



Government of Nepal
Ministry of Physical Infrastructure and Transport
Department Of Roads
Development Cooperation Implementation Division
Strategic Road Connectivity & Trade Improvement Project
(SRCTIP)

**Detailed Design of Upgradation of Kamala- Dhalkebar- Pathlaiya
Road Section (130km) of Mahendra Highway and Bridges**

Final Design Report
Volume IV
Design Report & Drawing of Bridges

Bridge Name- Janga Pul-1
Volume-2
Detailed Drawing

April,2023

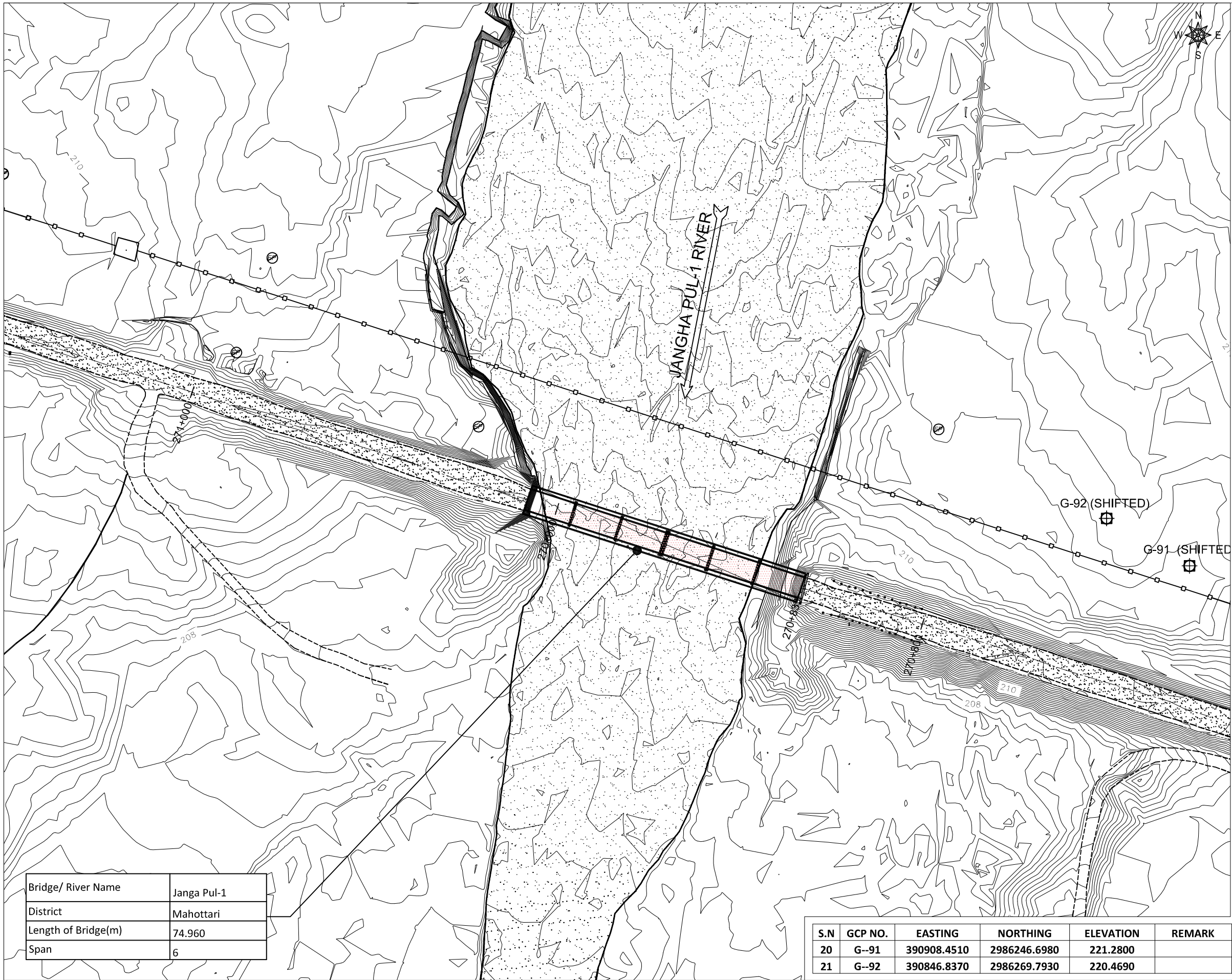
Joint Venture Of:

eptisa EPTISA Servicios De Ingenieria
Madrid, Spain

STUP STUP Consultants Private Limited
India

In Association With
Udaya Consultancy, Geocom International, Sundar Kriti Consultant and Rays Consultant Private Limited

TABLE OF CONTENTS:			
S.No.	DRAWING NAME	DRAWING No.	SHEET No.
1	LOCATION MAP OF BRIDGE OVER RIVER JANGA PUL-1	KDP/DPR/STR/BR/JANGA PUL-1/DD -1	1
2	DETAILED SURVEY TOPOGRAPHIC MAP (EXISTING CONDITION) OF BRIDGE OVER RIVER JANGA PUL-1	KDP/DPR/STR/BR/JANGA PUL-1/DD -2	1
3	DETAILED SURVEY TOPOGRAPHIC MAP (WITH PROPOSED BRIDGE) OF BRIDGE OVER RIVER JANGA PUL-1	KDP/DPR/STR/BR/JANGA PUL-1/DD -3	1
4	GENERAL NOTES OF BRIDGE OVER RIVER JANGA PUL-1	KDP/DPR/STR/BR/JANGA PUL-1/DD -4	1
5	GENERAL ARRANGEMENT OF BRIDGE OVER RIVER JANGA PUL-1	KDP/DPR/STR/BR/JANGA PUL-1/DD -5	1
6	LAYOUT AND DETAIL OF PILE FOUNDATION OF BRIDGE OVER RIVER JANGA PUL-1	KDP/DPR/STR/BR/JANGA PUL-1/DD -6	1
7	ABUTMENT DETAILS OF BRIDGE OVER RIVER JANGA PUL-1	KDP/DPR/STR/BR/JANGA PUL-1/DD -7	2
8	ABUTMENT REINFORCEMENT DETAILS OF BRIDGE OVER RIVER JANGA PUL-1	KDP/DPR/STR/BR/JANGA PUL-1/DD -8	2
9	ABUTMENT BAR BENDING SCHEDULE OF BRIDGE OVER RIVER JANGA PUL-1	KDP/DPR/STR/BR/JANGA PUL-1/DD -9	2
10	PIER DETAILS OF BRIDGE OVER RIVER JANGA PUL-1	KDP/DPR/STR/BR/JANGA PUL-1/DD -10	1
11	PIER BAR DETAILS OF BRIDGE OVER RIVER JANGA PUL-1	KDP/DPR/STR/BR/JANGA PUL-1/DD -11	1
12	PIER BAR BENDING SCHEDULE OF BRIDGE OVER RIVER JANGA PUL-1	KDP/DPR/STR/BR/JANGA PUL-1/DD -12	1
13	SUPER STRUCTURE DETAILS OF BRIDGE OVER RIVER JANGA PUL-1	KDP/DPR/STR/BR/JANGA PUL-1/DD -13	2
14	DECK SLAB DETAILS OF BRIDGE OVER RIVER JANGA PUL-1	KDP/DPR/STR/BR/JANGA PUL-1/DD -14	1
15	MAIN GIRDER REINFORCEMENT DETAILS OF BRIDGE OVER RIVER JANGA PUL-1	KDP/DPR/STR/BR/JANGA PUL-1/DD -15	2
16	CROSS GIRDER REINFORCEMENT DETAILS OF BRIDGE OVER RIVER JANGA PUL-1	KDP/DPR/STR/BR/JANGA PUL-1/DD -16	1
17	SUPERSTRUCTURE BAR BENDING SCHEDULE OF BRIDGE OVER RIVER JANGA PUL-1	KDP/DPR/STR/BR/JANGA PUL-1/DD -17	2
18	MISCELLANEOUS DETAILS OF BRIDGE OVER RIVER JANGA PUL-1	KDP/DPR/STR/BR/JANGA PUL-1/DD -18	2
19	WING WALL DETAILS OF BRIDGE OVER RIVER JANGA PUL-1	KDP/DPR/STR/BR/JANGA PUL-1/DD -19	1
20	RIVER TRAINING WORKS OF BRIDGE OVER RIVER JANGA PUL-1	KDP/DPR/STR/BR/JANGA PUL-1/DD -20	1
21	BEARING DESIGN DATA OF BRIDGE OVER RIVER JANGA PUL-1	KDP/DPR/STR/BR/JANGA PUL-1/DD -21	1



Bridge/ River Name	Janga Pul-1
District	Mahottari
Length of Bridge(m)	74.960
Span	6

S.N	GCP NO.	EASTING	NORTHING	ELEVATION	REMARK
20	G--91	390908.4510	2986246.6980	221.2800	
21	G--92	390846.8370	2986269.7930	220.4690	



DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL
MAIN FOOT TRAIL		ANIMAL FARM	
PLACE NAME		BAMBOO	
POLICE STATION		BIO GAS	
PETROL PUMP		BUS WAITING STATION	
Pond/ Water Body		BRIDGE	
POULTRY FARM		CONTOUR	
PROPERTY BOUNDARY		CANAL	
ROAD INFORMATION BOARD		CULVERT	
RIVER		CONTROL POINT (G)	
SPOT HEIGHT		CRUSHER	
SHED		DELINOTOR	
SAFTY TANK		ELECTRIC POLE	
SCHOOL		FACTORY	
STREET LIGHT		FEEDAR ROAD	
TAP		FISH FARM	
TEMPORARY HOUSE		FLOW DIRECTION	
TREE		GABION WALL	
TRANSMISSION LINE TOWER		HOSPITAL	
WELL		HAND PUMP	
TEMPLE		HOUSE	
CGI SHEET HOUSE		HOADING BOARD	
TOILET		CARRIAGE WAY	
WOODEN HOUSE		HUT	
WATER TANK		INDEX CONTOUR	
TRANSFORMER		KILOMETER POST	
SHOULDER		MONASTERY	

EMPLOYER		PROJECT NAME		DESIGN CONSULTANTS		Drawing Name		Scale:		Date:	
 Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division		Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamala-Dhalkebar-Pathlaiya Road Section (130 KM) of Mahendra Highway and Bridges		Joint Venture of EPTISA Servicios De Ingenieria Madrid, Spain STUP Consultants Private Limited Kolkatta, India		DETAILED SURVEY TOPOGRAPHIC MAP(EXISTING CONDITION) OF BRIDGE OVER RIVERJANGA PUL-1		1:1000		23.04.2023	
				In Association With Udaya Consultancy, Geocom International, Sundar Kirti Consultant and Rays Consultant Private Limited		Reference Drawings		Chainage: 270+870		Drawing No.- KDP/DP/STR/BR/JANGA PUL-1/DD- 2	
										Sheet No.1 / 1	
Designed By		Mr. R.A.									
Checked By		Mr. S.M.									
Approved By		Mr. H.B.									

A. GENERAL

1. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS UNLESS NOTED OTHERWISE.
2. ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED. DIMENSIONS ARE NOT TO BE SCALED.
3. THE LAYOUT OF THE BRIDGE/CULVERT SHALL BE SET AS PER RELEVANT HIGHWAY PLAN AND PROFILE DRAWING.
4. THE FORMATION LEVEL GIVEN IN THIS DRAWING SHALL BE VERIFIED FROM THE RELEVANT HIGHWAY DRAWING. IN CASE OF ANY DISCREPANCY THE HIGHWAY DRAWING SHALL BE CONSIDERED CORRECT.

B. DESIGN CRITERIA

1. THE DESIGN HAS BEEN PREPARED BASED ON THE FOLLOWING CODES:
- a) NEPAL ROAD STANDARD 2070
- b) IRC-5 2015
- c) IRC-6 2017
- d) IRC-78 2014
- e) IRC-112 2020
- f) IRC SP-13 2022
2. TOTAL WIDTH OF THE BRIDGE DECK: 11.85 M (8 M WIDE CARRIAGEWAY + 2.5 M WIDE FOOTPATH) HOWEVER THIS BRIDGE IS DESIGNED FOR THE FOLLOWING CARRIAGEWAY LIVE LOADS AS PER IRC:6-2017
- a) ONE LANE OF IRC CLASS 70R (WHEELED) FOR TWO LANES + ONE LANE OF IRC CLASS A
- b) THREE LANES OF IRC CLASS A
3. SEISMIC ZONE CONSIDERED IN THE DESIGN IS ZONE-V.
4. LAYING, COMPACTION, & EXTENT OF BACKFILL BEHIND ABUTMENT & RETURN/RETAINING WALLS SHALL CONSIST OF SELECTED EARTH CONFORMING TO THE APPENDIX-6 OF IRC:78-2014 HAVING PROPERTIES $C=0$, $\phi=30^\circ$ & DENSITY=20KN/m³.
5. 100mm DIA WEEP HOLES AT 1000mm C/C BOTH HORIZONTALLY AND VERTICALLY SHALL BE PROVIDED IN STAGGERED MANNER IN VERTICAL WALLS OF THE ABUTMENT AND RETURN WALL ABOVE GL. IN ONE OR TWO LAYERS AT A SLOPE OF 1 VERTICAL TO 20 HORIZONTAL TOWARDS THE DRAINING FACE.

C. HYDRAULIC DATA: -

1. DESIGN DISCHARGE, (Q100) - 319.69 CUMecs
2. HFL - 209.750 M
3. FREE BOARD (MINIMUM) - 1.2 M
4. MAXIMUM SCOUR LEVEL:
- ABUTMENT - 204.880M
- PIER - 202.300M

SCOUR LEVELS WERE CALCULATED AS PER IRC 78:2014 CL 703 WITH APPROPRIATELY INCREASED DESIGN DISCHARGE

D. STRUCTURAL AND OTHER DATA: -

1. SPAN ARRANGEMENT: 5 X 25 = 125 M
2. SUPERSTRUCTURE:
- PRECAST RCC LONGITUDINAL GIRDERS & CAST-IN-SITU RCC CROSS GIRDERS AND DECK SLAB.
3. SUBSTRUCTURE
- A) ABUTMENTS - RCC WALL TYPE
4. FOUNDATIONS
- A) ABUTMENT - 1200 DIA BORED CAST-IN-SITU PILE
- DESIGN WORKING LOAD ON PILE - 261.56 TON
- B) PIER- 1200 DIA BORED CAST-IN-SITU PILE
- DESIGN WORKING LOAD ON PILE - 240.76 TON
- RCC BORED PILES SHOULD BE CONSTRUCTED AS PER IS: 2911(PART 1/SEC 2)-2010.
5. BEARINGS
- ELASTOMERIC BEARINGS
6. WEARING COAT:
- 65 MM THICK ASPHALTIC CONCRETE WEARING COAT AS PER STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE WORKS (2073) , DEPARTMENT OF ROADS
7. EXPANSION JOINT -
- SLAB SEAL TYPE EXPANSION JOINT OF PROVEN QUALITY SHALL BE PROVIDED IN ACCORDANCE WITH IRC:SP-69-2005 (GUIDELINES AND SPECIFICATIONS OF EXPANSION JOINT)
8. DRAINAGE SPOUTS - AS PER STANDARD SPECIFICATION FOR ROAD & BRIDGE WORKS 2073
9. RAILINGS/CRASH BARRIER:
- RCC CRASH BARRIER AT EDGES OF CARRIAGEWAY AND FOOTPATH

10. FOOTPATH

2.5m WIDE FOOTPATH AT OUTER EDGE OF DECK

11. CONCRETE: -

- a. PILE..... M35 (CEMENT CONTENT AS PER SPECIFICATION)
- b. PILE CAP.....M35
- c. BEARING PEDESTALS.....M40
- d. ABUTMENTM35
- e. PIER.....M35
- f. PIER CAP.....M35
- g. RETURN WALL.....M35
- h. LEVELING COURSE: I) BELOW APPROACH SLAB.....M15
- II) BELOW PILE CAP.....M15
- g. APPROACH SLABM30
- h. CAST-IN-SITU CRASH BARRIERM40
- i. KERBM35
- j. DECK SLAB FOR RCC GIRDERS.....M35
- k. PRECAST RCC GIRDERSM35
- l. CAST-IN-SITU CROSS GIRDER FOR RCC GIRDERS.....M35

12. REINFORCEMENT STEEL: -

- a. H.Y.S.D. BARS - GRADE 500 CONFORMING TO IS 1786
- b. REINFORCEMENT WHERE EVER NECESSARY SHALL BE LOCALLY BENT OR ADJUSTED TO ENSURE PROPER CONCRETING.

13. CONCRETE COVER

- a. DECK SLAB, GIRDER, PEDESTAL, CAP : 40 MM
- b. SUBSTRUCTURE AND FOUNDATION : 75 MM

14. LAPS (Ls) ARE TO BE STAGGERED AND MINIMUM LAP LENGTH ARE TO BE AS FOLLOWS:

- a) FOR M 30 GRADE CONCRETE : 57.2Ø
- b) FOR M 35 GRADE CONCRETE : 51.48Ø
- c) FOR M 40 GRADE CONCRETE : 48.62Ø

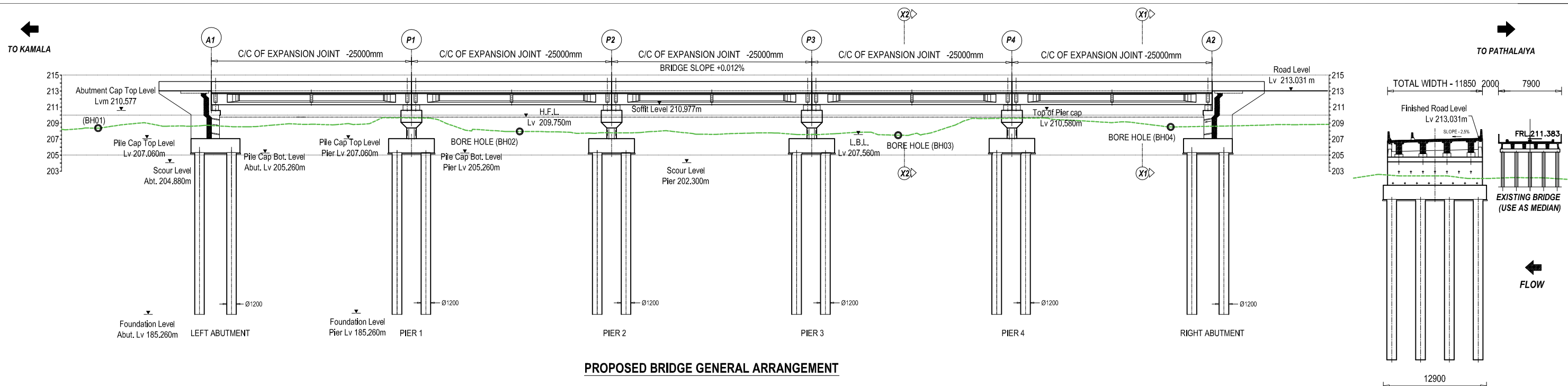
(WHERE Ø IS THE DIAMETER OF THE BAR)

15. LAP LENGTH SHALL BE INCREASED BY A FACTOR BASED ON THE PERCENTAGE OF LAPPED BAR RELATIVE TO THE TOTAL CROSS SECTIONAL AREA. LAP LENGTH FOR DIFFERENT GRADE OF CONCRETE AS WELL AS DIFFERENT PERCENTAGE OF LAP LENGTH ARE AS FOLLOWS:

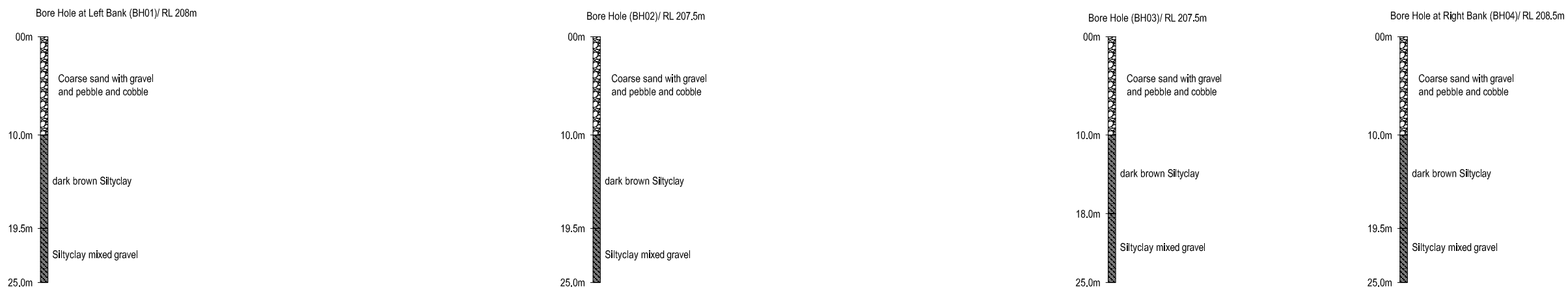
GRADE OF CONCRETE	M30	M35	M40	M45
LAPPED BAR <25%	57.2Ø	51.48Ø	48.62Ø	45.76Ø
25%≤LAPPED BAR <33%	65.78Ø	62.65Ø	55.91Ø	52.62Ø
33%≤LAPPED BAR <50%	80.08Ø	72.07Ø	68.07Ø	64.06Ø
50%≤LAPPED BAR	85.8Ø	77.22Ø	72.93Ø	68.64Ø

16. THE LAP LENGTH SHALL BE STAGGERED BY MINIMUM DISTANCE OF 1.3 TIMES THE LAP LENGTH.
17. HELICAL REINFORCEMENT SHALL BE LAPPED BY 1.5 TURNS.
18. INSTEAD OF LAPPING SPLICING OF REINFORCEMENT CAN BE DONE WITH WELDED JOINT AS PER CL. 15.2.5.2 OF IRC 112-2020. WELD LENGTH SHALL NOT BE LESS THAN 18Ø.
19. SHARP EDGES OF CONCRETE TO BE CHAMFERED MINIMUM 50 X 50

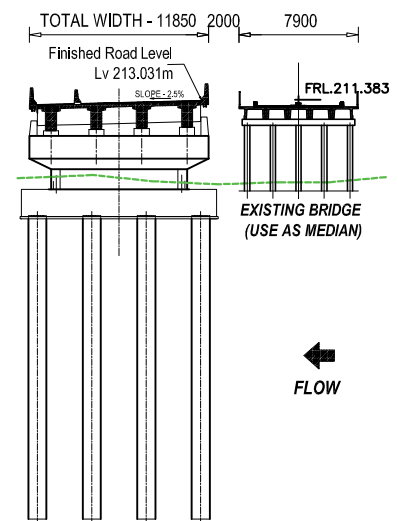
EMPLOYER		PROJECT NAME		DESIGN CONSULTANTS		Drawing Name		Scale:		Date:	
 Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamala-Dhalkebar-Pathlaiya Road Section (130 KM) of Mahendra Highway and Bridges	Joint Venture of		Designed By	Mr. R.A.		GENERAL NOTES OF BRIDGE OVER RIVER JANGA PUL-1	AS SHOWN		05.05.2023	
		 EPTISA Servicios De Ingenieria Madrid, Spain	 STUP Consultants Prvate Lmted Kolkatta, India	Checked By	Mr. S.M.					Reference Drawings —	Chainage: 271+510
		In Association With Udaya Consultancy, Geocom International, Sundar Krttl Consultant and Rays Consultant Prvate Limited		Approved By	Mr. H.B.		Sheet No. 1 / 1				



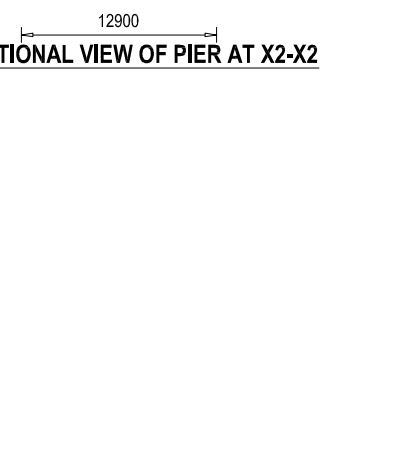
PROPOSED BRIDGE GENERAL ARRANGEMENT



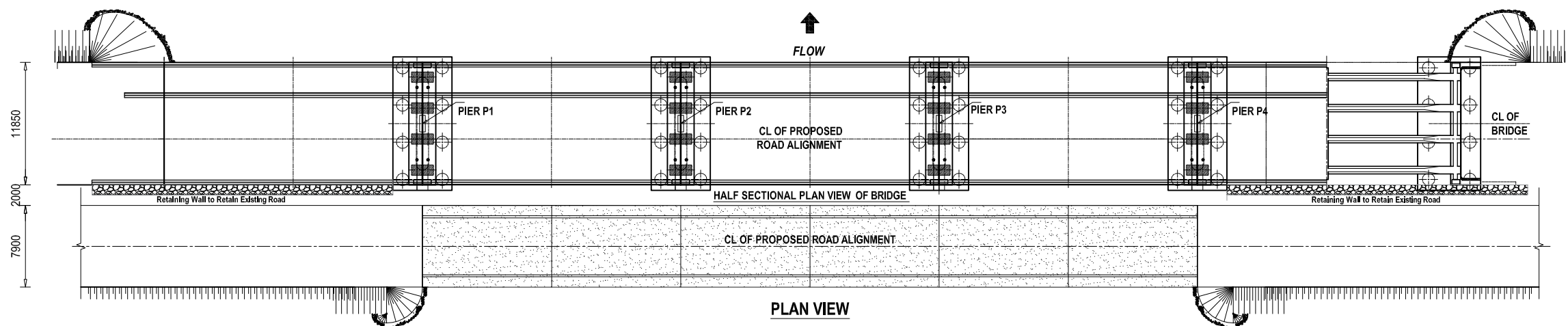
SECTIONAL VIEW OF ABUTMENT AT X1 - X1



SECTIONAL VIEW OF PIER AT X2-X2

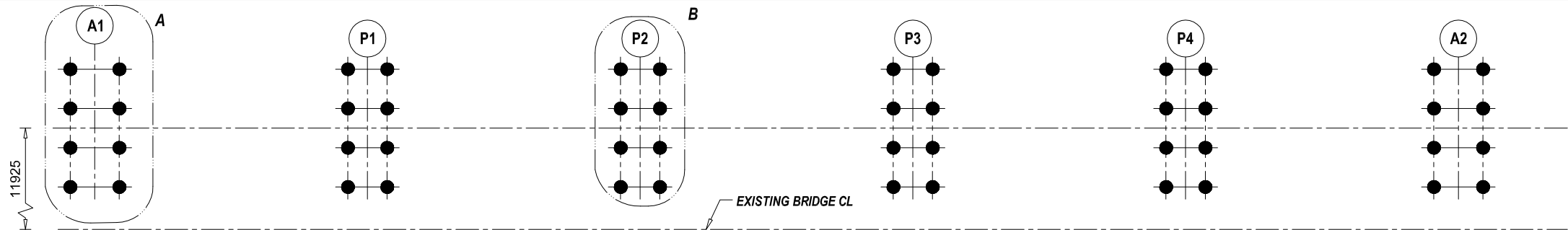


Finished Road Level(D/S)	LEFT ABUTMENT	PIER 1	PIER 2	PIER 3	PIER 4	RIGHT ABUTMENT
Finished Road Level (Existing Bridge)	213.016	213.019	213.022	213.025	213.028	213.031
Existing Ground Level(D/S)	211.383	211.383	211.383	211.383	211.383	211.383
Existing Ground Level	208.623	209.555	207.699	207.488	209.555	208.462
Chainage	209.546	209.529	208.354	208.101	209.871	209.111
	270+807.5	270+832.5	270+857.5	270+882.5	270+907.5	270+932.5



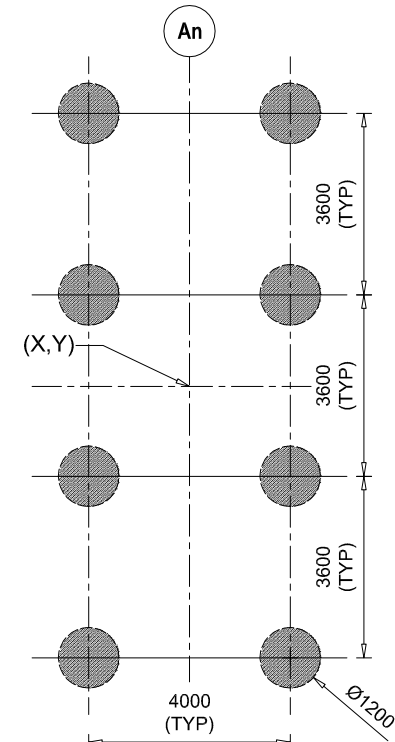
(SCALE 1:500 @ A3)

EMPLOYER	PROJECT NAME	DESIGN CONSULTANTS	Designed By	Drawing Name	Scale:	Date:
Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamala-Dhalkebar-Pathalaiya Road Section (130 KM) of Mahendra Highway and Bridges	Joint Venture of EPTISA Servicios De Ingenieria Madrid, Spain STUP Consultants Private Limited Kolkata, India In Association With Udaya Consultancy, Geocom International, Sundar Kirti Consultant and Rays Consultant Private Limited	Mr. R.A. Nec.No. 6431 CMU/W Signature Checked By Mr. S.M. Signature Approved By Mr. H.B. Signature	GENERAL ARRANGEMENT OF BRIDGE OVER RIVER JANGA PUL-1 Reference Drawings	AS SHOWN Chainage: 270+870	02.06.2023 Drawing No.- KDP/DPR/STR/BR/JANGAPUL-1/DD-5 Sheet No. 1 / 1



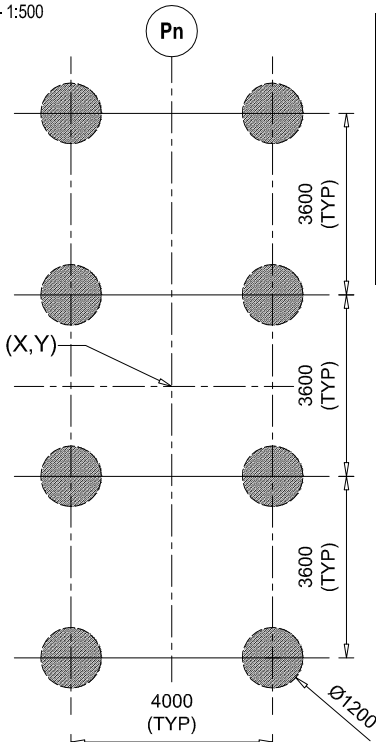
DETAILS AT PILE LAYOUT

SCALE - 1:500



DETAILS AT A

SCALE - 1:150



DETAILS AT B

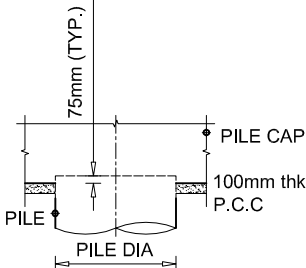
SCALE - 1:150

COORDINATES OF PILE LOCATION OF PROPOSED BRIDGE

SN.	ABUTMENT/PIER	EASTING (X)	NORTHING (Y)
1	ABUTMENT (A1)	386968.606	2987565.591
2	PIER (P1)	386944.775	2987573.19
3	PIER (P2)	386920.956	2987580.784
4	PIER (P3)	386897.153	2987588.427
5	PIER (P4)	386873.334	2987596.021
6	ABUTMENT (A2)	386849.552	2987603.728

