
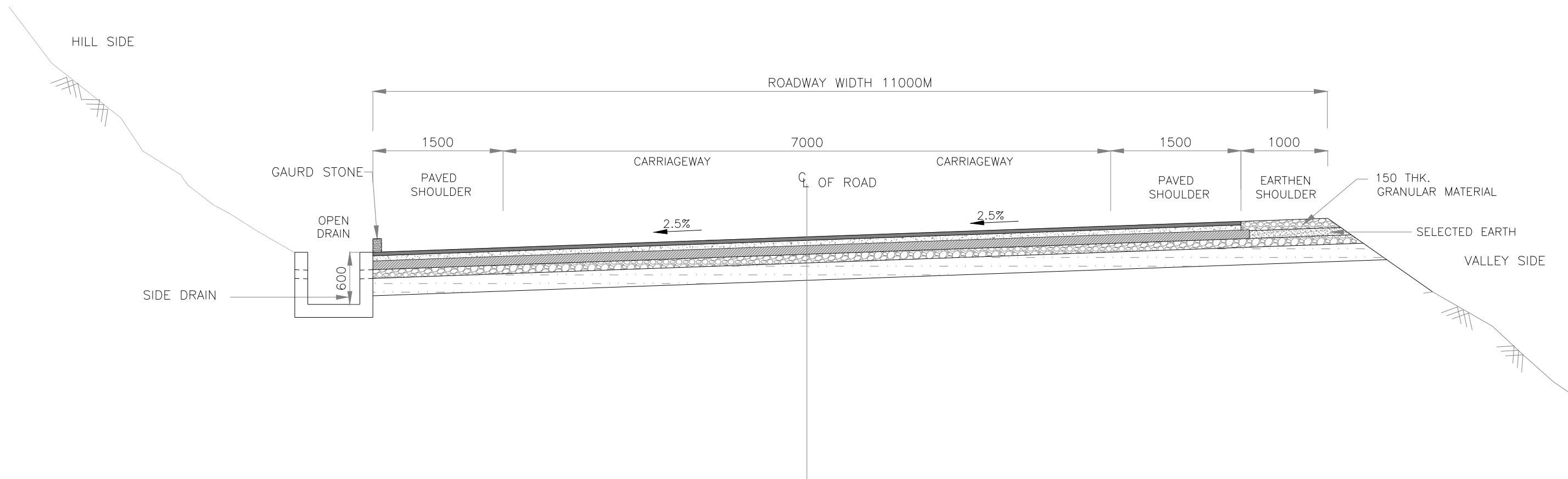



**TCS-I TWO LANE CARRIAGEWAY, (OPEN COUNTRY - MOUNTAINOUS/STEEP TERRAIN)
WITH RETAINING WALL AND PARAPET ON NEW ALIGNMENT**

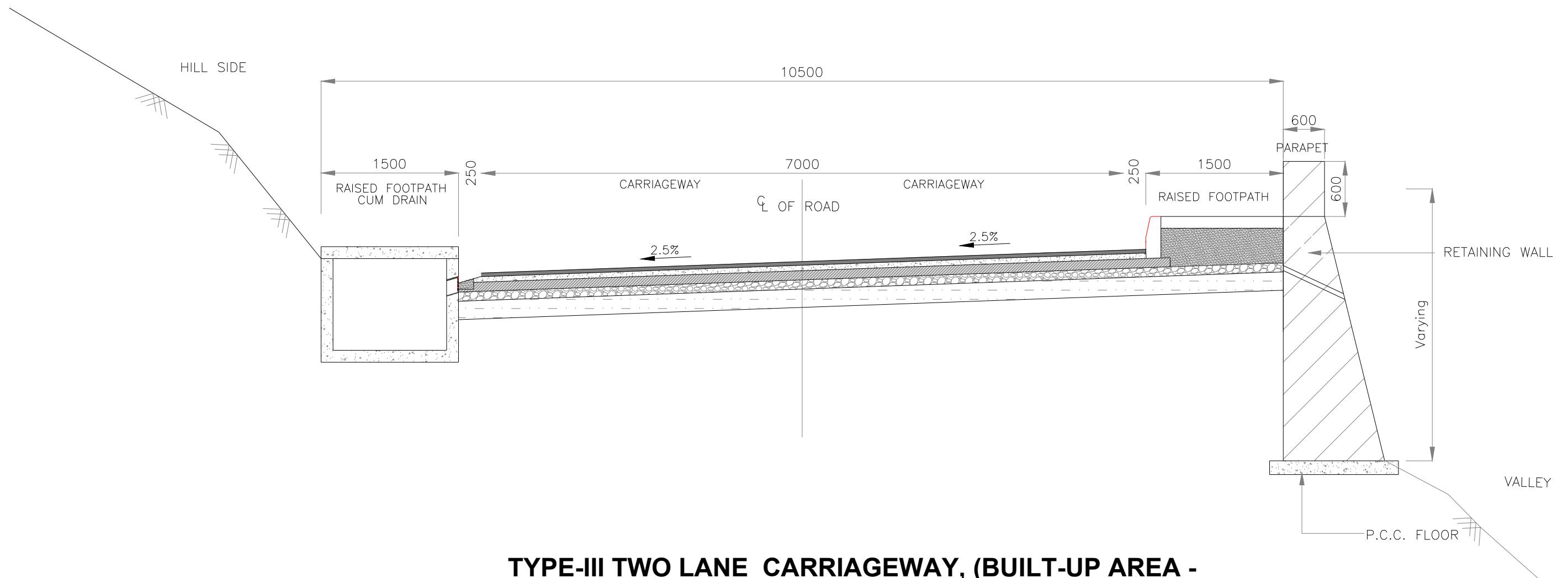
(Fig. 2.8 As per Two Lane Manual 2018)

