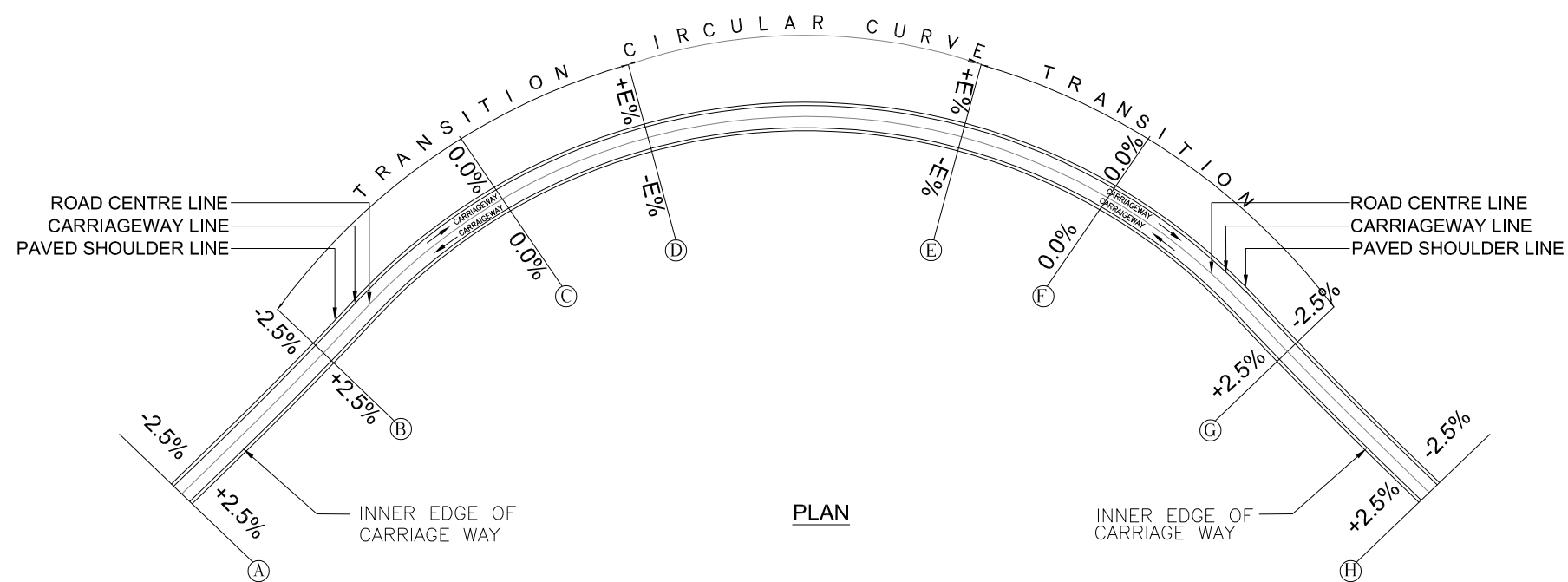
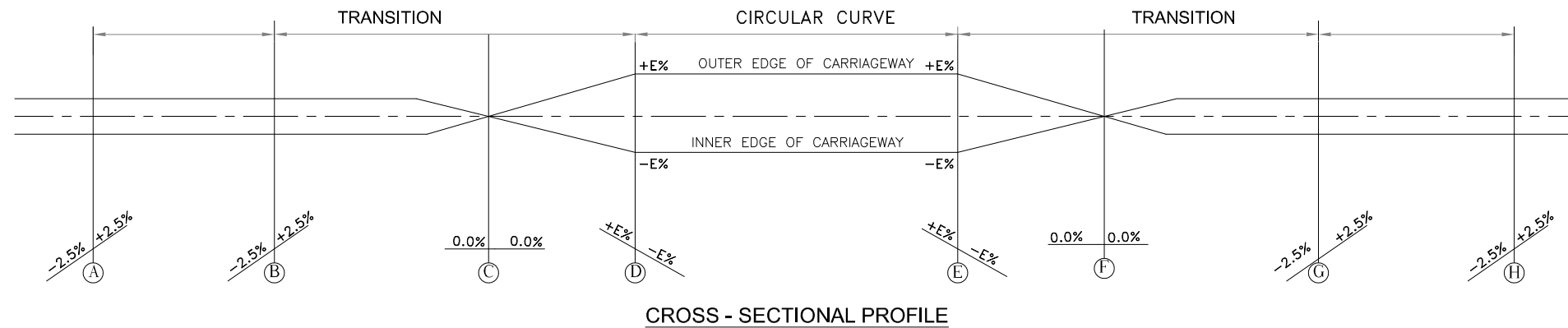


MISCELLANEOUS DRAWING



**TYPICAL DETAILS OF SUPERELEVATION ATTAINMENT FOR A SIMPLE CIRCULAR CURVE
(WITH TRANSITION)**

NOTE :-
1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE MENTIONED.

	Scale :- 1 : 75	 CLIENT: NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. PTI Building, 3rd Floor, 4, Parliament Street, New Delhi - 110001	TITLE : CURVE COMPONENT	CONSULTANT : CETEST Engineering Consultants An ISO 9001, 14001 & OHSAS 18001 Certified Company	 CE TESTING COMPANY PVT. LTD. 124-A, N.S.C. Bose Road, Kolkata - 700092.	DWG NO :-CET/4047/NHIDCL/NH-37/I-J/FDPR/MISC_1A
						REVISION MKD. - R0
						SHEET NO. - 01
						Drawn By
						Designed By
						Checked By
						Issued By
						S.MANDAL
						B. DAS
						A.DEY
						A. K.DAS

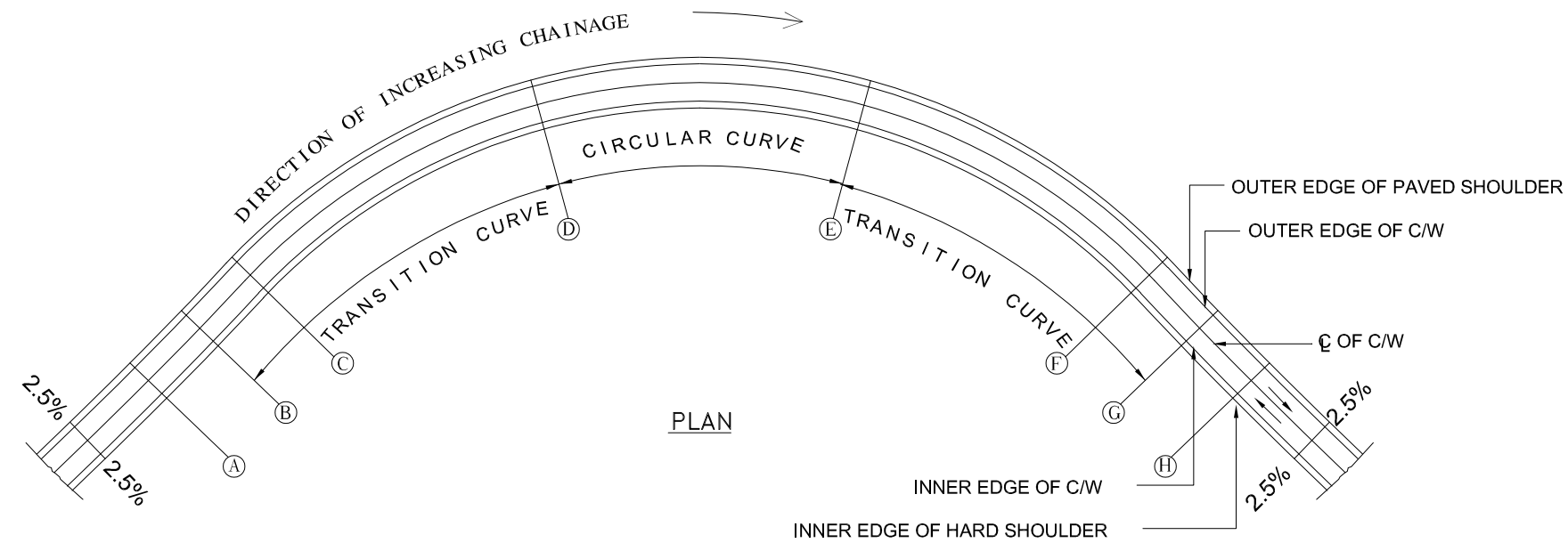
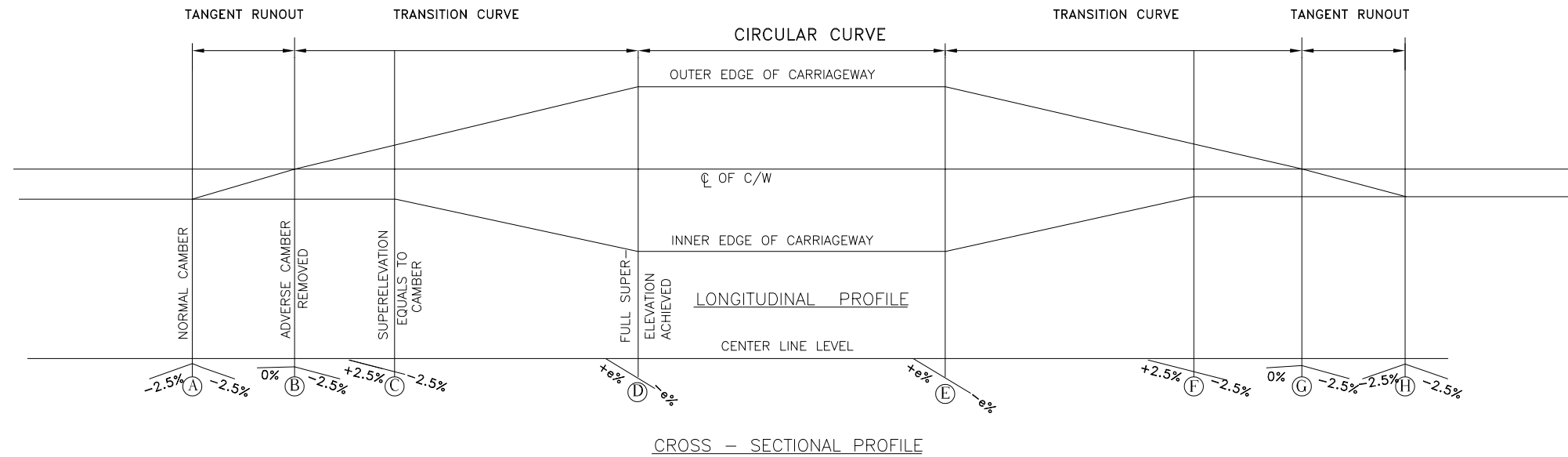
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REVISIONS				

DATE:
JULY, 2021

PROJECT:
CONSULTANCY SERVICES FOR CARRYING OUT FEASIBILITY STUDY, PREPARATION OF
DETAILED PROJECT REPORT AND PROVIDING PRE-CONSTRUCTION SERVICES IN RESPECT
OF 2 LANING WITH PAVED SHOULDER OF IMPHAL-JIRIBAM SECTION OF NH-37 (NH-53)
(LENGTH- 220 KM) IN THE STATE OF MANIPUR

SUBMISSION TYPE :
FINAL DETAILED PROJECT REPORT

(PACKAGE NO. V)



TYPICAL DETAILS OF SUPERELEVATION ATTAINMENT FOR A CIRCULAR CURVE WITH TRANSITION CURVE
(ROTATION ABOUT CARRIAGEWAY CENTRE LINE FOR THROUGH CUTTING)

NOTE :-
1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE MENTIONED.

	Scale :- 1 : 75	 CLIENT: NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. PTI Building, 3rd Floor, 4, Parliament Street, New Delhi - 110001	TITLE : CURVE COMPONENT	CONSULTANT : CETEST Engineering Consultants An ISO 9001, 14001 & OHSAS 18001 Certified Company	 CE TESTING COMPANY PVT. LTD. 124-A, N.S.C. Bose Road, Kolkata - 700092.	DWG NO :-CET/4047/NHIDCL/NH-37/I-J/FDPR/MISC_1B
						REVISION MKD. - R0
						SHEET NO. - 01
						Drawn By
						Designed By
						Checked By
						Issued By
						S.MANDAL
						B. DAS
						A.DEY
						A. K.DAS

MKD.	DATE	DESCRIPTION	CHKD.	APPRD.
REVISIONS				

DATE:
JULY, 2021

PROJECT:
CONSULTANCY SERVICES FOR CARRYING OUT FEASIBILITY STUDY, PREPARATION OF DETAILED PROJECT REPORT AND PROVIDING PRE-CONSTRUCTION SERVICES IN RESPECT OF 2 LANING WITH PAVED SHOULDER OF IMPHAL-JIRIBAM SECTION OF NH-53 (LENGTH- 220 KM) IN THE STATE OF MANIPUR

SUBMISSION TYPE :
FINAL DETAILED PROJECT REPORT

(PACKAGE NO. V)