PILE CAPACITY

SN.	DESCRIPTION	CAPACITY (Ton)
1	ABUTMENT	261.56
2	PIER	240.76



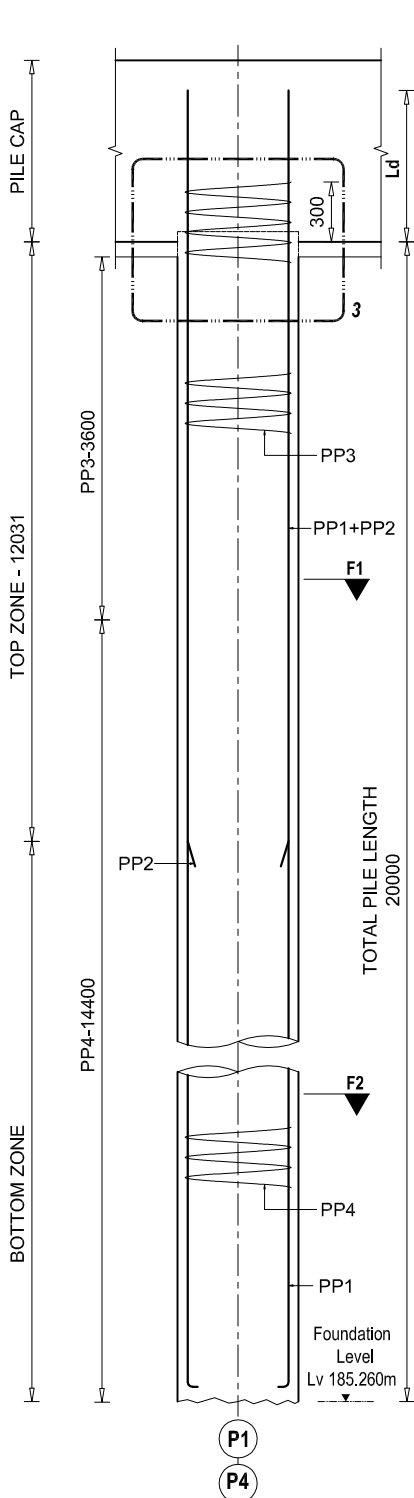
DETAIL AT 3 AND 4

SCALE - 1:75

BAR BENDING SCHEDULE OF ABUTMENT PILE								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	PA1	300 21650	25		21.950	12	3.858	1016.20
2	PA2	11235	25		11.235	12	3.858025	520.1389
3	PA3	300 11615	12		11.915	12	0.889	127.09
4	PA4	Dia. 1034 100	16	110	3.448	44	1.580	239.76
5	PA5	Dia. 1034 100	12	110	3.448	139	0.889	426.06
TOTAL (KG) :								2329.26
No. of Pile								8.00
TOTAL WEIGHT (KG) :								18634.06

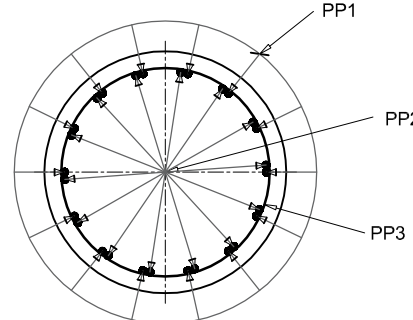
BAR BENDING SCHEDULE OF PIER PILE								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA (MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	PP1	300 21650	32		21.950	14	6.321	1942.44
2	PP2	14956	32		14.956	14	6.320988	1323.514
3	PP3	Dia. 1034 100	16	100	3.448	48	1.580	261.56
4	PP4	Dia. 1034 100	12	100	3.448	152	0.889	465.91
TOTAL (KG) :								3993.42
No. of Pile								8.00
TOTAL WEIGHT (KG) :								31947.35

NOTE
READ THIS DRAWING IN CONJUNCTION WITH
DRG NO. KDP/DPR/STR/BR/JANGAPUL-1/DD-4



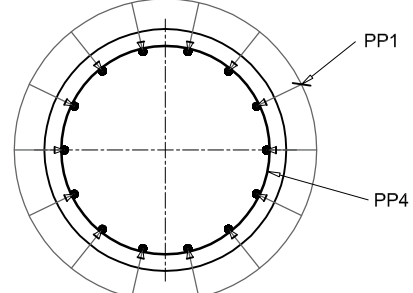
BAR DETAIL AT PIER PILE

SCALE - 1:75



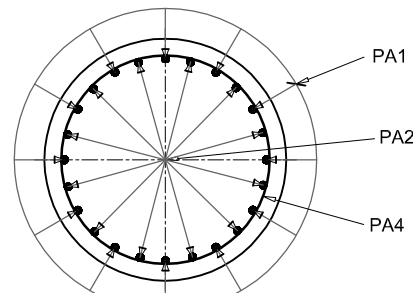
SECTIONAL VIEW AT F1 - F1

SCALE - 1:40



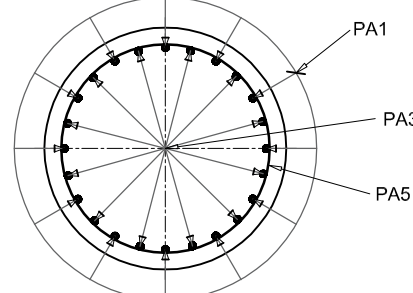
SECTIONAL VIEW AT F2 - F2

SCALE - 1:40



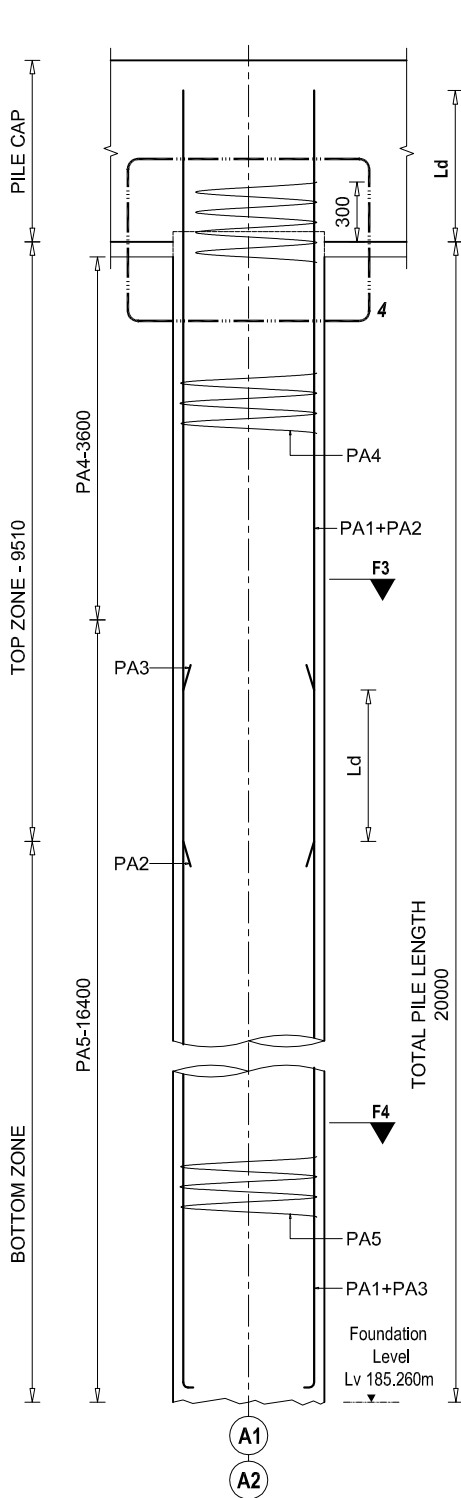
SECTIONAL VIEW AT F3 - F3

SCALE - 1:40



SECTIONAL VIEW AT F4 - F4

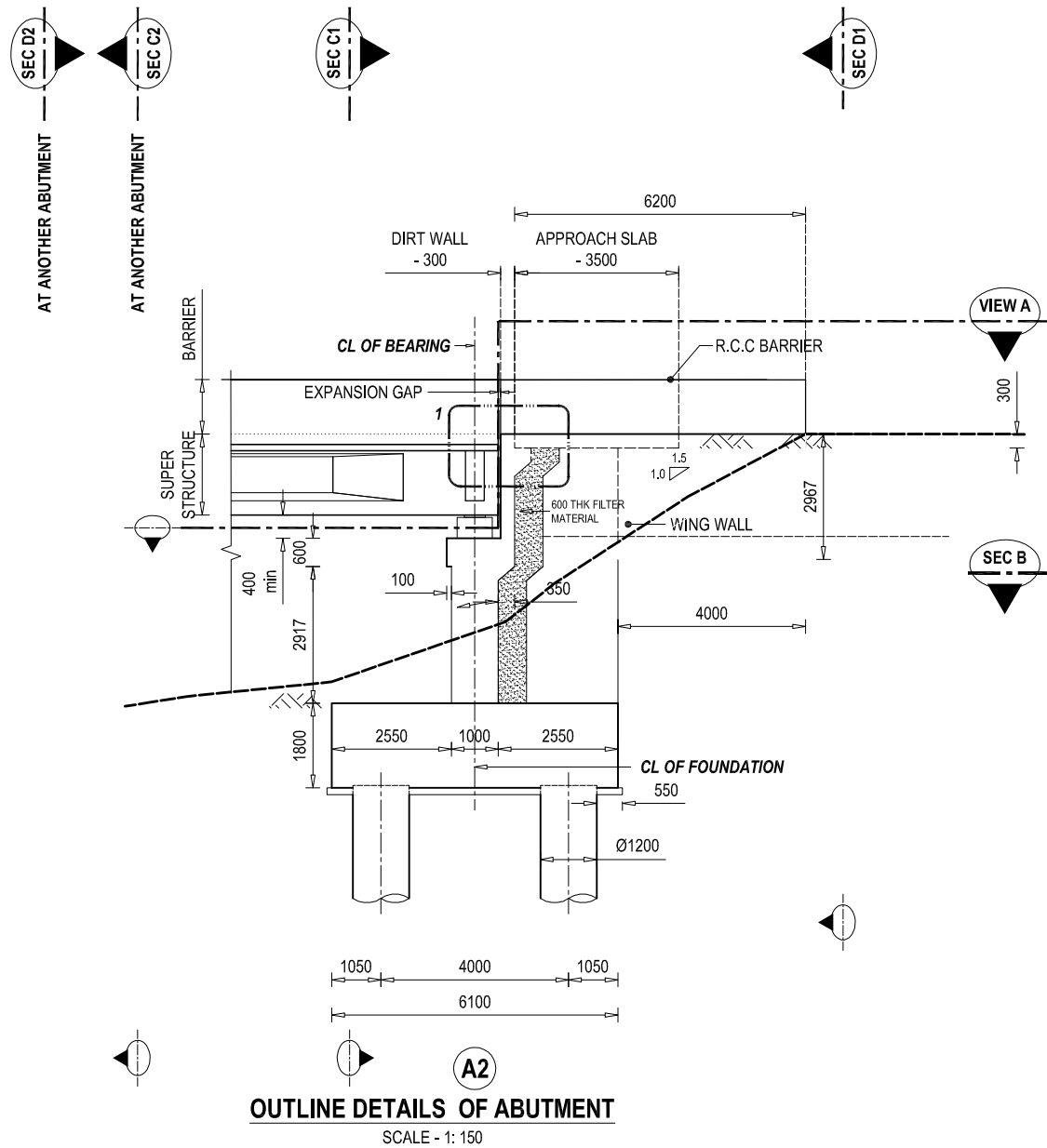
SCALE - 1:40



BAR DETAIL AT ABUTMENT PILE

SCALE - 1:75

EMPLOYER	PROJECT NAME	DESIGN CONSULTANTS	Designed By	Drawing Name	Scale:	Date:
Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamata-Dhalkebar-Pathlaiya Road Section (130 KM) of Mahendra Highway and Bridges	Joint Venture of EPTISA Servicios De Ingenieria Madrid, Spain STUP Consultants Private Limited Kolkata, India In Association With Udaya Consultancy, Geocom International, Sundar Krti Consultant and Rays Consultant Private Limited	Mr. R.A. Nec.No. 6431 CIVIL/KA Signature Mr. S.M. Signature Mr. H.B. Signature	LAYOUT AND DETAIL OF PILE FOUNDATION OF BRIDGE OVER RIVER JANGAPUL-1 Reference Drawings KDP/DPR/STR/BR/JANGA PUL-1/DD-9	AS SHOWN Chainage: 270+870	05.05.2023 Drawing No.- KDP/DPR/STR/BR/JANGAPUL-1/DD-06 Sheet No. 1/1



NOTE
READ THIS DRAWING IN CONJUNCTION WITH
DRG NO. KDP/DPR/STR/BR/JANGA PUL-1/DD-4



Government of Nepal
Ministry of Physical Infrastructure and Transport
Department of Roads
Development Cooperation Implementation
Division

PROJECT NAME
Strategic Road Connectivity & Trade Improvement Project
(SRCTIP)
Detailed Design of Upgradation of Kamala-Dhalkebar-Pathlaiya
Road Section (130 KM) of Mahendra Highway and Bridges

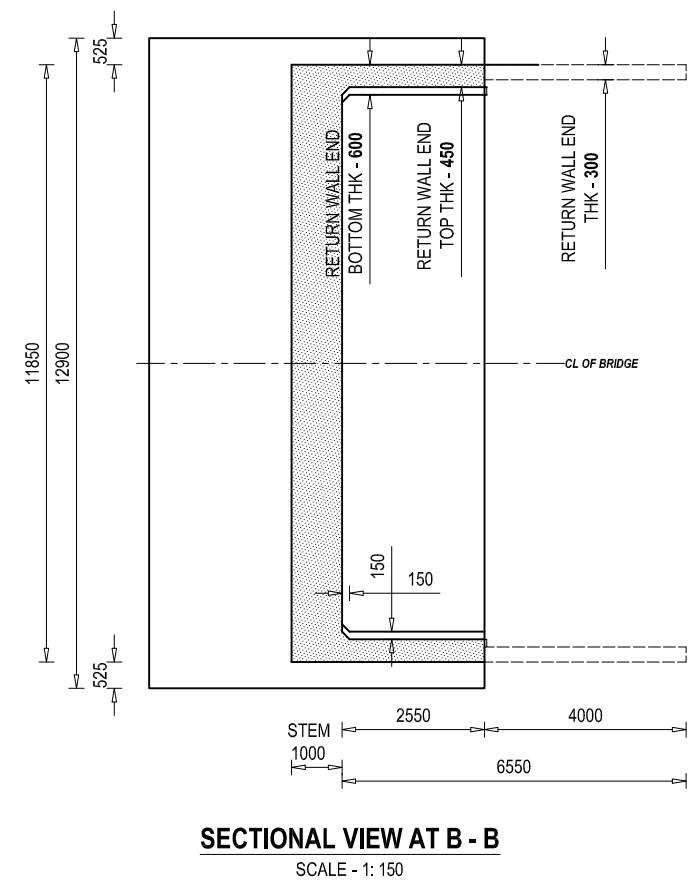
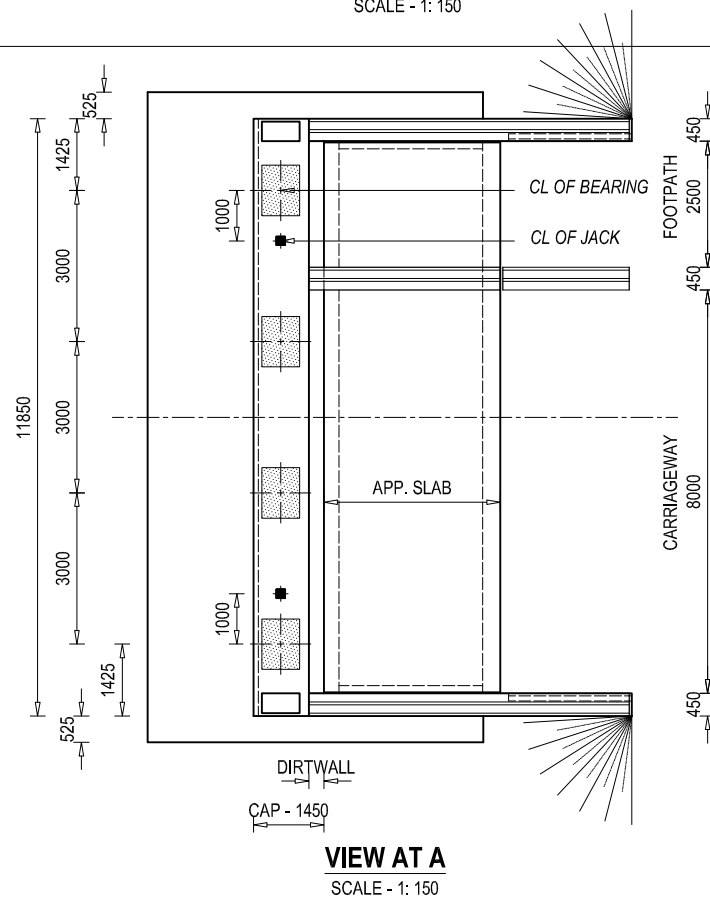
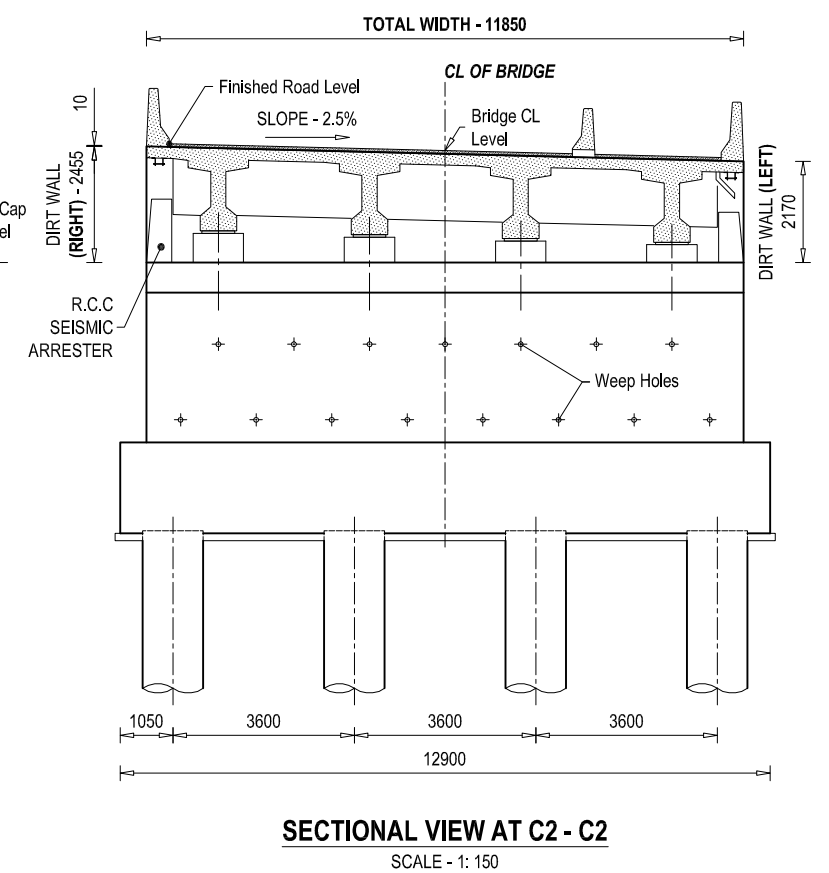
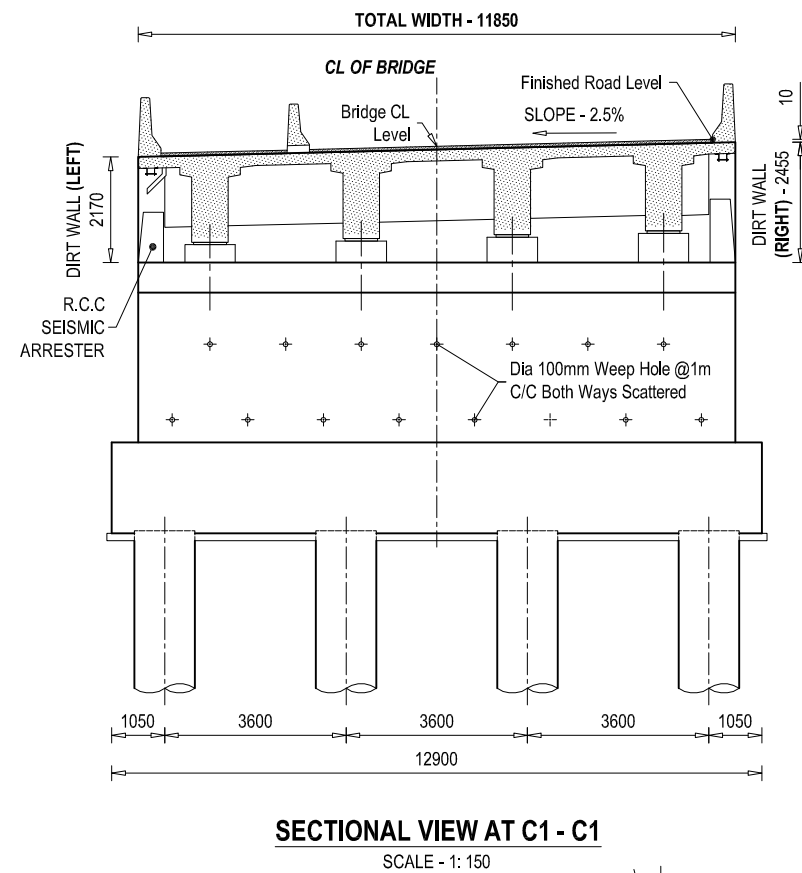
DESIGN CONSULTANTS
Joint Venture of
ep4sa EPTISA Servicios De Ingeniera
Madrid, Spain
ow STUP Consultants Private Limited
Kolkatta, India
In Association With
Udaya Consultancy, Geocom International, Sundar Kritt Consultant and Rays
Consultant Private Limited

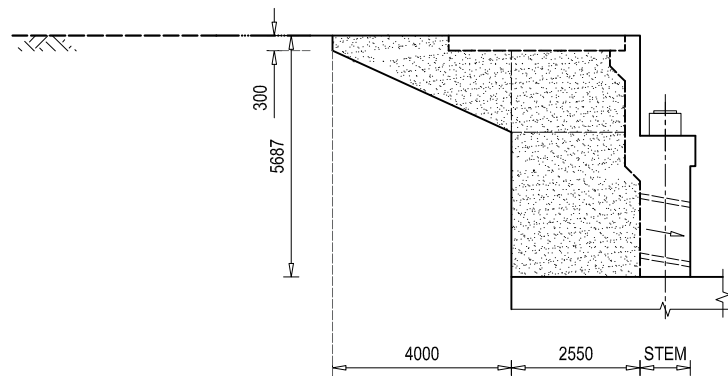
Designed By
Mr. R.A.
Nec.No. 6431 CH/1/24
Checked By
Mr. S.M.
Approved By
Mr. H.B.

Drawing Name
ABUTMENT DETAILS BRIDGE OVER RIVER JANGA PUL-1
Reference Drawings
KDP/DPR/STR/BR/JANGA PUL-1/DD-9

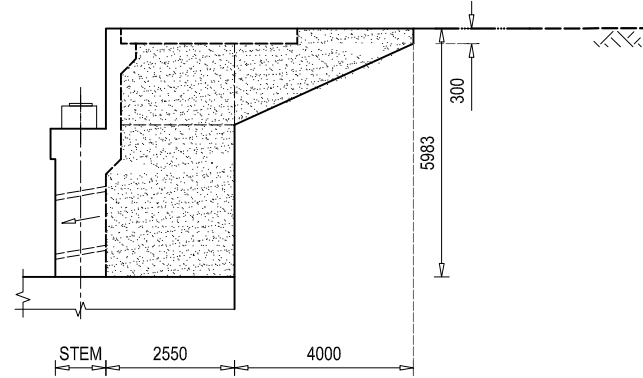
Scale:
AS SHOWN
Chainage:
270+870

Date:
03.08.2023
Drawing No.-KDP/DPR/STR/BR/JANGAPUL-1/DD- 7
Sheet No. 1 / 2



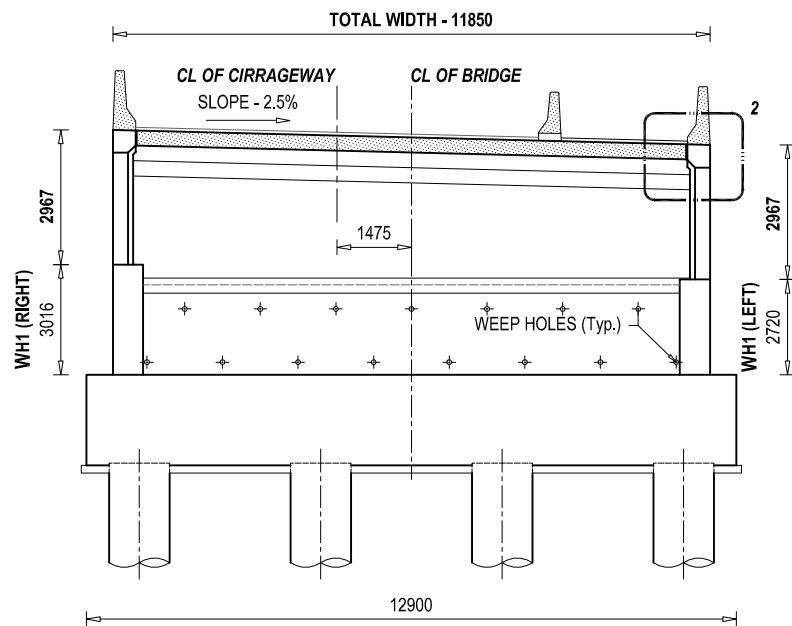


VIEW AT E1
SCALE - 1: 150

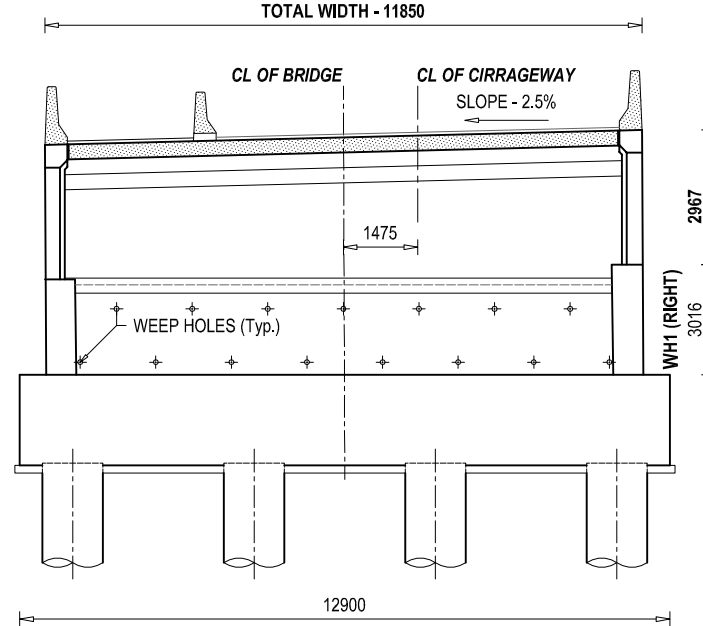


VIEW AT E2
SCALE - 1: 150

DETAIL AT RETURN WALL

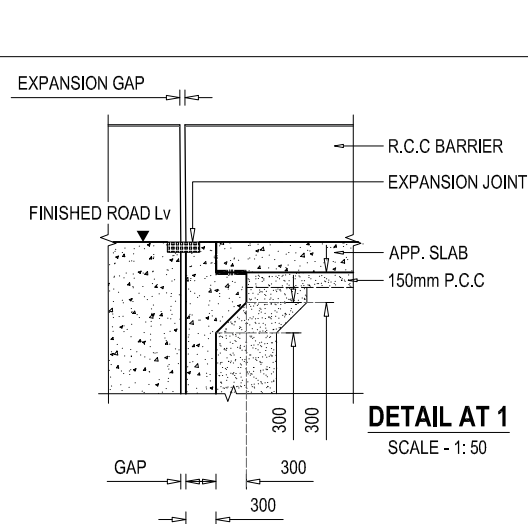


SECTIONAL VIEW AT D1 - D1
SCALE - 1: 150



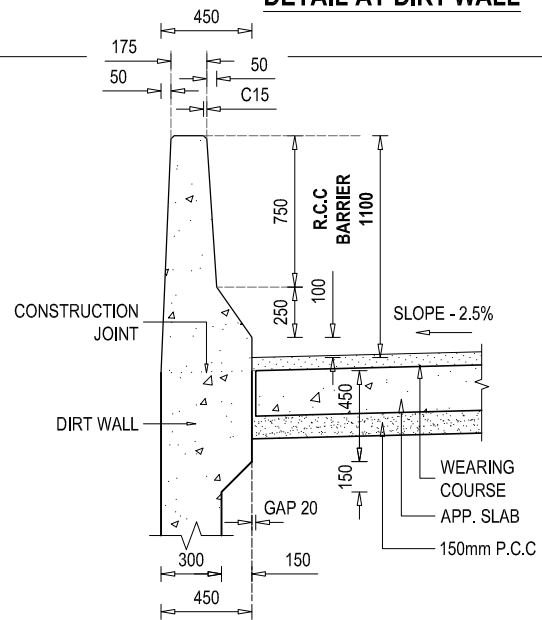
SECTIONAL VIEW AT D2 - D2
SCALE - 1: 150

