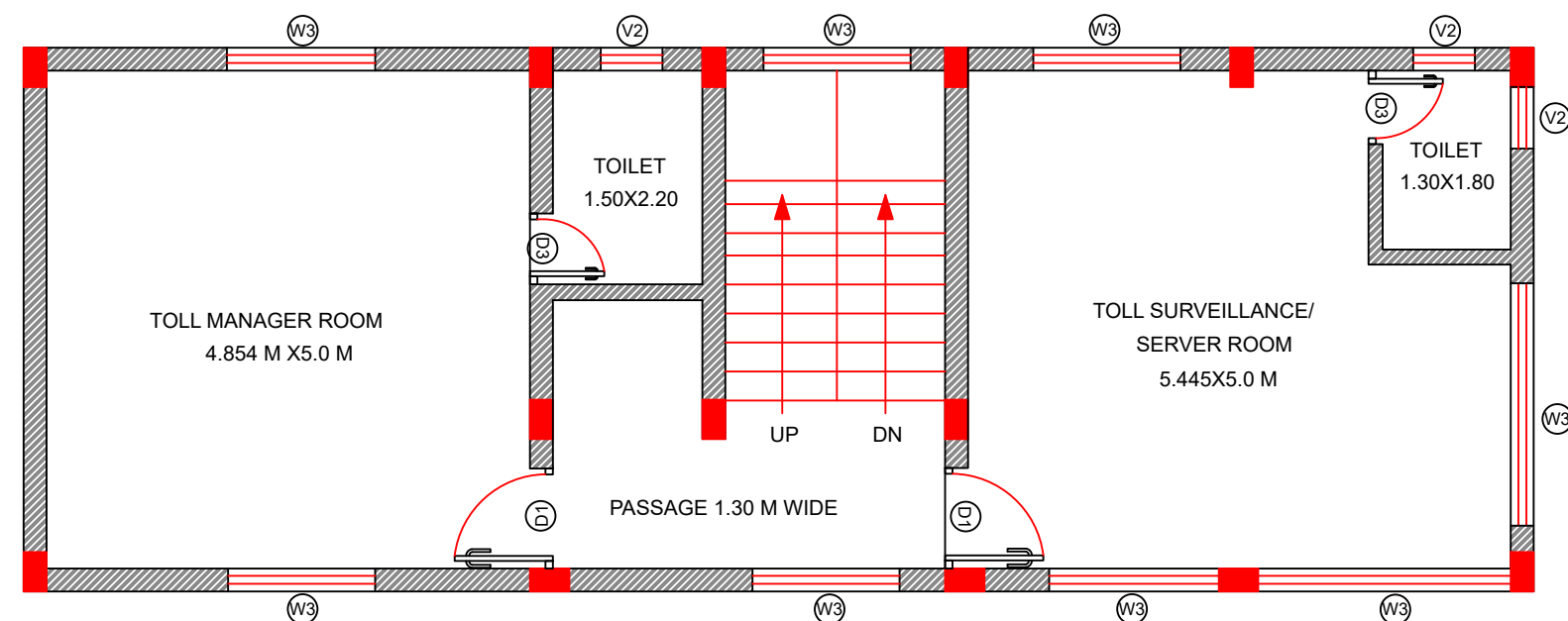


- NOTES:-**
1. ALL DIMENSION ARE IN MM. UNLESS OTHER WISE MENTIONED.
 2. TAPER LENGTH OF TOLL PLAZA IS 1 IN 10.
 3. REFERENCE OF NHAI/POLICY GUIDELINES/MANAGEMENT OF TOLL PLAZA/2021 POLICY CIRCULAR NO. 17.5.82 DATED 24TH MAY, 2021