Revision Details	Chk	Date	Suffix	Project Title Consultancy Services for carrying out Feasibility Study, Preparation of Detailed Project Report (DPR) and providing pre-construction services in respect of 2 Laning of Kohima Bypass connecting NH-39 (New NH-02) ,NH-150 (New NH-02), NH-61 (New NH-29) and NH-39 (New NH-02) on Engineering, Procurement and Construction (EPC) mode in the state of Nagaland	This drawing is the property of AGNITIO INFRASTRUCTURE PROJECTS PVT LTD and must not be passed on to any person or body not authorised by us to receive it nor be copied or otherwise made use of either in full or in part by such person or body without our prior permission in writing. Original Size: A2 Path - Plotting Scale:	Client  National Highways & Infrastructure Development Corporation Ltd	Drawing Title: TYPICAL CROSS SECTION		CONSULTANT	
							Drawing No.: HEC-AIPPL/NHIDCL/KB/TCS/01 Scale :- NTS Drn P.RAWAT Dgn. P.MISHRA Appd A.C. GARG Date JAN-2020	Sheet : 01 OF 05 HIGHWAY ENGINEERING CONSULTANT IN ASSOCIATION WITH AGNITIO INFRASTRUCTURE PROJECTS PVT LTD		



**TCS-II TWO LANE CARRIAGEWAY, (OPEN COUNTRY - MOUNTAINOUS/STEEP TERRAIN)
WITHOUT RETAINING WALL ON NEW ALIGNMENT**
(Fig. 2.9 As per Two Lane Manual 2018)

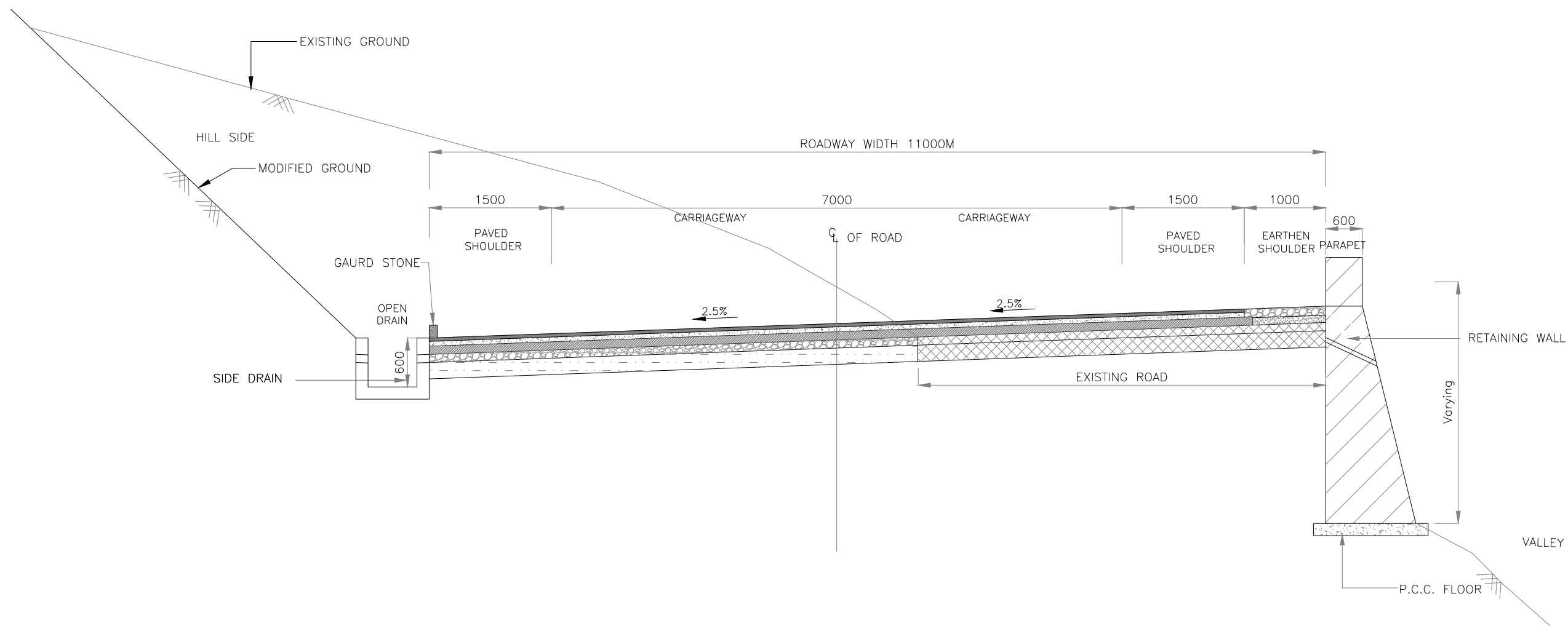
Revision Details	Chk	Date	Suffix	Project Title Consultancy Services for carrying out Feasibility Study, Preparation of Detailed Project Report (DPR) and providing pre-construction services in respect of 2 Laning of Kohima Bypass connecting NH-39 (New NH-02) ,NH-150 (New NH-02), NH-61 (New NH-29) and NH-39 (New NH-02) on Engineering, Procurement and Construction (EPC) mode in the state of Nagaland	This drawing is the property of AGNITIO INFRASTRUCTURE PROJECTS PVT LTD and must not be passed on to any person or body not authorised by us to receive it nor be copied or otherwise made use of either in full or in part by such person or body without our prior permission in writing. Original Size: A2 Path - Plotting Scale:	Client  National Highways & Infrastructure Development Corporation Ltd	Drawing Title: TYPICAL CROSS SECTION		CONSULTANT	
								Drawing No.: HEC-AIPPL/NHIDCL/KB/TCS/02 Scale :- NTS Drn P.RAWAT Dgn. P.MISHRA Appd A.C. GARG Date JAN-2020	Sheet : 02 OF 05 HIGHWAY ENGINEERING CONSULTANT IN ASSOCIATION WITH AGNITIO INFRASTRUCTURE PROJECTS PVT LTD	