DETAIL AT DIRT WALL

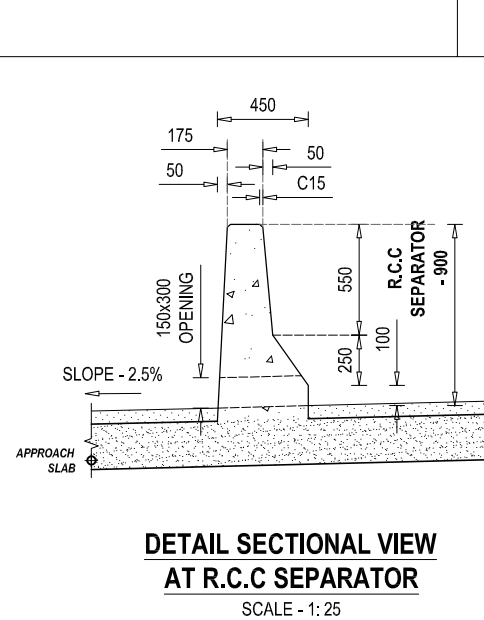


DETAIL AT 1
SCALE - 1: 50

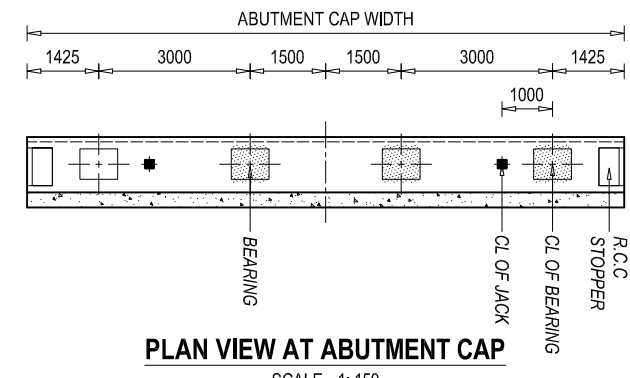
NOTE
READ THIS DRAWING IN CONJUNCTION WITH
DRG NO. KDP/DPR/STR/BR/JANGA PUL-1/DD-4



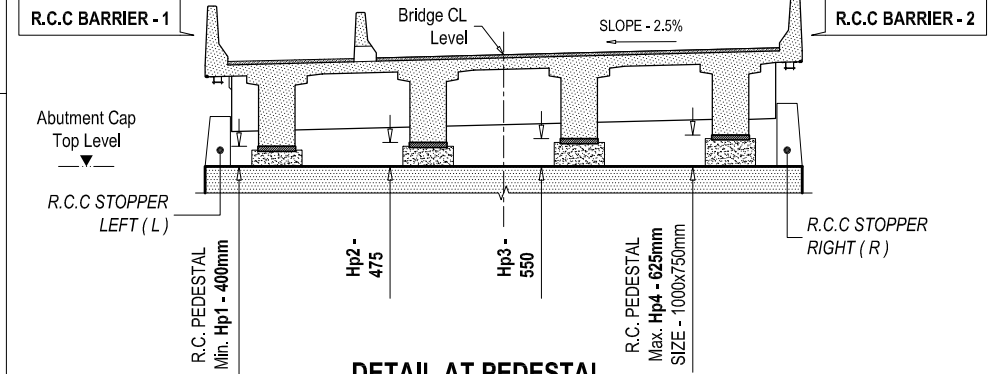
**DETAIL SECTIONAL VIEW
AT R.C.C BARRIER - 1**
SCALE - 1: 25



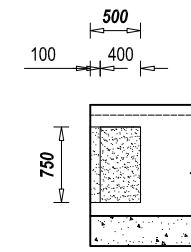
**DETAIL SECTIONAL VIEW
AT R.C.C SEPARATOR**
SCALE - 1: 25



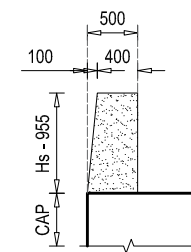
PLAN VIEW AT ABUTMENT CAP
SCALE - 1: 150



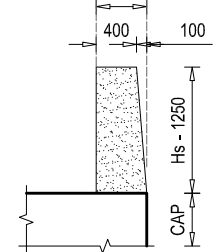
DETAIL AT PEDESTAL
SCALE - 1: 150



**R.C.C SEISMIC ARRESTER
PLAN VIEW**

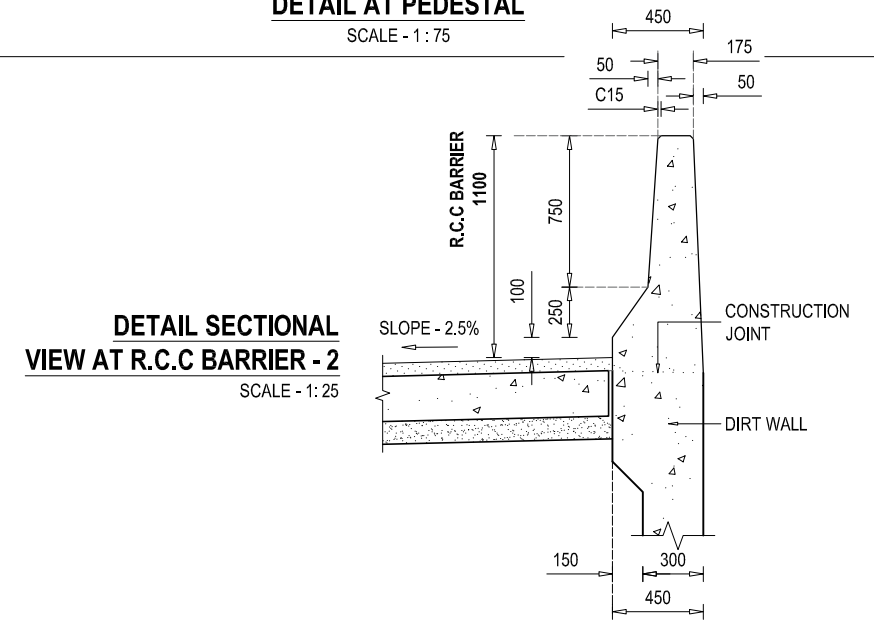


**R.C.C SEISMIC ARRESTER - LEFT
ELEVATION VIEW**



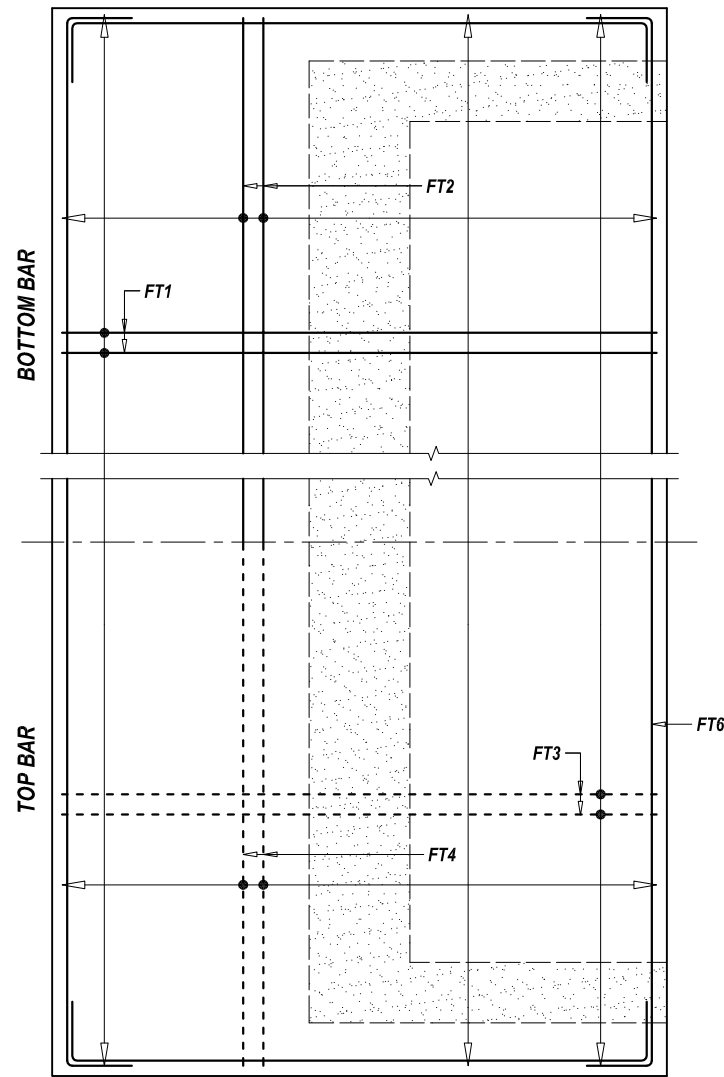
**R.C.C SEISMIC ARRESTER - RIGHT
ELEVATION VIEW**

DETAIL AT PEDESTAL
SCALE - 1: 75

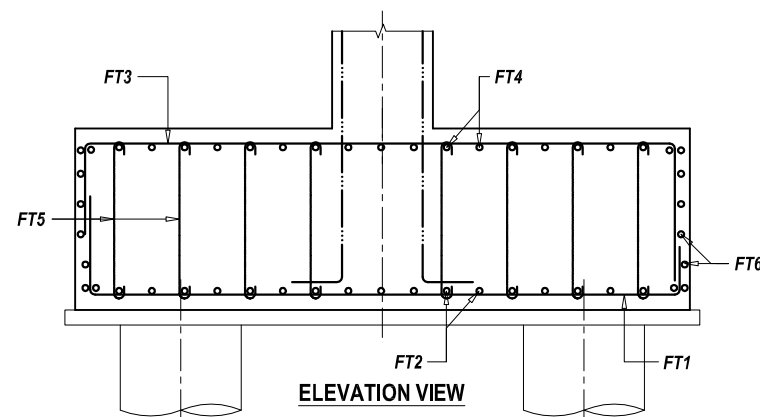


**DETAIL SECTIONAL
VIEW AT R.C.C BARRIER - 2**
SCALE - 1: 25

EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	PROJECT NAME Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamala-Dhalkebar-Pathlaiya Road Section (130 KM) of Mahendra Highway and Bridges	DESIGN CONSULTANTS Joint Venture of ep4sa EPTISA Servicios De Ingenieria Madrid, Spain cn STUP Consultants Private Limited Kolkata, India In Association With Udaya Consultancy, Geocom International, Sundar Kruti Consultant and Rays Consultant Private Limited	Designed By Mr. R.A. Nec.No. 6431 CM/LX Checked By Mr. S.M. Approved By Mr. H.B.	Drawing Name ABUTMENT DETAILS OF BRIDGE OVER RIVER JANGA PUL-1 Reference Drawings KDP/DPR/STR/BR/JANGA PUL-1/DD-9	Scale: AS SHOWN Chainage: 270+870	Date: 03.08.2023 Drawing No.-KDP/DPR/STR/BR/JANGAPUL-1/DD- 7 Sheet No. 2 / 2
--	---	--	---	---	---	--



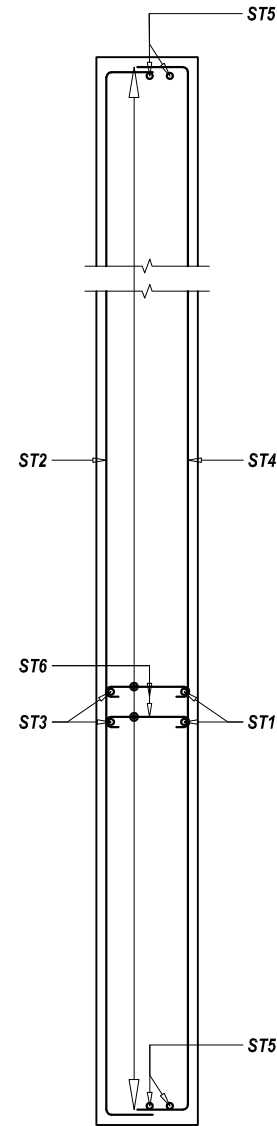
PLAN VIEW



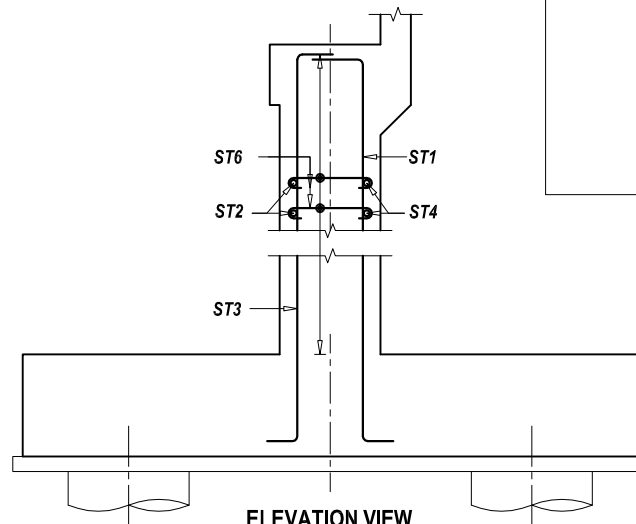
BAR DETAIL OF PILE CAP

SCALE - 1 : 75

NOTE
READ THIS DRAWING IN CONJUNCTION WITH
DRG NO. KDP/DPR/STR/BR/JANGA PUL-1/DD-4



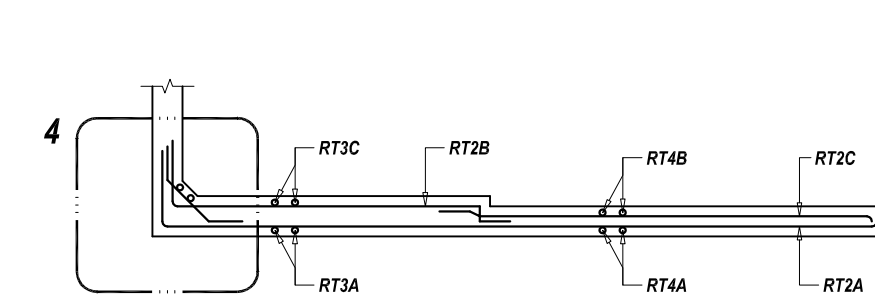
SECTIONAL PLAN VIEW



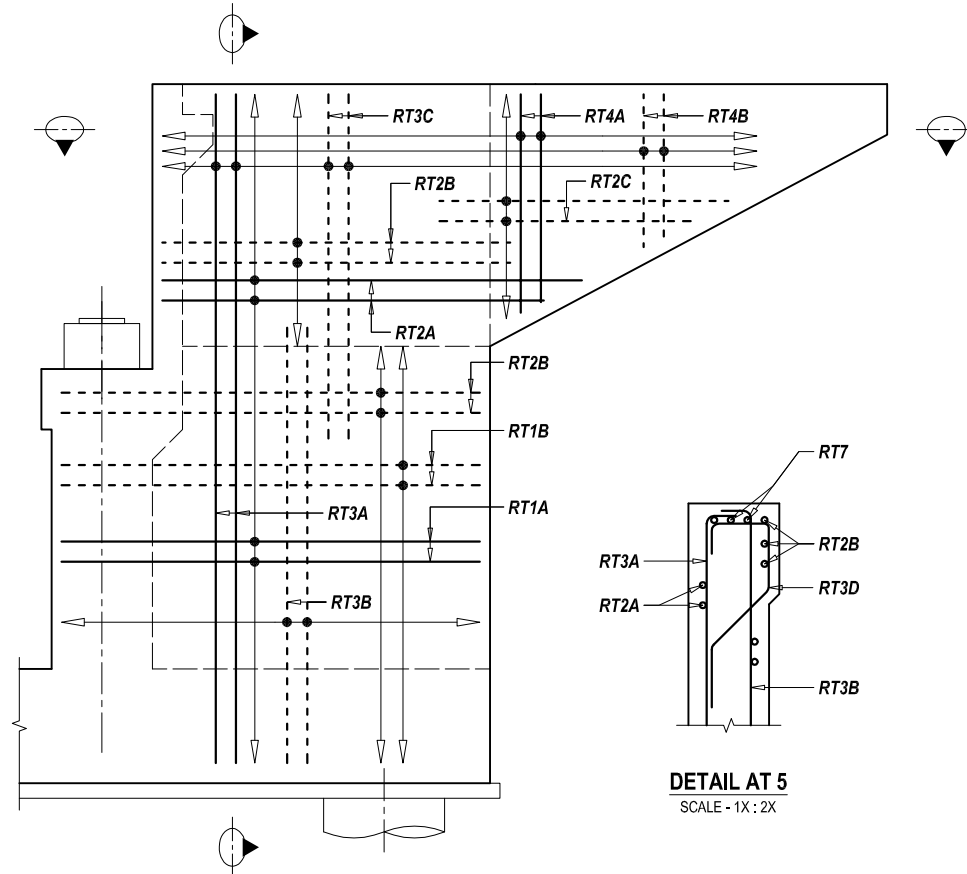
BAR DETAIL AT ABUTMENT STEM

SCALE - 1 : 75

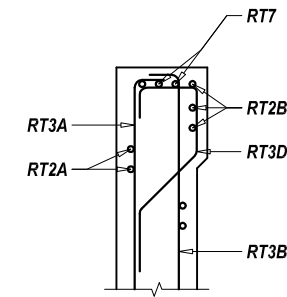
BAR DETAIL AT ABUTMENT STEM



SECTIONAL PLAN VIEW



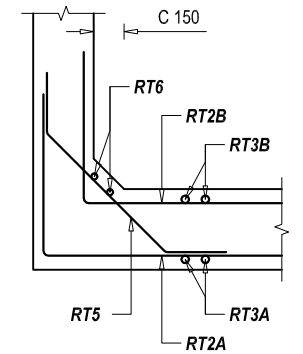
ELEVATION VIEW



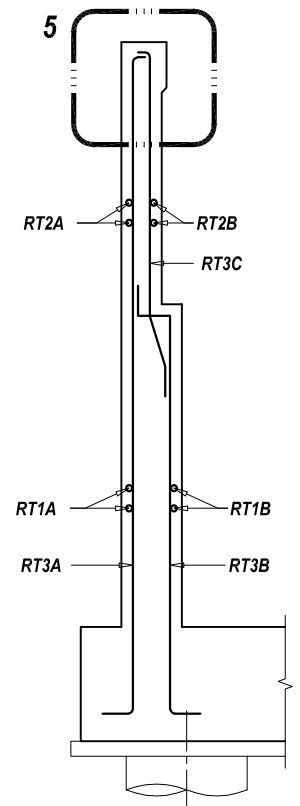
DETAIL AT 5
SCALE - 1X : 2X

BAR DETAIL AT RETURN WALL

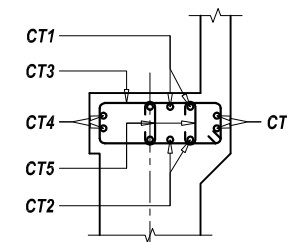
SCALE - 1 : 75



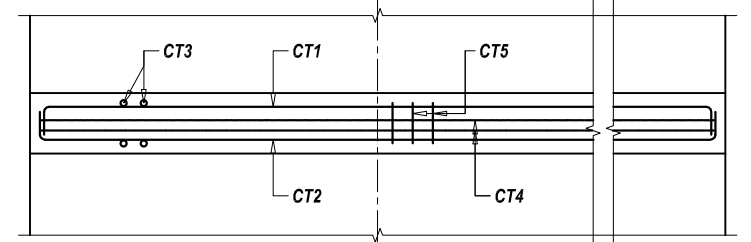
DETAILS AT 4



SECTIONAL SIDE VIEW



ELEVATION VIEW



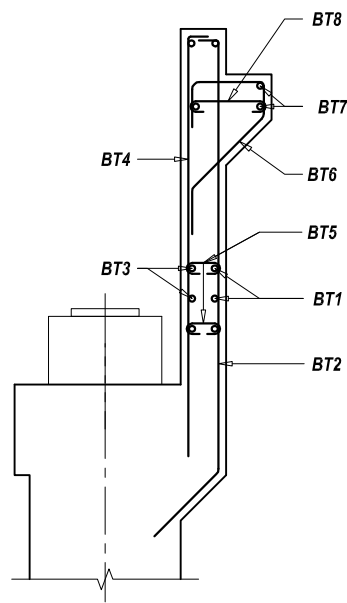
FRONT VIEW

BAR DETAIL AT ABUTMENT CAP

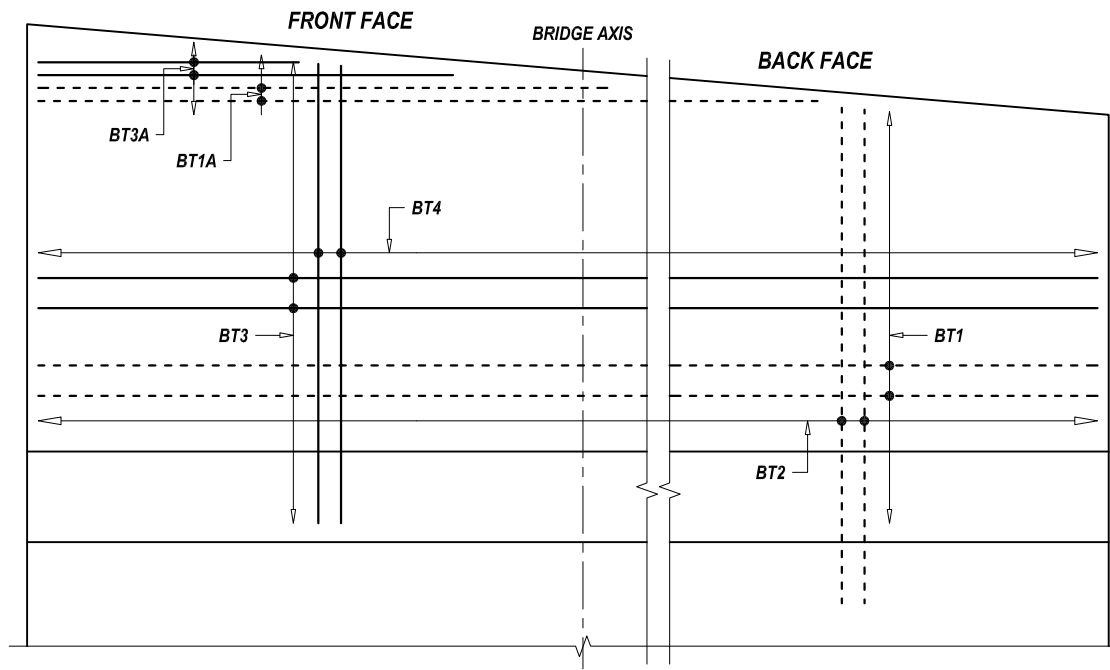
SCALE - 1 : 75

--- TOP BAR OR
NEAR FACE REINFORCEMENT
--- BOTTOM BAR OR
FAR FACE REINFORCEMENT

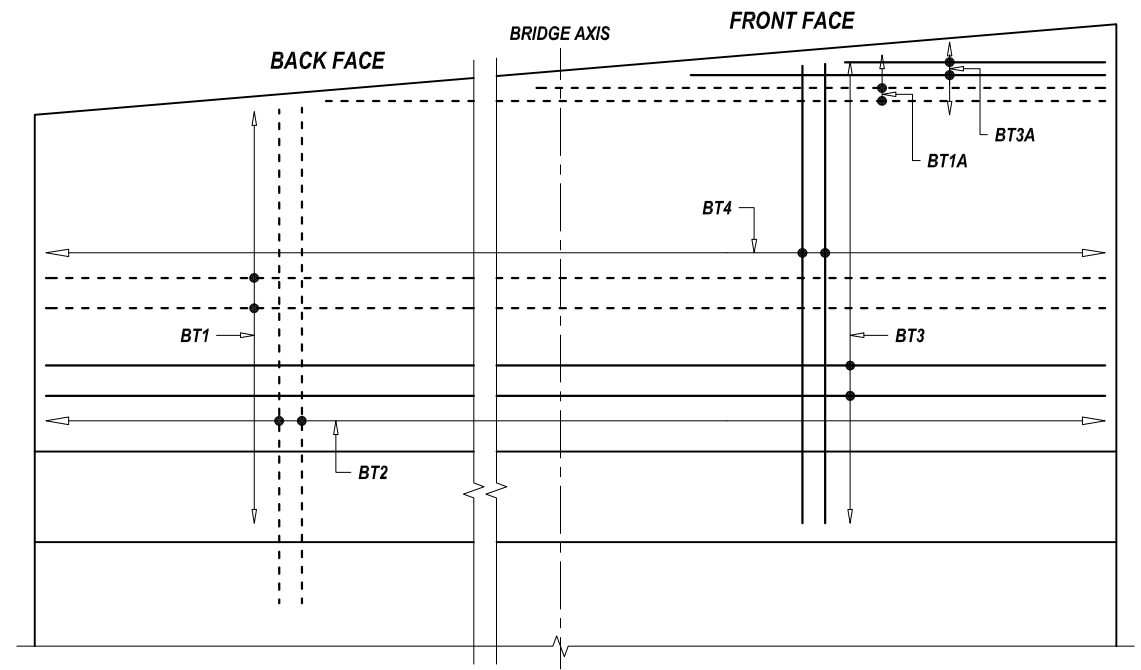
EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	PROJECT NAME Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamala-Dhalkebar-Pathalaya Road Section (130 KM) of Mahendra Highway and Bridges	DESIGN CONSULTANTS Joint Venture of ep4sa EPTISA Servicios De Ingeniera Madrid, Spain ow STUP Consultants Private Limited Kolkata, India In Association With Udaya Consultancy, Geocom International, Sundar Kirti Consultant and Rays Consultant Private Limited	Designed By Mr. R.A. Nec.No. 6431 CM/1/24 Signature Checked By Mr. S.M. Signature Approved By Mr. H.B. Signature	Drawing Name ABUTMENT REINFORCEMENT DETAILS OF BRIDGE OVER RIVER JANGA PUL-1 Reference Drawings KDP/DPR/STR/BR/JANGA PUL-1/DD-9	Scale: AS SHOWN Chainage: 270+870	Date: 03.08.2023 Drawing No.-KDP/DPR/STR/BR/JANGAPUL-1/DD-8 Sheet No. 1 / 2
--	---	---	--	---	---	---



SECTIONAL SIDE VIEW



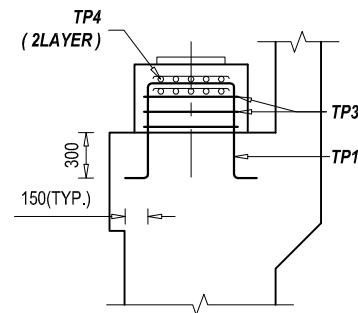
ELEVATION VIEW / VIEW AT D1



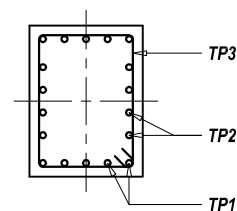
ELEVATION VIEW / VIEW AT D2

BAR DETAIL AT DIRT WALL

SCALE - 1 : 50



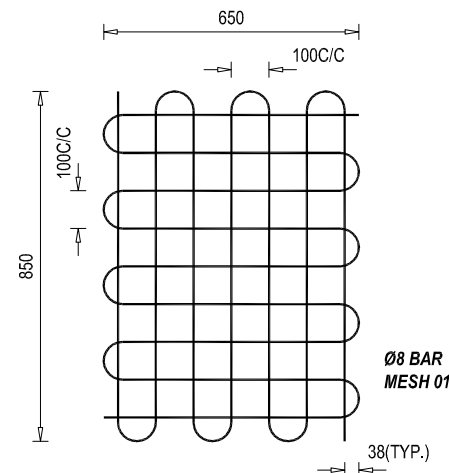
SECTIONAL SIDE VIEW



SECTIONAL PLAN VIEW
BAR DETAIL AT PEDESTAL

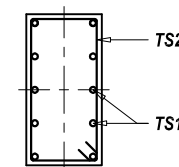
SCALE - 1 : 50

NOTE
READ THIS DRAWING IN CONJUNCTION WITH
DRG NO. KDP/DPR/STR/BR/JANGA PUL-1/DD-4

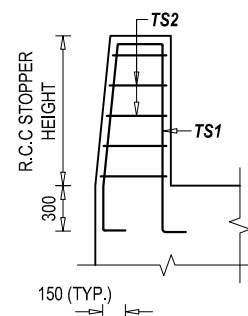


REINFORCEMENT DETAILS OF
BEARING MESH

SCALE - 1 : 50

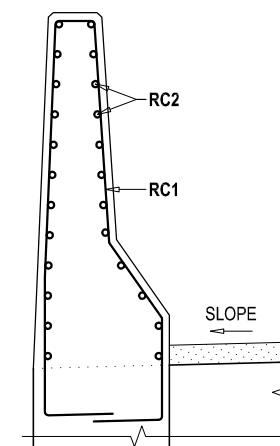


SECTIONAL PLAN VIEW



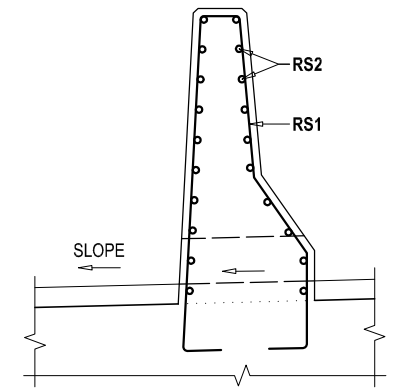
R.C.C STOPPER LEFT
ELEVATION VIEW

SCALE - 1 : 50



REINFORCEMENT DETAILS OF
R.C.C BARRIER (B)- SECTIONAL VIEW

SCALE - 1 : 25

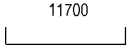
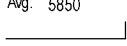
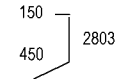
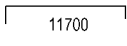
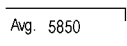
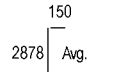
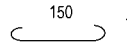
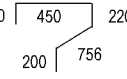
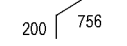
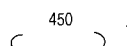


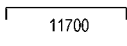
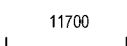
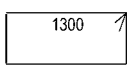
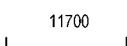
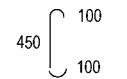
REINFORCEMENT DETAILS OF
R.C.C SEPARATOR - SECTIONAL VIEW

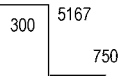
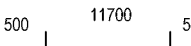
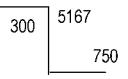
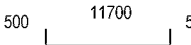
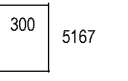
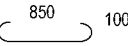
SCALE - 1 : 25

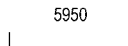
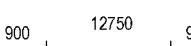
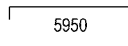
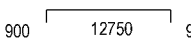
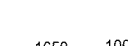
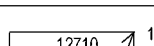
--- TOP BAR OR
NEAR FACE REINFORCEMENT
--- BOTTOM BAR OR
FAR FACE REINFORCEMENT

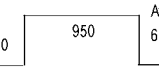
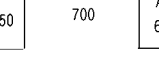
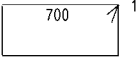
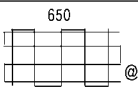
EMPLOYER	PROJECT NAME	DESIGN CONSULTANTS	Designed By	Mr. R.A.	Drawing Name	Scale:	Date:
 Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamala-Dhalkebar-Pathlaiya Road Section (130 KM) of Mahendra Highway and Bridges	Joint Venture of  EPTISA Servicios De Ingeniera Madrid, Spain  STUP Consultants Private Limited Kolkatta, India In Association With Udaya Consultancy, Geocom International, Sundar Kritt Consultant and Rays Consultant Private Limited	Checked By	Mr. S.M.	ABUTMENT REINFORCEMENT DETAILS OF BRIDGE OVER RIVER JANGA PUL-1	AS SHOWN	03.08.2023
			Approved By	Mr. H.B.	Reference Drawings KDP/DPR/STR/BR/JANGA PUL-1/DD-9	Chainage: 270+870	Drawing No.-KDP/DPR/STR/BR/JANGAPUL-1/DD- 8
							Sheet No. 2 / 2