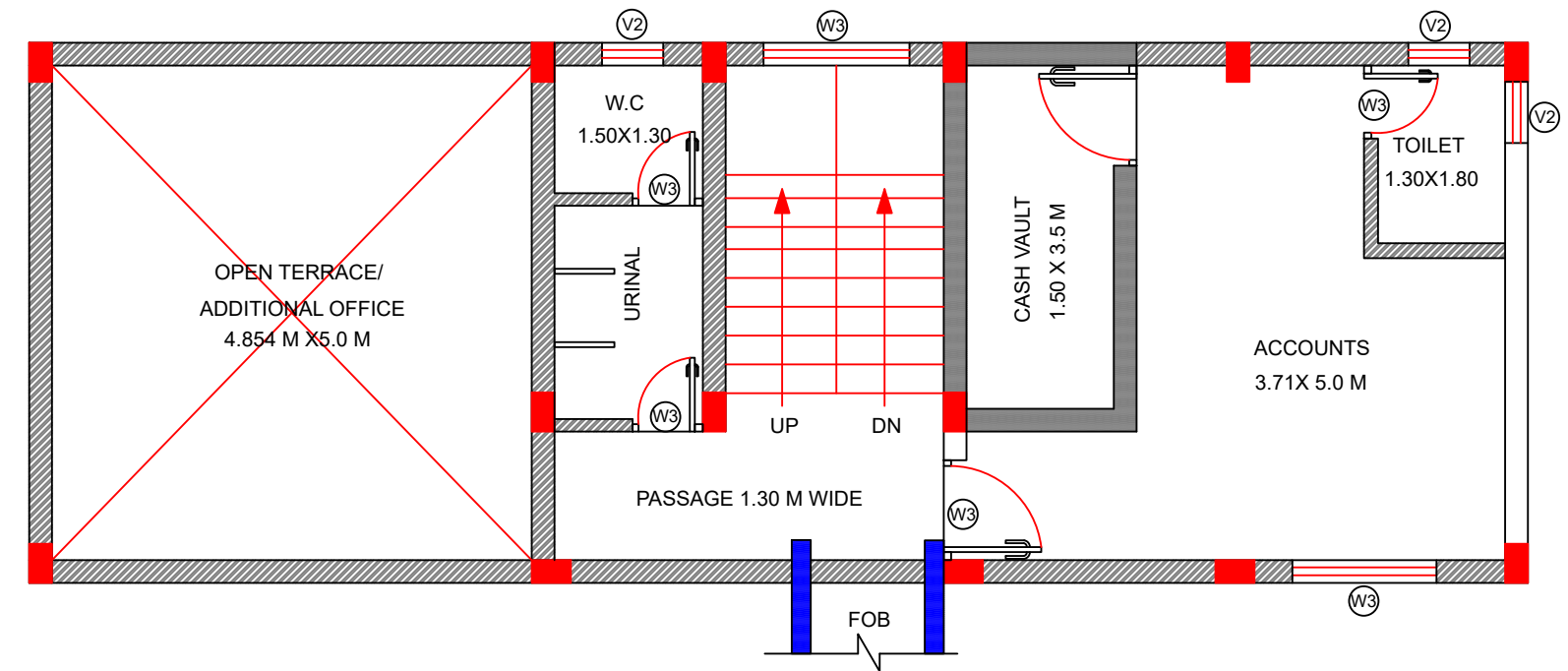
DRAWING TITLE:-
TYPICAL LAYOUT PLAN & SECTIONAL ELEVATION OF (3+3) 6 LANE TOLL PLAZA