TYPE-III TWO LANE CARRIAGEWAY, (BUILT-UP AREA - MOUNTAINOUS TERRAIN), WITH RETAINING WALL

(Fig. 2.10 As per Two Lane Manual 2018)

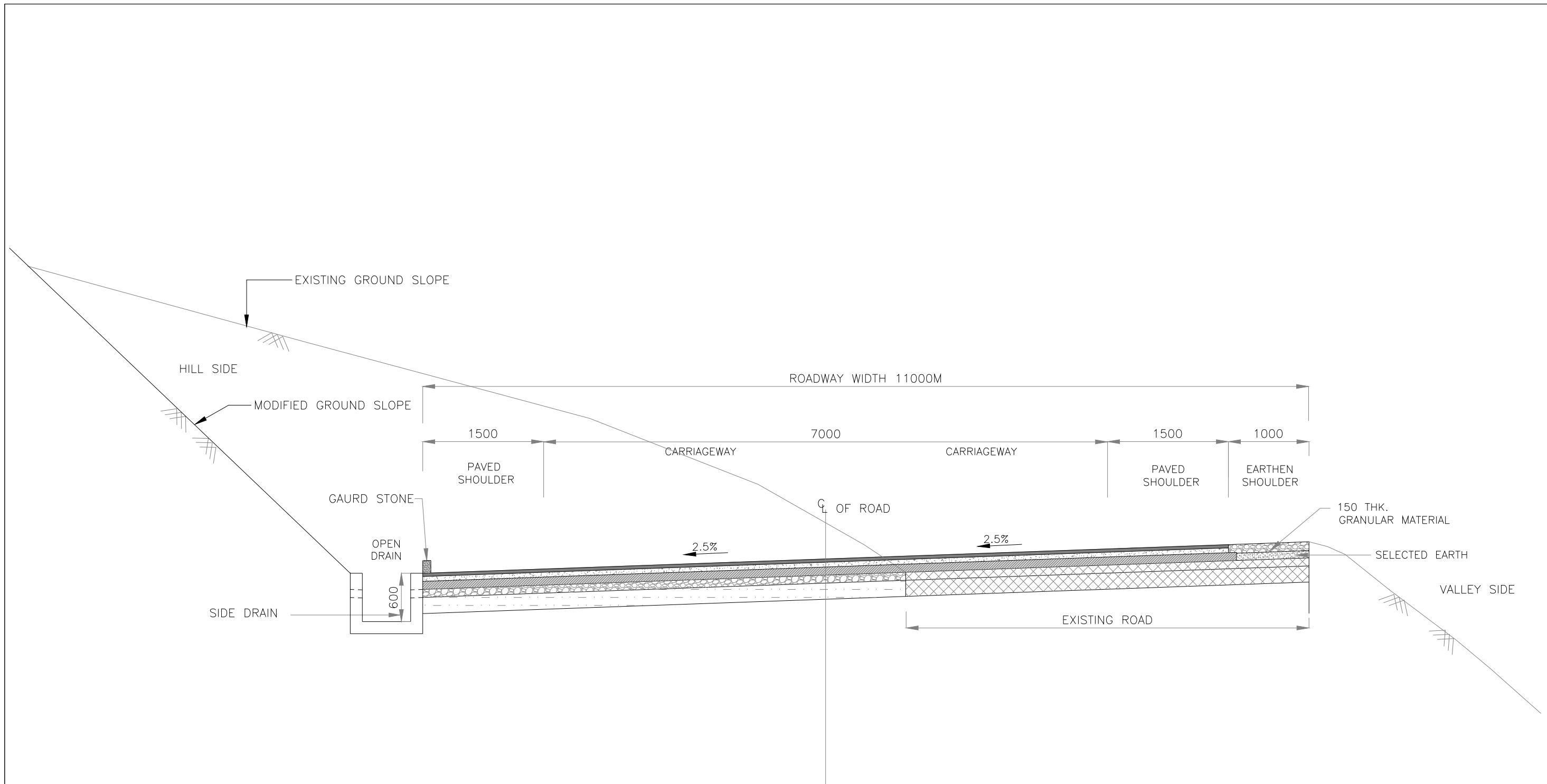
Revision Details	Chk	Date	Suffix	Project Title Consultancy Services for carrying out Feasibility Study, Preparation of Detailed Project Report (DPR) and providing pre-construction services in respect of 2 Laning of Kohima Bypass connecting NH-39 (New NH-02), NH-150 (New NH-02), NH-61 (New NH-29) and NH-39 (New NH-02) on Engineering, Procurement and Construction (EPC) mode in the state of Nagaland	This drawing is the property of AGNITIO INFRASTRUCTURE PROJECTS PVT LTD and must not be passed on to any person or body not authorised by us to receive it nor be copied or otherwise made use of either in full or in part by such person or body without our prior permission in writing. Original Size: A2 Path - Plotting Scale:	Client  National Highways & Infrastructure Development Corporation Ltd	Drawing Title: TYPICAL CROSS SECTION		CONSULTANT	
	By						Drawing No.: HEC-AIPPL/NHIDCL/KB/TCS/03 Scale :- NTS Drn P.RAWAT Dgn. P.MISHRA Appd A.C. GARG Date JAN-2020	Sheet : 03 OF 05 HIGHWAY ENGINEERING CONSULTANT IN ASSOCIATION WITH AGNITIO INFRASTRUCTURE PROJECTS PVT LTD		



**TCS-IV TWO LANE CARRIAGEWAY, (OPEN COUNTRY - MOUNTAINOUS TERRAIN)
WITH RETAINING WALL AND PARAPET ON EXISTING ALIGNMENT**