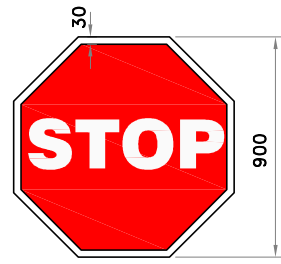


Fig. 14.01
STOP SIGNAL

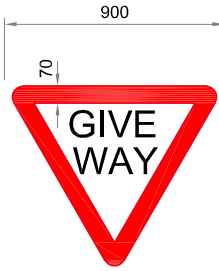


Fig. 14.02
GIVE WAY SIGN

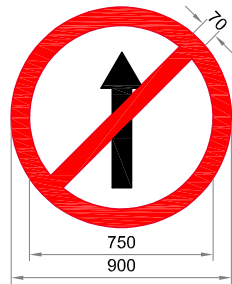


Fig. 14.19
NO ENTRY

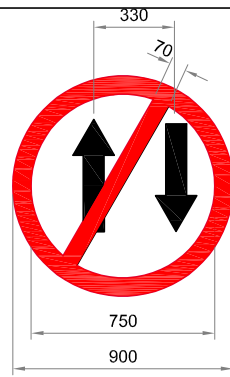


Fig. 14.20
ONE WAY SIGNS

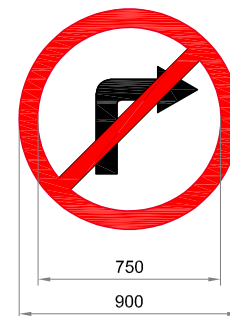


Fig. 14.22
RIGHT TURN PROHIBITED

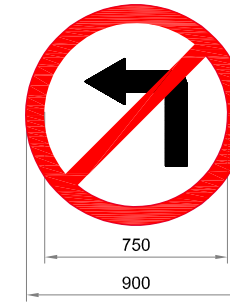


Fig. 14.21
LEFT TURN PROHIBITED



Fig. 14.24
U - TURN PROHIBITED

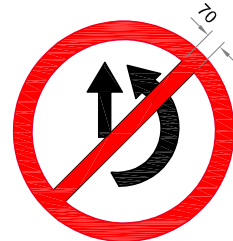


Fig. 14.23
OVERTAKING PROHIBITED

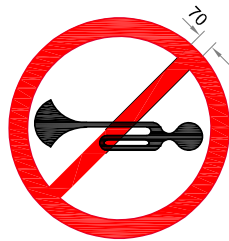


Fig. 14.18
HORN PROHIBITED

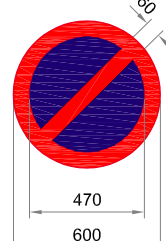


Fig. 14.29
NO PARKING

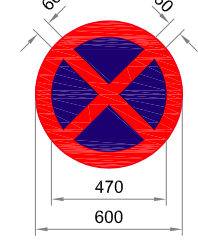


Fig. 14.28
NO STOPPING AND
NO STANDING

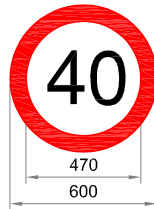


Fig. 14.37
SPEED LIMIT

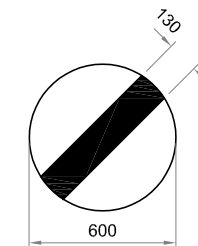


Fig. 14.40
RESTRICTION END

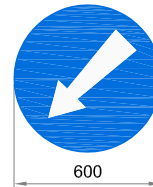


Fig. 14.48
COMPULSORY
KEEP LEFT



Fig. 14.46
COMPULSORY TURN
RIGHT AHEAD

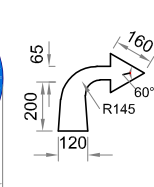


Fig. 14.47
COMPULSORY TURN
LEFT AHEAD



Fig. 14.42
COMPULSORY AHEAD
OR TURN RIGHT



Fig. 14.5
PASS EITHER
SIDE

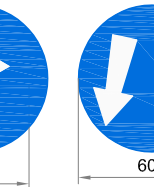


Fig. 14.43
COMPULSORY AHEAD
OR TURN LEFT

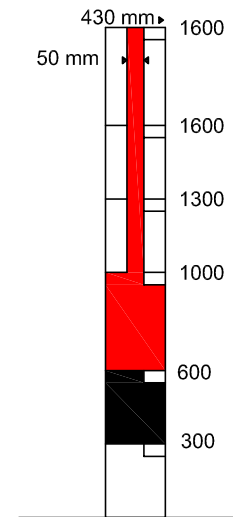


Fig. 18.10
FLOOD GAUGE

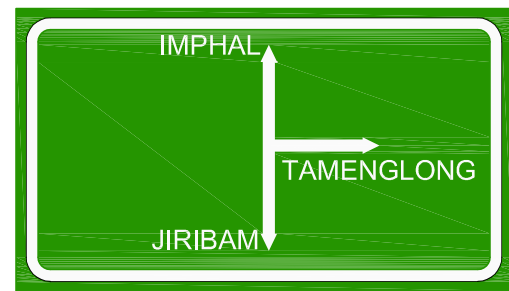


Fig. 16.03
ADVANCE DIRECTION SIGN

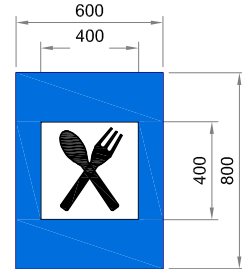


Fig. 17.01
EATING PLACE

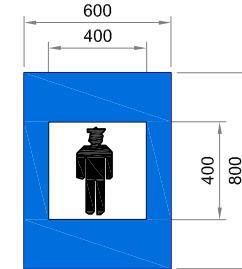


Fig. 17.13
POLICE STATION



Fig. 16.05
REASSURANCE SIGN

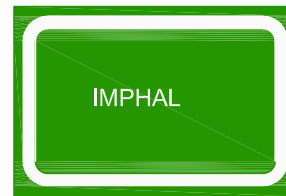


Fig. 16.06
PLACE IDENTIFICATION SIGN



Fig. 16.04
PLACE IDENTIFICATION SIGN

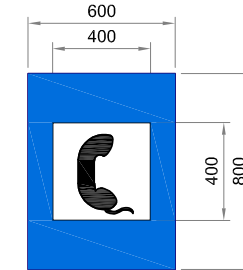


Fig. 17.08
PUBLIC TELEPHONE

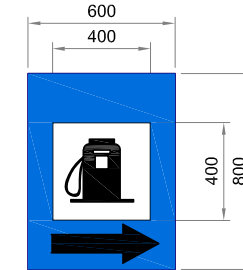


Fig. 17.06
FILLING STATION

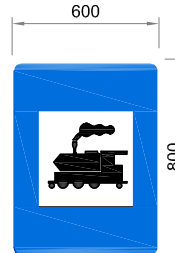


Fig. 17.16
RAILWAY STATION



Fig. 17.35
BUS STOP

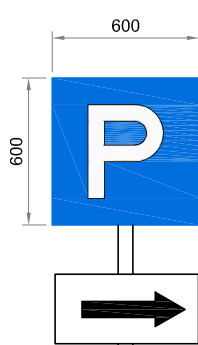


Fig. 18.01
PARKING THIS SIDE

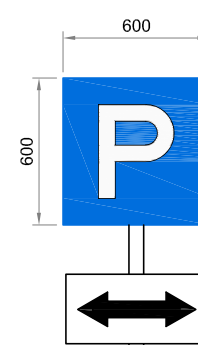


Fig. 14.01
PARKING BOTH SIDE

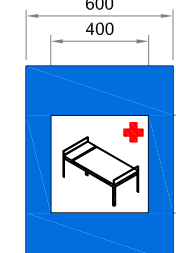


Fig. 17.07
HOSPITAL

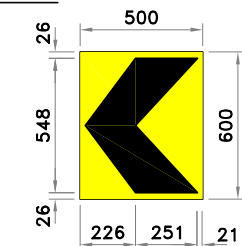


Fig. 15.72
SINGLE CEVRON (NORMAL)



Fig. 20.02
NATIONAL HIGHWAY
ROUTE MARKER SIGN

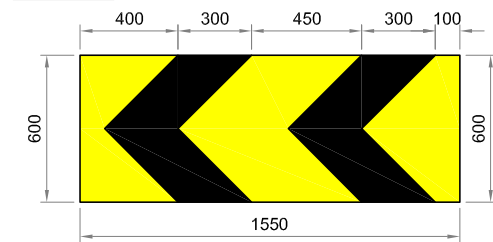
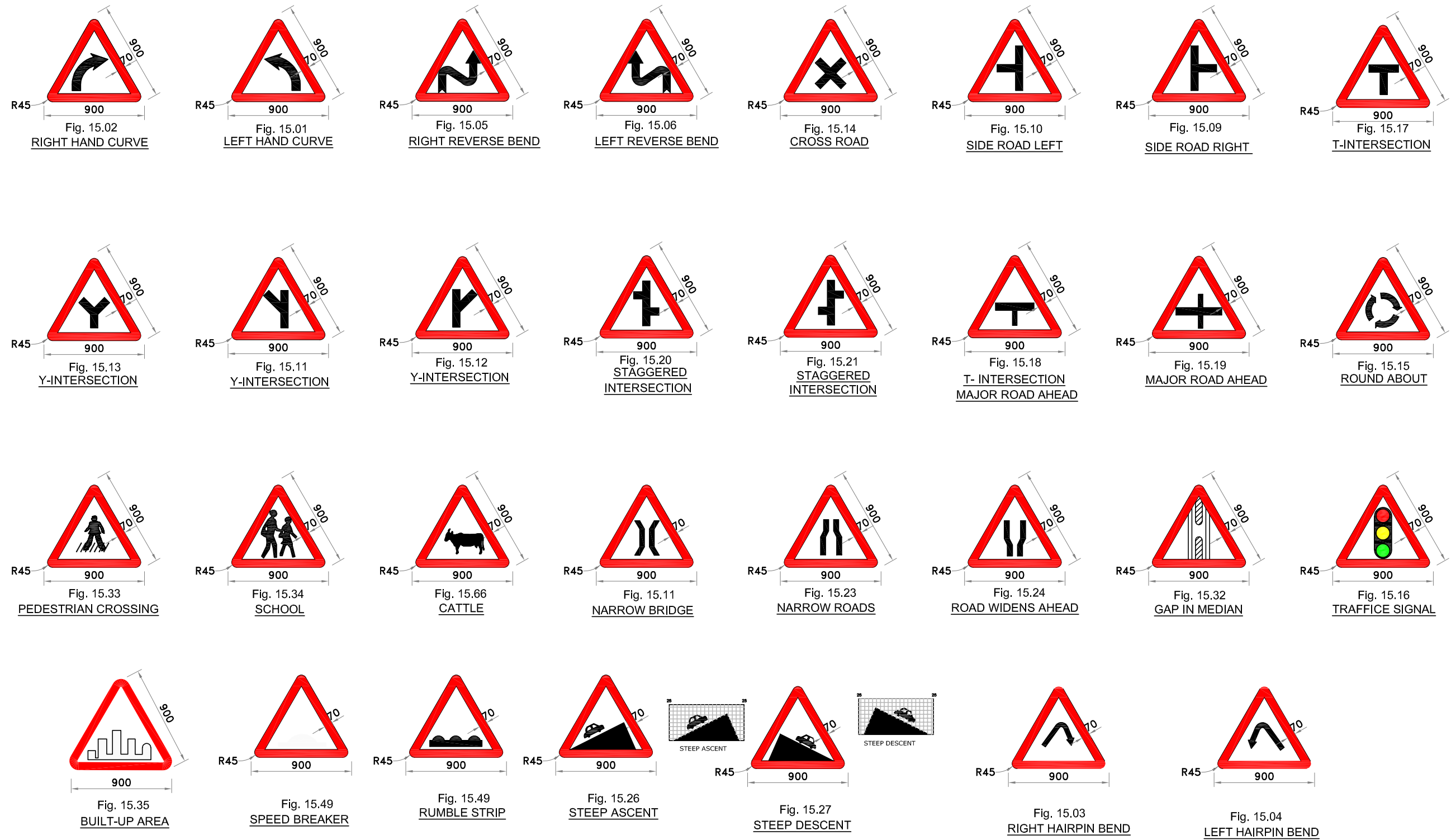


Fig. 15.74
DOUBLE CHEVRON

NOTE:







1. ALL DIMENSIONS ARE IN MM UNLESS AND OTHERWISE SPECIFIED.
2. FOR DETAILS OF ROAD SIGN REFER IRC: 67-2012.

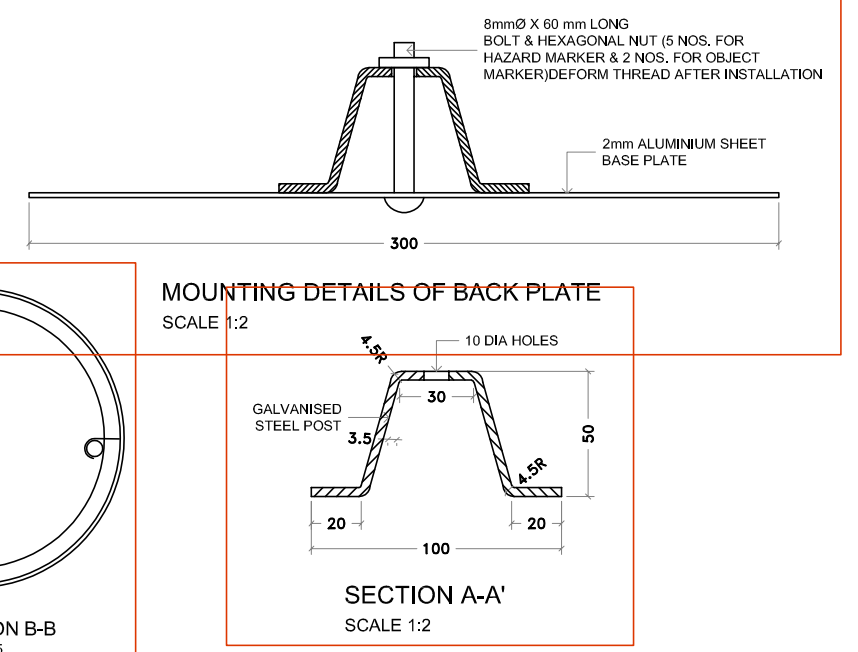
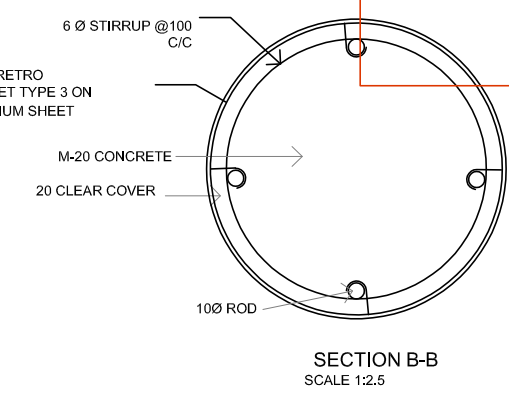
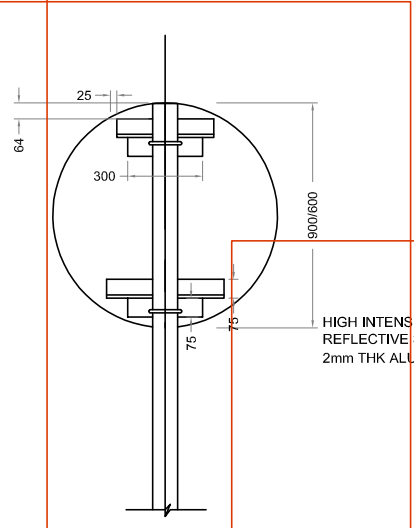
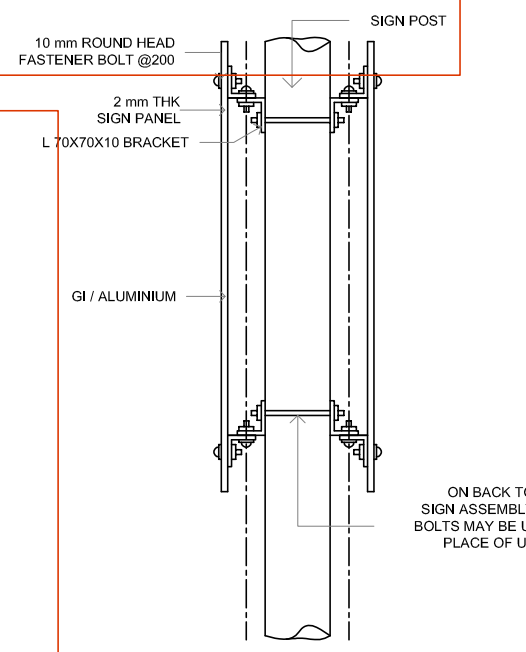
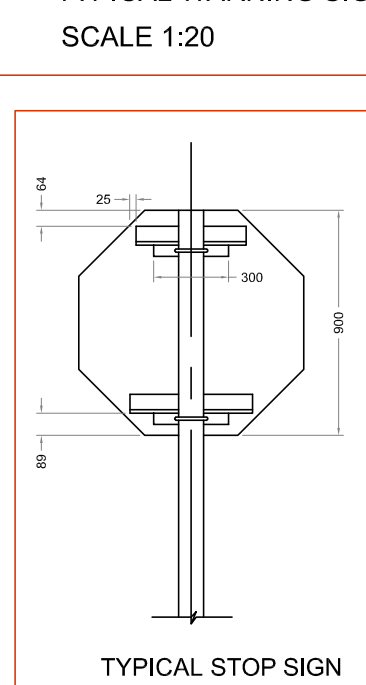
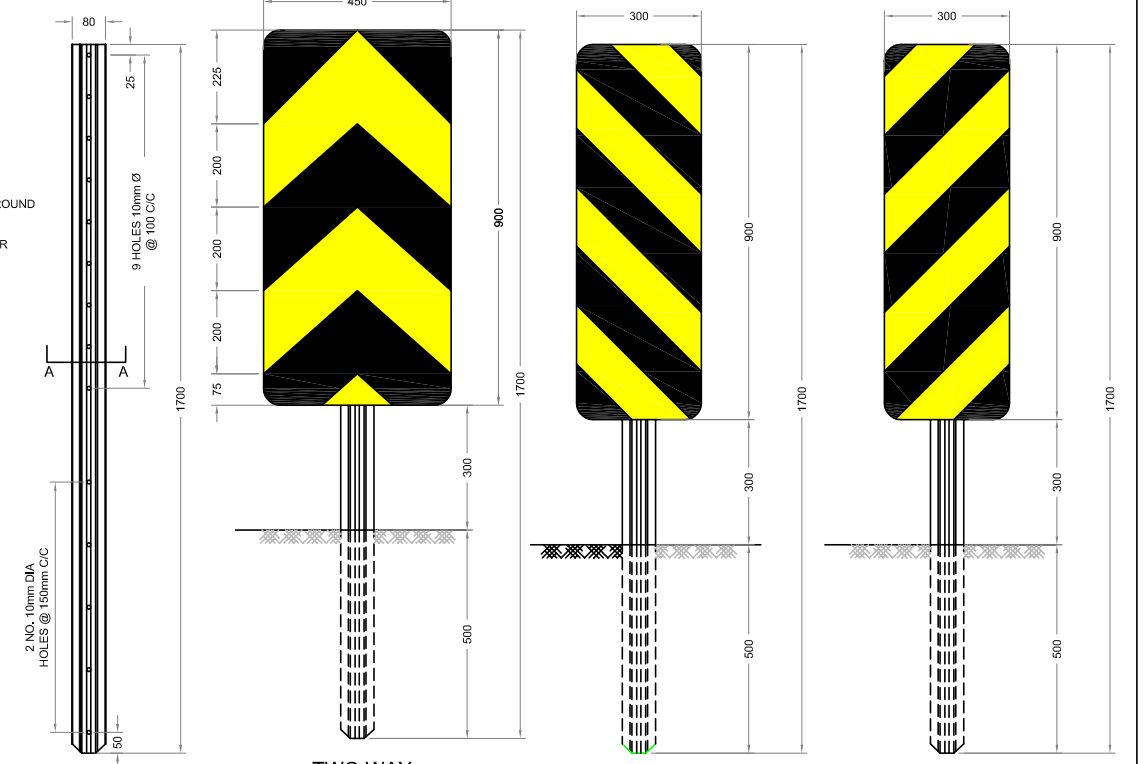
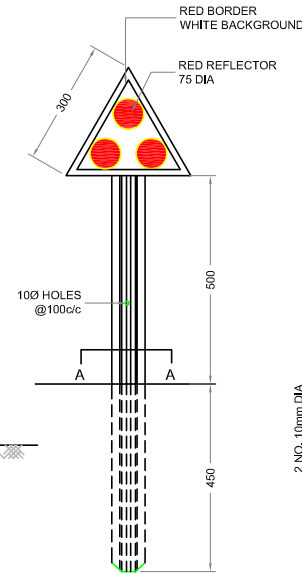
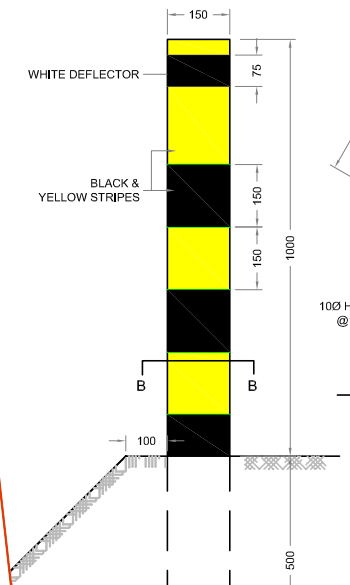
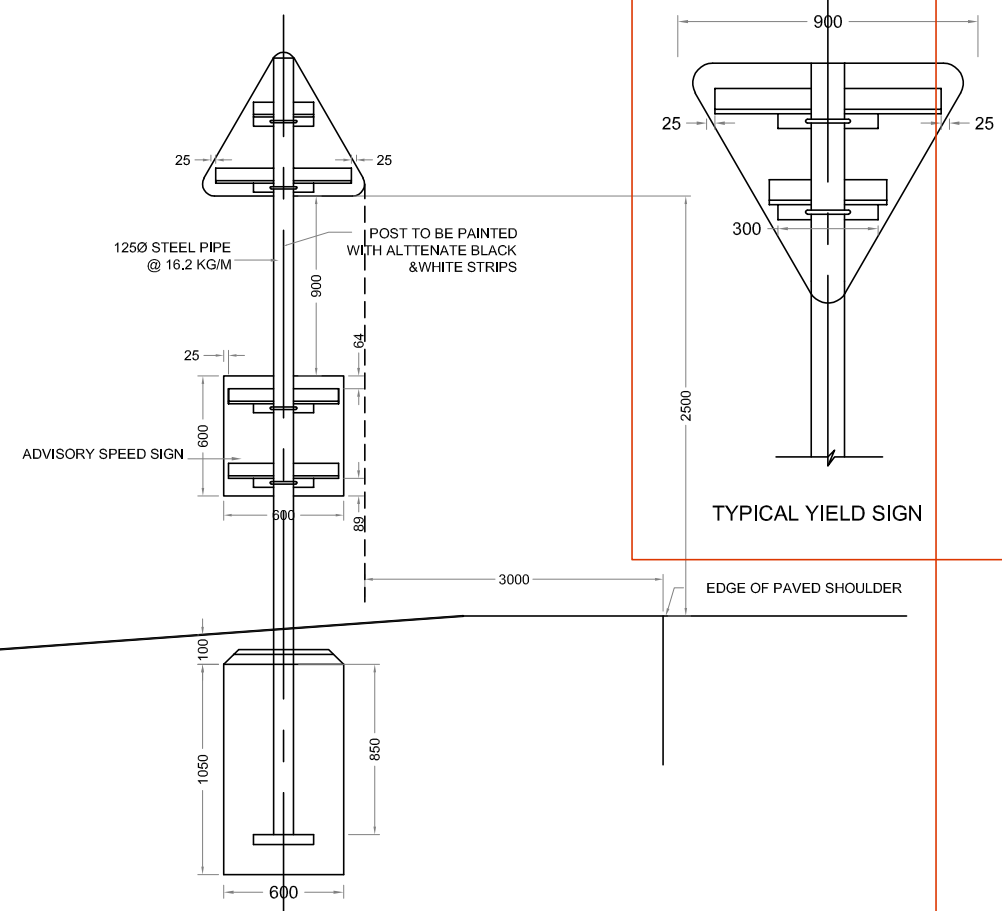
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DATE: JULY, 2021					PROJECT: CONSULTANCY SERVICES FOR CARRYING OUT FEASIBILITY STUDY, PREPARATION OF DETAILED PROJECT REPORT AND PROVIDING PRE-CONSTRUCTION SERVICES IN RESPECT OF 2 LANING WITH PAVED SHOULDER OF IMPHAL-JIRIBAM SECTION OF NH-37 (NH-53) (LENGTH- 220 KM) IN THE STATE OF MANIPUR					SUBMISSION TYPE: FINAL DETAILED PROJECT REPORT					SHEET NO. - 01									
REVISIONS										(PACKAGE NO. V)					Drawn By: S.MANDAL, Designed By: B.DAS, Checked By: A.DEY, Issued By: A.K.DAS									



NOTE:

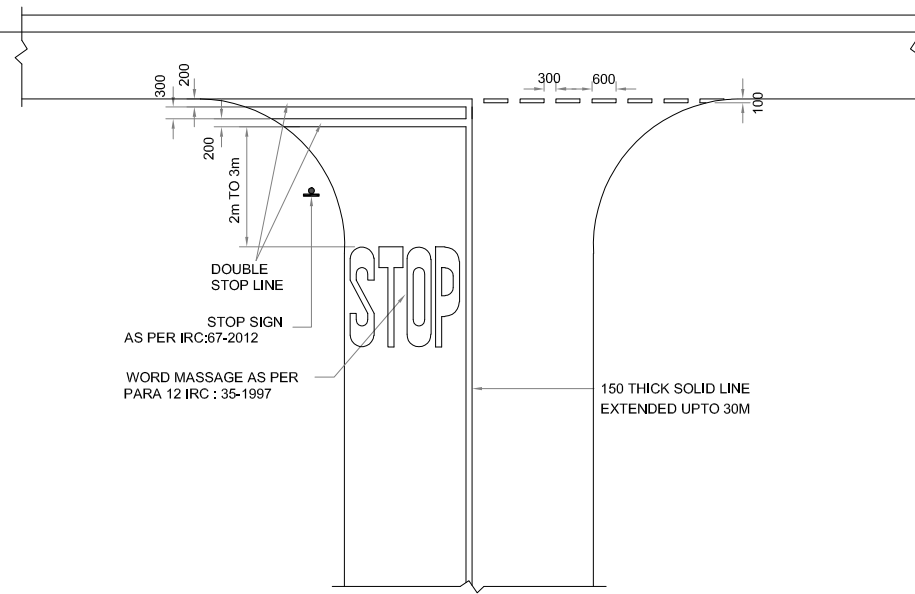
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					DATE: JULY, 2021	PROJECT: CONSULTANCY SERVICES FOR CARRYING OUT FEASIBILITY STUDY, PREPARATION OF DETAILED PROJECT REPORT AND PROVIDING PRE-CONSTRUCTION SERVICES IN RESPECT OF 2 LANING WITH PAVED SHOULDER OF IMPHAL-JIRIBAM SECTION OF NH-37 (NH-53) (LENGTH- 220 KM) IN THE STATE OF MANIPUR		SUBMISSION TYPE : FINAL DETAILED PROJECT REPORT		CE TESTING COMPANY PVT. LTD. 124-A, N.S.C. Bose Road, Kolkata - 700092.		REVISION MKD. - R0	SHEET NO. - 01
MKD.	DATE	DESCRIPTION	CHKD.	APPRD.					Drawn By	Designed By	Checked By	Issued By	
REVISIONS													
									S.MANDAL	B. DAS	A.DEY	A. K.DAS	

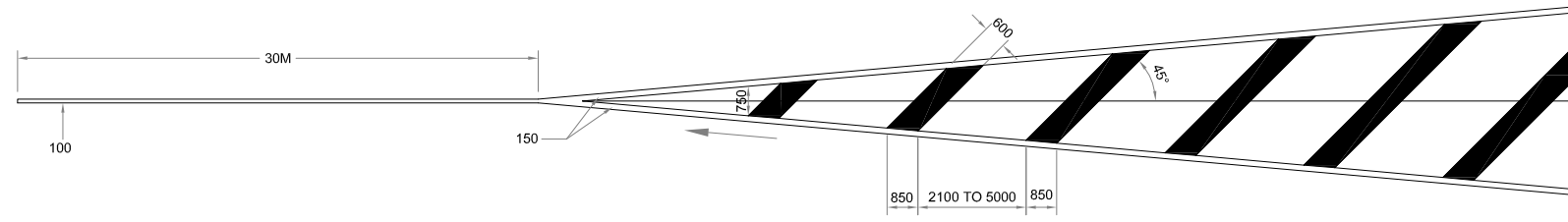
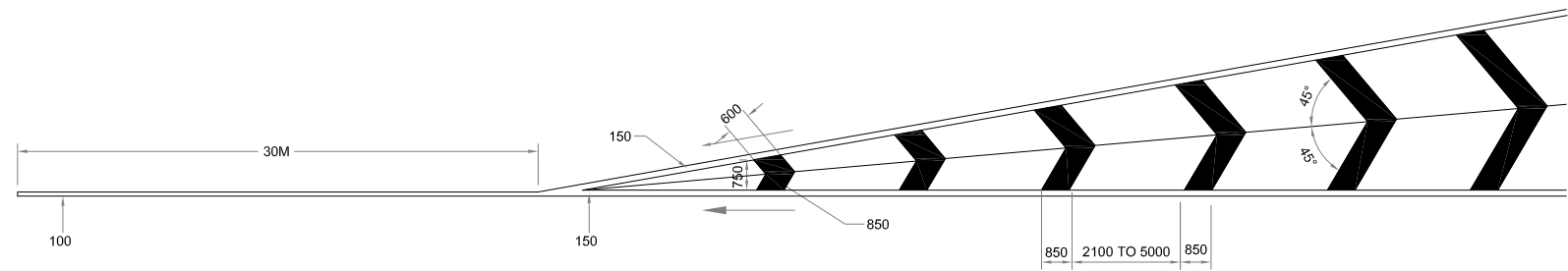


NOTES:-
01. ALL DIMENSIONS ARE IN MM. AND LEVELS IN METERS, UNLESS OTHERWISE SPECIFIED.