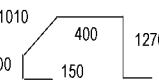
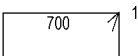
BAR BENDING SCHEDULE OF DIRT WALL								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	BT 1	150  150	16	200	12.000	17	1.580	322.37
2	BT1A	Avg. 5850  150	16	200	6.000	3	1.580	28.44
3	BT 2	150  2803 Avg.	16	125	3.403	96	1.580	516.25
4	BT 3	150  150	16	200	12.000	13	1.580	246.52
5	BT3A	Avg. 5850  150	16	200	6.000	3	1.580	28.44
6	BT 4	150  Avg.	12	125	3.028	96	0.889	258.39
7	BT 5	100  100	12	500	0.350	96	0.889	29.87
8	BT 6	200  220 200 	12	200	1.826	61	0.889	99.01
9	BT 7	11700	16		11.700	5	1.580	92.44
10	BT 8	100  100	12	200	0.650	120	0.889	69.33
TOTAL (KG) :								1691.07

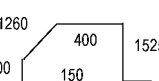
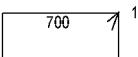
BAR BENDING SCHEDULE OF ABUTMENT CAP								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	CT 1	300  300	16	150	12.300	11	1.580	213.81
2	CT 2	300  300	16	150	12.300	11	1.580	213.81
3	CT 3	450  100	16	150	3.700	80	1.580	467.75
4	CT 4	300  300	12	150	12.300	8	0.889	87.47
5	CT 5	450  100	12	Long.150 Trans.300	0.650	382	0.889	220.71
TOTAL (KG) :								1203.55

BAR BENDING SCHEDULE OF ABUTMENT STEM								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	ST1	300  750	25		6.217	100	3.858	2398.53
2	ST2	500  500	16	180	12.700	17	1.580	341.18
3	ST3	300  750	20		6.217	100	2.469	1535.06
4	ST4	500  500	16	180	12.700	17	1.580	341.18
5	ST5	300  750	16		6.217	12	1.580	117.89
6	ST6	100  100	12	Ver. 500 Hor.500	1.050	144	0.889	134.40
TOTAL (KG) :								4868.24

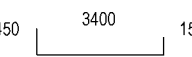
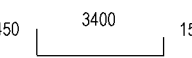
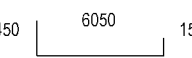
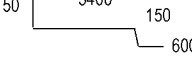
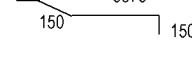
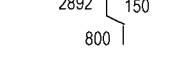
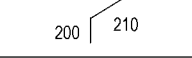
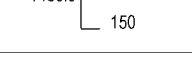
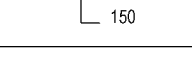
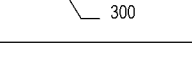
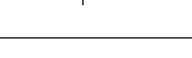
BAR BENDING SCHEDULE OF PILE CAP								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	FT1	900  900	25		7.750	100	3.858	2989.97
2	FT2	900  900	20		14.550	50	2.469	1796.30
3	FT3	900  900	16		7.750	100	1.580	1224.69
4	FT4	900  900	16		14.550	50	1.580	1149.63
5	FT5	100  100	10	Long. 250 Trans.500	1.850	633	0.617	722.87
6	FT6	5900  150	16	200	37.520	8	1.580	474.33
TOTAL (KG) :								8357.78

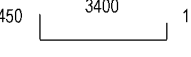
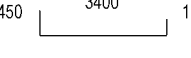
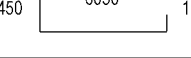
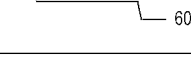
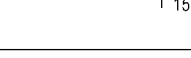
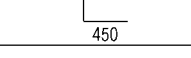
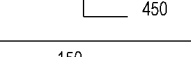
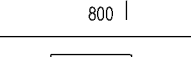
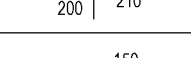
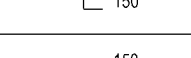
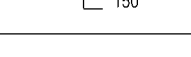
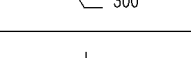
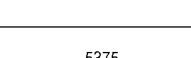
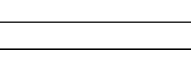
BAR BENDING SCHEDULE OF PEDESTAL								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	TP1	150  Avg. 650	16	150	2.850	6	1.580	27.02
1	TP2	150  Avg. 650	16	150	2.350	8	1.580	29.71
2	TP3	950  100	16	150	3.500	3	1.580	16.59
1	TP4	850  @ 100	8		13.400	2	0.395	10.59
TOTAL (KG) :								83.91
TOTAL NOS OF PEDESTAL :								4.00
TOTAL WEIGHT (KG) :								335.64

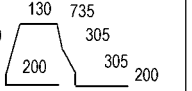
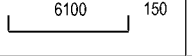
BAR BENDING SCHEDULE OF RCC SEISMIC ARRESTER - LEFT								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	TS1-L	1010  150	16	150	3.280	6	1.580	31.10
2	TS2-L	400  100	12	150	2.400	7	0.889	14.93
TOTAL (KG) :								46.03

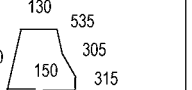
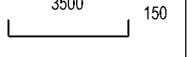
BAR BENDING SCHEDULE OF RCC SEISMIC ARRESTER - RIGHT								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	TS1-R	1260  150	16	150	3.785	6	1.580	35.89
2	TS2-R	400  100	12	150	3.400	9	0.889	27.20
TOTAL (KG) :								63.09

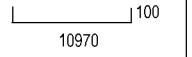
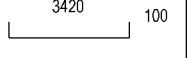
EMPLOYER		PROJECT NAME		DESIGN CONSULTANTS		Designed By	Mr. R.A.		Drawing Name	Scale:	AS SHOWN	Date:	03.08.2023	
	Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	Strategic Road Connectivity & Trade Improvement Project (SRCTIP)	Detailed Design of Upgradation of Kamala-Dhalkebar-Pathlaiya Road Section (130 KM) of Mahendra Highway and Bridges	Joint Venture of			Nec.No. 4431 CH/1/17					Checked By		Mr. S.M.
				 EPTISA Servicios De Ingeniera Madrid, Spain	 STUP Consultants Private Limited Kolkata, India	Approved By	Mr. H.B.		-					
										In Association With Udaya Consultancy, Geocom International, Sundar Krilli Consultant and Rays Consultant Private Limited				

BAR BENDING SCHEDULE OF RETURN WALL - LEFT								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	RT1A		12	150	4.000	40	0.889	142.22
2	RT1B		12	150	4.000	40	0.889	142.22
3	RT2A		12	150	6.650	21	0.889	124.13
4	RT2B		12	150	4.300	21	0.889	80.27
5	RT2C		12	150	4.475	21	0.889	83.53
6	RT3A		12	150	8.233	18	0.889	131.73
7	RT3B		16	150	6.066	18	1.580	172.54
8	RT3C		16	150	3.992	18	1.580	113.55
9	RT3D		16	150	1.210	43	1.580	82.22
10	RT4A		12	150	1.784	50	0.889	79.27
11	RT4B		16	150	1.784	50	1.580	140.92
12	RT5		12	150	1.470	61	0.889	79.71
13	RT6		12		5.983	2	0.889	10.64
14	RT7		20		5.6	4	2.469	55.31
TOTAL (KG) :								1438.26

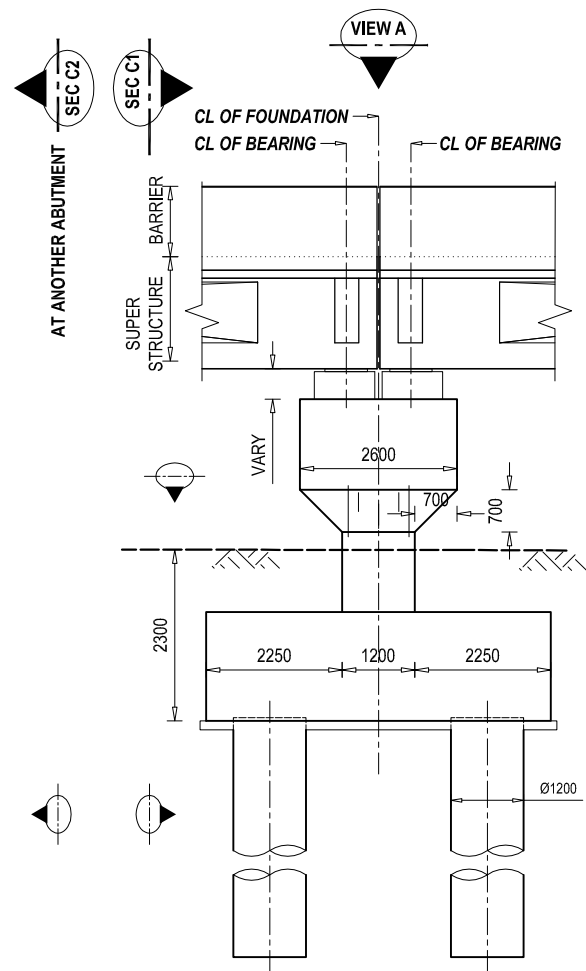
BAR BENDING SCHEDULE OF RETURN WALL - RIGHT								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	RT1A		12	150	4.000	38	0.889	135.11
2	RT1B		12	150	4.000	38	0.889	135.11
3	RT2A		12	150	6.650	21	0.889	124.13
4	RT2B		12	150	4.300	21	0.889	80.27
5	RT2C		12	150	4.475	21	0.889	83.53
6	RT3A		12	150	7.937	18	0.889	126.99
7	RT3B		16	150	5.770	18	1.580	164.12
8	RT3C		16	150	3.992	18	1.580	113.55
9	RT3D		16	150	1.210	43	1.580	82.22
10	RT4A		12	150	1.784	50	0.889	79.27
11	RT4B		16	150	1.784	50	1.580	140.92
12	RT5		12	150	1.470	61	0.889	79.71
13	RT6		12		5.687	2	0.889	10.11
14	RT7		20		5.6	4	2.469	55.31
TOTAL (KG) :								1410.35

BAR BENDING SCHEDULE OF R.C.C BARRIER								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	RC1		16	150	3.170	42	1.580	210.39
2	RC2		10	150	6.400	20	0.617	79.01
TOTAL (KG) :								289.41

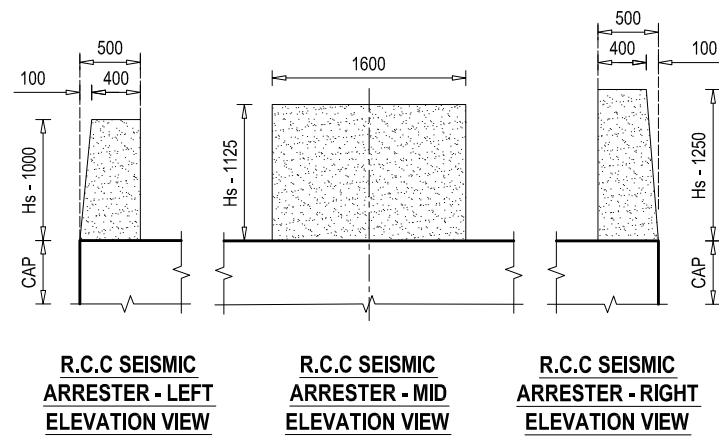
BAR BENDING SCHEDULE OF R.C.C SEPARATOR								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	RS1		16	150	2.695	25	1.580	106.47
2	RS2		10	150	3.800	17	0.617	39.88
TOTAL (KG) :								146.35

BAR BENDING SCHEDULE OF APPROACH SLAB								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	1601		16	150	11.170	48	1.580	847.27
2	1202		12	150	3.620	150	0.889	482.67
TOTAL (KG) :								1329.93

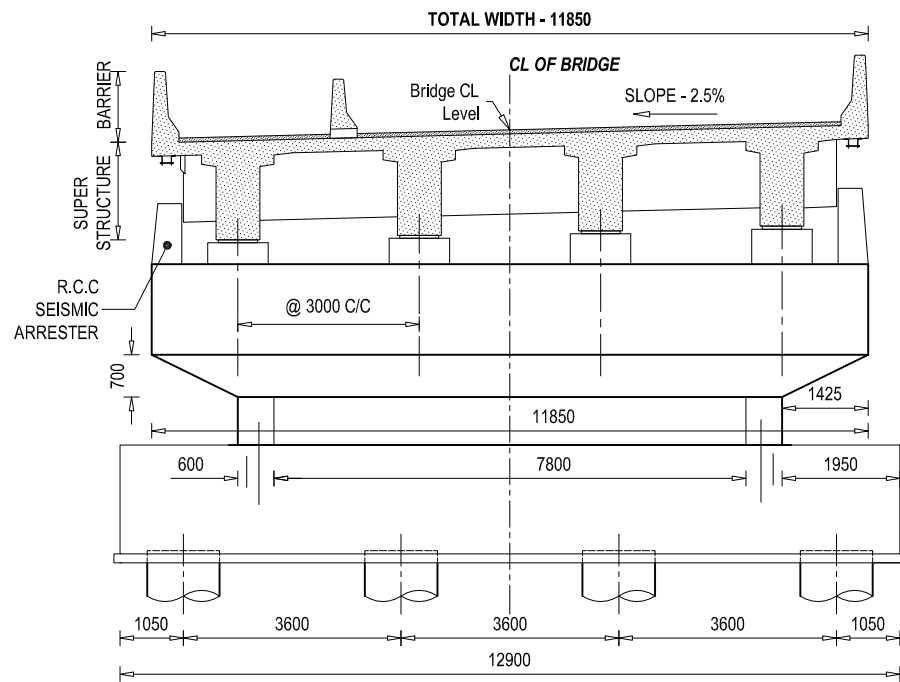
EMPLOYER		PROJECT NAME		DESIGN CONSULTANTS		Designed By	Mr. R.A.		Drawing Name	Scale:	AS SHOWN	Date:
 Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	Strategic Road Connectivity & Trade Improvement Project (SRCTIP)	 EPTISA Servicios De Ingeniera Madrid, Spain	 STUP Consultants Private Limited Kolkatta, India	Joint Venture of			Nec.No. #01 CH/1/17					03.08.2023
				Checked By	Mr. S.M.							
	Detailed Design of Upgradation of Kamala-Dhalkebar-Pathlajya Road Section (130 KM) of Mahendra Highway and Bridges	In Association With Udaya Consultancy, Geocom International, Sundar Kritt Consultant and Rays Consultant Private Limited		Approved By	Mr. H.B.			Reference Drawings	Chainage:	270+870	Drawing No.-KDP/DPR/STR/BR/JANGAPUL-1/DD- 9	Sheet No. 2 / 2
								-				



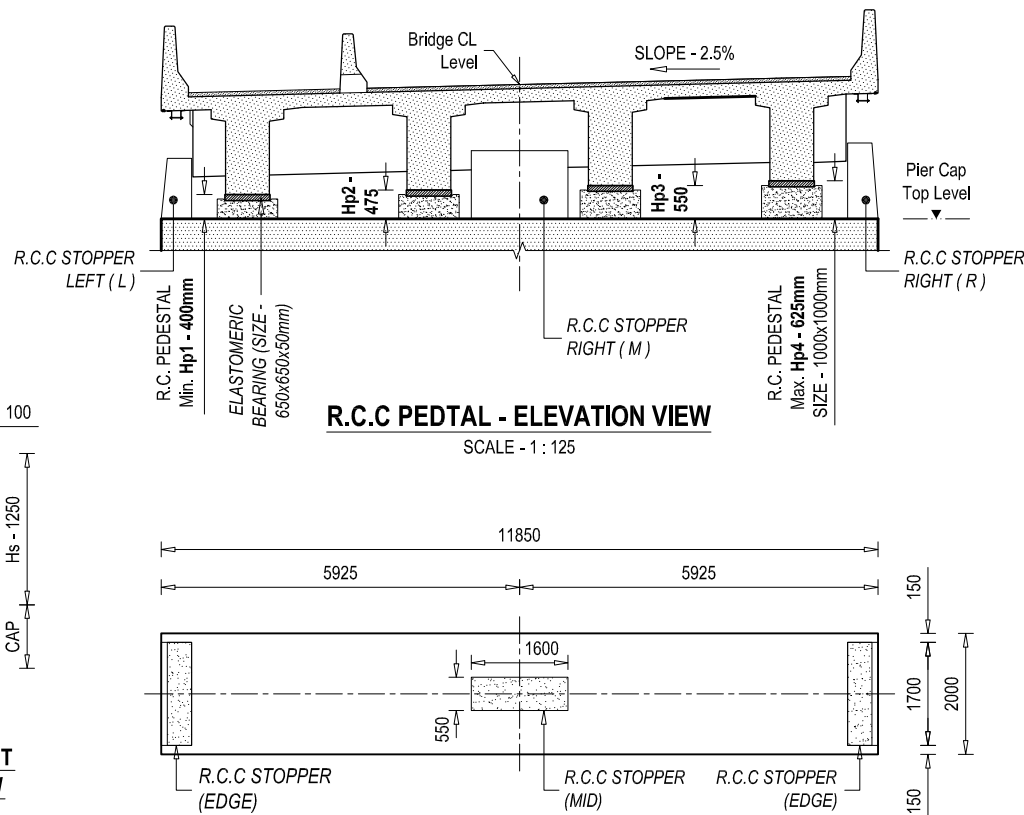
ELEVATION VIEW OF PIER
SCALE - 1: 125



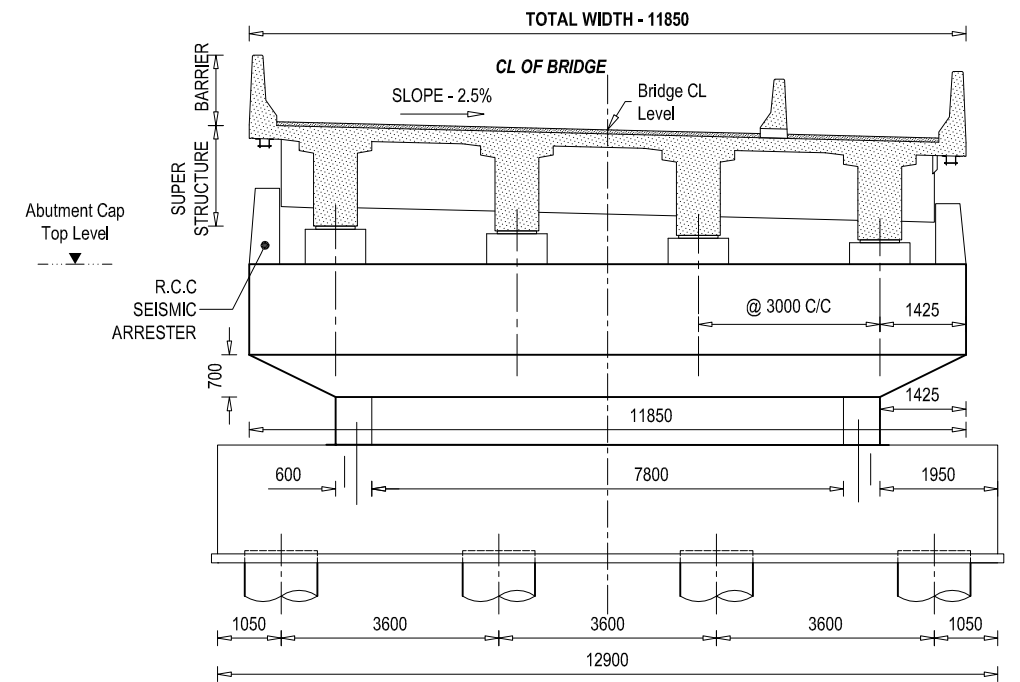
DETAIL AT PEDESTAL
SCALE - 1: 75



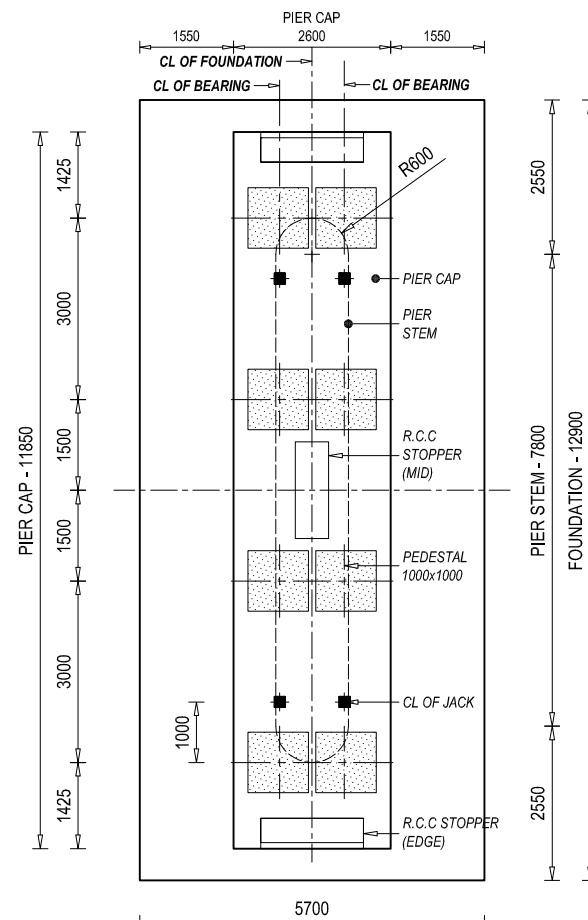
SECTIONAL VIEW AT C1 - C1
SCALE - 1: 125



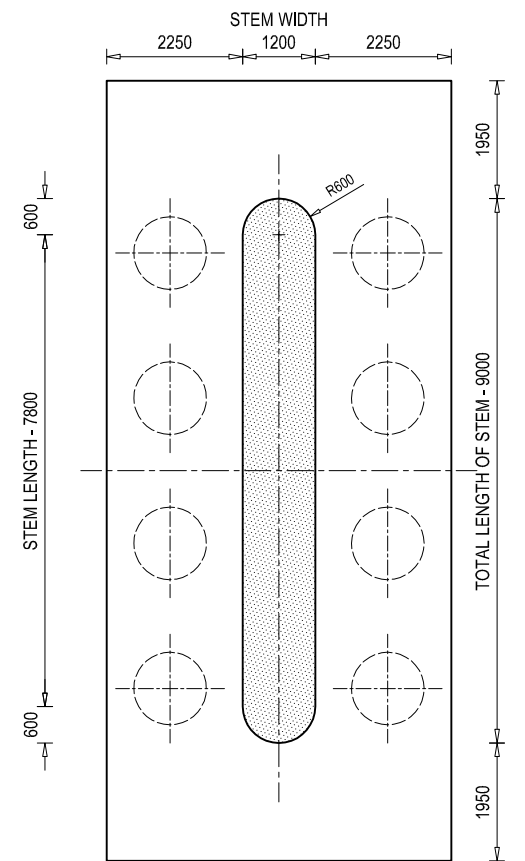
DETAIL AT R.C.C SEISMIC ARRESTER
SCALE - 1: 150



SECTIONAL VIEW AT C2 - C2
SCALE - 1: 125



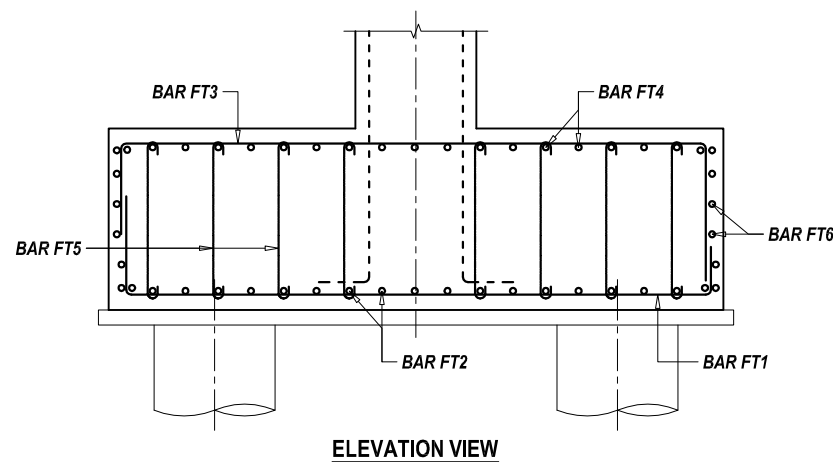
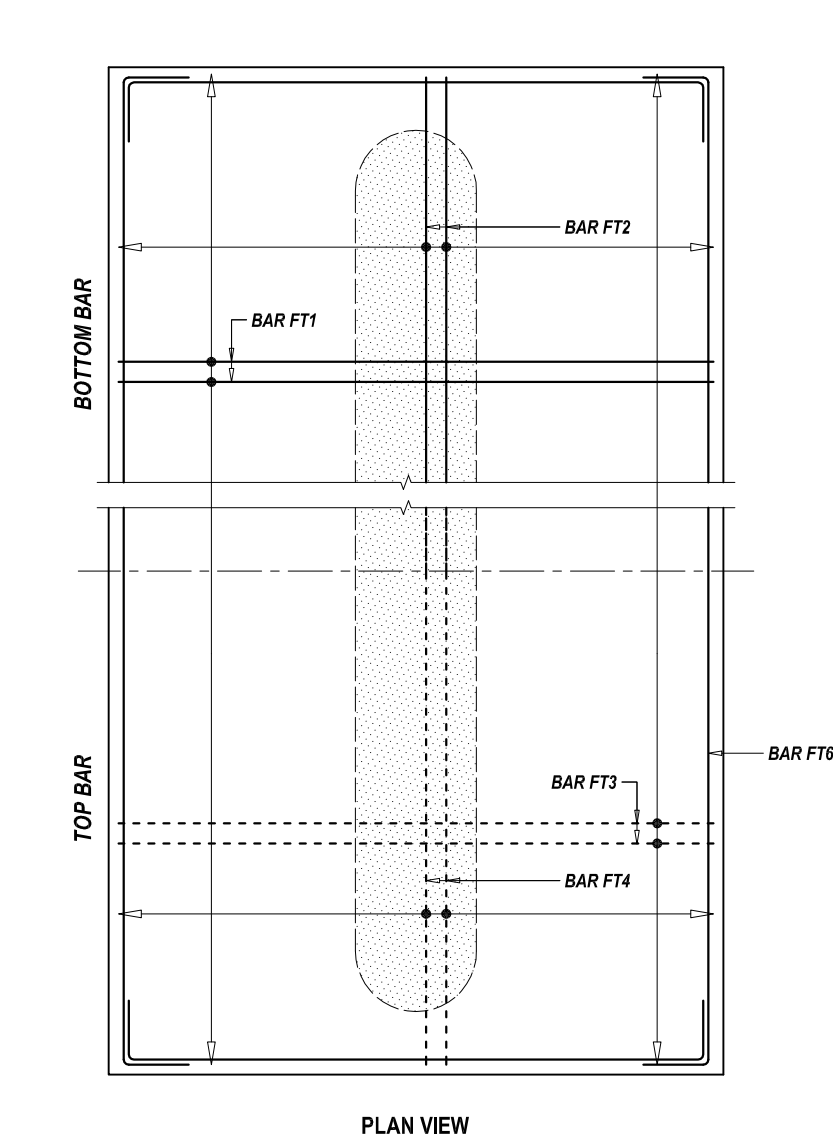
PLAN VIEW OF PIER (VIEW AT A)
SCALE - 1: 125



SECTIONAL VIEW AT B - B
SCALE - 1: 125

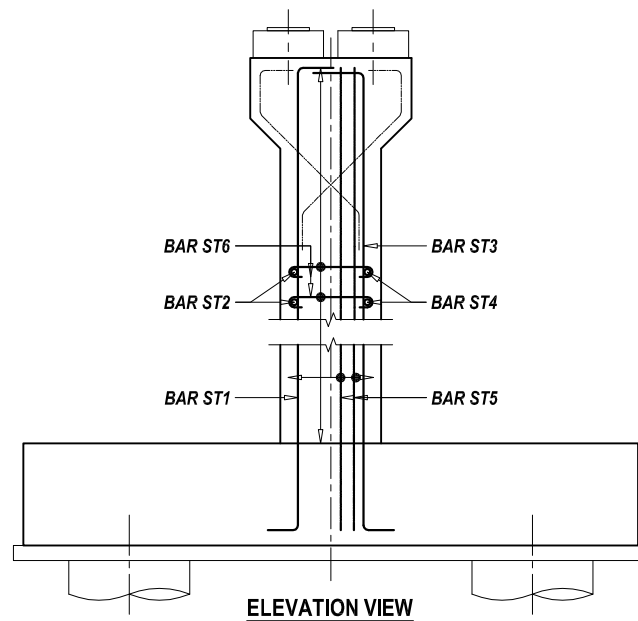
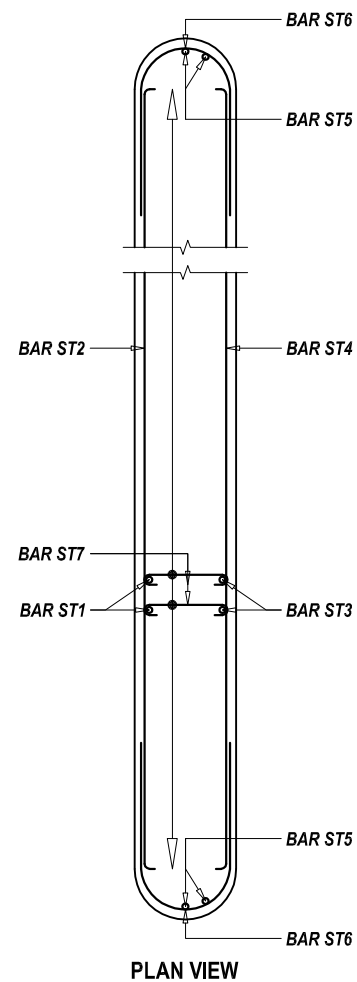
NOTE
READ THIS DRAWING IN CONJUNCTION WITH
DRG NO. KDP/DPR/STR/BR/JANGA PUL-1/DD-4

EMPLOYER	PROJECT NAME	DESIGN CONSULTANTS	Designed By	Drawing Name	Scale:	Date:
 Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamala-Dhalkabar-Pathlajya Road Section (130 KM) of Mahendra Highway and Bridges	Joint Venture of  EPTISA Servicios De Ingenieria Madrid, Spain  STUP Consultants Private Limited Kolkata, India In Association With Udaya Consultancy, Geocom International, Sundar Kritt Consultant and Rays Consultant Private Limited	Mr. R.A. Nec.No. 6431 CH/L/14 Signature Mr. S.M. Signature Mr. H.B. Signature	PIER DETAILS OF BRIDGE OVER RIVER JANGA PUL-1 Reference Drawings KDP/DPR/STR/BR/JANGA PUL-1/DD-12	AS SHOWN Chainage: 270+870	03.08.2023 Drawing No.-KDP/DPR/STR/BR/JANGAPUL-1/DD- 10 Sheet No. 1/1