(Fig. 2.8 As per Two Lane Manual 2018)

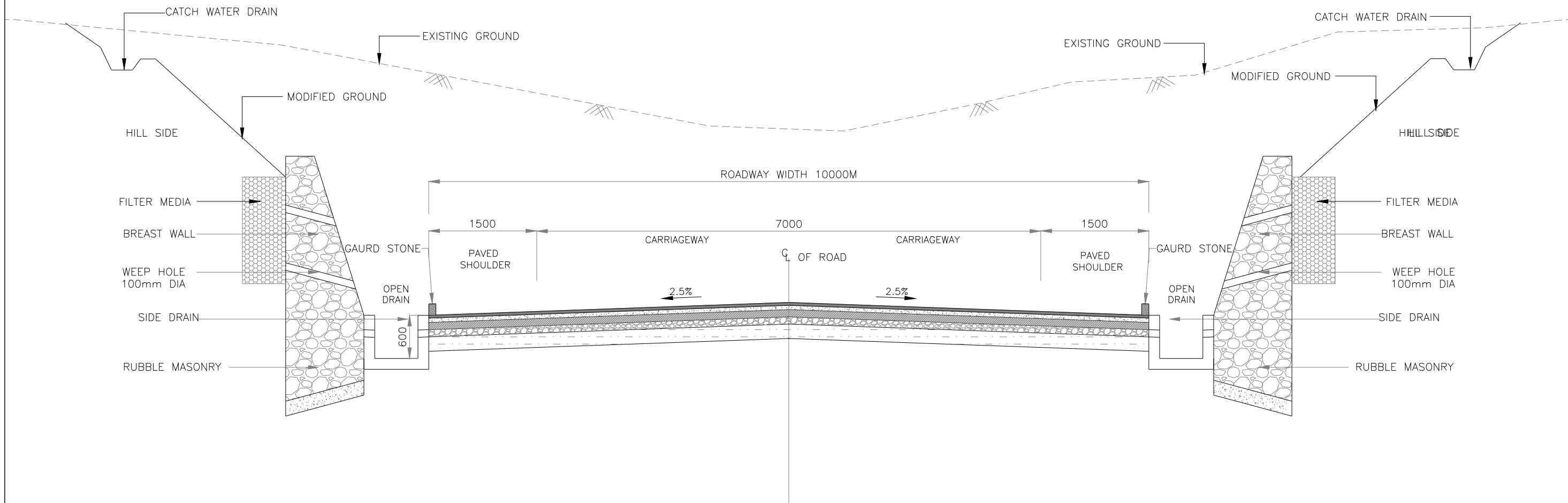
Revision Details	Chk	Date	Suffix	Project Title Consultancy Services for carrying out Feasibility Study, Preparation of Detailed Project Report (DPR) and providing pre-construction services in respect of 2 Laning of Kohima Bypass connecting NH-39 (New NH-02) ,NH-150 (New NH-02), NH-61 (New NH-29) and NH-39 (New NH-02) on Engineering, Procurement and Construction (EPC) mode in the state of Nagaland	This drawing is the property of AGNITIO INFRASTRUCTURE PROJECTS PVT LTD and must not be passed on to any person or body not authorised by us to receive it nor be copied or otherwise made use of either in full or in part by such person or body without our prior permission in writing. Original Size: A2 Path - Plotting Scale:	Client  National Highways & Infrastructure Development Corporation Ltd	Drawing Title: TYPICAL CROSS SECTION		CONSULTANT	
	By						Dgn. P.RAWAT	Appd. A.C. GARG	Sheet : 04 OF 05	HIGHWAY ENGINEERING CONSULTANT IN ASSOCIATION WITH AGNITIO INFRASTRUCTURE PROJECTS PVT LTD
							Drawing No.: HEC-AIPPL/NHIDCL/KB/TCS/04	Date: JAN-2020		
							Scale :- NTS			



**TCS-V TWO LANE CARRIAGEWAY, (OPEN COUNTRY - MOUNTAINOUS TERRAIN)
WITHOUT RETAINING WALL ON EXISTING ALIGNMENT**

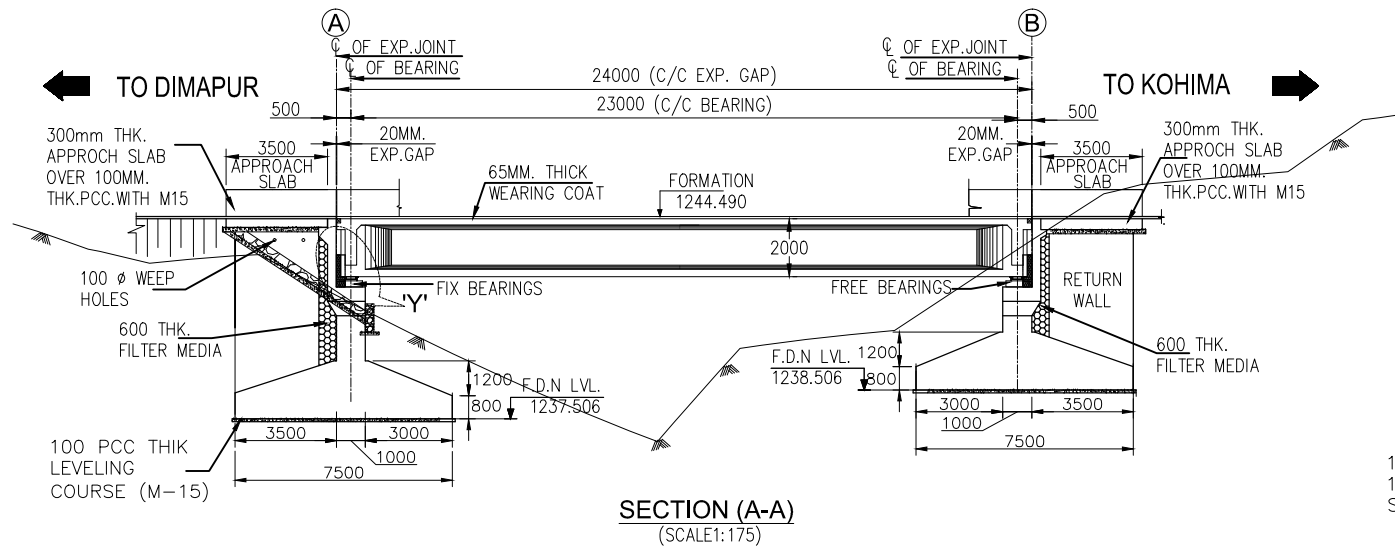
(Fig. 2.9 As per Two Lane Manual 2018)