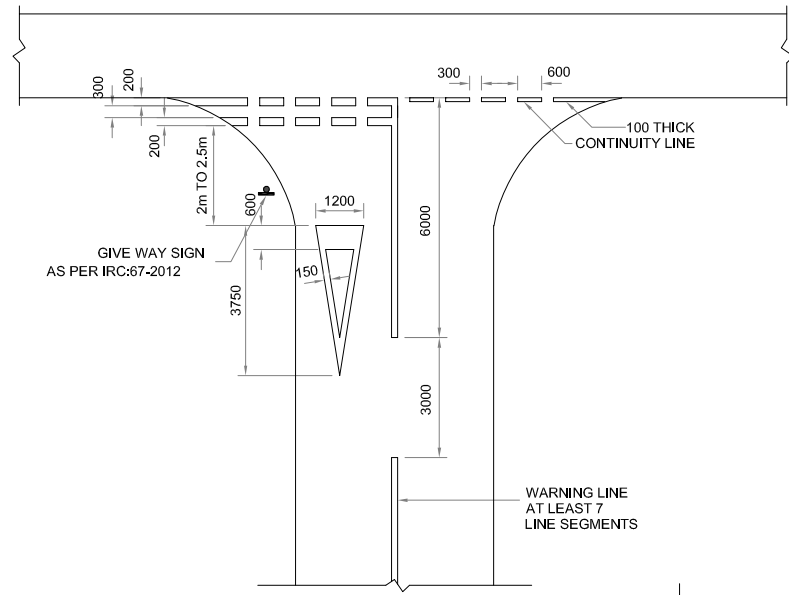
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PROJECT: CONSULTANCY SERVICES FOR CARRYING OUT FEASIBILITY STUDY, PREPARATION OF DETAILED PROJECT REPORT AND PROVIDING PRE-CONSTRUCTION SERVICES IN RESPECT OF 2 LANING WITH PAVED SHOULDER OF IMPHAL-JIRIBAM SECTION OF NH-37 (NH-53) (LENGTH- 220 KM) IN THE STATE OF MANIPUR					SUBMISSION TYPE : FINAL DETAILED PROJECT REPORT (PACKAGE NO. V)					REVISION MKD. - R0					SHEET NO. - 01									
DATE: JULY, 2021					DRAWN BY: S.MANDAL					DESIGNED BY: B.DAS					CHECKED BY: A.DEY					ISSUED BY: A.K.DAS				
REVISIONS																								



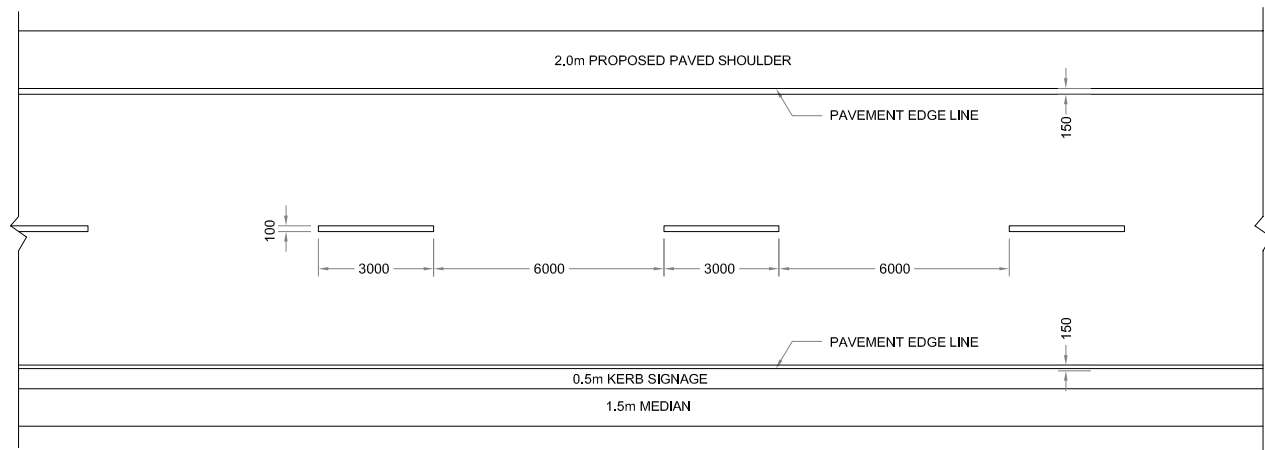
STOP LINES



DETAILS OF DIAGONAL AND CHEVRON MARKINGS





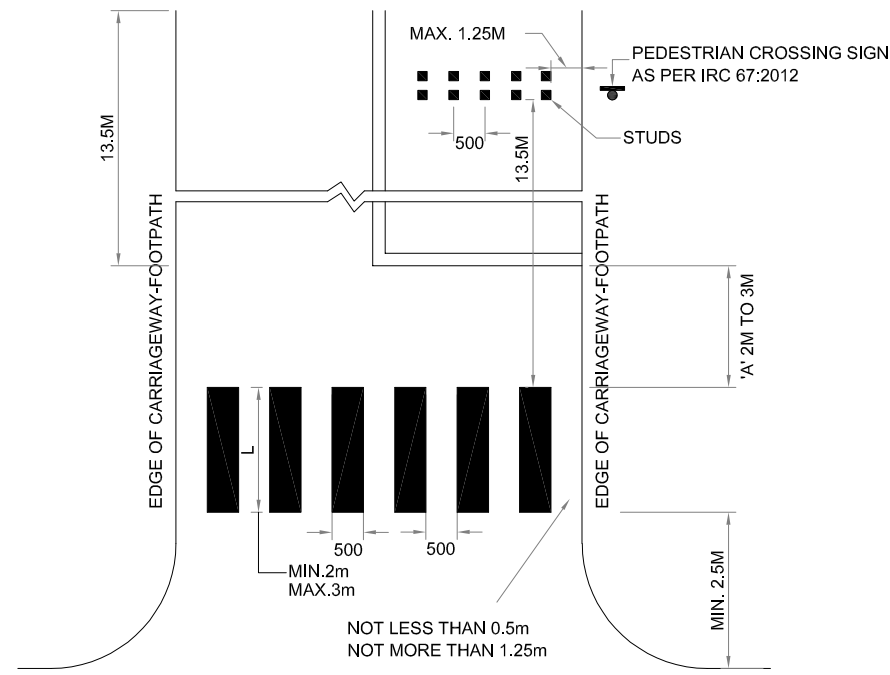
GIVEWAY LINES



CENTERLINE MARKING

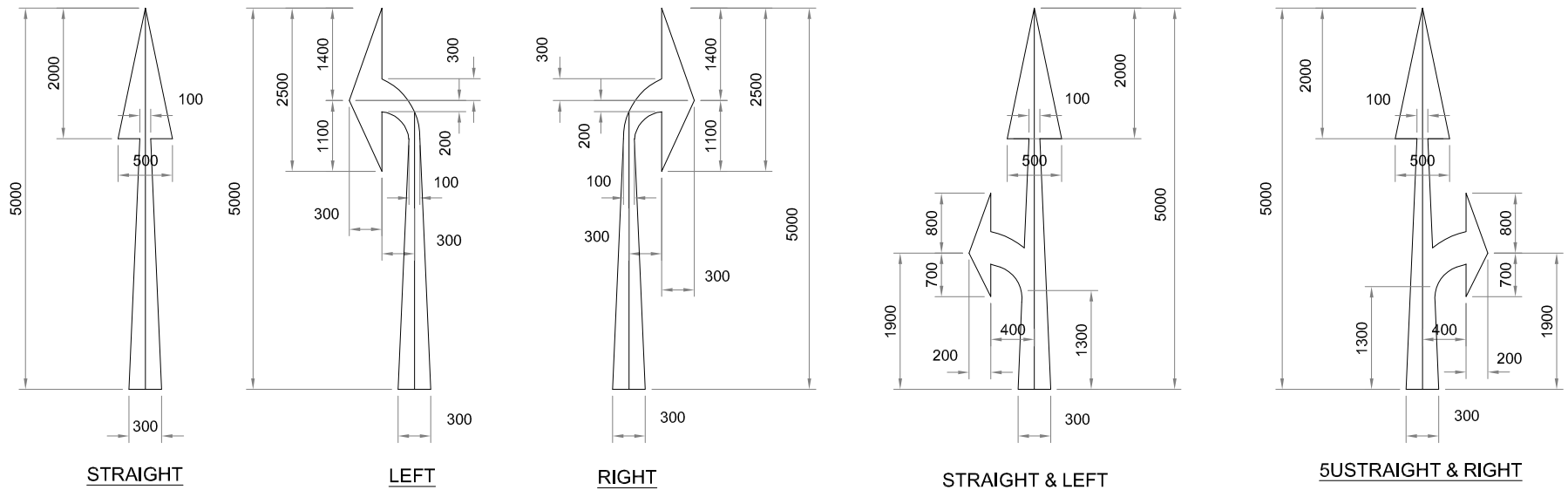
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 1: ALL DIMENSIONS ARE IN MM.
 2: ALL DIMENSIONS SHOULD FOLLOW RELEVANT IRC CODE NO. IRC :35-1997

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DETAILS OF PEDESTRIAN CROSSING MARKING

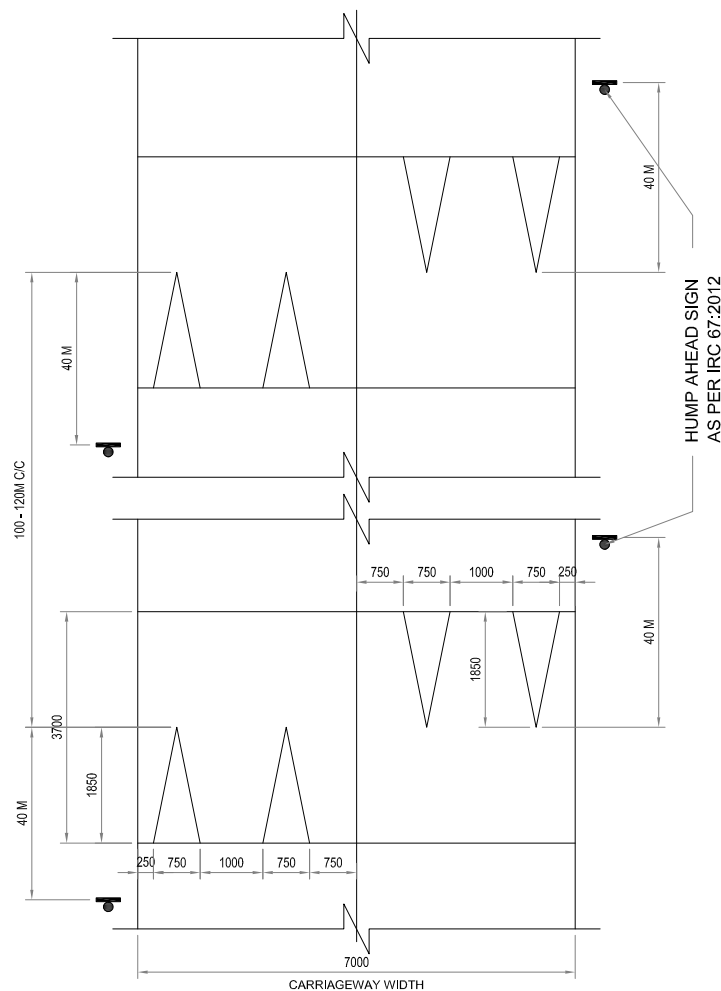
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ARROW MARKINGS FOR ROUTE DIRECTION FOR DESIGN SPEED

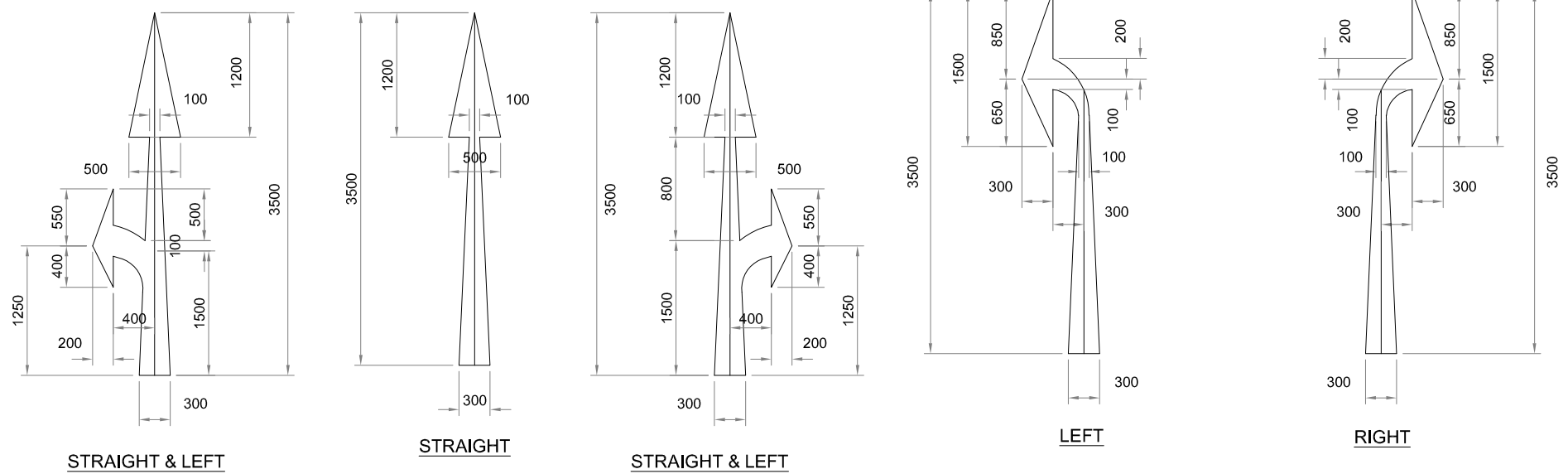
MORE THAN 50 Km/Hr

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DETAILS OF SPEED BREAKERS MARKING