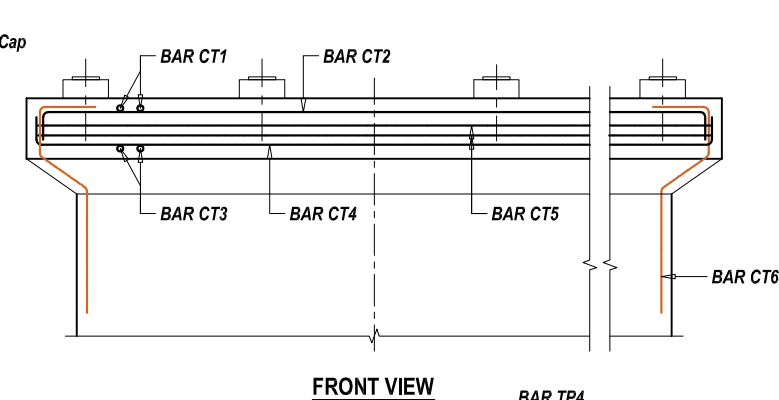
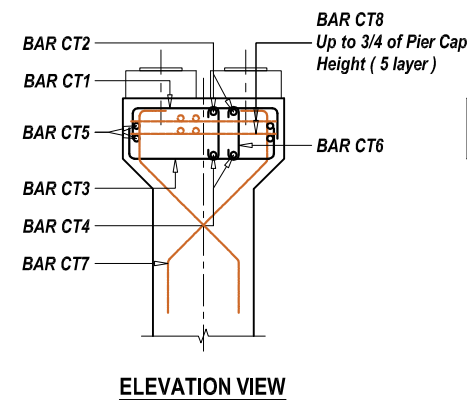
BAR DETAIL OF FOUNDATION

SCALE - 1 : 75



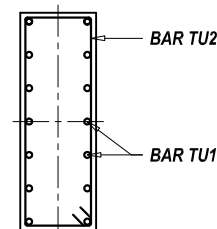
BAR DETAIL AT PIER STEM

SCALE - 1 : 75

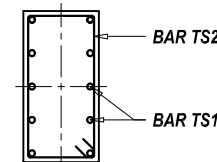


BAR DETAIL AT PIER CAP

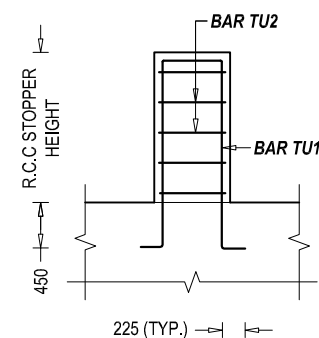
SCALE - 1 : 75



SECTIONAL PLAN VIEW



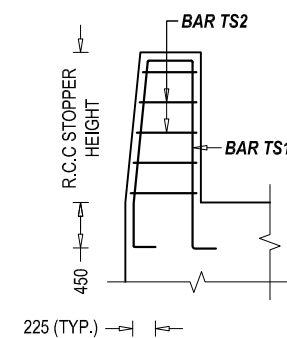
SECTIONAL PLAN VIEW



SECTIONAL ELEVATION VIEW

R.C.C STOPPER AT MID

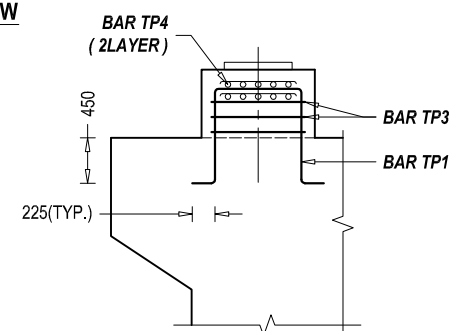
SCALE - 1 : 50



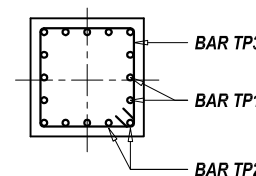
SECTIONAL ELEVATION VIEW

R.C.C STOPPER AT EDGE

SCALE - 1 : 50



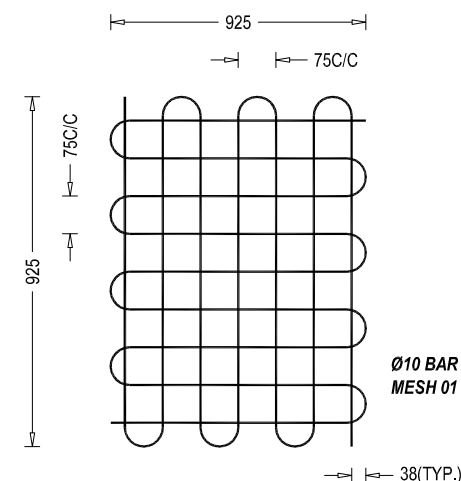
SECTIONAL SIDE VIEW



SECTIONAL PLAN VIEW

BAR DETAIL AT PEDESTAL

SCALE - 1 : 50



SCALE - 1 : 50

--- TOP BAR OR NEAR FACE REINFORCEMENT
--- BOTTOM BAR OR FAR FACE REINFORCEMENT

NOTE
READ THIS DRAWING IN CONJUNCTION WITH
DRG NO. KDP/DPR/STR/BR/JANGA PUL-1/DD-4

EMPLOYER	PROJECT NAME	DESIGN CONSULTANTS	Designed By	Mr. R.A.	Drawing Name	Scale:	Date:
 Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamala-Dhalkebar-Pathlaiya Road Section (130 KM) of Mahendra Highway and Bridges	Joint Venture of			PIER BAR DETAIL OF BRIDGE OVER RIVER JANGA PUL-1	AS SHOWN	03.08.2023
		 EPTISA Servicios De Ingenieria Madrid, Spain	 STUP Consultants Private Limited Kolkatta, India	Mr. S.M.			
		In Association With					KDP/DPR/STR/BR/JANGA PUL-1/DD-12
		Udaya Consultancy, Geocom International, Sundar Kirti Consultant and Rays Consultant Private Limited	Approved By	Mr. H.B.			

BAR BENDING SCHEDULE OF PIER CAP								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	CT1		20		3.950	50	2.469	487.65
2	CT2		20		13.200	18	2.469	586.67
3	CT3		20		3.950	50	2.469	487.65
4	CT4		20		13.200	18	2.469	586.67
5	CT5		16		150	11	1.580	495.41
6	CT6		16	X: 280 Y: 480	1.550	225	1.580	551.11
7	CT7		16		150	137	1.580	335.57
8	CT8		16		296.650	5 Layer	1.580	2343.90
TOTAL (KG) :								5874.63

BAR BENDING SCHEDULE OF PILE CAP								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	FT1		25		7.350	98	3.858	2778.94
2	FT2		25		14.550	50	3.858	2806.71
3	FT3		25		7.350	98	3.858	2778.94
4	FT4		25		14.550	50	3.858	2806.71
5	FT5		16	Long. 500 Trans. 500	1.85	284	1.580	830.26
6	FT6		16		200	8	1.580	463.96
TOTAL (KG) :								12465.52

BAR BENDING SCHEDULE OF RCC SEISMIC ARRESTER - LEFT								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	TS1-L		16		150	13	1.580	67.38
2	TS2-L		12		150	7	0.889	26.76
TOTAL (KG) :								94.14

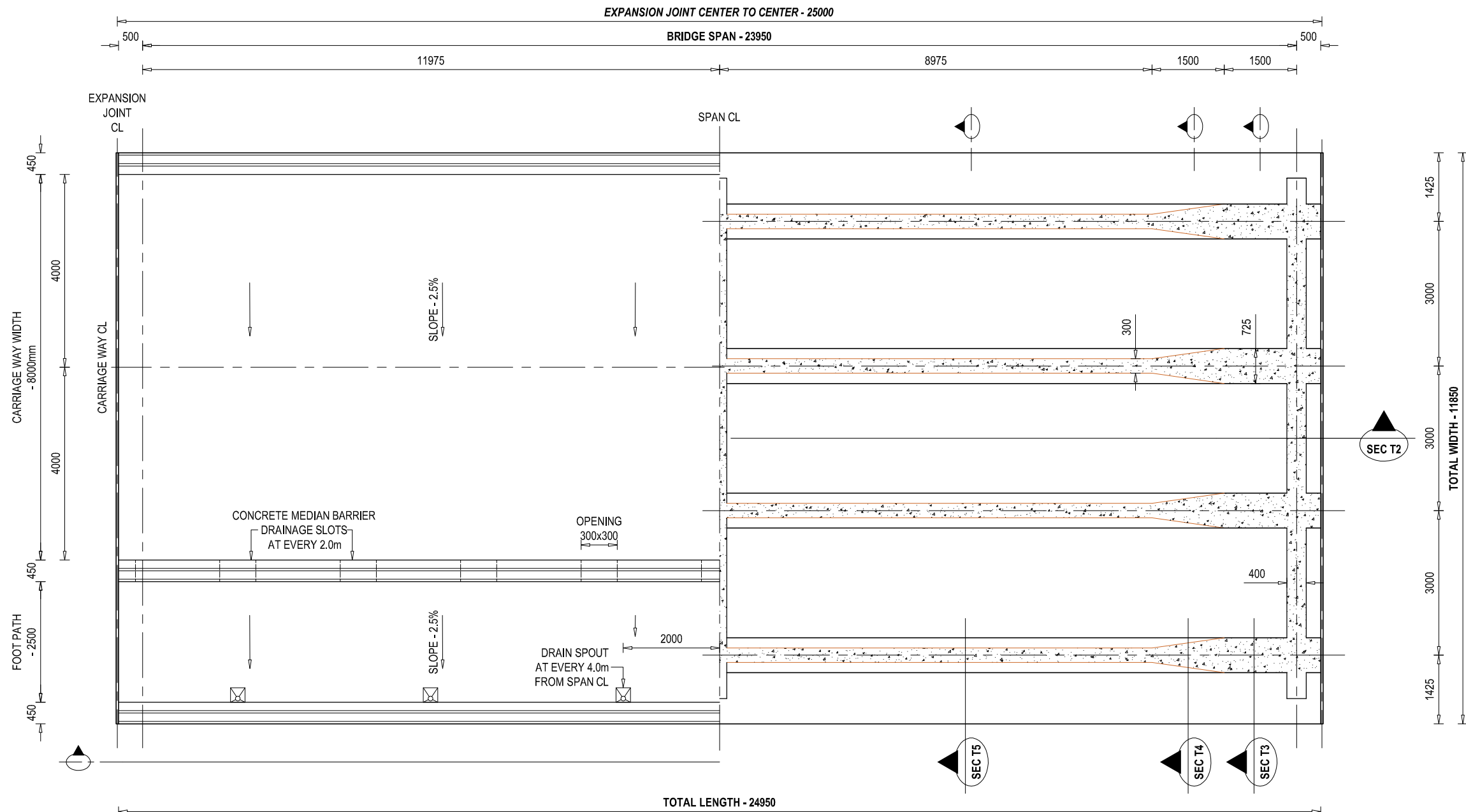
BAR BENDING SCHEDULE OF RCC SEISMIC ARRESTER - RIGHT								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	TS1-R		16		150	13	1.580	77.76
2	TS2-R		12		150	9	0.889	34.40
TOTAL (KG) :								112.16

BAR BENDING SCHEDULE OF PIER STEM								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	ST1		32		6.370	70	6.321	2818.53
2	ST2		16		125	17	1.580	243.12
3	ST3		32		6.370	70	6.321	2818.53
4	ST4		16		125	17	1.580	243.12
5	ST5		32		6.370	16	6.321	644.24
5	ST6		16		125	17	1.580	139.96
6	ST7		12	Ver. 110 Hor. 250	1.250	684	0.889	760.00
TOTAL (KG) :								7667.50

BAR BENDING SCHEDULE OF PEDESTAL								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	TP1		16		150	8	1.580	36.03
2	TP2		16		150	8	1.580	36.03
3	TP3		16		150	3	1.580	18.96
4	TP4		8		17.100	2	0.395	13.51
TOTAL (KG) :								104.53

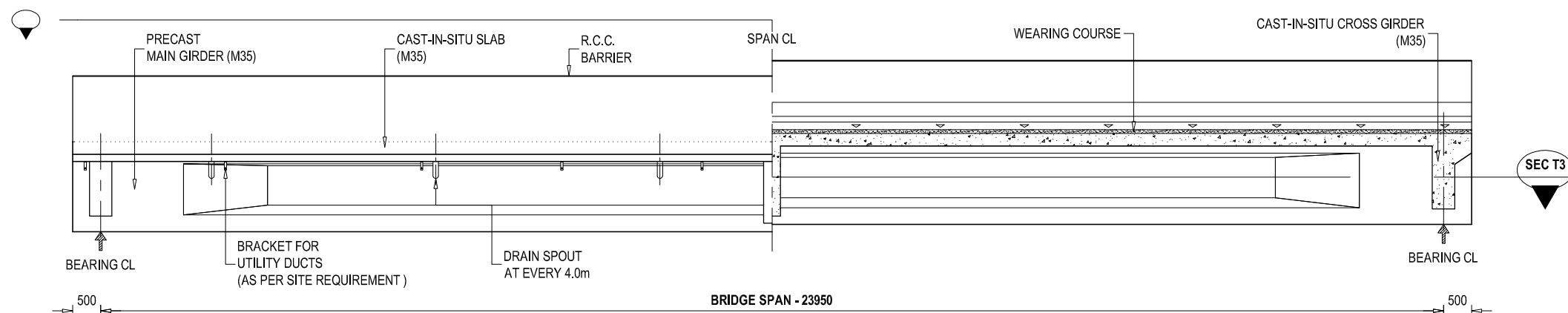
BAR BENDING SCHEDULE OF RCC SEISMIC ARRESTER - MID								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	TU1		16		150	13	1.580	72.85
2	TU2		12		150	8	0.889	29.87
TOTAL (KG) :								102.71

EMPLOYER		PROJECT NAME		DESIGN CONSULTANTS		Drawing Name		Scale:		Date:	
 Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamala-Dhalkebar-Pathlaiya Road Section (130 KM) of Mahendra Highway and Bridges	Joint Venture of		Designed By	Mr. R.A. Nec.No. 6431 CH/1/14 	PIER BAR BENDING SCHEDULE OF BRIDGE OVER RIVER JANGA PUL-1		AS SHOWN		03.08.2023	
		EPTISA Servicios De Ingeniera Madrid, Spain		Checked By	Mr. S.M. 	Reference Drawings		Chainage:		Drawing No.-KDP/DPR/STR/BR/JANGAPUL-1/DD-12	
		In Association With Udaya Consultancy, Geocom International, Sundar Kriti Consultant and Rays Consultant Private Limited		Approved By	Mr. H.B. 	-		270+870		Sheet No. 1/1	



HALF SECTIONAL PLAN VIEW OF SUPERSTRUCTURE AT SEC T1

SCALE - 1 : 100 @ A3 PAPER

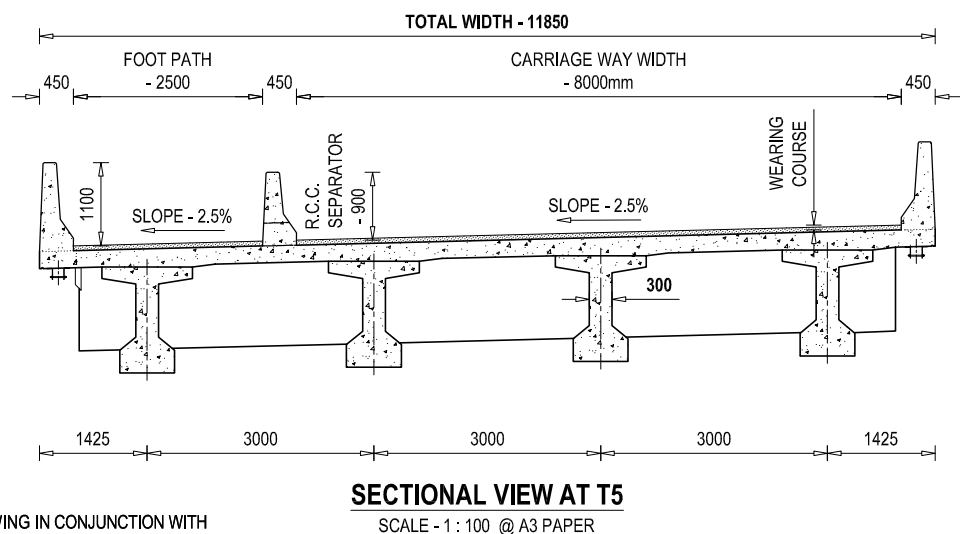
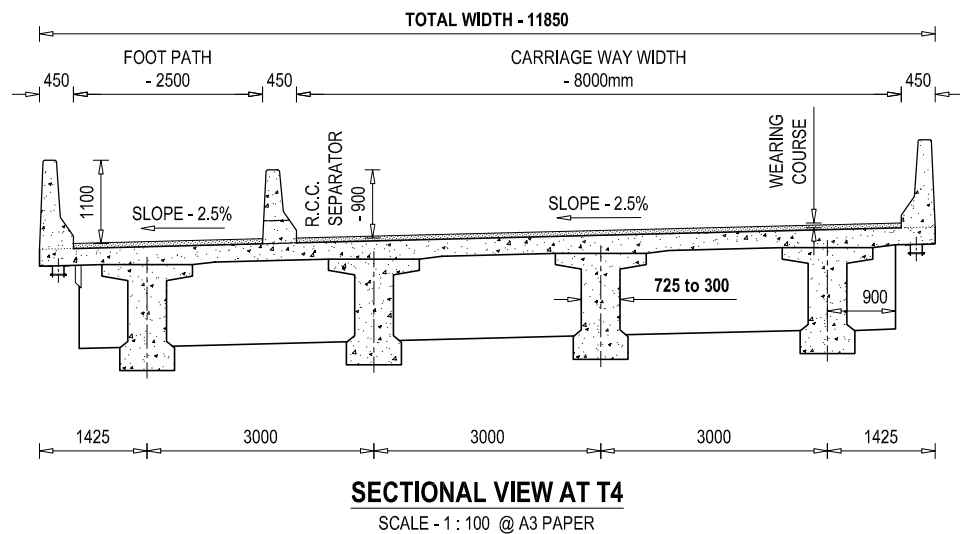
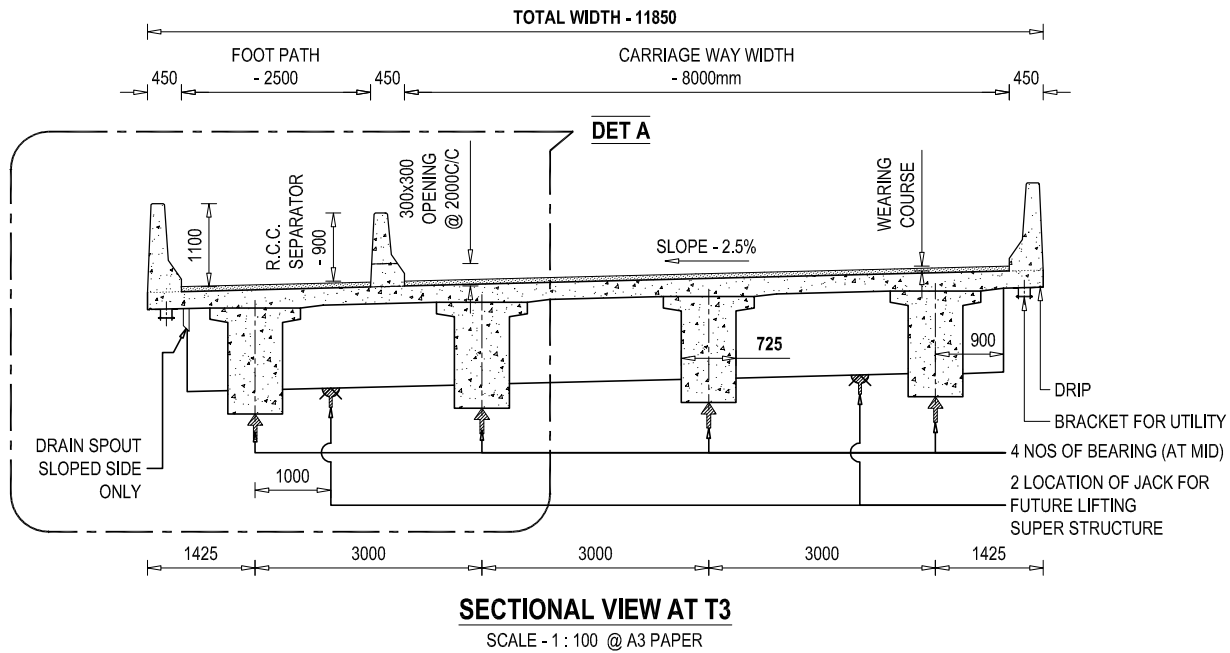


HALF ELEVATION SECTIONAL VIEW OF SUPERSTRUCTURE AT SEC T2

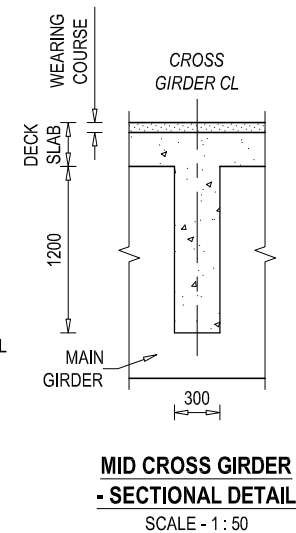
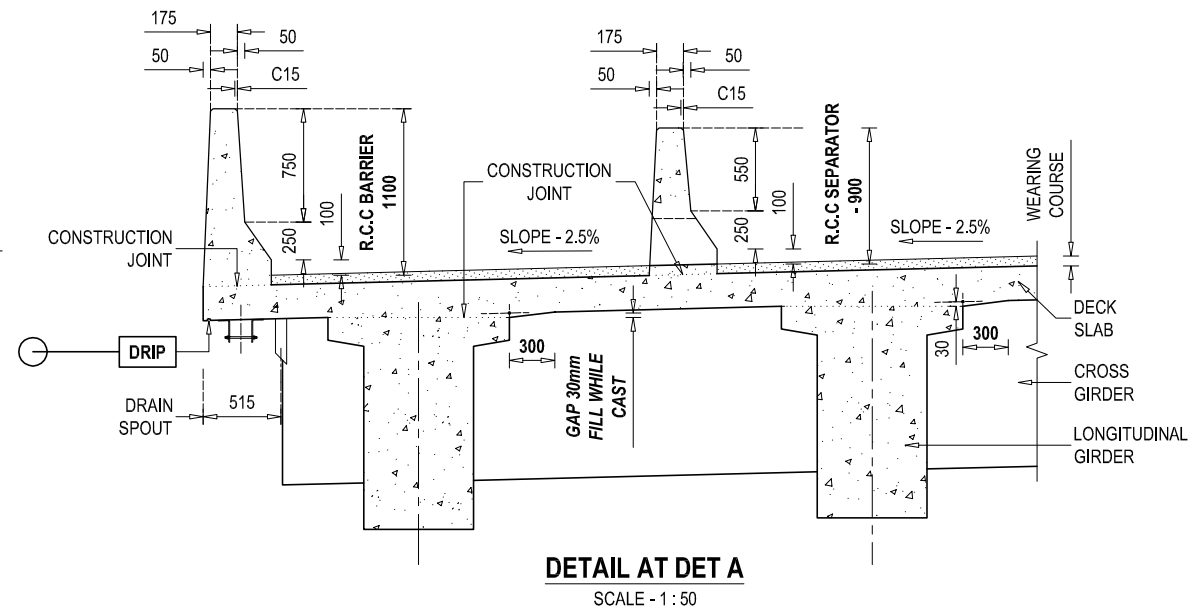
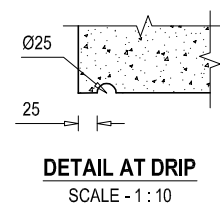
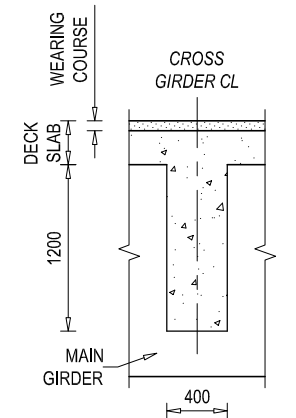
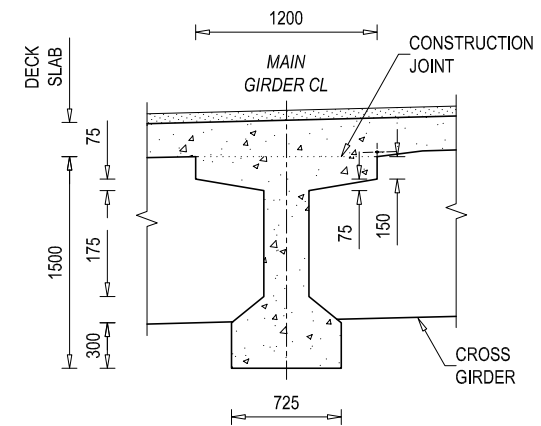
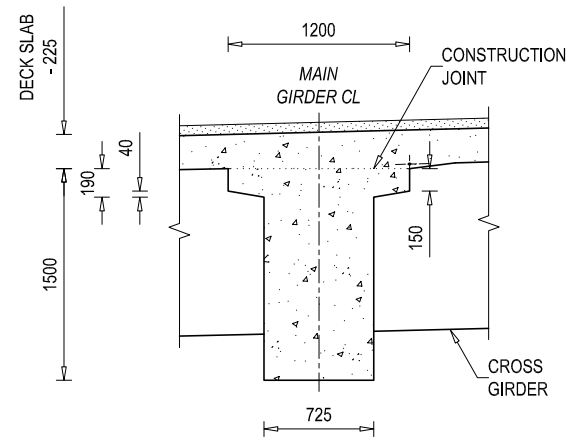
SCALE - 1 : 100 @ A3 PAPER

NOTE
READ THIS DRAWING IN CONJUNCTION WITH
DRG NO. KDP/DPR/STR/BR/JANGA PUL-1/DD-4

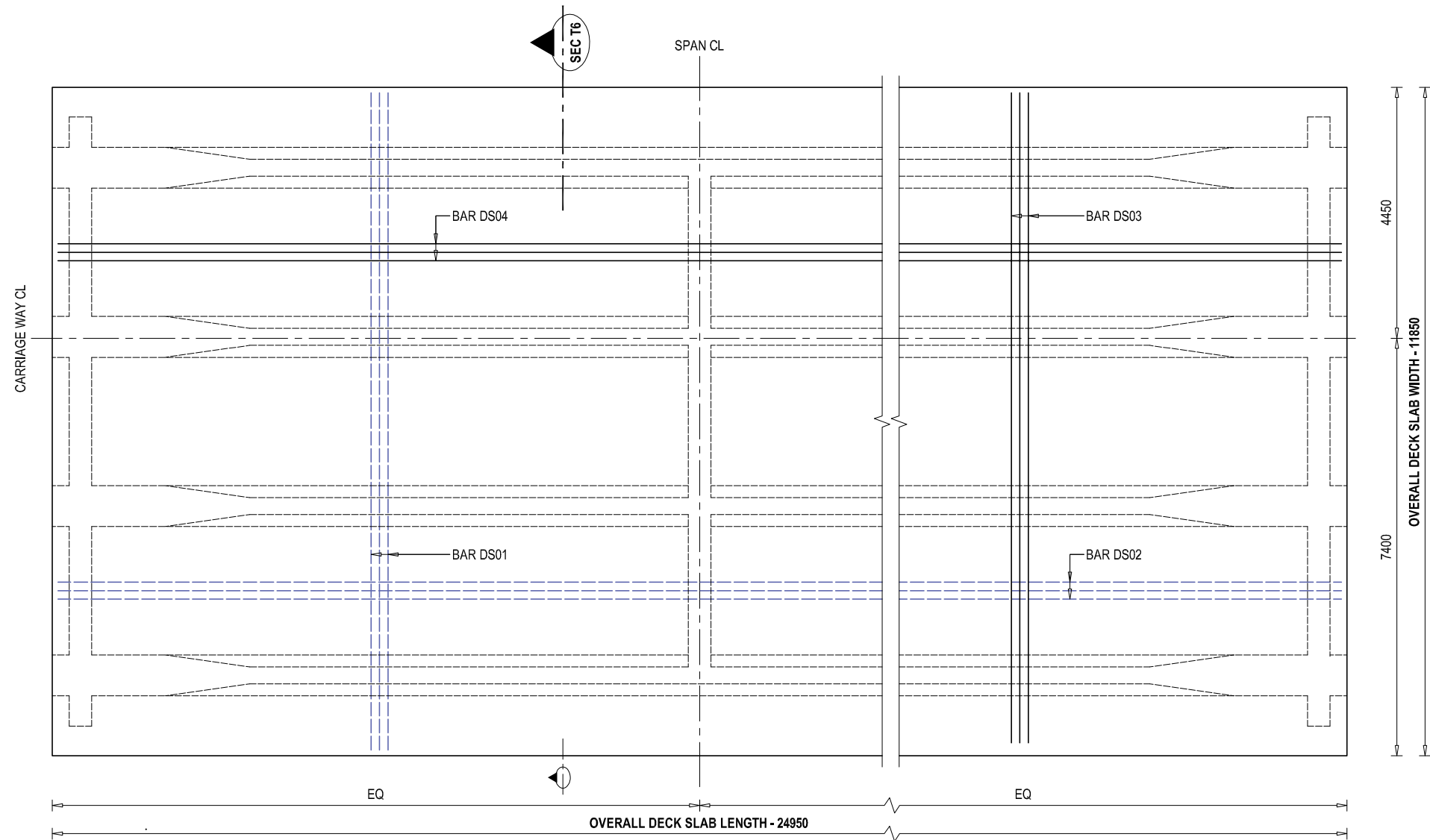
EMPLOYER	PROJECT NAME	DESIGN CONSULTANTS	Designed By	Mr. R.A.	Drawing Name	Scale:	Date:
 Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamala-Dhalkebar-Pathlaiya Road Section (130 KM) of Mahendra Highway and Bridges	Joint Venture of  EPTISA Servicios De Ingenieria Madrid, Spain  STUP Consultants Private Limited Kolkata, India In Association With Udaya Consultancy, Geocom International, Sundar Kriti Consultant and Rays Consultant Private Limited	Checked By	Mr. S.M.	SUPER STRUCTURE DETAILS OF BRIDGE OVER RIVER JANGA PUL-1 Reference Drawings KDP/DPR/STR/BR/JANGA PUL-1/DD-17	Chainage: 270+870	02.06.2023
			Approved By	Mr. H.B.			Drawing No.- KDP/DPR/STR/BR/JANGA PUL-1/DD-13
							Sheet No. 1 / 2