Revision Details	Chk	Date	Suffix	Project Title Consultancy Services for carrying out Feasibility Study, Preparation of Detailed Project Report (DPR) and providing pre-construction services in respect of 2 Laning of Kohima Bypass connecting NH-39 (New NH-02) ,NH-150 (New NH-02), NH-61 (New NH-29) and NH-39 (New NH-02) on Engineering, Procurement and Construction (EPC) mode in the state of Nagaland	This drawing is the property of AGNITIO INFRASTRUCTURE PROJECTS PVT LTD and must not be passed on to any person or body not authorised by us to receive it nor be copied or otherwise made use of either in full or in part by such person or body without our prior permission in writing. Original Size: A2 Path - Plotting Scale:	Client  National Highways & Infrastructure Development Corporation Ltd	Drawing Title: TYPICAL CROSS SECTION	CONSULTANT		
	By						Drawing No.: HEC-AIPPL/NHIDCL/KB/TCS/05	Sheet : 05 OF 05	HIGHWAY ENGINEERING CONSULTANT IN ASSOCIATION WITH AGNITIO INFRASTRUCTURE PROJECTS PVT LTD	
				Scale :- NTS			Drn P.RAWAT	Dgn. P.MISHRA		Appd A.C. GARG

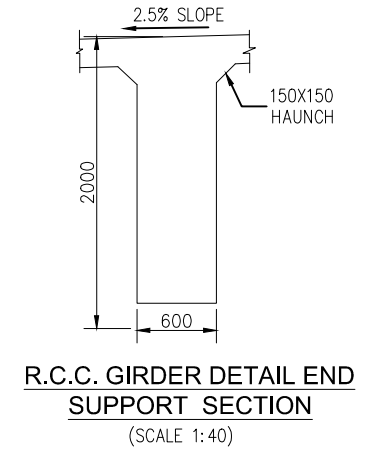
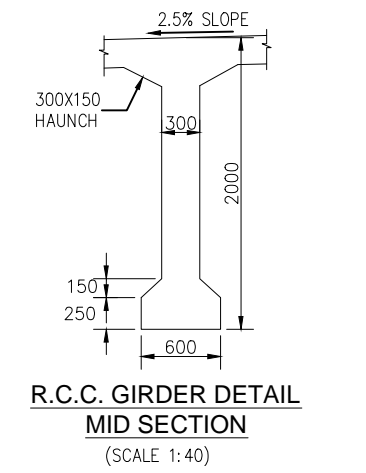
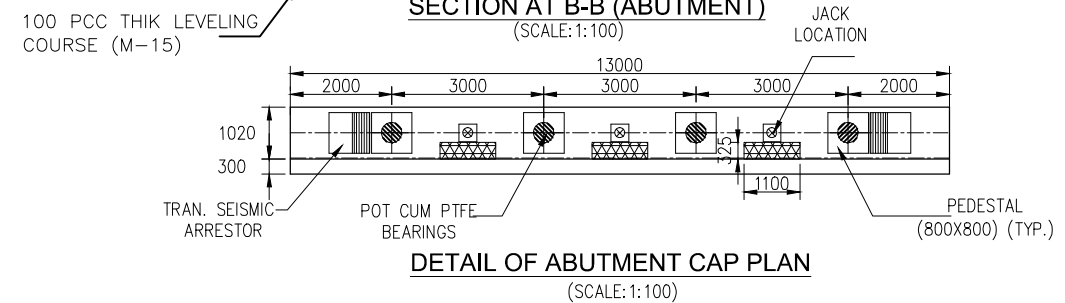
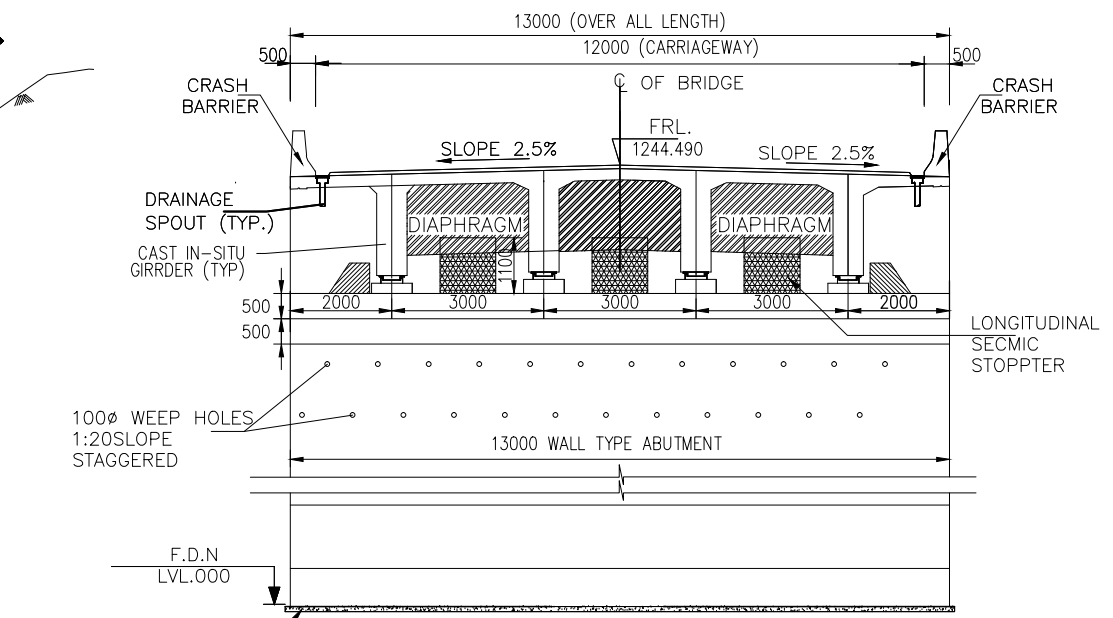
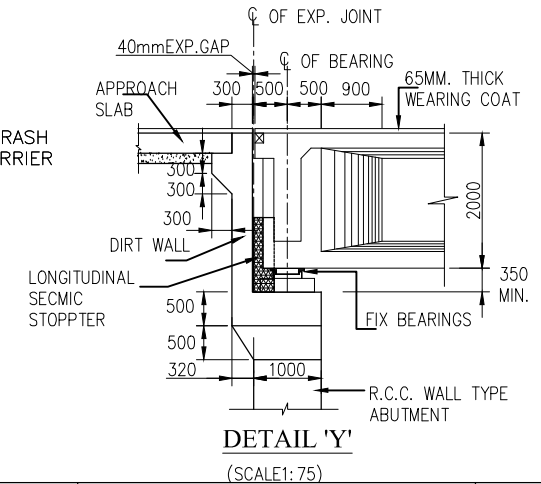
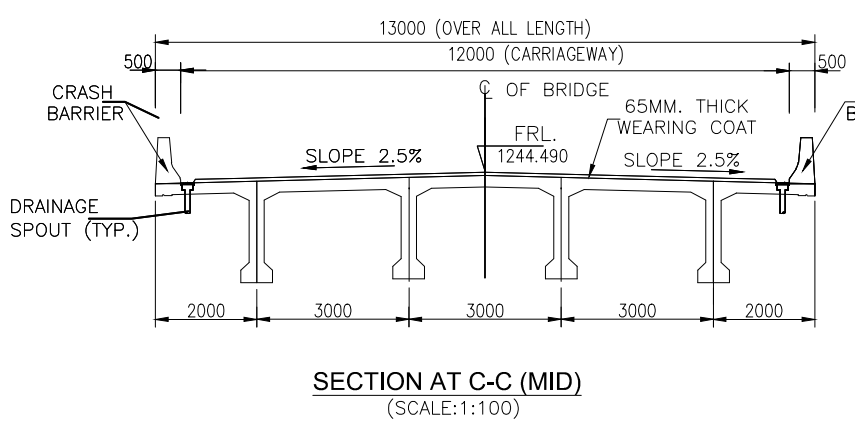
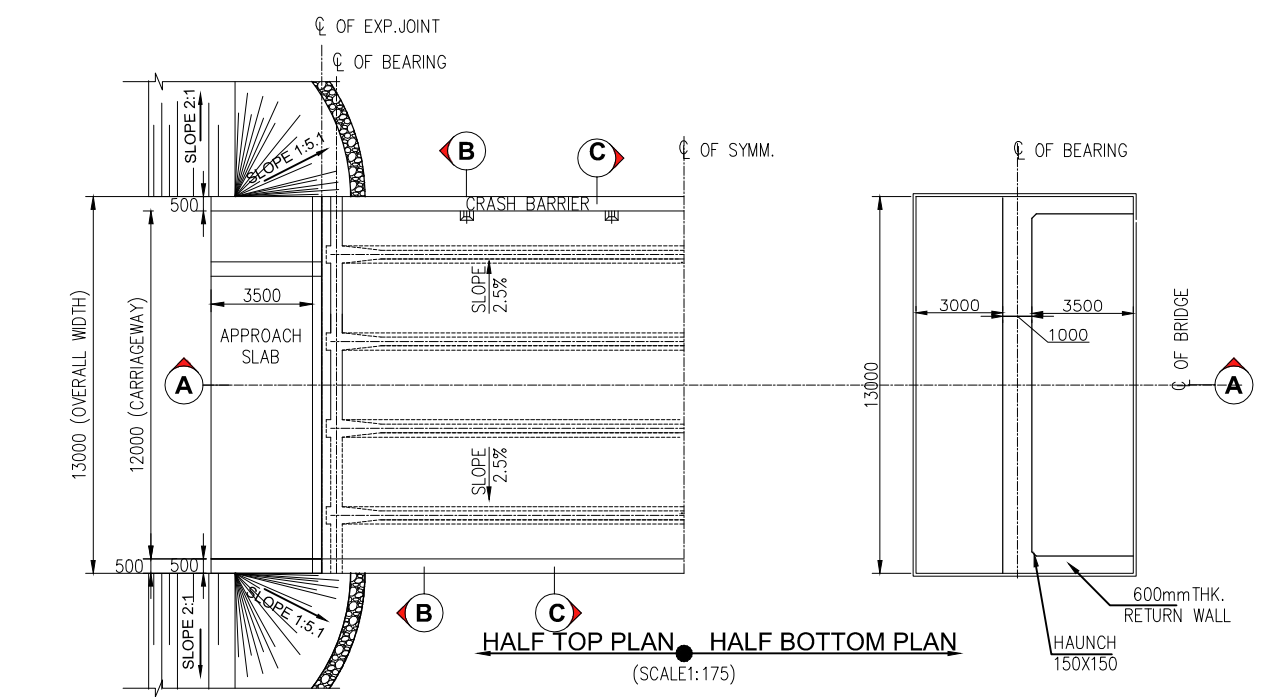