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ARROW MARKINGS FOR ROUTE DIRECTION FOR DESIGN SPEED

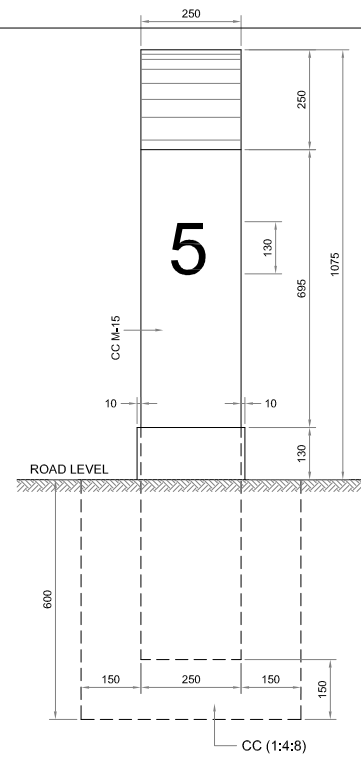
OF 50 Km/Hr. OR LESS

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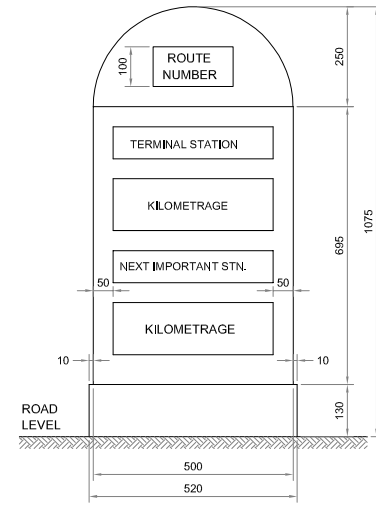
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- 1: ALL DIMENSIONS ARE IN MM.
- 2: ALL DIMENSIONS SHOULD IRC CODE NO. IRC :35-1997

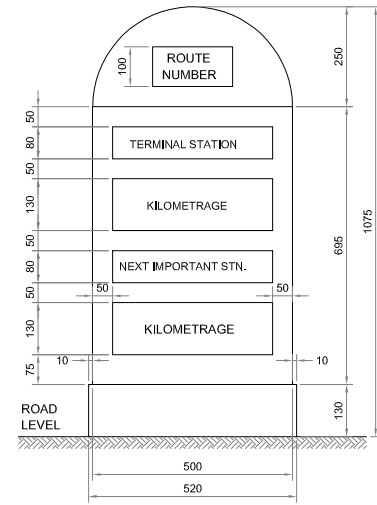
<p>Scale :- 1 : 75</p>  <p>CLIENT: NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. PTI Building, 3rd Floor, 4, Parliament Street, New Delhi - 110001</p>					<p>TITLE : PAVEMENT MARKING</p>					<p>CONSULTANT :  CE TESTING COMPANY PVT. LTD. 124-A, N.S.C. Bose Road, Kolkata - 700092.</p>					<p>DWG NO :-CET/4047/NHIDCL/NH-37/I-J/FDPR/MISC_3B</p>				
<p>DATE: JULY, 2021</p>					<p>PROJECT: CONSULTANCY SERVICES FOR CARRYING OUT FEASIBILITY STUDY, PREPARATION OF DETAILED PROJECT REPORT AND PROVIDING PRE-CONSTRUCTION SERVICES IN RESPECT OF 2 LANING WITH PAVED SHOULDER OF IMPHAL-JIRIBAM SECTION OF NH-37 (NH-53) (LENGTH- 220 KM) IN THE STATE OF MANIPUR</p>					<p>SUBMISSION TYPE : FINAL DETAILED PROJECT REPORT</p>					<p>REVISION MKD. - R0 SHEET NO. - 01</p>				
<p>REVISIONS</p>					<p>(PACKAGE NO. V)</p>					<p>Drawn By: S.MANDAL, Designed By: B.DAS, Checked By: A.DEY, Issued By: A.K.DAS</p>									



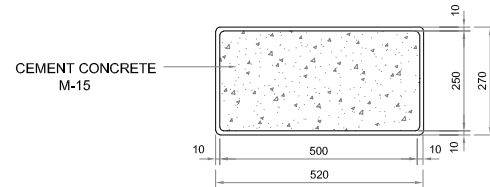
SIDE ELEVATION



FACE - 1

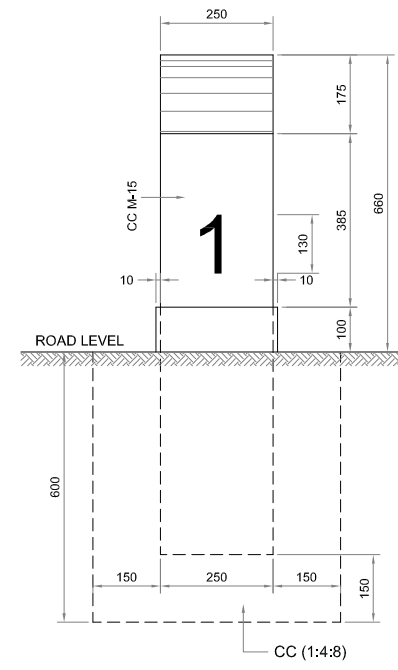


FACE - 2

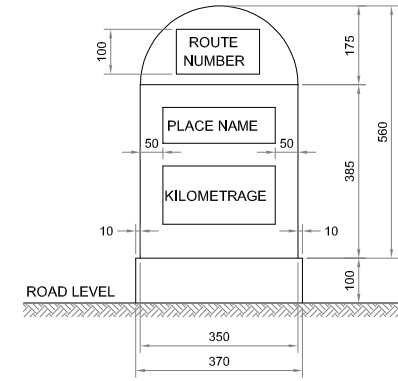


SECTIONAL PLAN

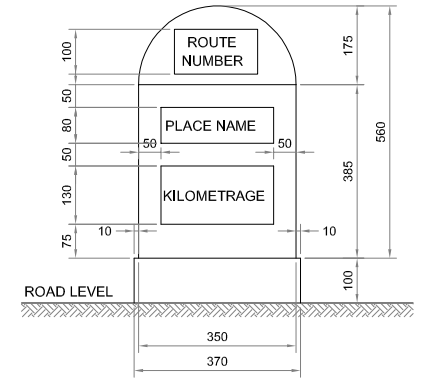
TYPE DESIGN FOR THE 5TH KILOMETRE STONE



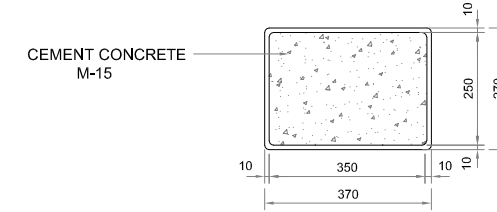
SIDE ELEVATION



FACE - 1

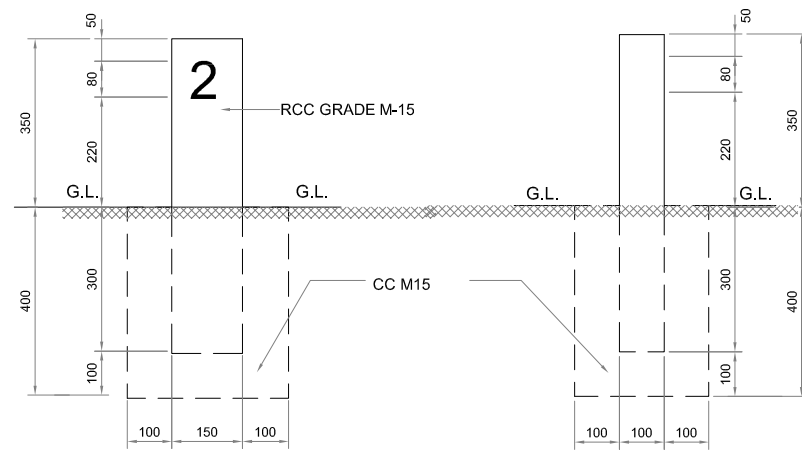


FACE - 2



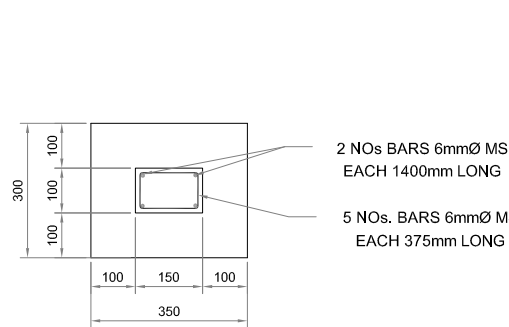
SECTIONAL PLAN

TYPE DESIGN FOR THE ORDINARY KILOMETRE STONE



FRONT ELEVATION

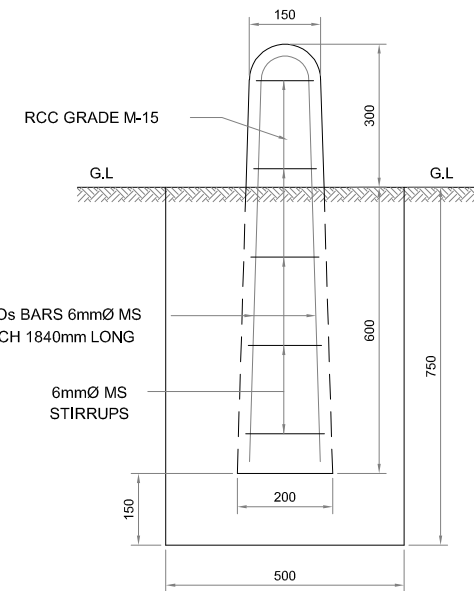
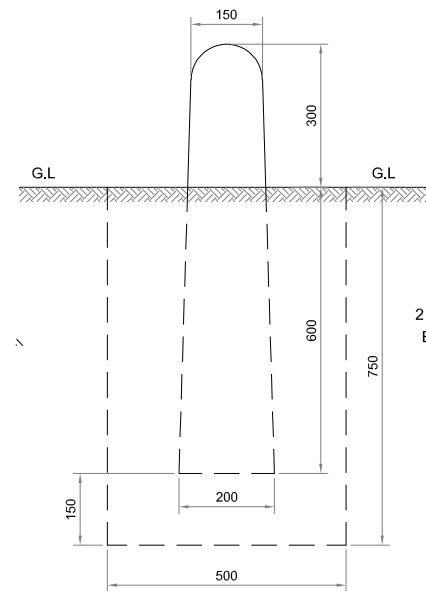
SIDE ELEVATION



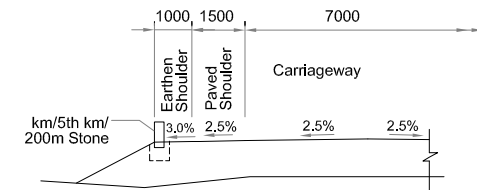
PLAN

SCHEDULE OF REINFORCEMENT

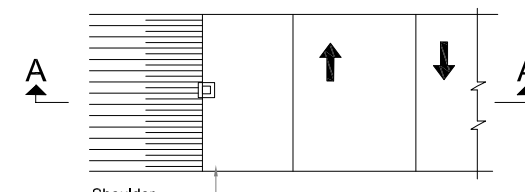
TYPE DESIGN FOR 200 - METRE STONES



TYPE DESIGN FOR BOUNDARY STONES



SECTION A

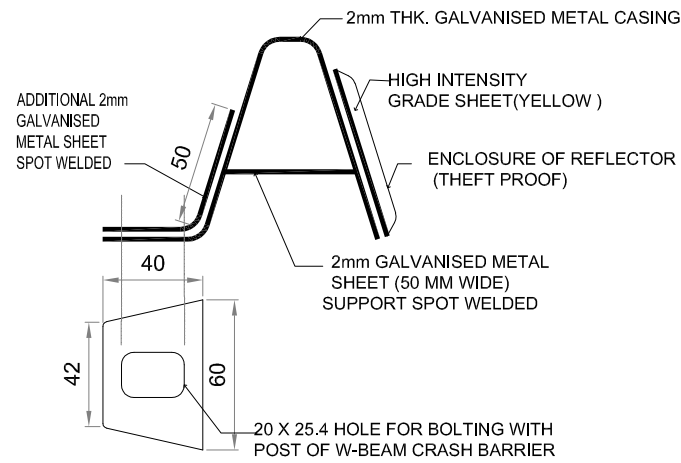


PLAN LOCATION OF DISTANCE STONE

Notes:

1. Details of kilometre stones and 5th kilometre stones are generally based on IRC:8-1980
2. Details of 200m stones are generally based on IRC:26-1967.
3. The distance stones shall be provided on left side of the road as shown independently for each direction of traffic flow.
4. The letters and numerals on distance stones shall be as per IRC:8-1980.
5. Details of boundary stones are generally based on IRC:25-1967.
6. Reinforcement - Mild steel bars conforming to I.S.432/1966 Grade 1 tested steel
7. CONCRETE MIX -
RCC : GRADE M-15
CC :- 1:4:8
8. All dimensions are in millimetres unless otherwise mentioned.