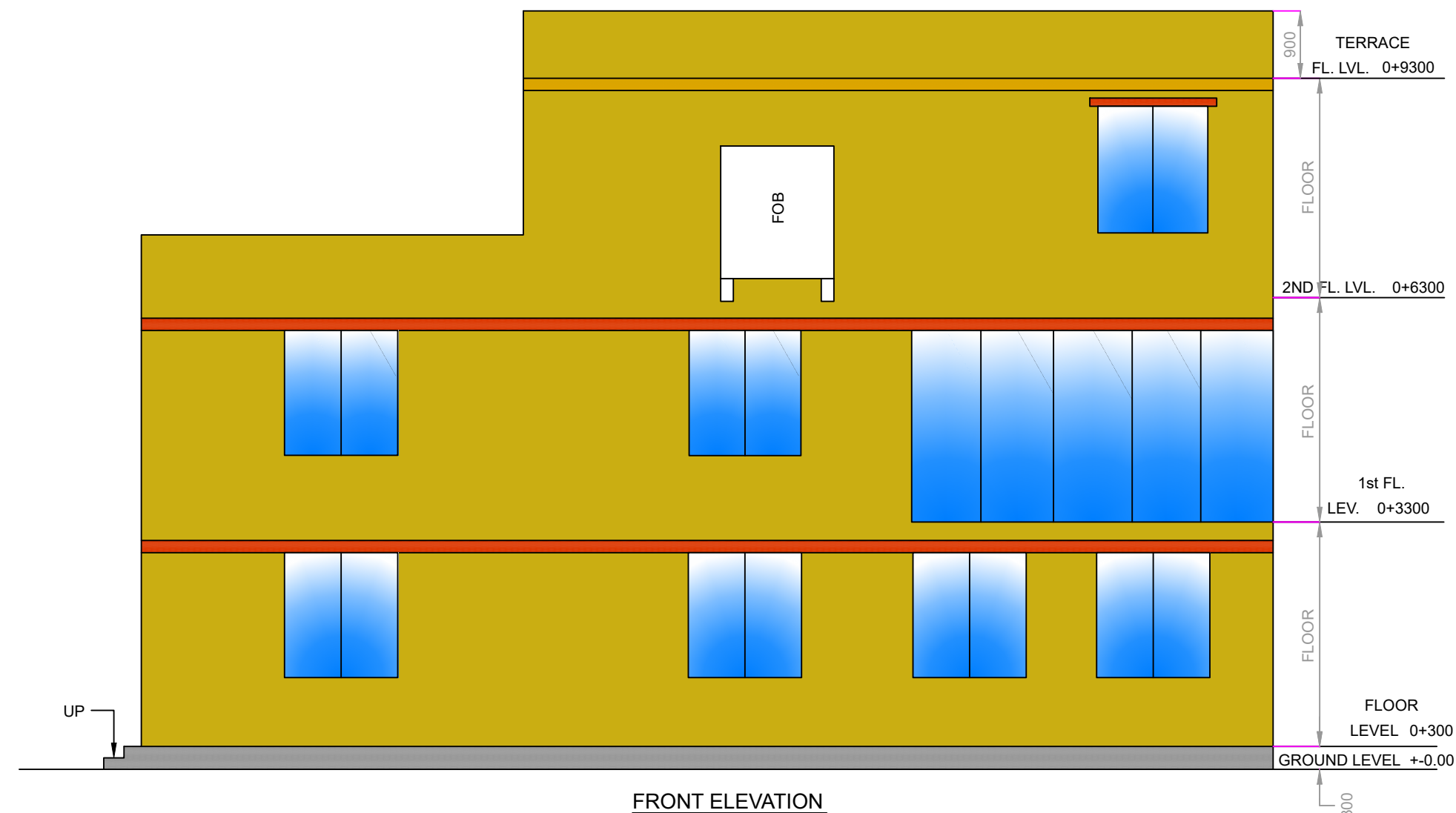
GROUND FLOOR PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN



FRONT ELEVATION

BUILT UP AREA
 GROUND FLOOR = 82.69 SQM
 FIRST FLOOR = 82.69 SQM
 SECOND FLOOR = 54.94 SQM
 TOTAL AREA = 220.32 SQM

NOTES:-
 1) ALL DIMENSION ARE IN MM.
 2) DRAWING IS NOT TO THE SCALE ONLY
 WRITTEN DIMENTION TO BE FOLLOWED

TITEL:
 DRAWING OF TOLL PLAZA
 ADMINISTRATIVE BUILDING