**TCS-VI TWO LANE CARRIAGEWAY, (OPEN COUNTRY - MOUNTAINOUS/STEEP TERRAIN)
BOX CUTTING WITH BOTH SIDE BREAST WALL ON NEW ALIGNMENT**

Revision Details	Chk	Date	Suffix	Project Title Consultancy Services for carrying out Feasibility Study, Preparation of Detailed Project Report (DPR) and providing pre-construction services in respect of 2 Laning of Kohima Bypass connecting NH-39 (New NH-02), NH-150 (New NH-02), NH-61 (New NH-29) and NH-39 (New NH-02) on Engineering, Procurement and Construction (EPC) mode in the state of Nagaland	This drawing is the property of AGNITIO INFRASTRUCTURE PROJECTS PVT LTD and must not be passed on to any person or body not authorised by us to receive it nor be copied or otherwise made use of either in full or in part by such person or body without our prior permission in writing. Original Size: A2 Path - Plotting Scale:	Client  National Highways & Infrastructure Development Corporation Ltd	Drawing Title: TYPICAL CROSS SECTION		CONSULTANT	
	By						Drawing No.: HEC-AIPPL/NHIDCL/KB/TCS/06 Scale :- NTS Drn P.RAWAT Dgn. P.MISHRA Appd A.C. GARG Date JAN-2020	Sheet : 06 OF 05 HIGHWAY ENGINEERING CONSULTANT IN ASSOCIATION WITH AGNITIO INFRASTRUCTURE PROJECTS PVT LTD		



FRL LEVEL (M.)	1244.490	1244.490	1244.490
GROUND LEVEL (M.)	1241.506	1238.737	1243.353
CHAINAGE (M.)	33+403	33+415	33+427

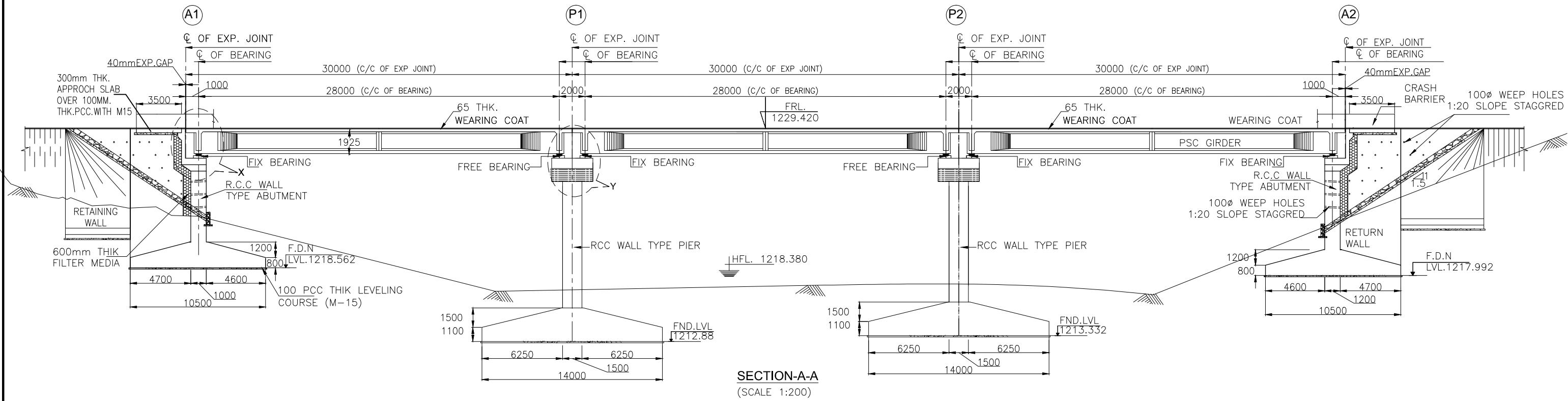


- NOTES:-**
- ALL DIMENSIONS ARE IN MILLIMETERS. LEVELS ARE IN METERS AND CHAINAGES ARE IN KILOMETERS UNLESS OTHERWISE MENTIONED.
 - THE PROPOSED 3 LANE BRIDGE HAS BEEN DESIGNED FOR 3 LANE CLASS A OR 1 LANE CLASS A+70R OR 1L CLASS 70 R+ CLASS A OR SPECIAL VEHICLE WHICHEVER GOVERNS (FUTURE EXPANSION)
 - 65mm THICK BITUMINOUSE CONCRETE WEARING COAT SHALL BE PROVIDED
 - CONCRETE SHALL BE DESIGN MIX UNLESS OTHERWISE SPECIFIED IN DETAILED DRAWING, AND SHALL HAVE MINIMUM 28 DAYS CHARACTERISTIC STRENGTH ON 150mm CUBES FOR ALL ELEMENTS OF STRUCTURES AS INDICATED BELOW:
 - (SUPERSTRUCTUE)M35
 - SUBSTRUCTURE AND FOUNDATIONM35
 - CRASH BARRIERM40
 - BEARING PEDESTALM40
 - APPROACH SLABM30
 - PCC LEVELLING COURSE:-
 - BELOW APPROACH SLABM15
 - BELOW ABUTMENT FOUNDATIONM10
 - REINFORCING STEEL SHALL BE HYSD (TMT) BARS (GRADE DESIGNATION Fe 500D) CONFORMING TO IS:1786
 - 100Ø WEEP HOLE SPACED AT 1000 C/C BOTH HORIZONTALLY AND VERTICALLY SHALL BE PROVIDED IN A STAGGERED MANNER IN ABUTMENT WALL AS WALLS IN RETAINING WALL ABOVE GROUND LEVEL.
 - 600 THICK FILTER MEDIA BEHIND EARTH RETAINING VERTICAL WALL SHALL BE PROVIDED AS PER "MoRT&H" SPECIFICATION.
 - BACKFILING SHALL BE DONE IN LAYERS NOT EXCEEDING 200mm THK. EACH LAYERS SHALL BE COMPACTED TO THE OPTIMUM DENSITY.
 - BACK FILING BEHIND ABUTMENT WALL & RETANING WALL CONSIST OF SELECTED EARTH CONFORMING TO APPENDIX 6 OF IRC:78-2014 HAVING PROPERTIES C=0, φ=30° γ = 2.0 T/M.
 - 40mm STRIP SEAL TYPE EXPANSION JOINT SHALL BE PROVIDED AS PER "MoRT&H" SPECIFICATION FOR ROAD AND BRIDGE WORK.
 - BEARING TYPE USED IS POT CUM PTFE BEARING.
 - SAFE BEARING CAPACITY AT FOUNDATION LEVEL OF ABUTMENT FOOTING AND PIER SHALL NOT BE LESS THAN 50t/M²
 - THIS DRAWING SHALL BE READ IN CONJUNCTION WITH RELEVANT APPROVED HIGHWAY DRAWING FOR STRUCTURE ORIENTATION, SKEW, FRL & CAMBER/SUPER ELEVATION ETC.