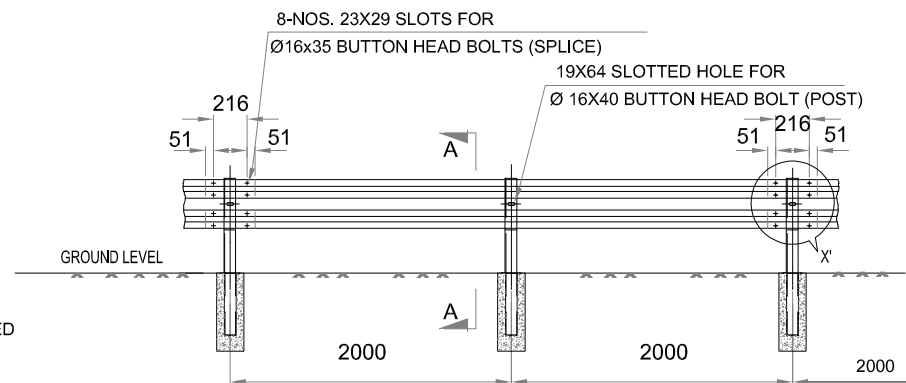
Scale :- 1 : 75					CLIENT: NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. PTI Building, 3rd Floor, 4, Parliament Street, New Delhi - 110001					TITLE : DETAILS OF KM STONE, 5TH KM STONE, 200 M STONE, BOUNDARY STONE					CONSULTANT : CE TESTING COMPANY PVT. LTD. 124-A, N.S.C. Bose Road, Kolkata - 700092.					DWG NO :-CET/4047/NHIDCL/NH-37/I-J/FDPR/MISC_4				
DATE: JULY, 2021					PROJECT: CONSULTANCY SERVICES FOR CARRYING OUT FEASIBILITY STUDY, PREPARATION OF DETAILED PROJECT REPORT AND PROVIDING PRE-CONSTRUCTION SERVICES IN RESPECT OF 2 LANE WITH PAVED SHOULDER OF IMPHAL-JIRIBAM SECTION OF NH-37 (NH-53) (LENGTH- 220 KM) IN THE STATE OF MANIPUR					SUBMISSION TYPE : FINAL DETAILED PROJECT REPORT					SHEET NO. - 01									
REVISIONS															Drawn By: S.MANDAL, Designed By: B.DAS, Checked By: A.DEY, Issued By: A.K.DAS									



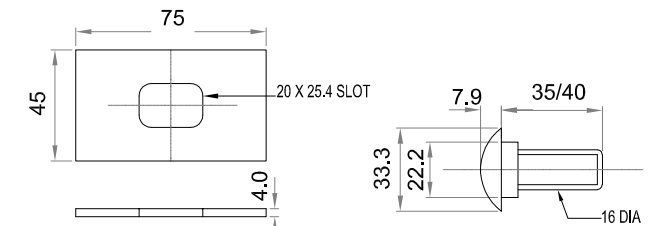
GUARD RAIL REFLECTOR

SHAPE : Equilateral Trapezium
 DIMENSIONS :
 FRONT CASING
 Top: 95 mm
 Bottom: 70 mm
 Height: 80 mm
 REFLECTIVE PORTION
 Top: 70 mm
 Bottom: 50 mm
 Height: 50 mm

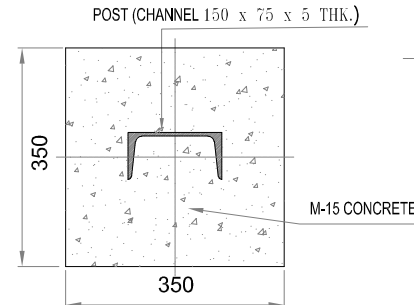
GUARD RAIL REFLECTOR WILL BE BOLTED REPLACING SPLICE WASHER EVERY 10 POSTS INTERVAL



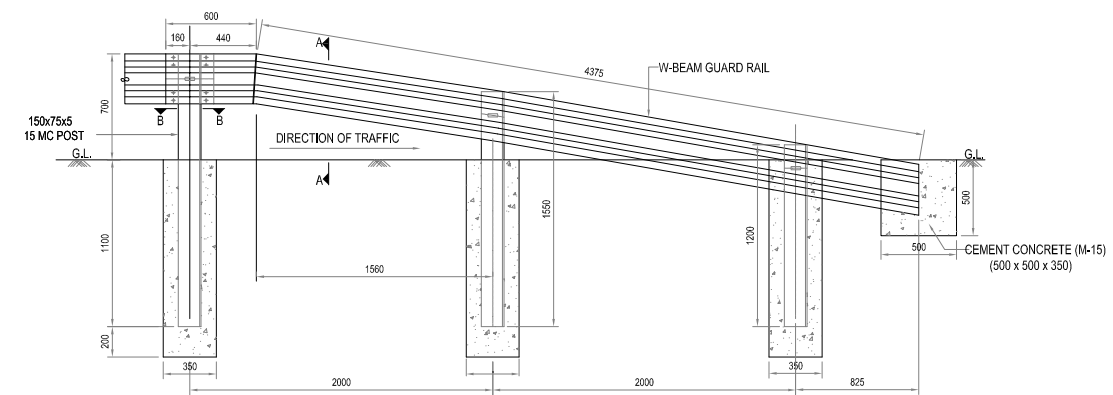
ELEVATION OF SINGLE SIDED GUARD RAIL



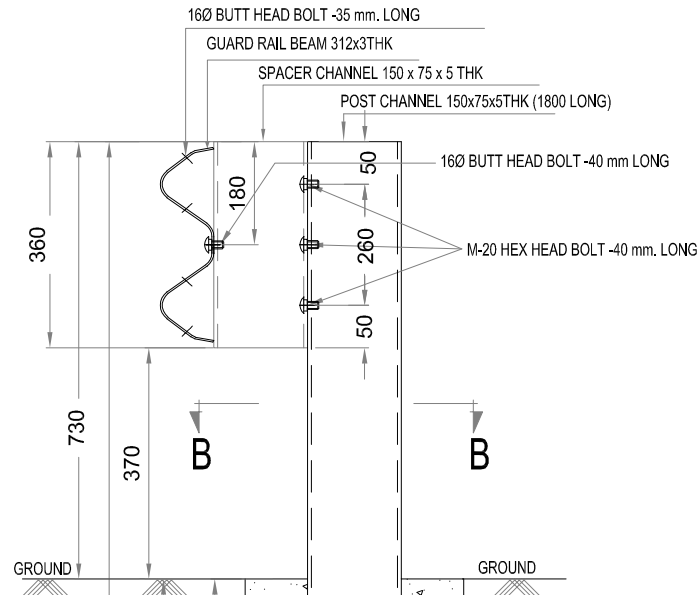
SPLICE WASHER



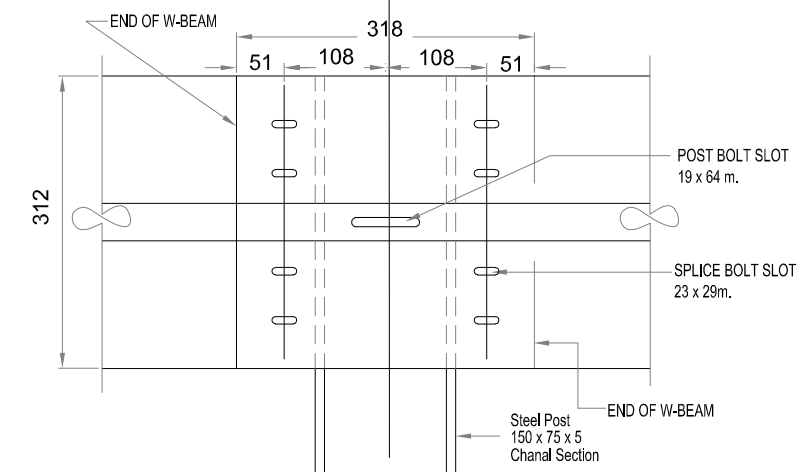
SECTION 'B-B'



ELEVATION SHOWING SINGLE SIDED GAURD RAIL SYSTEM - END SIDE ARRANGEMENT



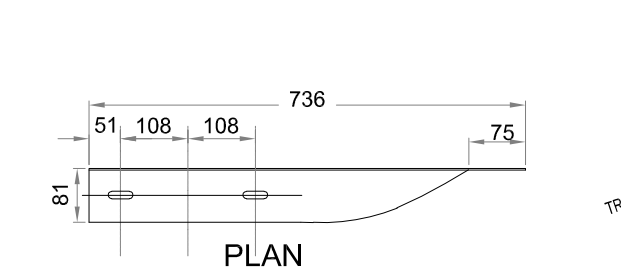
CROSS SECTION A-A



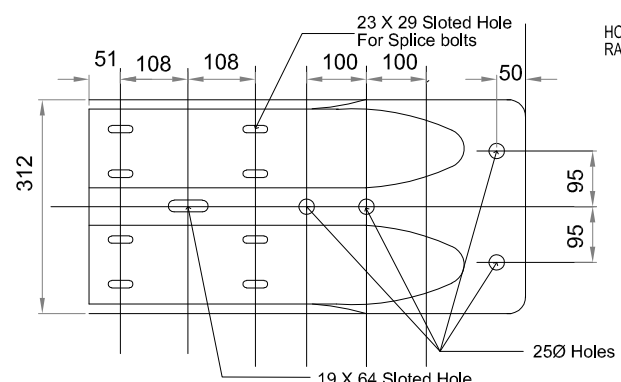
DETAILS OF 'X'

NOTES :

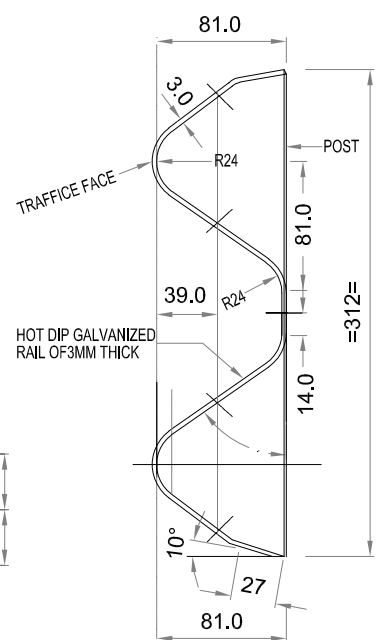
01. ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE.
02. ALL PUNCHING DIMENSIONS UNLESS OTHERWISE STATED = ±1mm.
03. WELDING ELECTRODES SHALL CONFORM TO IS:314.
04. FOR GUARD RAIL BEAMS, POSTS & SPACER MATERIAL SHALL CONFORM TO IS:10748, GRADE-II. IS 808, IS 2062
05. BOLTS,NUTS & WASHERS SHALL BE ELECTRO GALVANISED.
06. GUARD RAIL, POSTS, SPACERS, FOUNDATION BOLTS SHALL BE HOT DIP GALVANISED.
07. THE OVER LAPPING OF THE GAURD RAIL BEAM SHALL BE ACHIEVED USING SUITABLE SIZE WASHERS.
08. GUARD RAILS ARE TO BE PROVIDED WHEREVER:-
 a) HEIGHT OF THE EMBANKMENT IS MORE THAN 3M
 b) OUTER SIDE OF SUPERELEVATED SECTION, UNDERPASS,PIER OBSTRUCTION AND BOTH SIDES OF BRIDGE APPROACHES.
09. ALL FITTINGS TO CONFORM TO IS : 1367 AND IS : 1364
10. W-BEAM GUARDRAIL ARE TO BE FABRICATED AND INSTALLED AS PER SECTION 810 OF MORT&H'S SPECIFICATION FOR METAL BEAM CRASH BARRIER.



PLAN

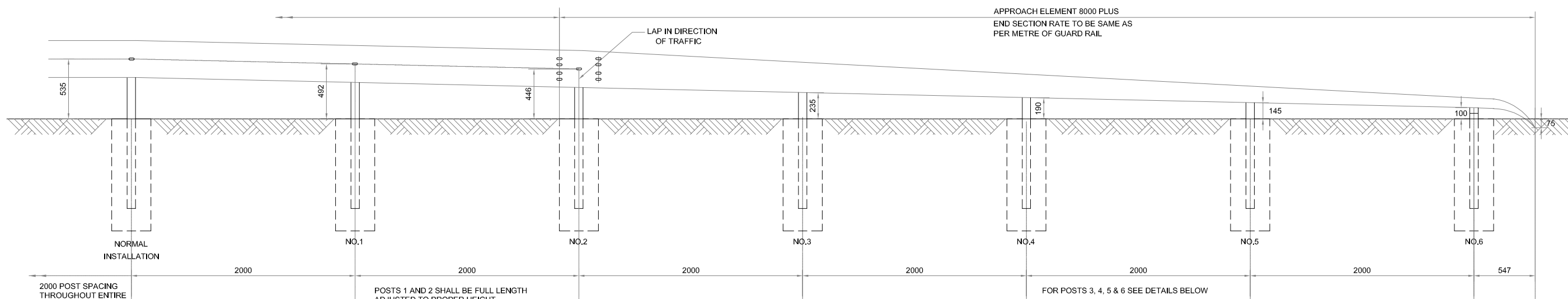


ELEVATION OF W BEAM END SECTION (FLARED)

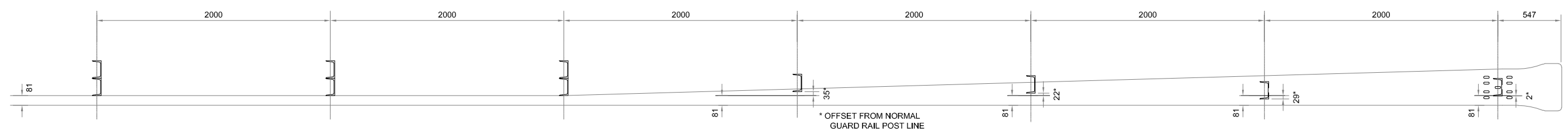


TYPICAL CROSS SECTION OF W-BEAM

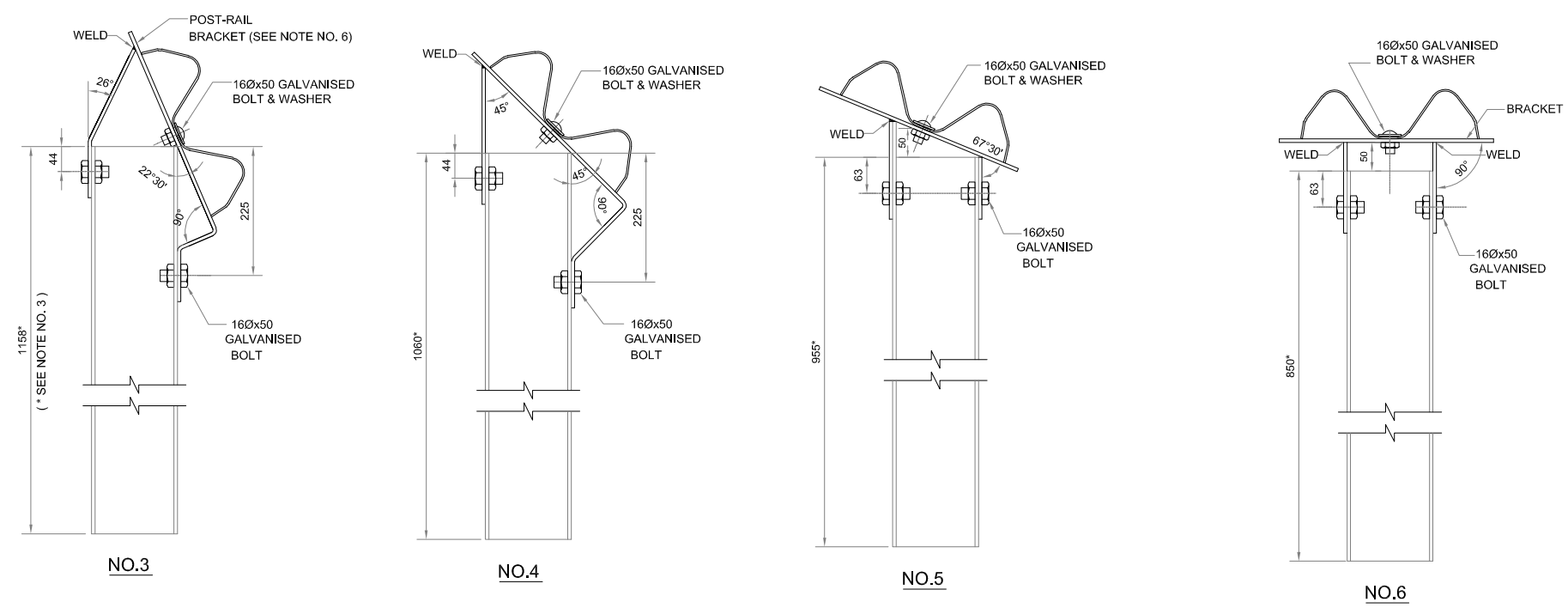
Scale :- 1 : 75					CLIENT: NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. PTI Building, 3rd Floor, 4, Parliament Street, New Delhi - 110001					TITLE: DETAILS OF W-BEAM METAL CRASH BARRIER					CONSULTANT: CE TESTING COMPANY PVT. LTD. 124-A, N.S.C. Bose Road, Kolkata - 700092.					DWG NO :-CET/4047/NHIDCL/NH-37/I-J/FDPR/MISC_5A																								
PROJECT: CONSULTANCY SERVICES FOR CARRYING OUT FEASIBILITY STUDY, PREPARATION OF DETAILED PROJECT REPORT AND PROVIDING PRE-CONSTRUCTION SERVICES IN RESPECT OF 2 LANEING WITH PAVED SHOULDER OF IMPHAL-JIRIBAM SECTION OF NH-37 (NH-53) (LENGTH- 220 KM) IN THE STATE OF MANIPUR					DATE: JULY, 2021					SUBMISSION TYPE: FINAL DETAILED PROJECT REPORT					(PACKAGE NO. V)					REVISION MKD. - R0																								
M.KD.					DATE					DESCRIPTION					CHKD.					APPRD.					Drawn By					Designed By					Checked By					Issued By				
REVISIONS																									S.MANDAL					B. DAS					A.DEY					A. K.DAS				