NOTE
READ THIS DRAWING IN CONJUNCTION WITH
DRG NO. KDP/DPR/STR/BR/JANGA PUL-1/DD-4

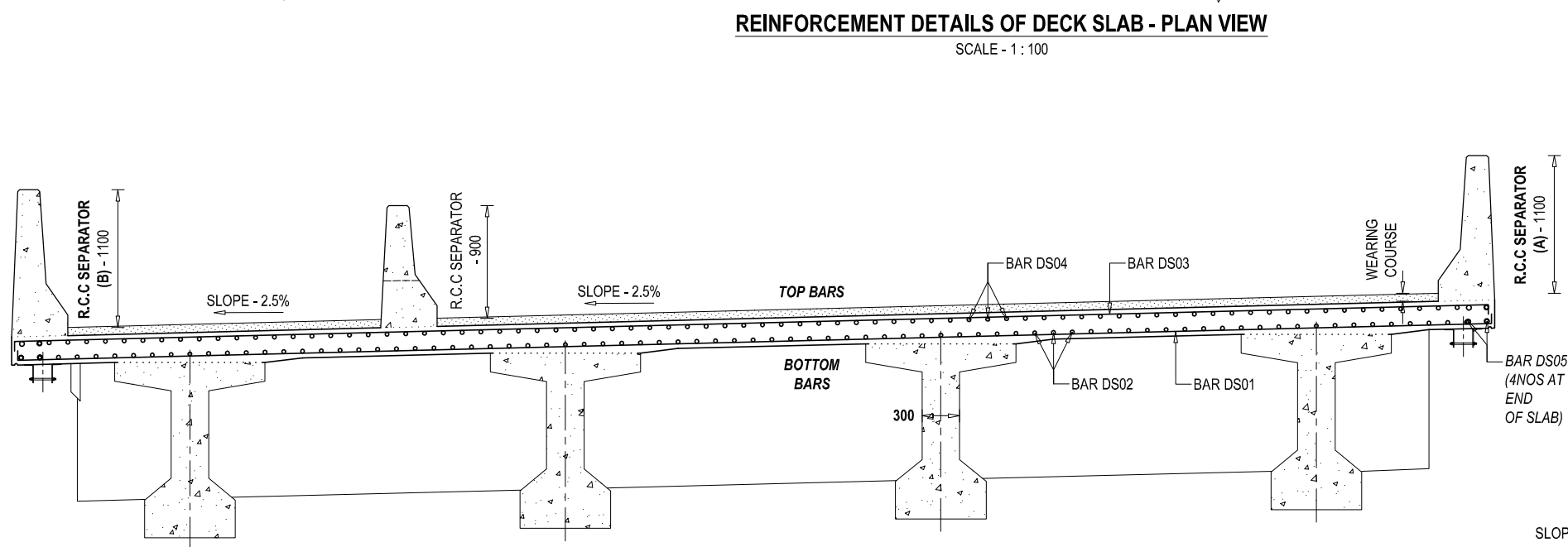


EMPLOYER	PROJECT NAME	DESIGN CONSULTANTS	Designed By	Drawing Name	Scale:	Date:
 Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamala-Dhalkebar-Pathlaiya Road Section (130 KM) of Mahendra Highway and Bridges	Joint Venture of  EPTISA Servicios De Ingeniera Madrid, Spain  STUP Consultants Private Limited Kolkata, India In Association With Udaya Consultancy, Geocom International, Sundar Kriti Consultant and Rays Consultant Private Limited	Mr. R.A. Nec.No. 6431 CIVIL 'A' Signature	SUPER STRUCTURE DETAILS OF BRIDGE OVER RIVER JANGA PUL-1 Reference Drawings KDP/DPR/STR/BR/JANGA PUL-1/DD-17	AS SHOWN Chainage: 270+870	02.06.2023 Drawing No.- KDP/DPR/STR/BR/JANGA PUL-1/DD-13 Sheet No. 2 / 2
			Checked By Mr. S.M. Signature			
			Approved By Mr. H.B. Signature			



REINFORCEMENT DETAILS OF DECK SLAB - PLAN VIEW

SCALE - 1 : 100

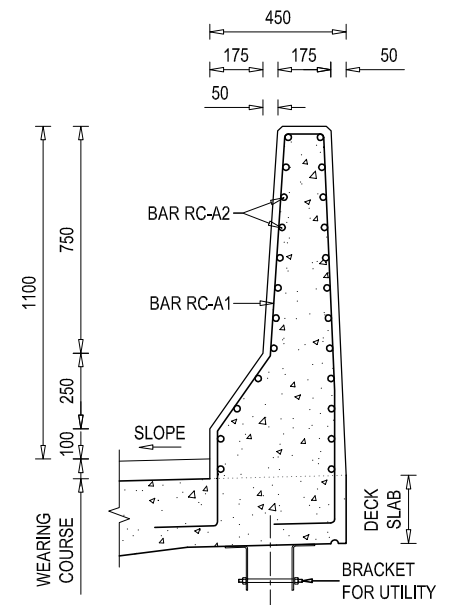


REINFORCEMENT DETAILS OF DECK SLAB - SECTIONAL VIEW AT T6

SCALE - 1 : 50

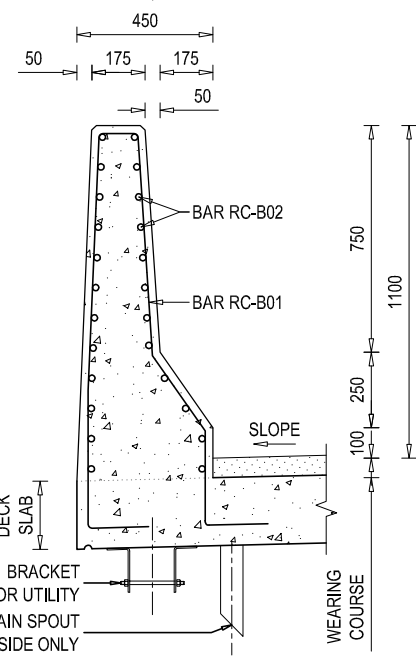
LEGEND FOR REINFORCEMENT BAR

<u>CODE</u>	<u>FULL FORM</u>		
DS	- DECK SLAB	CG	- CROSS GIRDER
RB	- R.C.C BARRIER	AS	- APPROACH SLAB
RS	- R.C.C SEPARATOR	ST	- STOPPER
MG	- MAIN GIRDER	**	- ***
TOP BAR OR NEAR FACE REINFORCEMENT BOTTOM BAR OR FAR FACE REINFORCEMENT			



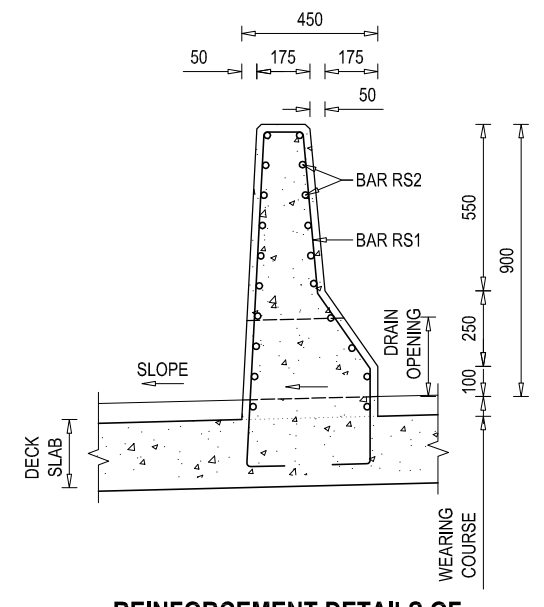
REINFORCEMENT DETAILS OF R.C.C BARRIER (A)- SECTIONAL VIEW

SCALE - 1 : 25



REINFORCEMENT DETAILS OF R.C.C BARRIER (B)- SECTIONAL VIEW

SCALE - 1 : 25

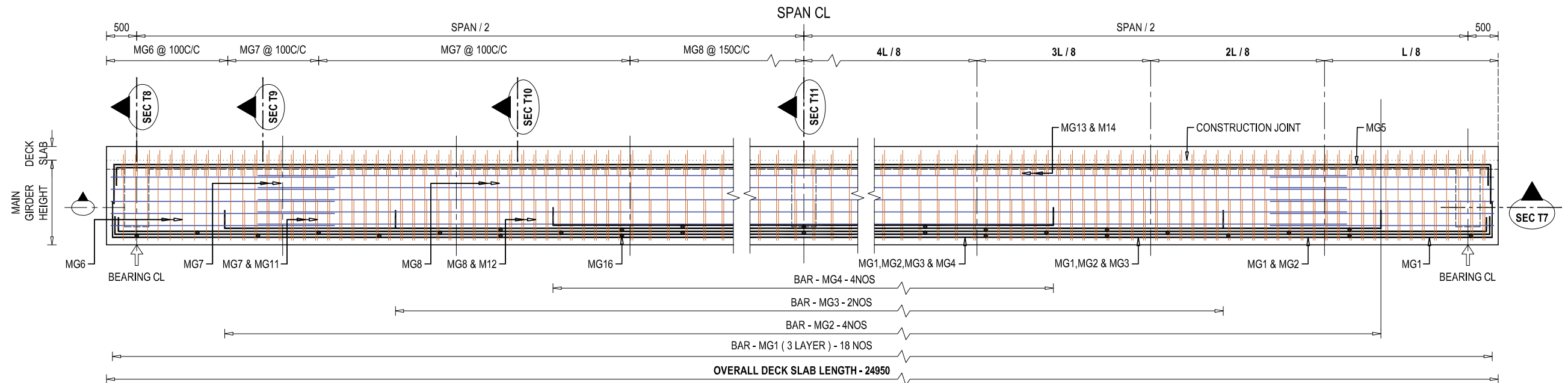


REINFORCEMENT DETAILS OF R.C.C SEPARATOR - SECTIONAL VIEW

SCALE - 1 : 25

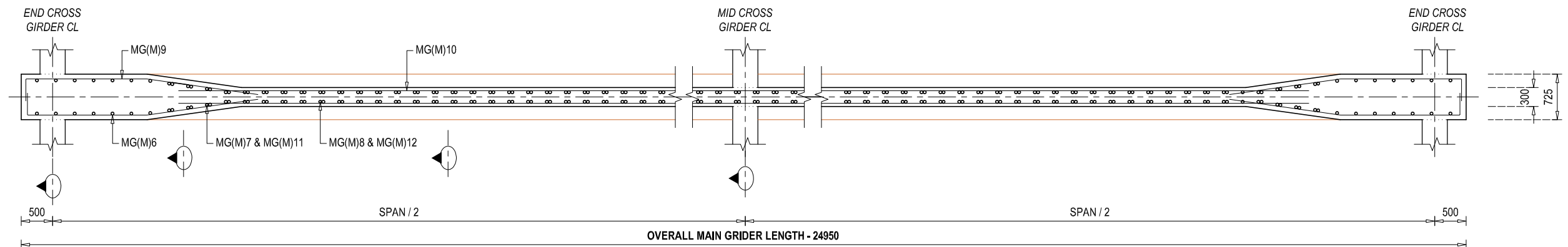
NOTE
READ THIS DRAWING IN CONJUNCTION WITH
DRG NO. KDP/DPR/STR/BR/JANGA PUL-1/DD-4

EMPLOYER	PROJECT NAME	DESIGN CONSULTANTS	Designed By	Mr. R.A.	Drawing Name	Scale:	Date:
 Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamala-Dhalkebar-Pathlaiya Road Section (130 KM) of Mahendra Highway and Bridges	Joint Venture of  EPTISA Servicios De Ingenieria Madrid, Spain  STUP Consultants Private Limited Kolkata, India In Association With Udaya Consultancy, Geocom International, Sundar Kriti Consultant and Rays Consultant Private Limited	Checked By	Mr. S.M.	DECK SLAB DETAILS OF BRIDGE OVER RIVER JANGA PUL-1	AS SHOWN	02.06.2023
			Approved By	Mr. H.B.	Reference Drawings	Chainage:	Drawing No.- KDP/DPR/STR/BR/JANGA PUL-1/DD-14
					KDP/DPR/STR/BR/JANGA PUL-1/DD-17	270+870	Sheet No. 1 / 1



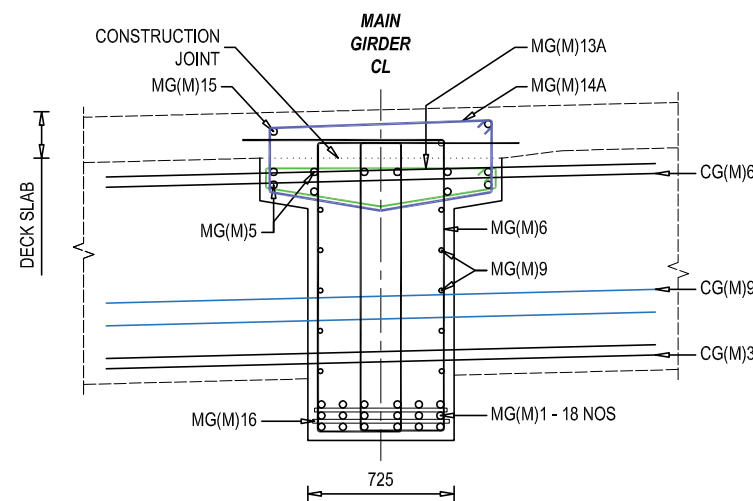
REINFORCEMENT DETAILS OF MAIN GIRDER - SECTIONAL ELEVATION VIEW

SCALE - 1 : 75



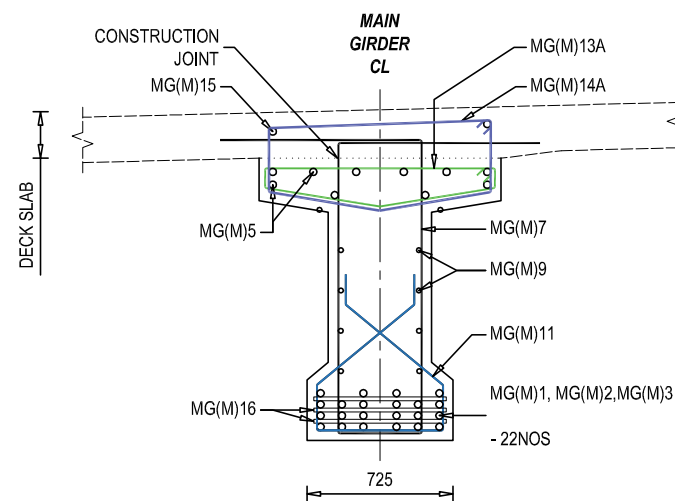
REINFORCEMENT DETAILS OF MAIN GIRDER (MID) - SECTIONAL PLAN VIEW AT T7(M)

SCALE - 1 : 75



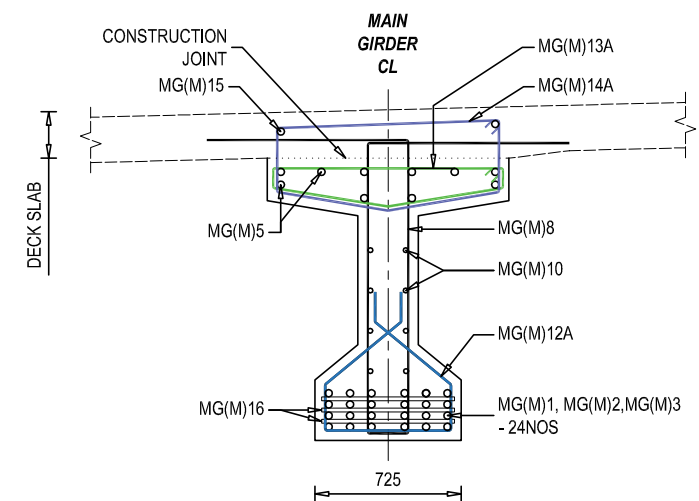
REINFORCEMENT DETAILS OF MAIN GIRDER SECTIONAL VIEW AT T8

SCALE - 1 : 50



REINFORCEMENT DETAILS OF MAIN GIRDER SECTIONAL VIEW AT T9

SCALE - 1 : 50

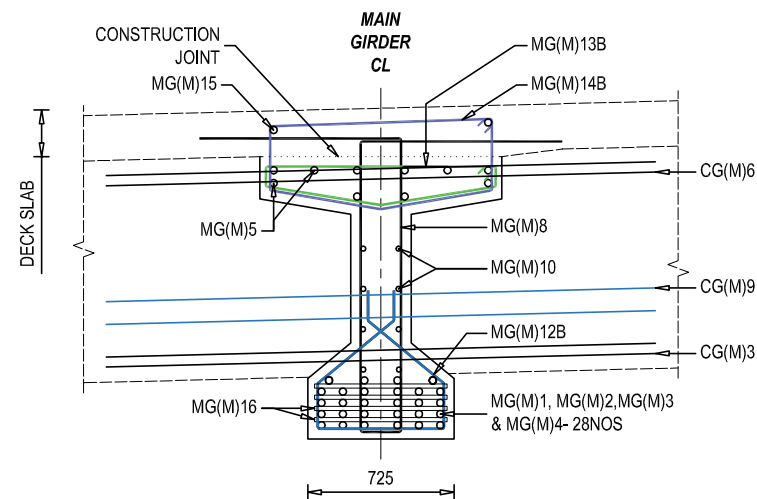


REINFORCEMENT DETAILS OF MAIN GIRDER SECTIONAL VIEW AT T10

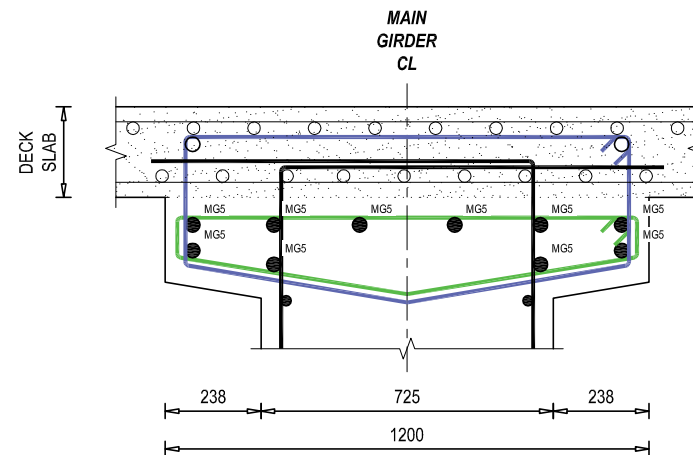
SCALE - 1 : 50

NOTE
READ THIS DRAWING IN CONJUNCTION WITH
DRG NO. KDP/DPR/STR/BR/JANGA PUL-1/DD-4

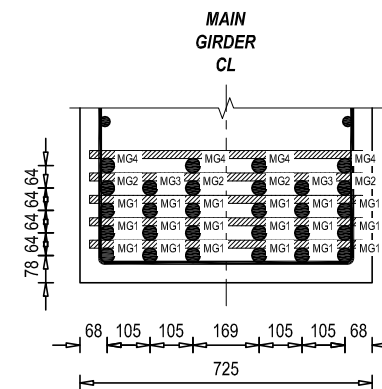
EMPLOYER	PROJECT NAME	DESIGN CONSULTANTS		Designed By	Mr. R.A.	Drawing Name	Scale:	Date:
 Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamala-Dhalkebar-Pathlaiya Road Section (130 KM) of Mahendra Highway and Bridges	Joint Venture of			Nec.No. 6431 DLR/ 'A'			
		 EPTISA Servicios De Ingenieria Madrid, Spain	 STUP Consultants Private Limited Kolkatta, India	Mr. S.M.	Signature			
		In Association With Udaya Consultancy, Geocom International, Sundar Kirti Consultant and Rays Consultant Private Limited		Checked By	Mr. H.B.	Signature		
				Approved By		Reference Drawings	Chainage:	
						KDP/DPR/STR/BR/JANGA PUL-1/DD-17	270+870	Drawing No.- KDP/DPR/STR/BR/JANGA PUL-1/DD-15 Sheet No. 1 / 2



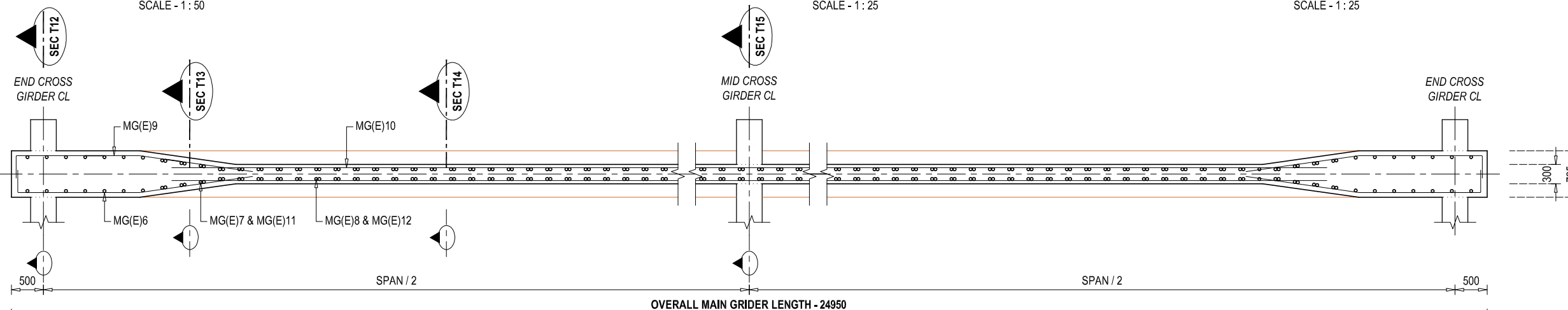
**REINFORCEMENT DETAILS OF MAIN GIRDER
SECTIONAL VIEW AT T11**
SCALE - 1 : 50



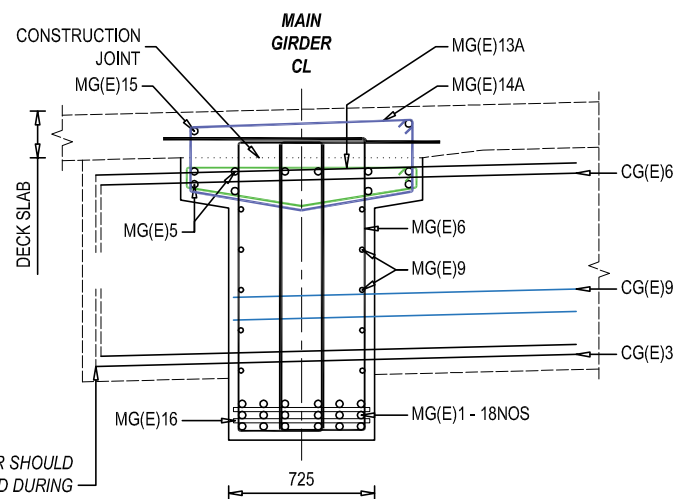
**TOP BAR WEB REINFORCEMENT DETAILS
OF MAIN GIRDER**
SCALE - 1 : 25



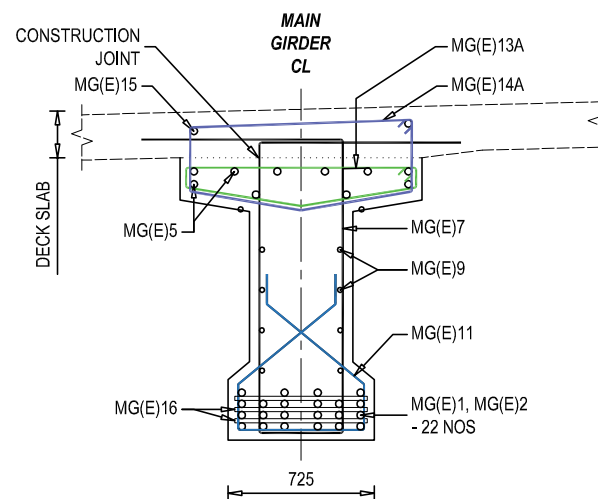
**BOTTOM BAR WEB REINFORCEMENT DETAILS
OF MAIN GIRDER**
SCALE - 1 : 25



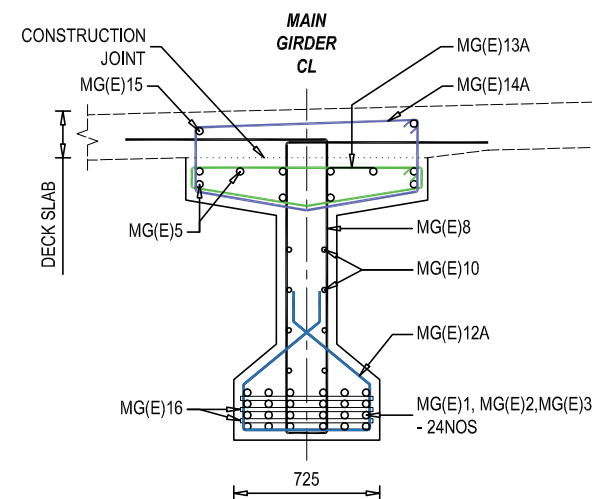
REINFORCEMENT DETAILS OF MAIN GIRDER (END) - SECTIONAL PLAN VIEW AT T7(E)
SCALE - 1 : 75



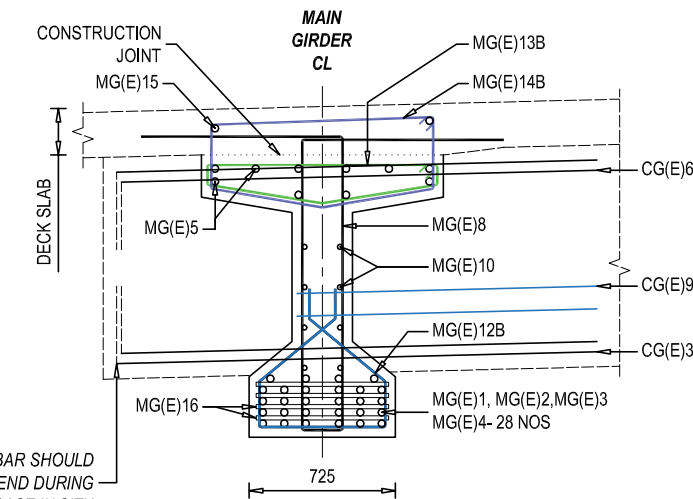
**REINFORCEMENT DETAILS OF MAIN GIRDER
SECTIONAL VIEW AT T12**
SCALE - 1 : 50



**REINFORCEMENT DETAILS OF MAIN GIRDER
SECTIONAL VIEW AT T13**
SCALE - 1 : 50



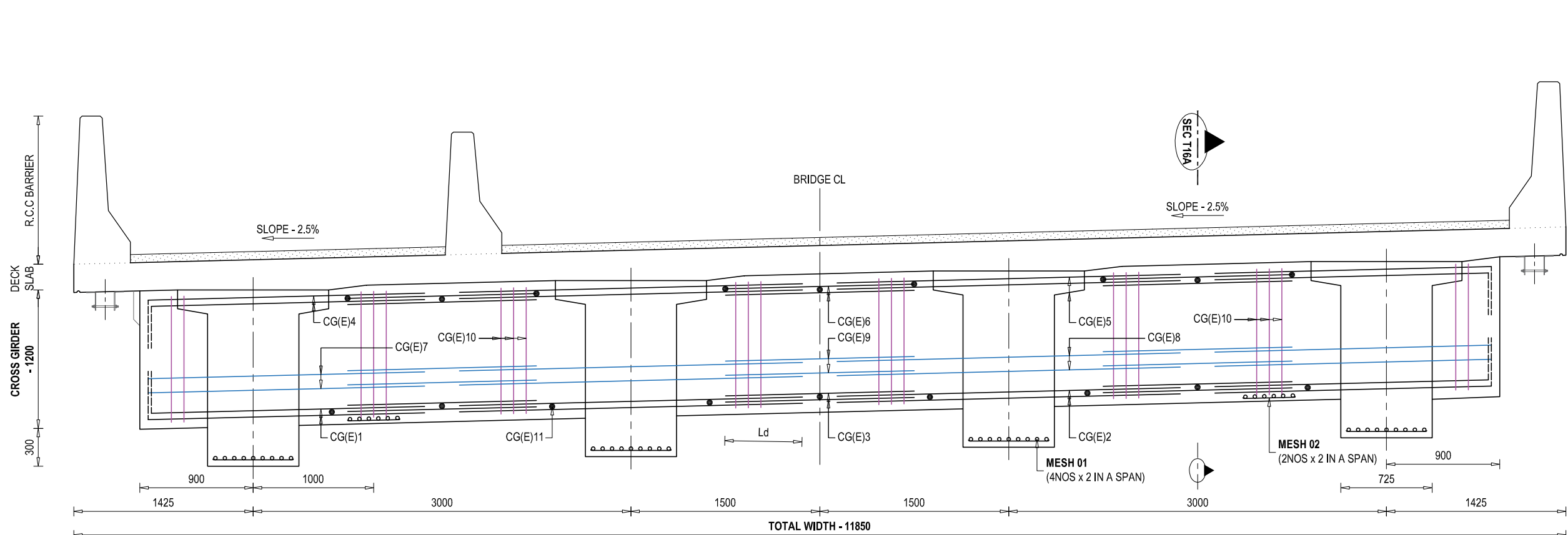
**REINFORCEMENT DETAILS OF MAIN GIRDER
SECTIONAL VIEW AT T14**
SCALE - 1 : 50



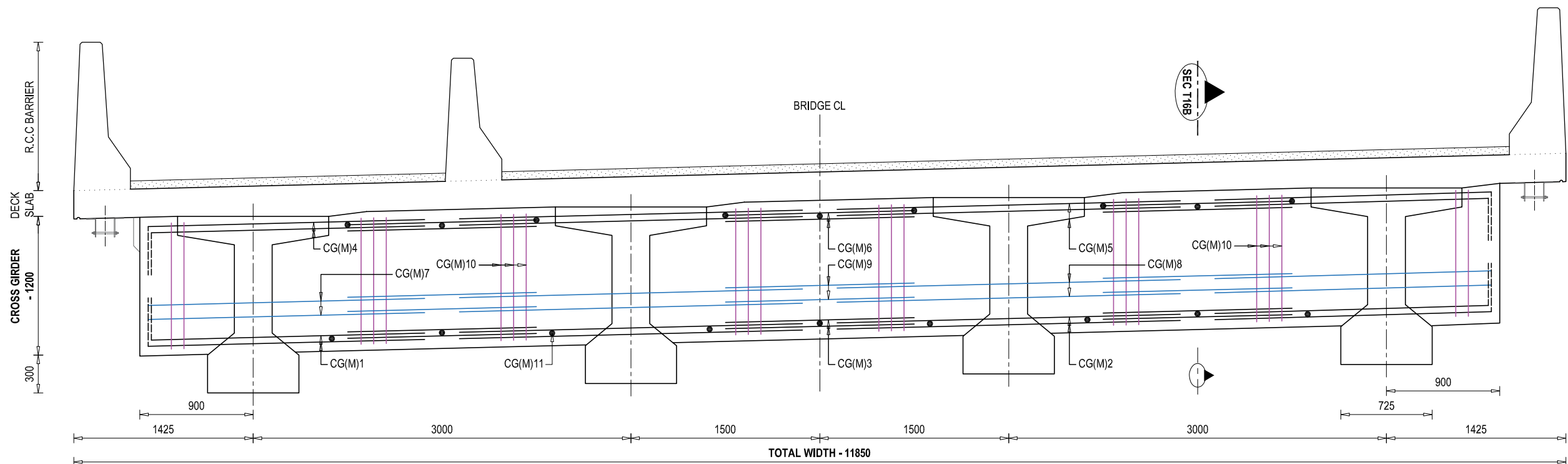
**REINFORCEMENT DETAILS OF MAIN GIRDER
SECTIONAL VIEW AT T15**
SCALE - 1 : 50

NOTE
READ THIS DRAWING IN CONJUNCTION WITH
DRG NO. KDP/DPR/STR/BR/JANGA PUL-1/DD-4

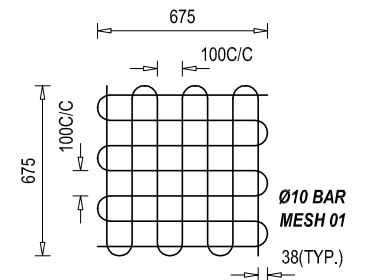
EMPLOYER	PROJECT NAME	DESIGN CONSULTANTS	Designed By	Mr. R.A.	Drawing Name	Scale:	Date:
Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamala-Dhalkebar-Pathlaiya Road Section (130 KM) of Mahendra Highway and Bridges	Joint Venture of EPTISA Servicios De Ingeniera Madrid, Spain STUP Consultants Private Limited Kolkata, India	Checked By	Mr. S.M.	MAIN GIRDER REINFORCEMENT DETAILS OF BRIDGE OVER RIVER JANGA PUL-1	AS SHOWN	02.06.2023
		In Association With Udaya Consultancy, Geocom International, Sundar Kriti Consultant and Rays Consultant Private Limited	Approved By	Mr. H.B.	Reference Drawings KDP/DPR/STR/BR/JANGA PUL-1/DD-17	Chainage: 270+870	Drawing No.- KDP/DPR/STR/BR/JANGA PUL-1/DD-15 Sheet No. 2 / 2