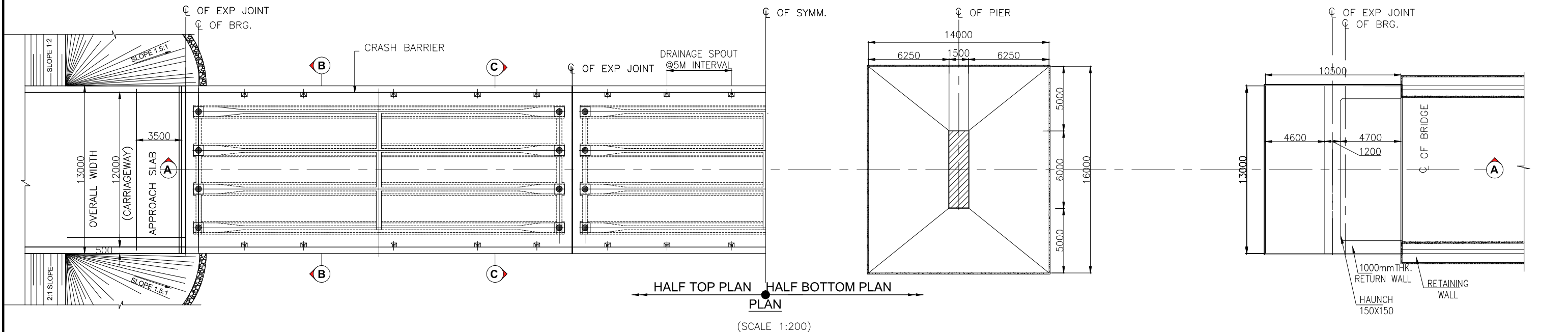
Project Title				This drawing is the property of AGNITIO INFRASTRUCTURE PROJECTS PVT LTD and must not be passed on to any person or body not authorised by us to receive it nor be copied or otherwise made use of either in full or in part by such person or body without our prior permission in writing.		Client		Drawing Title: GENERAL ARRANGEMENT DRAWING BRIDGE AT DESIGN CH.Km. 33+415 (1x24.0M)		CONSULTANT	
Consultancy Services for carrying out Feasibility Study, Preparation of Detailed Project Report (DPR) and providing pre-construction services in respect of 2 Lining of Kohima Bypass connecting NH-39 (New NH-02), NH-150 (New NH-02), NH-61 (New NH-29) and NH-39 (New NH-02) on Engineering, Procurement and Construction (EPC) mode in the state of Nagaland				Original Size: A2		National Highways & Infrastructure Development Corporation Ltd		Drawing No.: HEC-AIPPL/NHIDCL/KB/GAD/S-101		Sheet : 01 OF 01	
Revision no. Details Chk By Date				Path - Plotting Scale:		National Highways & Infrastructure Development Corporation Ltd		Scale :- NTS		HIGHWAY ENGINEERING CONSULTANT IN ASSOCIATION WITH AGNITIO INFRASTRUCTURE PROJECTS PVT LTD	
								Dgn. GAURAV SINGH		Date JAN-2020	

← DIMAPUR

KOHIMA →




FORMATION LEVEL	1229.420	1229.420	1229.420	1229.420
GROUND LEVEL	1222.562	1216.880	1217.332	1221.992
CHAINAGE	35+590	35+620	35+635	35+680



Revision on.	Details	Chk By	Date
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Project Title
 Consultancy Services for carrying out Feasibility Study, Preparation of Detailed Project Report (DPR) and providing pre-construction services in respect of 2 Laning of Kohima Bypass connecting NH-39 (New NH-02), NH-150 (New NH-02), NH-61 (New NH-29) and NH-39 (New NH-02) on Engineering, Procurement and Construction (EPC) mode in the state of Nagaland

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 Original Size: A2
 Path -
 Plotting Scale:

Client

 National Highways & Infrastructure Development Corporation Ltd

Drawing Title: GENERAL ARRANGEMENT DRAWING BRIDGE AT DESIGN CH.Km. 35+635 (3x30.0 M)
Drawing No.: HEC-AIPPL/NHIDCL/KB/GAD/ s-101
Scale :- NTS
Drn D.N
Dgn. GAURAV SINGH
Appd R.K.JAIN
Date JAN.-2020

CONSULTANT
 HIGHWAY ENGINEERING CONSULTANT IN ASSOCIATION WITH AGNITIO INFRASTRUCTURE PROJECTS PVT LTD