**GUARD RAIL APPROACH ELEMENT
ELEVATION**
(SCALE 1:25)



PLAN
(SCALE 1:25)

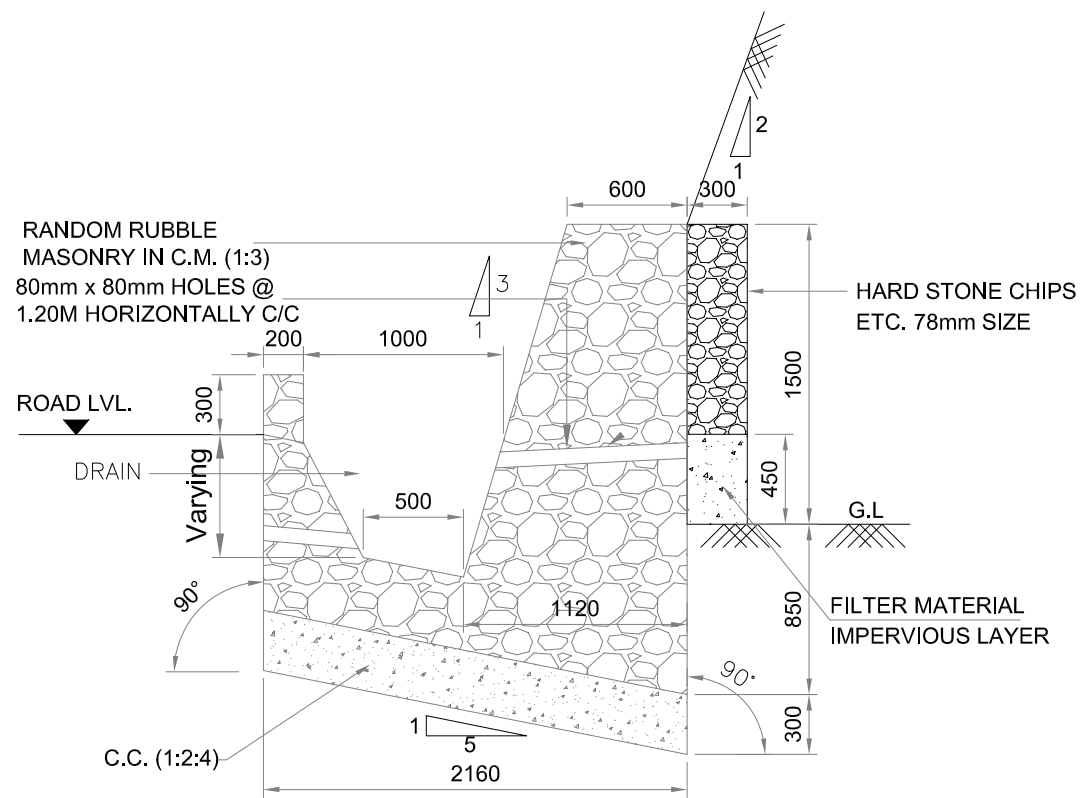


(SCALE 1:7.5)

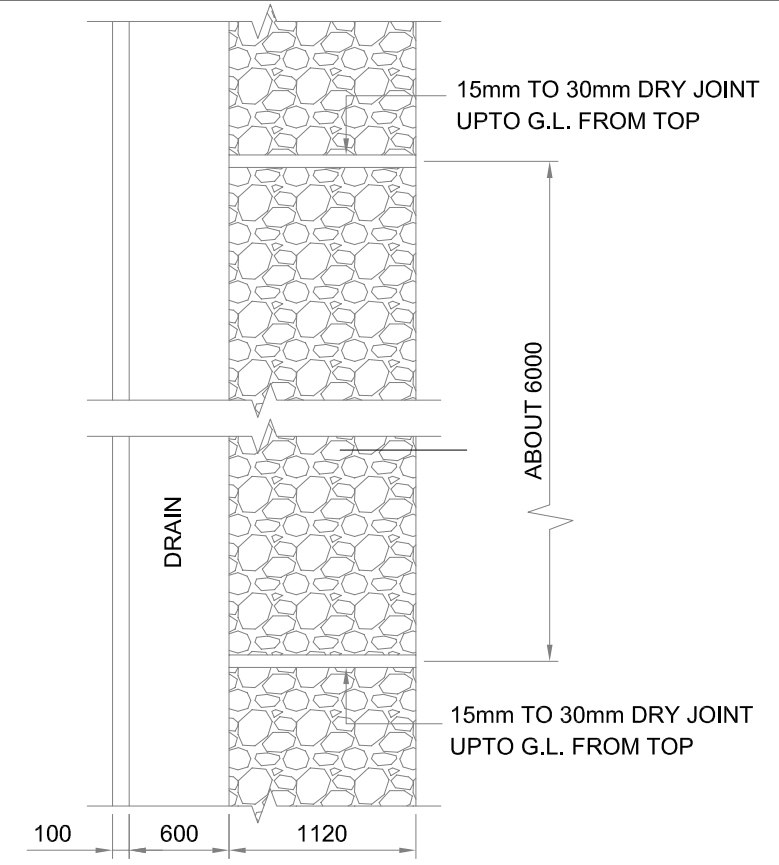
NOTES :

1. THE APPROACH ELEMENT SHALL BE TWISTED TO HORIZONTAL AND SECURED TO THE POSTS, AS SHOWN, WITH THE END SECTION TIP BURIED.
2. PLACE DELINEATOR POST ADJACENT TO THE BEGINNING OF THE APPROACH ELEMENT.
3. THE HEIGHT OF POST NOS. 3,4,5 & 6. IS INDICATIVE ONLY. THIS SHALL BE ADJUSTED TO PRODUCE A STRAIGHT LINE AT THE CENTRE OF RAIL.
4. THE APPROACH END ELEMENT SHALL BE TANGENT TO THE NORMAL GUARD RAIL LINE.
5. FOR POST, RAIL & TRAILING END ELEMENT DETAILS SEE SEPARATE DRAWING.
6. THE POST-RAIL BRACKET SHALL BE 178 MM WIDE AND HAVE A 25 MM OVERHANG ON EACH SIDE OF THE GUARD RAIL.
7. MANUFACTURERS ARE TO VERIFY DIMENSIONS BEFORE INSTALLATION AND MAKE ADJUSTMENTS, IF NECESSARY, WITH APPROVAL OF ENGINEERS.

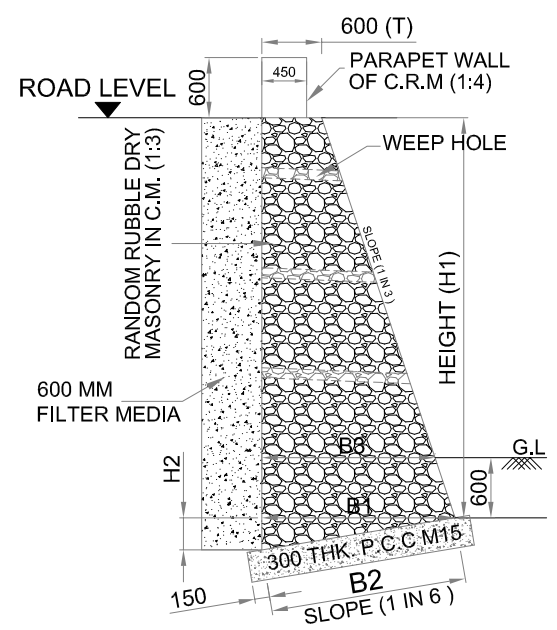
Scale :- 1 : 75					CLIENT: NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. PTI Building, 3rd Floor, 4, Parliament Street, New Delhi - 110001					TITLE : DETAILS OF W-BEAM METAL CRASH BARRIER					CONSULTANT : CETEST Engineering Consultants An ISO 9001, 14001 & OHSAS 18001 Certified Company					DWG NO :-CET/4047/NHIDCL/NH-37/I-J/FDPR/MISC_5B									
PROJECT: CONSULTANCY SERVICES FOR CARRYING OUT FEASIBILITY STUDY, PREPARATION OF DETAILED PROJECT REPORT AND PROVIDING PRE-CONSTRUCTION SERVICES IN RESPECT OF 2 LANEING WITH PAVED SHOULDER OF IMPHAL-JIRIBAM SECTION OF NH-37 (NH-53) (LENGTH- 220 KM) IN THE STATE OF MANIPUR					DATE: JULY, 2021					SUBMISSION TYPE : FINAL DETAILED PROJECT REPORT					CE TESTING COMPANY PVT. LTD 124-A, N.S.C. Bose Road, Kolkata - 700092.					REVISION MKD. - R0 SHEET NO. - 01									
REVISIONS					M.KD.					DATE					DESCRIPTION					CHKD.					APPRD.				
S.MANDAL					B.DAS					A.DEY					A.K.DAS														



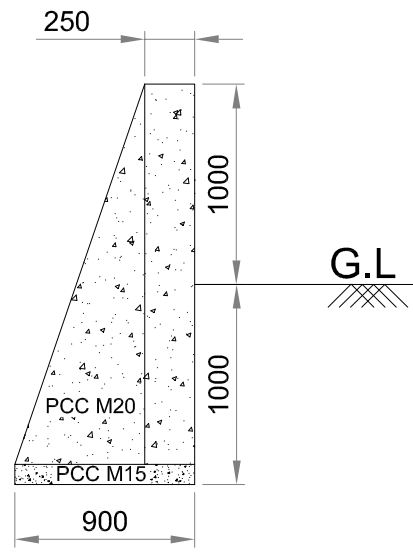
TYPE-2:- TYPICAL CROSS SECTION OF BREAST WALL OF 1.50MTR. HIGHT
(SCALE 1:25)



PLAN OF BREAST WALL (AT GROUND LEVEL)
(SCALE 1:30)



TYPICAL CROSS SECTION OF RETAINING WALL (1.5M TO 4.0M HIGHT)
(SCALE 1:50)