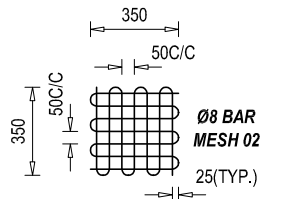
REINFORCEMENT DETAILS OF END CROSS GIRDER
SCALE - 1 : 50



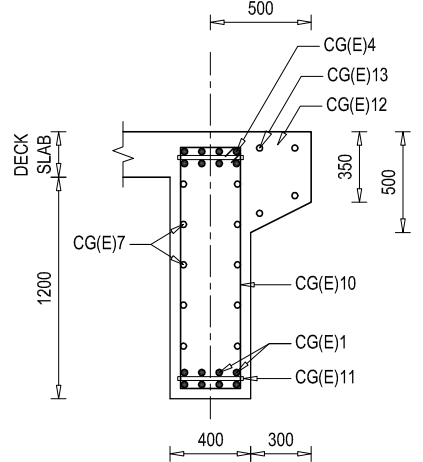
REINFORCEMENT DETAILS OF MID CROSS GIRDER
SCALE - 1 : 50



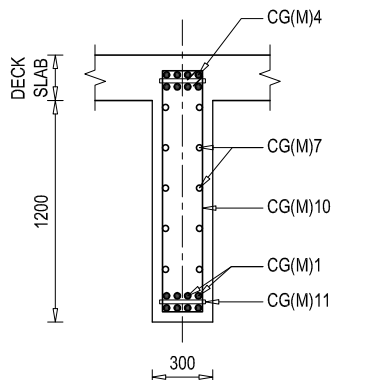
REINFORCEMENT DETAILS OF BEARING MESH
SCALE - 1 : 50



REINFORCEMENT DETAILS OF LIFTING MESH
SCALE - 1 : 50



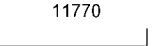
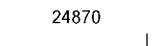
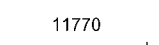
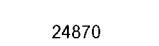
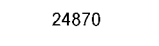
SECTIONAL REINFORCEMENT DETAILS OF END CROSS GIRDER - SEC T16A
SCALE - 1 : 50

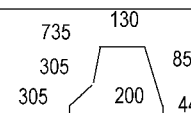
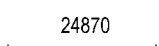


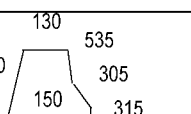
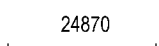
SECTIONAL REINFORCEMENT DETAILS OF MID CROSS GIRDER - SEC T16B
SCALE - 1 : 50

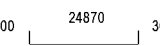
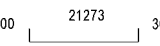
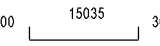
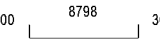
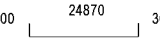
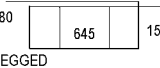
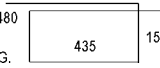
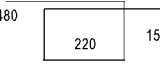
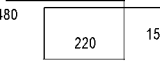
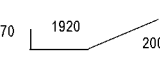
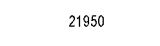
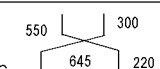
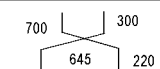
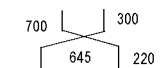
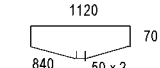
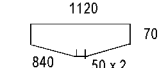
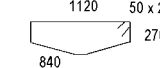
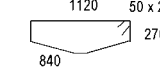
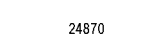
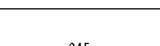
NOTE
READ THIS DRAWING IN CONJUNCTION WITH
DRG NO. KDP/DPR/STR/BR/JANGA PUL-1/DD-4

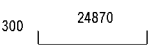
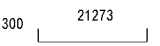
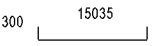
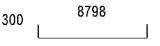
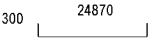
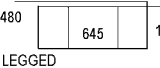
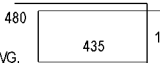
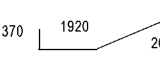
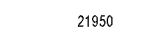
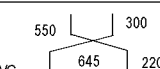
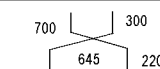
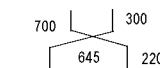
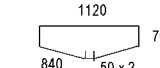
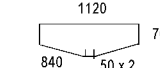
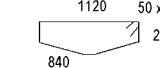
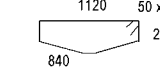
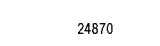
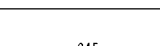
EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	PROJECT NAME Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamala-Dhalkebar-Pathlaiya Road Section (130 KM) of Mahendra Highway and Bridges	DESIGN CONSULTANTS Joint Venture of EPTISA Servicios De Ingeniera Madrid, Spain STUP Consultants Private Limited Kolkatta, India In Association With Udaya Consultancy, Geocom International, Sundar Kriti Consultant and Rays Consultant Private Limited	Designed By Mr. R.A. Nec.No. 6431 CIVIL 'A' Checked By Mr. S.M. Approved By Mr. H.B.	Drawing Name CROSS GIRDER REINFORCEMENT DETAILS OF BRIDGE OVER RIVER JANGA PUL-1 Reference Drawings KDP/DPR/STR/BR/JANGA PUL-1/DD-17	Scale: AS SHOWN Chainage: 270+870	Date: 02.06.2023 Drawing No:- KDP/DPR/STR/BR/JANGA PUL-1/DD-16 Sheet No. 1 / 1
---	--	---	---	--	---	---

BAR BENDING SCHEDULE OF DECK SLAB (1SPAN)								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	DS01	150  150	16	150	12.070	167	1.580	3185.29
2	DS02	150  150	10	150	25.170	76	0.617	1180.81
3	DS03	150  150	16	150	12.070	167	1.580	3185.29
5	DS04	150  150	10	150	25.170	76	0.617	1180.81
6	DS05	 150	16		24.870	8	1.580	314.41
TOTAL (KG) :								9046.61

BAR BENDING SCHEDULE OF R.C.C BARRIER (A) (1SPAN)								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	RC-A1		16	150	3.170	167	1.580	836.57
2	RC-A2	150  150	10	150	25.170	20	0.617	310.74
TOTAL (KG) :								1147.31

BAR BENDING SCHEDULE OF R.C.C SEPARATOR (1SPAN)								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	RS1		16	150	2.695	167	1.580	711.21
2	RS2	150  150	10	150	25.170	17	0.617	264.13
TOTAL (KG) :								975.34

BAR BENDING SCHEDULE OF MID MAIN GIRDER (1SPAN)								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	MG(M)1	300  300	32		25.470	18	6.321	2897.92
2	MG(M)2	300  300	32		21.873	4	6.321	553.04
3	MG(M)3	300  300	32		15.635	2	6.321	197.66
4	MG(M)4	300  300	32		9.398	4	6.321	237.62
5	MG(M)5	300  300	12		25.470	10	0.889	226.40
6	MG(M)6		12	100	9.660	42	0.889	360.64
7	MG(M)7		12	100	5.325	32	0.889	151.47
8	MG(M)8A		12	100	4.680	91	0.889	378.56
9	MG(M)8B		12	150	4.680	43	0.889	178.88
10	MG(M)9		12	200	4.290	32	0.889	122.03
11	MG(M)10	 21950	12	200	21.950	16	0.889	312.18
12	MG(M)11		12	100	2.785	32	0.889	79.22
13	MG(M)12A		12	150	3.085	91	0.889	249.54
14	MG(M)12B		12	150	3.085	43	0.889	117.92
15	MG(M)13A		12	100	3.040	189	0.889	510.72
16	MG(M)13B		12	150	3.040	43	0.889	116.20
17	MG(M)14A		12	100	3.440	189	0.889	577.92
18	MG14B		12	150	3.440	43	0.889	131.48
19	MG(M)15	 150	12		24.870	2	0.889	44.21
19	MG(M)16	 150	32	1500	0.645	68	6.321	277.24
TOTAL (KG) :								7720.83

BAR BENDING SCHEDULE OF END MAIN GIRDER (1SPAN)								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	MG(E)1	300  300	32		25.470	18	6.321	2897.92
2	MG(E)2	300  300	32		21.873	4	6.321	553.04
3	MG(E)3	300  300	32		15.635	2	6.321	197.66
4	MG(E)4	300  300	32		9.398	4	6.321	237.62
5	MG(E)5	300  300	12		25.470	10	0.889	226.40
6	MG(E)6		12	100	9.660	42	0.889	360.64
7	MG(E)7		12	100	5.325	32	0.889	151.47
8	MG(E)8A		12	100	4.680	91	0.889	378.56
9	MG(E)8B		12	150	4.680	43	0.889	178.88
10	MG(E)9		12	200	4.290	32	0.889	122.03
11	MG(E)10	 21950	12	200	21.950	16	0.889	312.18
12	MG(E)11		12	100	2.785	32	0.889	79.22
13	MG(E)12A		12	150	3.085	91	0.889	249.54
14	MG(E)12B		12	150	3.085	43	0.889	117.92
15	MG(E)13A		12	100	3.040	189	0.889	510.72
16	MG(E)13B		12	150	3.040	43	0.889	116.20
17	MG(E)14A		12	100	3.440	189	0.889	577.92
18	MG14B		12	150	3.440	43	0.889	131.48
19	MG(E)15	 150	12		24.870	2	0.889	44.21
19	MG(E)16	 150	32	1500	0.645	68	6.321	277.24
TOTAL (KG) :								7720.83

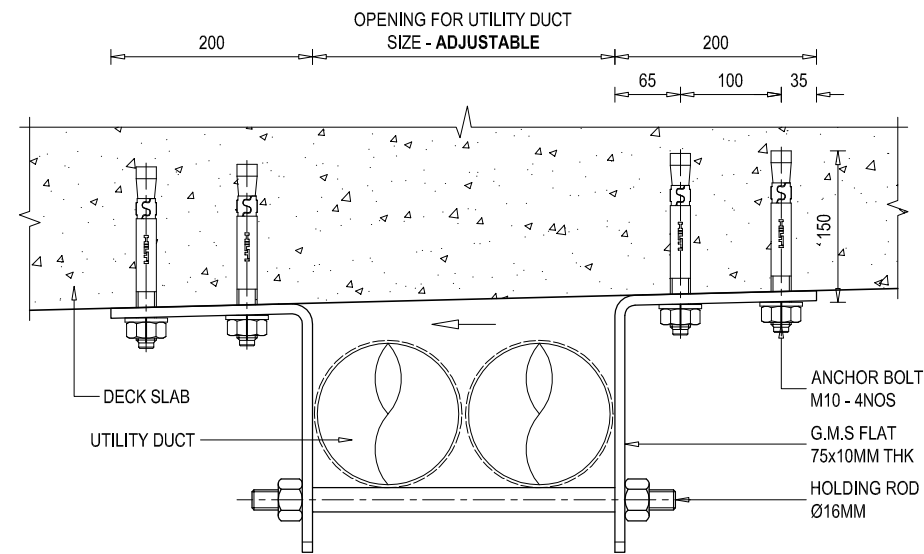
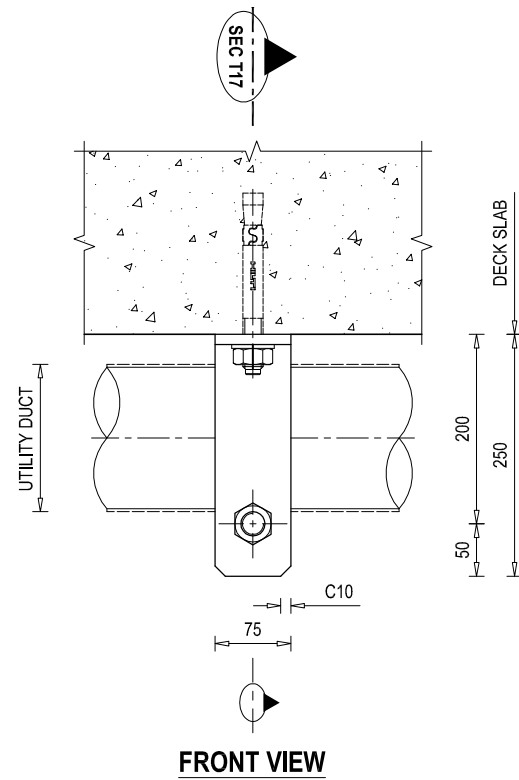
EMPLOYER		PROJECT NAME		DESIGN CONSULTANTS		Drawing Name		Scale:		Date:	
 Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division		Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamala-Dhalkebar-Pathlaiya Road Section (130 KM) of Mahendra Highway and Bridges		Joint Venture of		Designed By	Mr. R.A.	AS SHOWN		02.06.2023	
				EPTISA Servicios De Ingenieria Madrid, Spain		Checked By	Mr. S.M.			Drawing No.- KDP/DPR/STR/BR/JANGA PUL-1/DD-17	
				STUP Consultants Private Limited Kolkata, India		Approved By	Mr. H.B.			Sheet No. 1 / 2	
				In Association With		Reference Drawings		Chainage:			
				Udaya Consultancy, Geocom International, Sundar Kriti Consultant and Rays Consultant Private Limited				270+870			

BAR BENDING SCHEDULE OF MESH (1SPAN)								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	MESH 01	675 @ 100	10		9.450	8	0.617	46.67
2	MESH 02	350 @ 50	10		4.900	4	0.617	12.10
TOTAL (KG) :								58.77

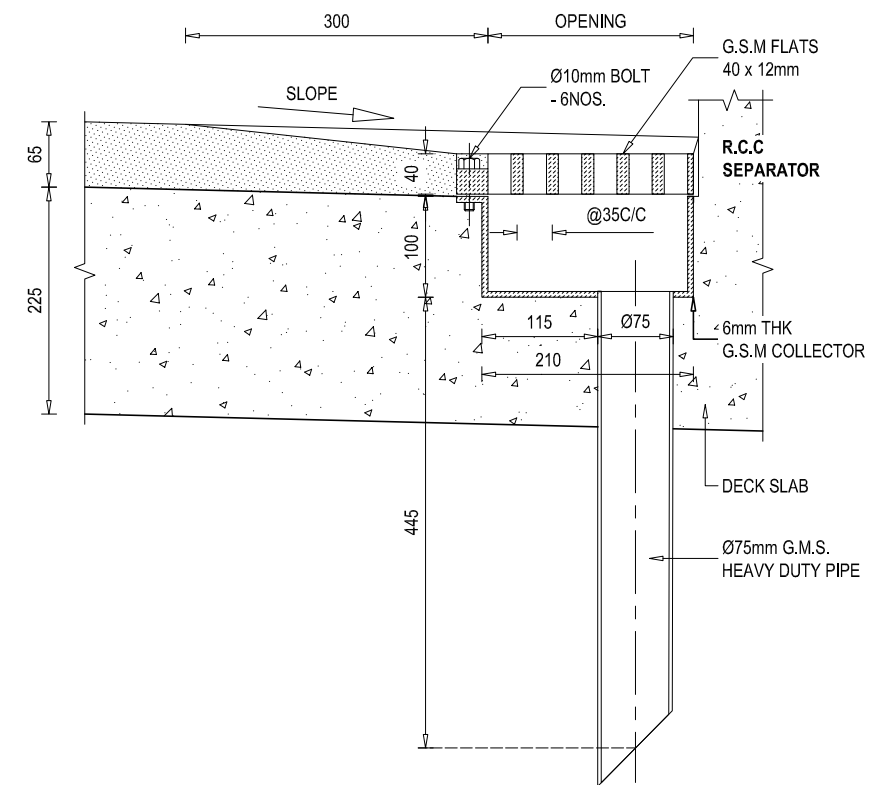
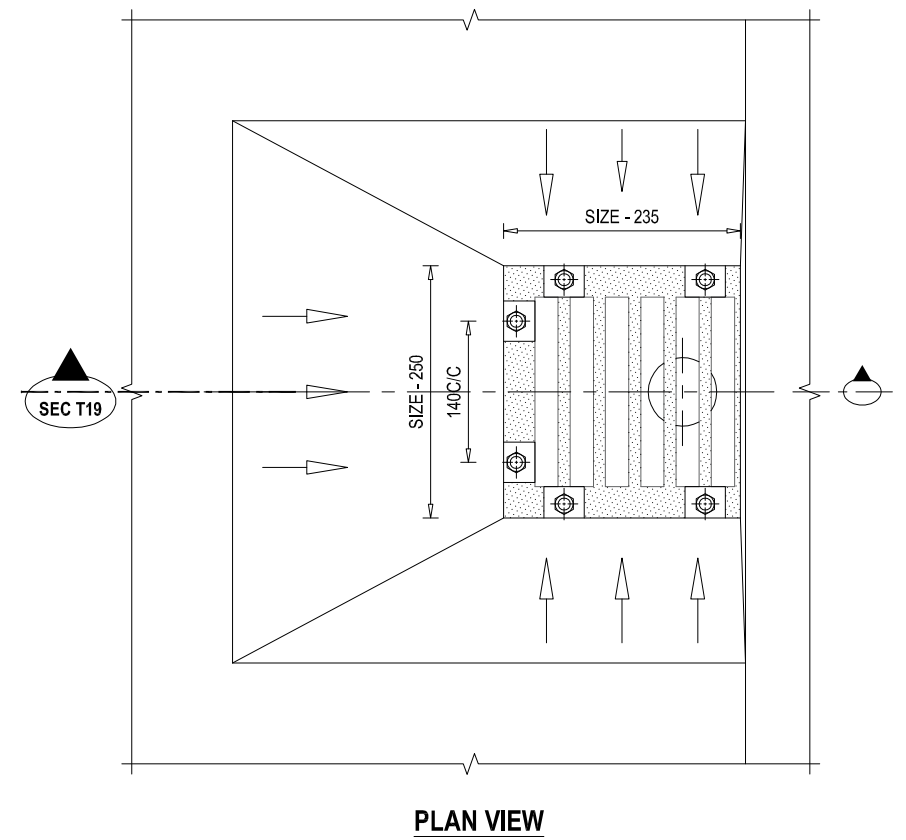
BAR BENDING SCHEDULE OF END CROSS GIRDER (1SPAN)								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	CG(E)1	300 1825	20		2.125	8	2.469	41.98
2	CG(E)2	2625	20		2.625	8	2.469	51.85
3	CG(E)3	1675	20		1.675	8	2.469	33.09
4	CG(E)4	300 1825	20		2.125	8	2.469	41.98
5	CG(E)5	2625	20		2.625	8	2.469	51.85
6	CG(E)6	1675	20		1.675	8	2.469	33.09
7	CG(E)7	1825	12	150	1.825	8	0.889	12.98
8	CG(E)8	2625	12	150	2.625	8	0.889	18.67
9	CG(E)9	1675	12	150	1.675	8	0.889	11.91
10	CG(E)10	50 x 2 320 1320	12	200	1.740	39	0.889	60.32
11	CG(E)11	320	20	1000	0.320	18	2.469	14.22
12	CG(E)12	800 260 300 390	16	150	1.750	79	1.580	218.47
13	CG(E)13	11770	12		11.770	6	0.889	62.77
TOTAL (KG) :								653.17
TOTAL NOS OF CROSS GIRDER :								2.00
TOTAL WEIGHT (KG) :								1306.33

BAR BENDING SCHEDULE OF MID CROSS GIRDER (1SPAN)								
S.No.	BAR MARK	DESCRIPTION OF BAR	BAR DIA.(MM)	SPACING (MM)	BAR LENGTH (M)	No. OF BARS	UNIT WEIGHT (Kg/m)	TOTAL WEIGHT (Kg)
1	CG(M)1	300 1825	20		1.920	8	2.469	37.93
2	CG(M)2	2625	20		2.945	8	2.469	58.17
3	CG(M)3	1675	20		1.995	8	2.469	39.41
4	CG(M)4	300 1825	20		1.920	8	2.469	37.93
5	CG(M)5	2625	20		2.625	8	2.469	51.85
6	CG(M)6	1675	20		1.675	8	2.469	33.09
7	CG(M)7	1825	12	150	1.620	8	0.889	11.52
8	CG(M)8	2625	12	150	2.625	8	0.889	18.67
9	CG(M)9	1675	12	150	1.675	8	0.889	11.91
10	CG(M)10	50 x 2 320 1320	12	200	1.740	39	0.889	60.32
11	CG(M)11	320	20	1000	0.320	18	2.469	14.22
TOTAL (KG) :								375.01

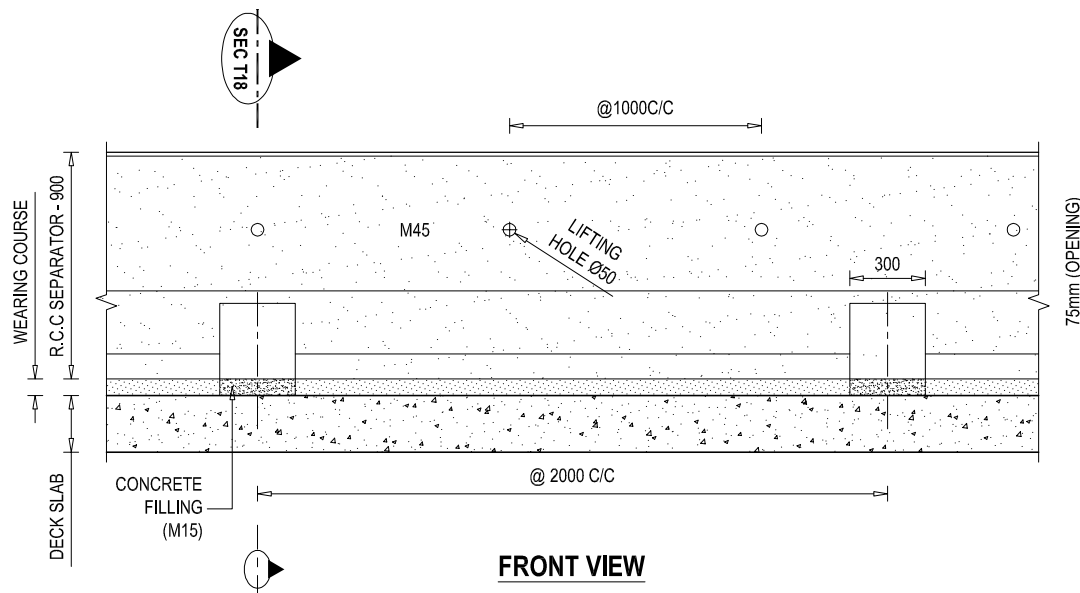
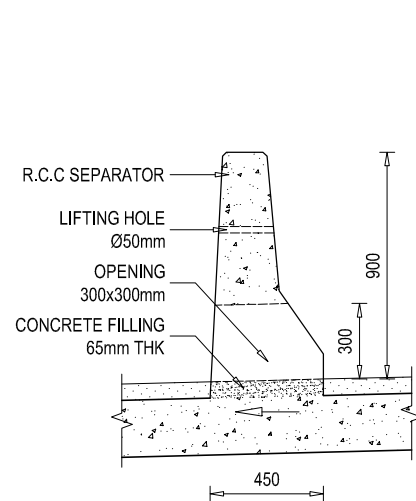
EMPLOYER	PROJECT NAME	DESIGN CONSULTANTS	Designed By	Mr. R.A.	Drawing Name	Scale:	Date:
 Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamala-Dhalkebar-Pathlaiya Road Section (130 KM) of Mahendra Highway and Bridges	Joint Venture of	Checked By	Mr. S.M.	SUPER STRUCTURE BAR BENDING SCHEDULE OF BRIDGE OVER RIVER JANGA PUL-1	AS SHOWN	02.06.2023
		 EPTISA Servicios De Ingeniera Madrid, Spain  STUP Consultants Private Limited Kolkatta, India	Approved By	Mr. H.B.	Reference Drawings	Chainage:	Drawing No.- KDP/DPR/STR/BR/JANGA PUL-1/DD-17
		In Association With Udaya Consultancy, Geocom International, Sundar Kriti Consultant and Rays Consultant Private Limited			-	270+870	Sheet No. 2 / 2



DETAILS OF GALVANIZED MILD STEEL (G.M.S)
UTILITY DUCT CLAMP
 SCALE - 1 : 10

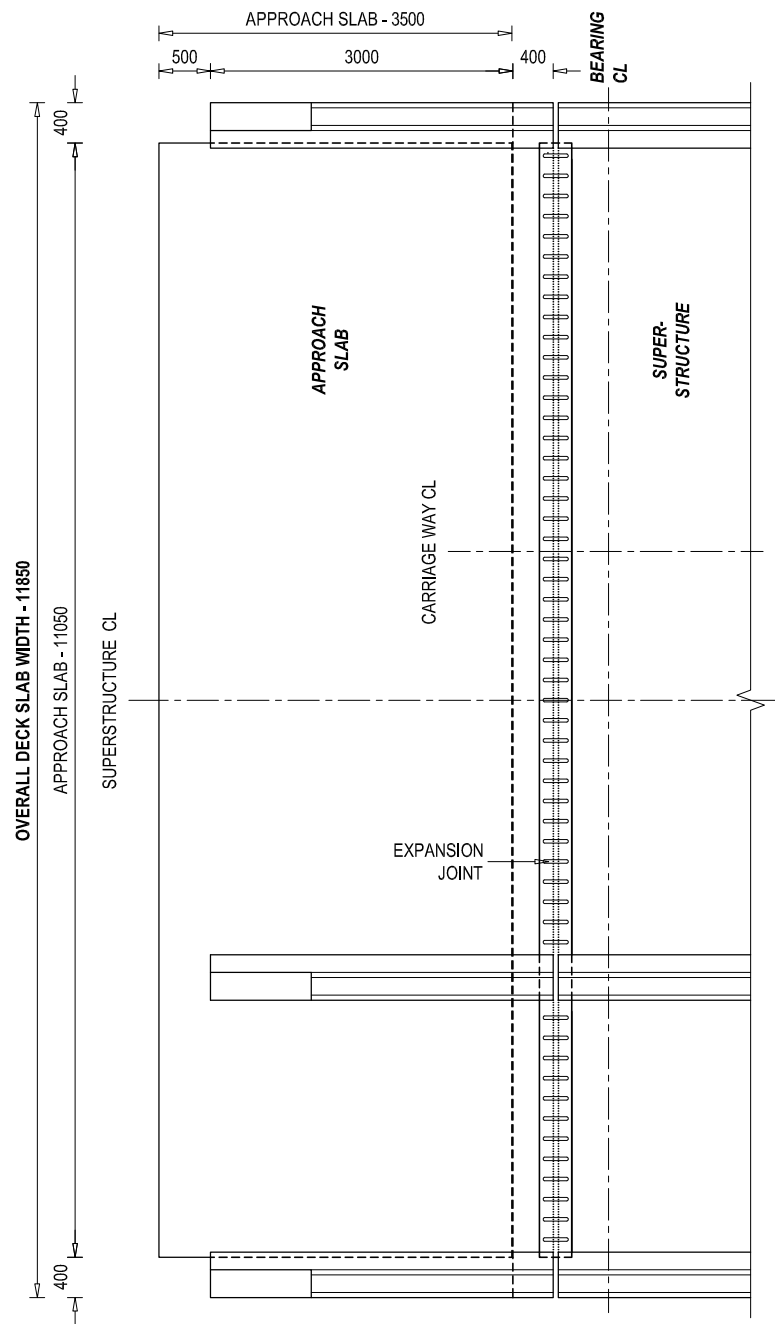


DETAILS OF GALVANIZED MILD STEEL (G.M.S)
DRAINAGE SPOUT
 SCALE - 1 : 10

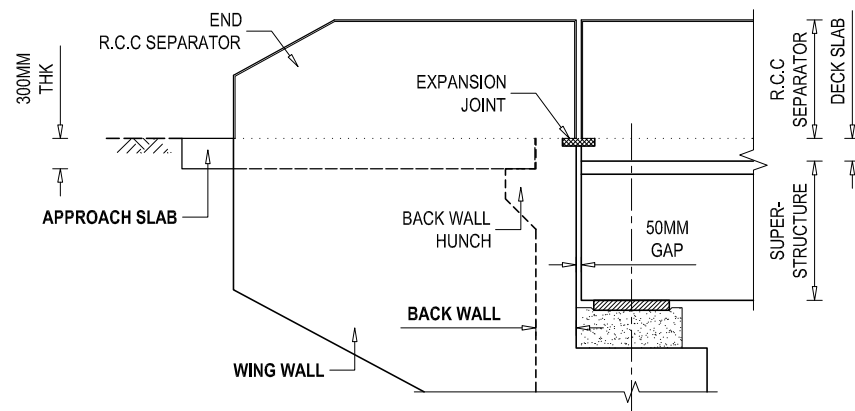


DETAIL ELEVATION VIEW AT R.C.C SEPARATOR
& IT'S DRAIN OPENING
 SCALE - 1 : 40

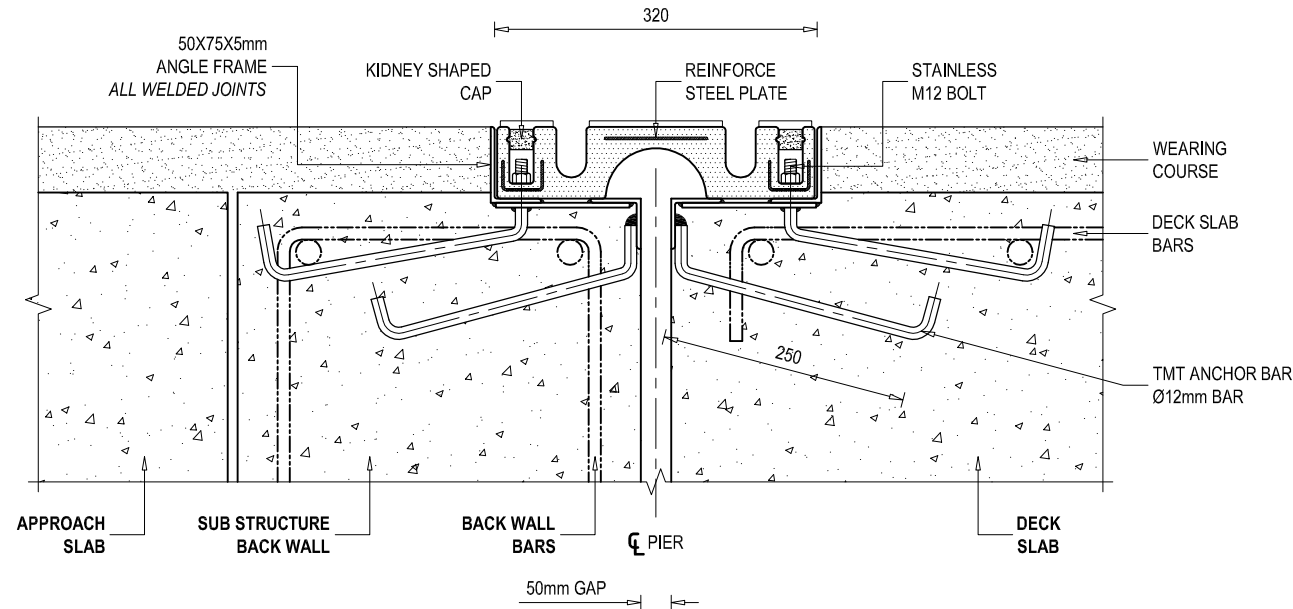
EMPLOYER  Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	PROJECT NAME Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamala-Dhalkebar-Pathlaiya Road Section (130 KM) of Mahendra Highway and Bridges	DESIGN CONSULTANTS Joint Venture of  EPTISA Servicios De Ingeniera Madrid, Spain  STUP Consultants Private Limited Kolkata, India In Association With Udaya Consultancy, Geocom International, Sundar Kriti Consultant and Rays Consultant Private Limited	Designed By Mr. R.A. Nec.No. 6431 (21/6/21) Checked By Mr. S.M. Approved By Mr. H.B.	  	Drawing Name MISCELLANEOUS DETAILS OF BRIDGE OVER RIVER JANGA PUL-1 Reference Drawings -	Scale: AS SHOWN Chainage: 270+870	Date: 23.04.2023 Drawing No.: KDP/DPR/STR/BR/JANGA PUL-1/DD-18 Sheet No.1 /2
--	---	--	--	---	---	--	---



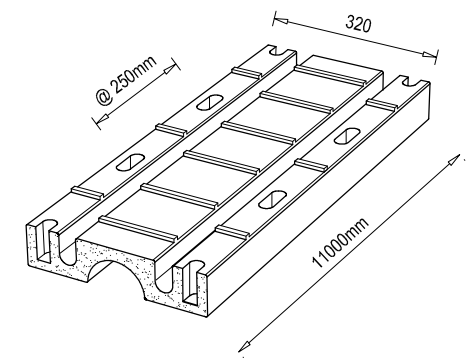
**PLAN VIEW AT EXPANSION JOINT, END R.C.C
SEPARATOR & APPROACH SLAB**



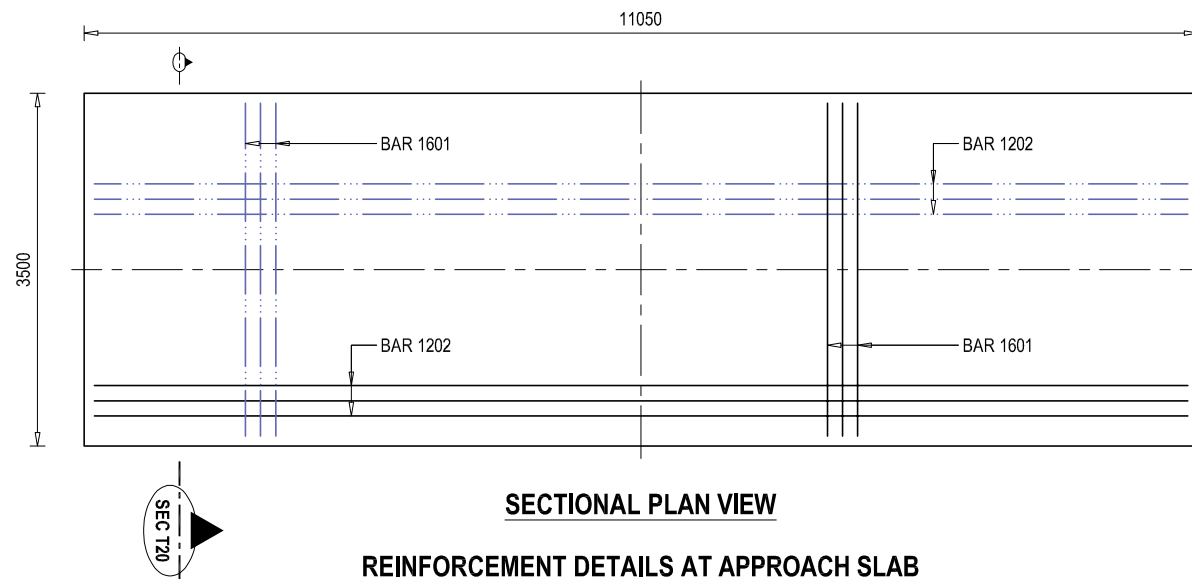
ELEVATION VIEW



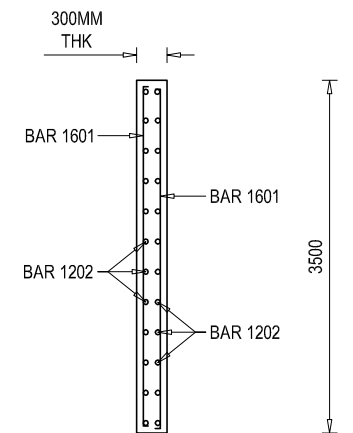
SEAL TYPE EXPANSION JOINTS ARRANGEMENT IN A CARRIAGEWAY
SCALE - 1 : 10 @ A3 PAPER



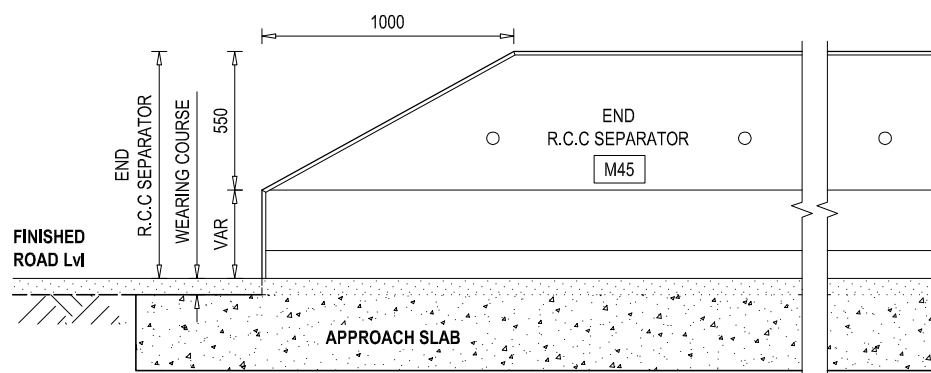
**EXPANSION JOINT ISOMETRIC VIEW
- SEAL TYPE**
SCALE - NON



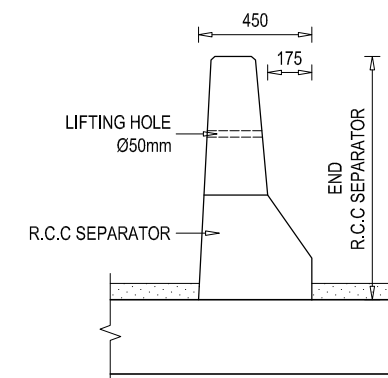
SECTIONAL PLAN VIEW
REINFORCEMENT DETAILS AT APPROACH SLAB
SCALE - 1 : 100 @ A3 PAPER



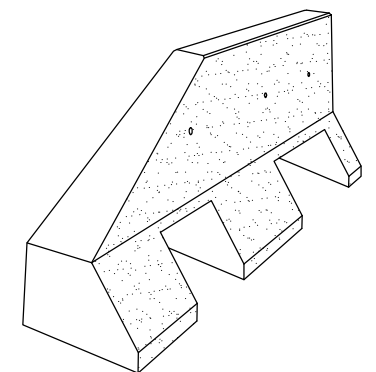
SECTIONAL ELEVATION VIEW AT SEC T20



ELEVATION VIEW OF END R.C.C SEPARATOR
SCALE - 1 : 40 @ A3 PAPER

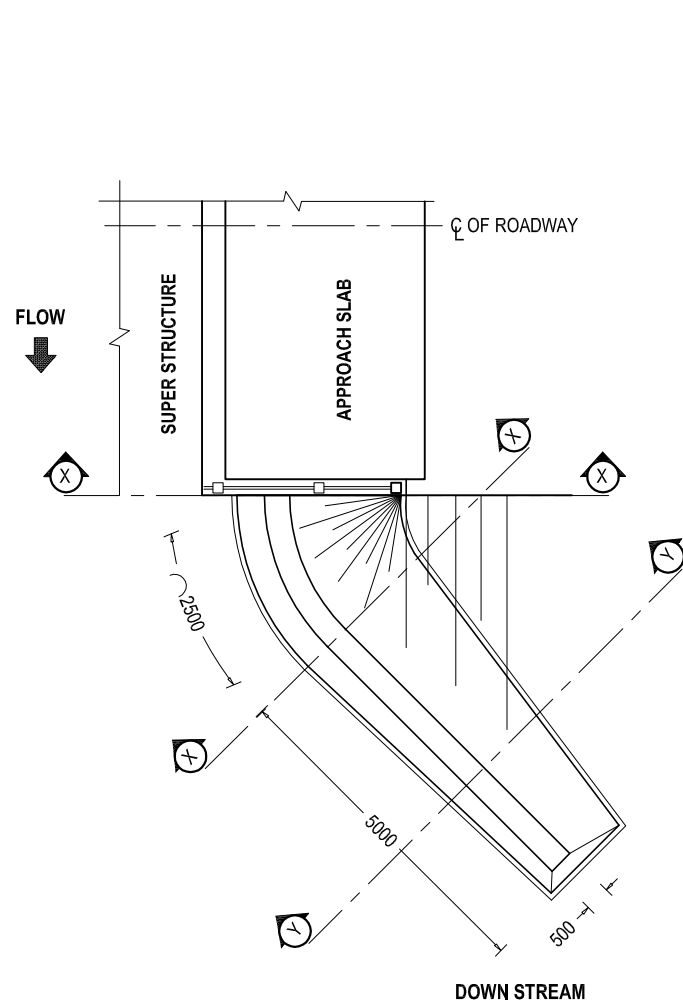


SIDE VIEW
SCALE - 1 : 40 @ A3 PAPER

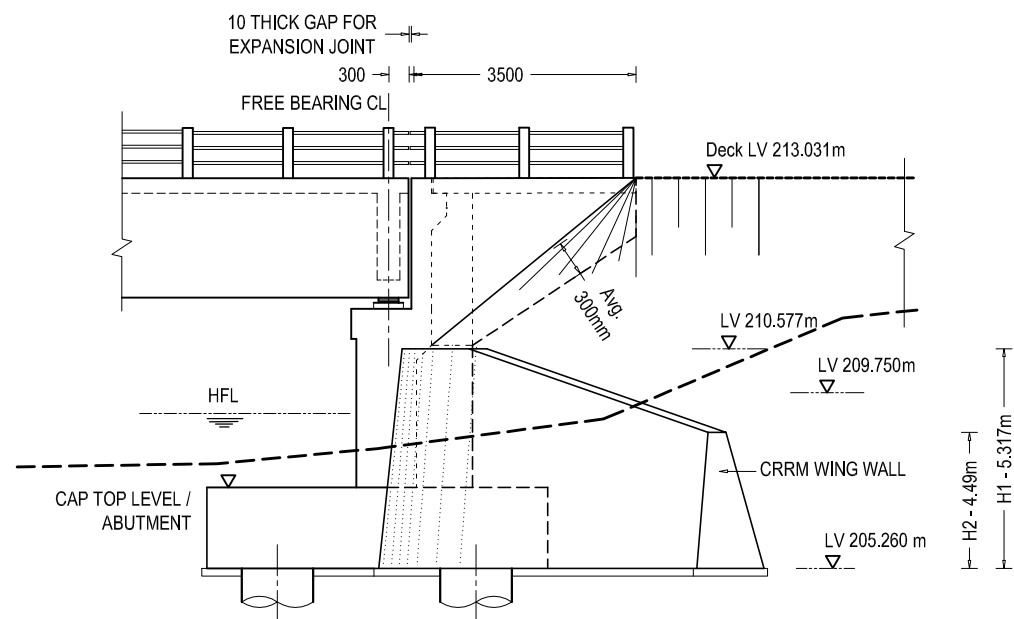
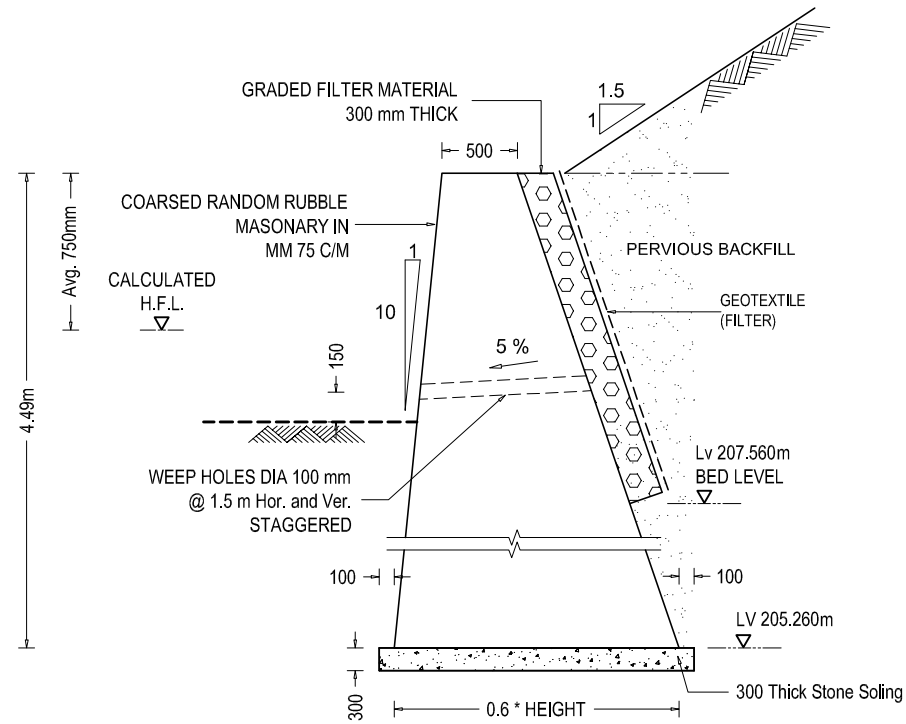


END R.C.C SEPARATOR ISOMETRIC VIEW
SCALE - NON

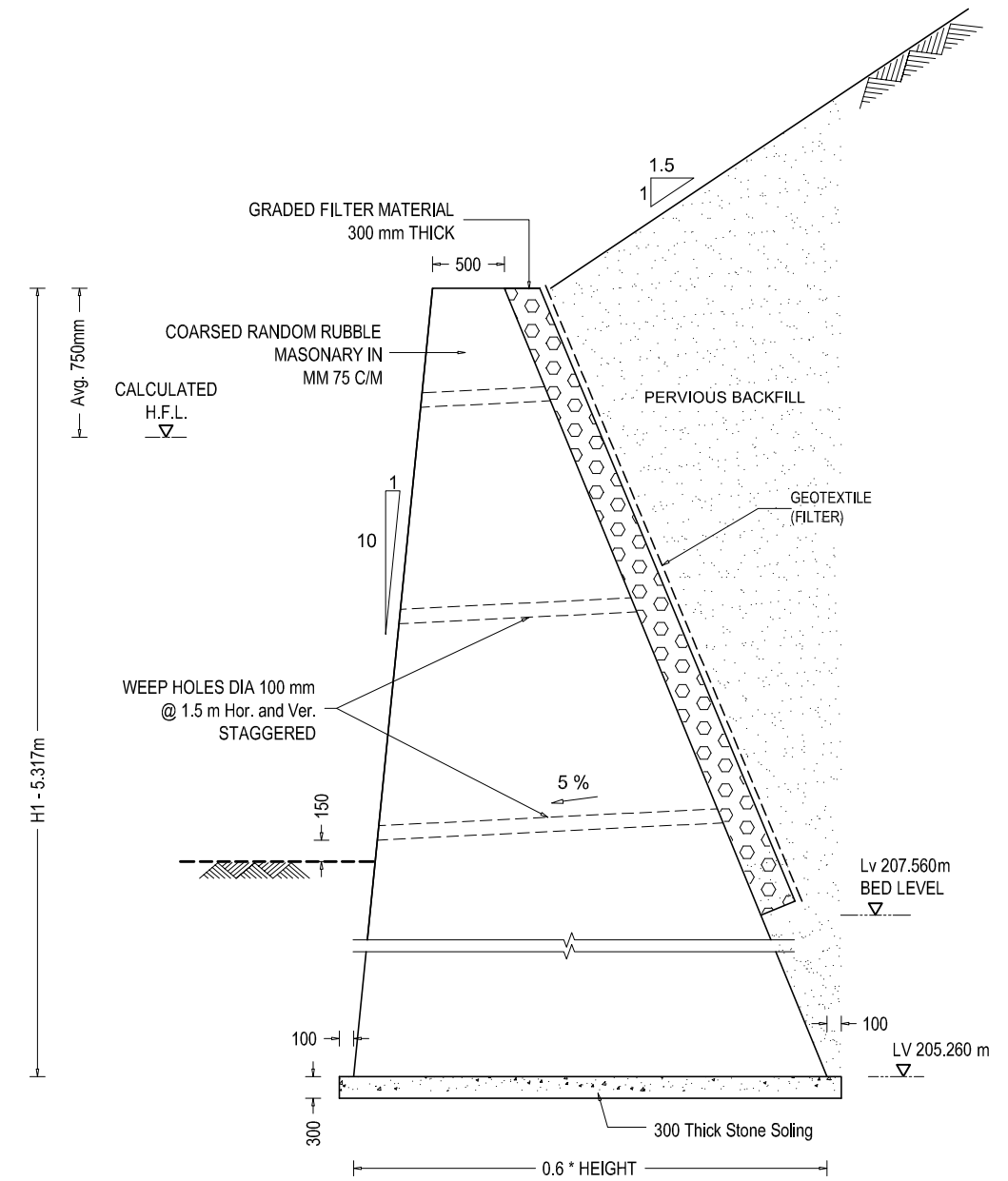
EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	PROJECT NAME Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamala-Dhalkebar-Pathlaiya Road Section (130 KM) of Mahendra Highway and Bridges	DESIGN CONSULTANTS Joint Venture of EPTISA Servicios De Ingenieria Madrid, Spain STUP Consultants Private Limited Kolkata, India In Association With Udaya Consultancy, Geocom International, Sundar Kriti Consultant and Rays Consultant Private Limited	Designed By Mr. R.A. Nec.No. 6431 01/05/20 Checked By Mr. S.M. Approved By Mr. H.B.	Drawing Name MISCELLANEOUS DETAILS OF BRIDGE OVER RIVER JANGA PUL-1 Reference Drawings -	Scale: AS SHOWN Chainage: 270+870	Date: 23.04.2023 Drawing No:- KDP/DPR/STR/BR/JANGA PUL-1/DD-18 Sheet No.2/2
---	--	---	---	--	---	--



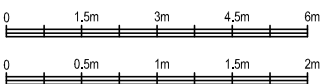
NOTE : AT DOWN STREAM ONLY



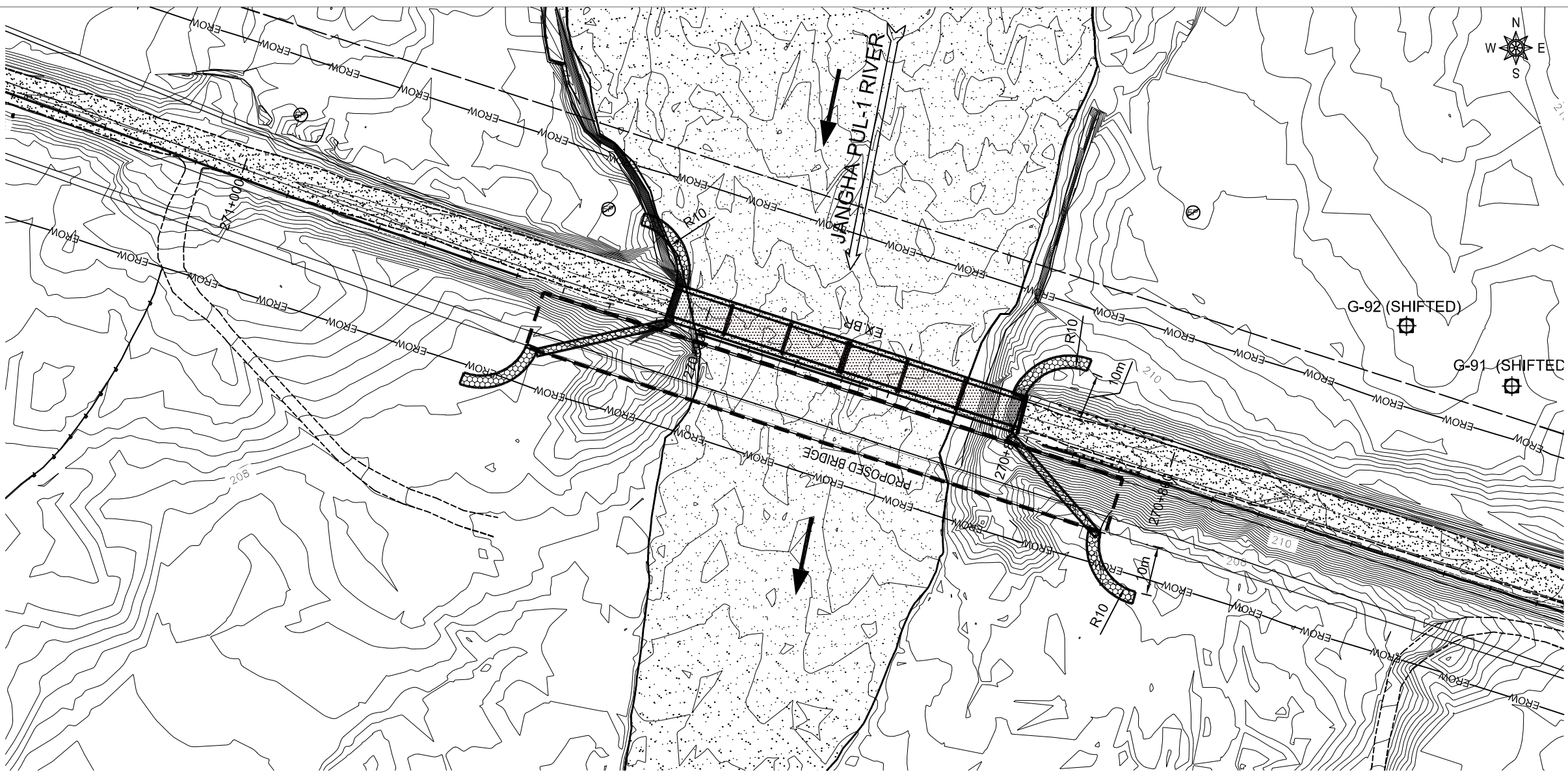
WING WALL ELEVATION



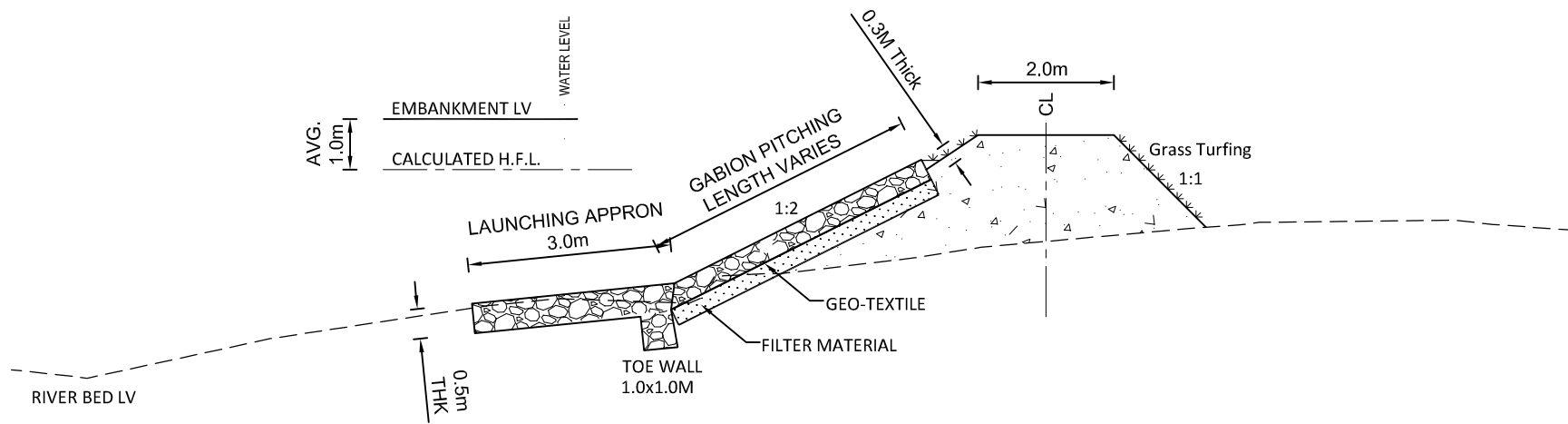
STONE MASONRY WING WALL SECTION X - X



EMPLOYER Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	PROJECT NAME Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamala-Dhalkebar-Pathahya Road Section (130 KM) of Mahendra Highway and Bridges	DESIGN CONSULTANTS Joint Venture of ep4sa EPTISA Servicios De Ingeniera Madrid, Spain STUP Consultants Private Limited Kolkata, India In Association With Udaya Consultancy, Geocom International, Sundar Kriti Consultant and Rays Consultant Private Limited	Designed By Mr. R.A. Nec.No. 6431 CIVIL/94 Checked By Mr. S.M. Approved By Mr. H.B.	Signature Signature Signature	Drawing Name WING WALL DETAILS OF BRIDGE OVER RIVER JANGA PUL-1 Reference Drawings -	Scale: AS SHOWN Chainage: 270+870	Date: 23.04.2023 Drawing No.- KDP/DPR/STR/BR/JANGA PUL -1/DD-19 Sheet No. 1 / 1
--	--	--	--	--	--	---	--

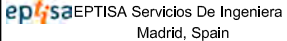
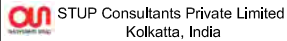


TOPOGRAPHIC MAP



SECTION OF EMBANKMENT

SCALE - 1x : 5x

EMPLOYER	PROJECT NAME	DESIGN CONSULTANTS	Designed By	Drawing Name	Scale:	Date:
 Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamala-Dhalkebar-Pathlaiya Road Section (130 KM) of Mahendra Highway and Bridges	Joint Venture of  EPTISA Servicios De Ingenieria Madrid, Spain  STUP Consultants Private Limited Kolkatta, India In Association With Udaya Consultancy, Geocom International, Sundar Kirti Consultant and Rays Consultant Private Limited	Mr. R.A. Nec.No. 6431 CIVIL/24	RIVER TRAINING WORKS OF BRIDGE OVER RIVER JANGA PUL -1	1:1000	23.04.2023
			Mr. S.M.	Reference Drawings	Chainage: 270+870	Drawing No.- KDP/DPR/STR/BR/JANGA PUL-1 /DD-20
			Mr. H.B.			Sheet No. 1/1

Bearing Design Data for 25m Span and 11.85m width

Load Condition	Items	Under	On each Neoprene Bearing	Unit
Under No Live Load	V	NO EQ.	60.54	Ton
		EQ.	69.62	Ton
	H _L	NO EQ.	-	Ton
		EQ.	13.62	Ton
	H _T	NO EQ.	-	Ton
		EQ.	13.62	Ton
	θ	NO EQ.	0.00250	radian
		EQ.	0.00288	radian
	Δ		14.57	mm
Under Maximum Live Load	V	NO EQ.	103.45	Ton
		EQ.	113.82	Ton
	H _L	NO EQ.	-	Ton
		EQ.	0.00	Ton
	H _T	NO EQ.	-	Ton
		EQ.	0.00	Ton
	θ	NO EQ.	0.00388275	radian
		EQ.	0.00447	radian
	Δ		24.23	mm

EMPLOYER  Government of Nepal Ministry of Physical Infrastructure and Transport Department of Roads Development Cooperation Implementation Division	PROJECT NAME Strategic Road Connectivity & Trade Improvement Project (SRCTIP) Detailed Design of Upgradation of Kamala-Dhalkebar-Pathalya Road Section (130 KM) of Mahendra Highway and Bridges	DESIGN CONSULTANTS Joint Venture of EPTISA Servicios De Ingenieria Madrid, Spain STUP Consultants Private Limited Kolkatta, India	Designed By	Mr. R.A. Nec.No. 6431 CIVIL/94	 Signature	Drawing Name	BEARING DESIGN DATA OF BRIDGE OVER RIVER JANGA PUL-1	Scale:	AS SHOWN	Date:	23.04.2023
			Checked By	Mr. S.M.	 Signature	Reference Drawings	-	Chainage:	270+870	Drawing No.-	KDP/DPR/STR/BR/JANGA PUL -1/DD - 21
			Approved By	Mr. H.B.	 Signature					Sheet No.	1 / 1
		In Association With Udaya Consultancy, Geocom International, Sundar Kriti Consultant and Rays Consultant Private Limited									