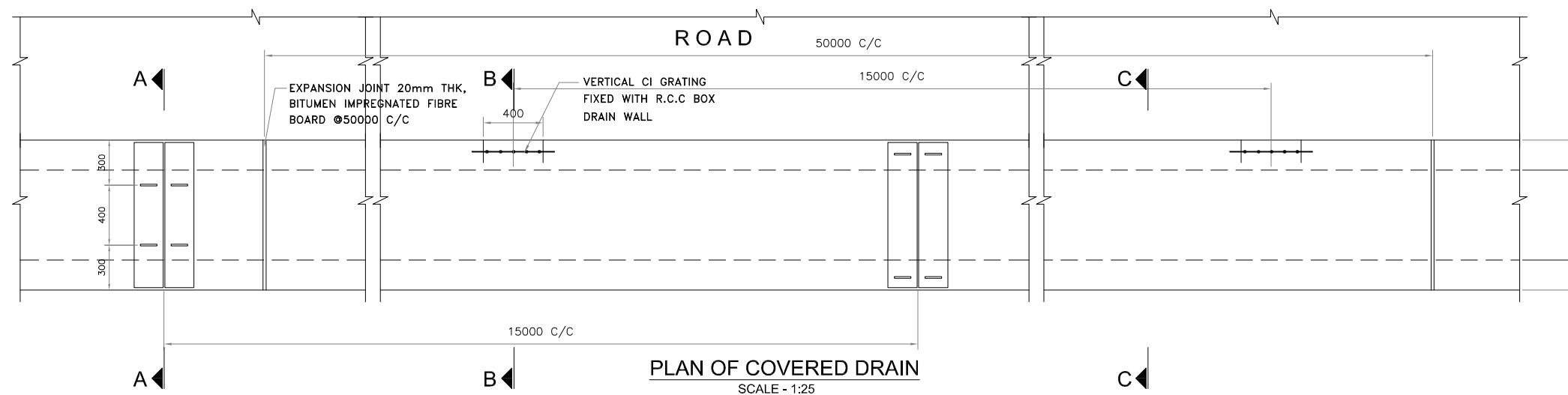
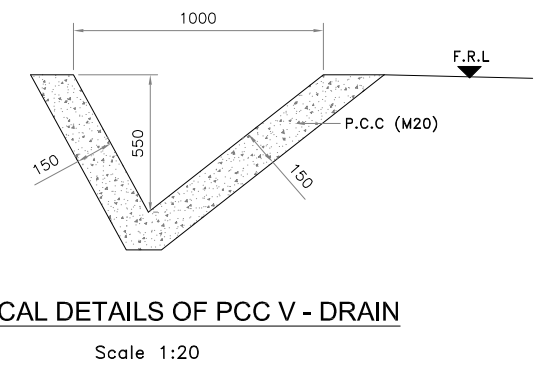
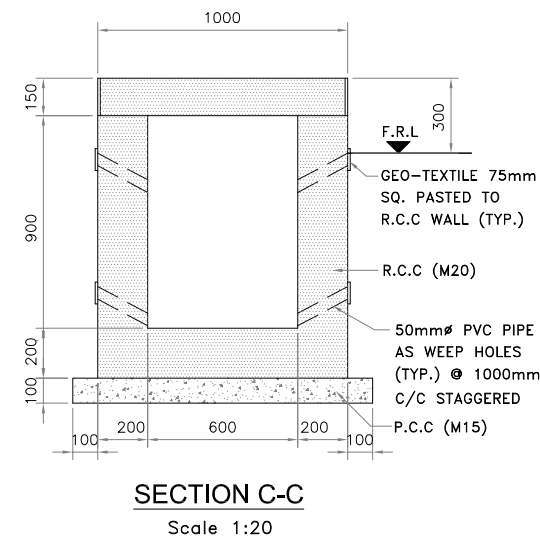
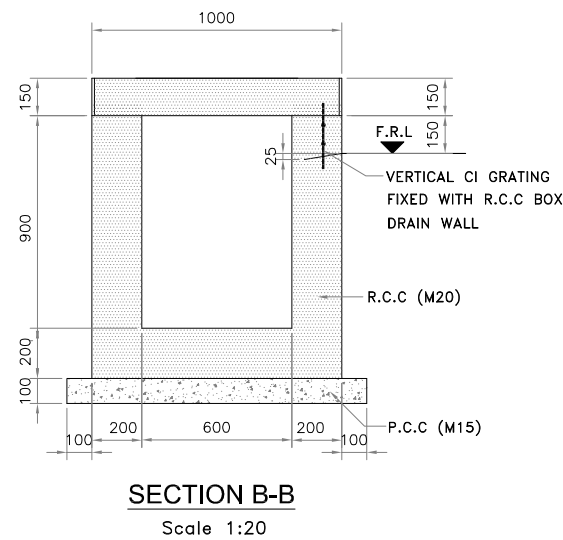
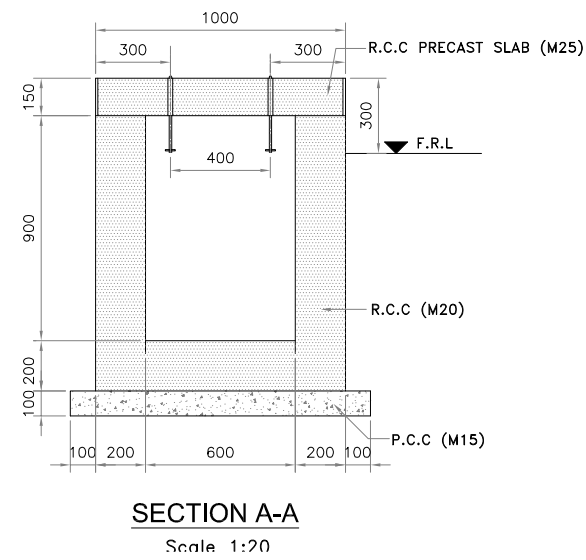
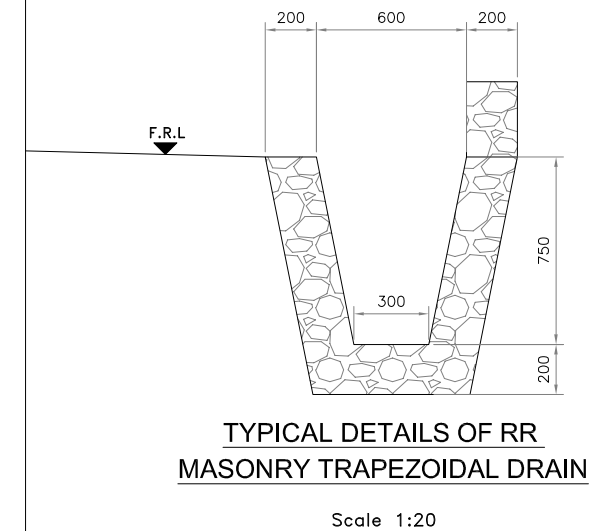
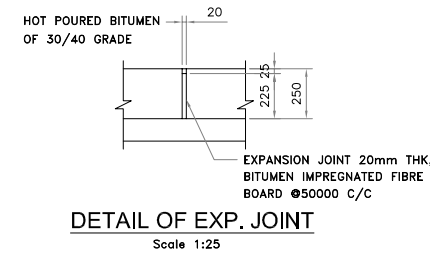
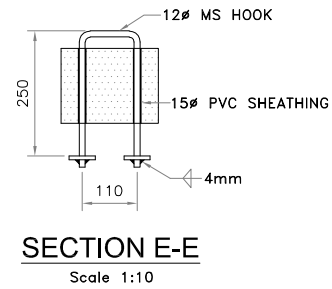
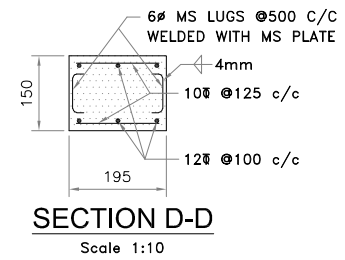
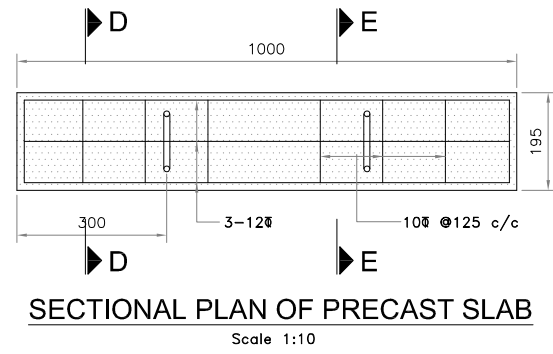
TYPICAL CROSS SECTION OF TOE WALL
(SCALE 1:25)

DIMENSION TABLE OF RETAINING WALL

HEIGHT 'H1'	T	B1	B2	B3	H2	FOUNDATION BED
2	0.60	1.27	1.284	1.1	0.211	300mm THK. P.C.C. (M15)
3	0.60	1.60	1.622	1.4	0.267	300mm THK. P.C.C. (M15)
4	0.60	1.93	1.960	1.7	0.322	300mm THK. P.C.C. (M15)

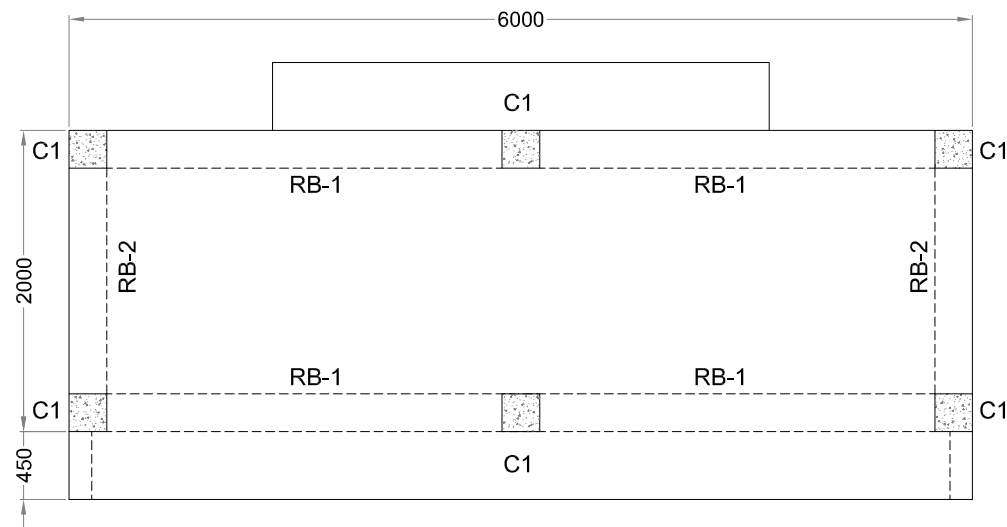
- NOTES :-
1. ALL DIMENSIONS ARE IN mm, UNLESS NOTED OTHERWISE.
 2. ON THE RETAINING WALL SIDE THERE SHALL BE NO FOOTPATH AND DRAIN.
 3. FOR OTHER DETAILS REFER IRC:SP:48 HILL ROAD MANUAL.

Scale :- 1 : 75					CLIENT: NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. PTI Building, 3rd Floor, 4, Parliament Street, New Delhi - 110001					TITLE: DETAILS OF RETAINING WALL & BREAST WALL					CONSULTANT: CETEST Engineering Consultants 124-A, N.S.C. Bose Road, Kolkata - 700092.					DWG NO :- CET/4047/NHIDCL/NH-37/I-J/FDPR/MISC_6				
PROJECT: CONSULTANCY SERVICES FOR CARRYING OUT FEASIBILITY STUDY, PREPARATION OF DETAILED PROJECT REPORT AND PROVIDING PRE-CONSTRUCTION SERVICES IN RESPECT OF 2 LANING WITH PAVED SHOULDER OF IMPHAL-JIRIBAM SECTION OF NH-37 (NH-53) (LENGTH- 220 KM) IN THE STATE OF MANIPUR					DATE: JULY, 2021					SUBMISSION TYPE: FINAL DETAILED PROJECT REPORT					(PACKAGE NO. V)					REVISION MKD. - R0 SHEET NO. - 01				
MKD.	DATE	DESCRIPTION	CHKD.	APPRD.	S.MANDAL					B.DAS					A.DEY					A.K.DAS				
REVISIONS																								

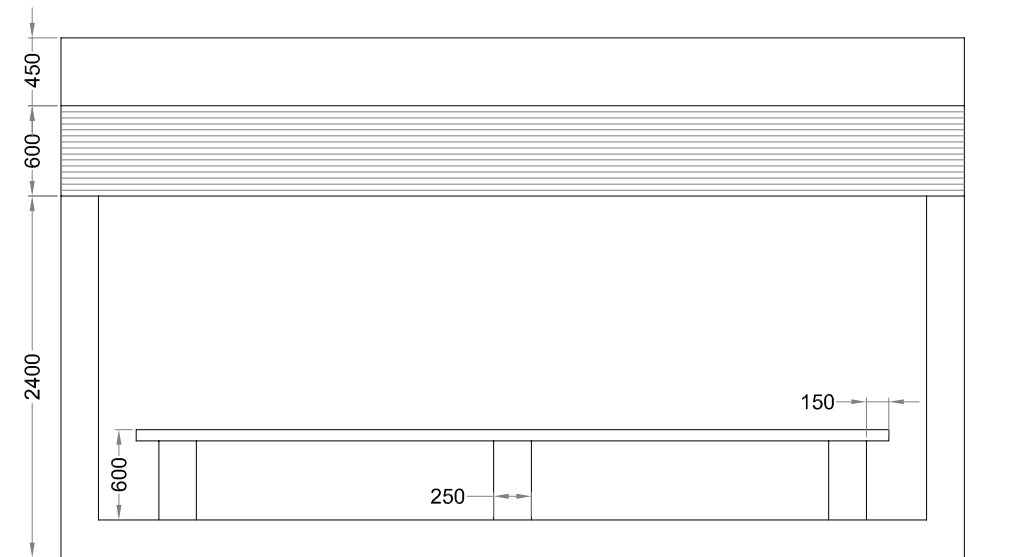


- Notes:**
- All dimensions are in millimetres unless otherwise mentioned
 - Bearing capacity of soil is assumed as $10T/M^2$
 - Catch pits have been proposed at suitable location / intervals
 - All fillet welds shall be 4mm.thick.
 - Temporary opening on outer wall of catch pit have been proposed till land is developed in plot areas
 - These openings to be closed after land is developed by Vendors.

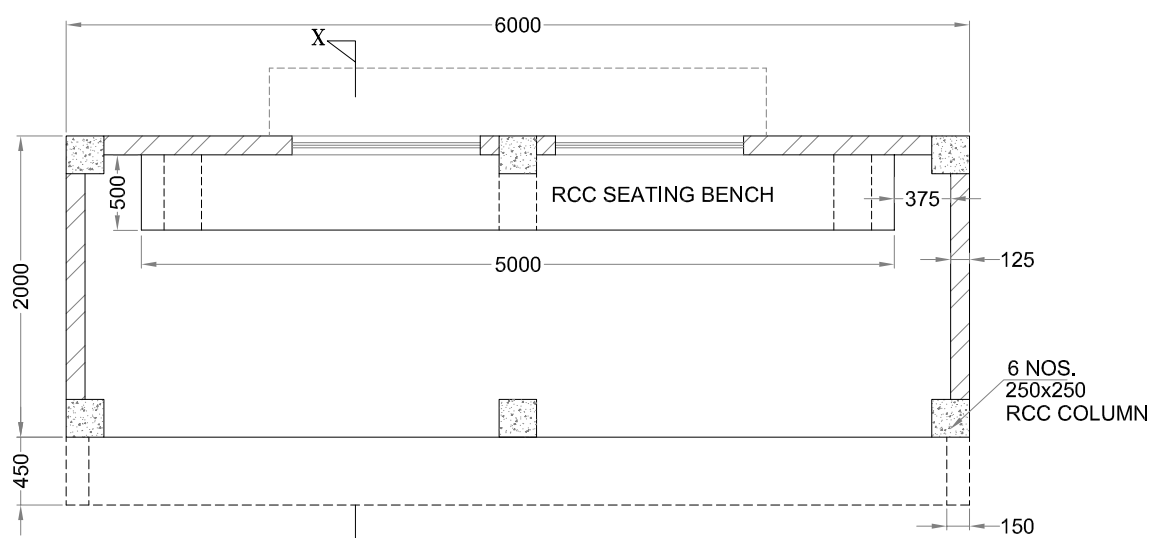
Scale :- 1 : 75					 CLIENT: NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. PTI Building, 3rd Floor, 4, Parliament Street, New Delhi - 110001		TITLE : TYPICAL DETAILS OF DRAIN SUBMISSION TYPE : FINAL DETAILED PROJECT REPORT (PACKAGE NO. V)		CONSULTANT :  CE TESTING COMPANY PVT. LTD. 124-A, N.S.C. Bose Road, Kolkata - 700092.		DWG NO :- CET/4047/NHIDCL/NH-37/I-J/FDPR/MISC_07 REVISION MKD. - R0 SHEET NO. - 01			
MKD.	DATE	DESCRIPTION	CHKD.	APPRD.	PROJECT: CONSULTANCY SERVICES FOR CARRYING OUT FEASIBILITY STUDY, PREPARATION OF DETAILED PROJECT REPORT AND PROVIDING PRE-CONSTRUCTION SERVICES IN RESPECT OF 2 LANING WITH PAVED SHOULDER OF IMPHAL-JIRIBAM SECTION OF NH-37 (NH-53) (LENGTH- 220 KM) IN THE STATE OF MANIPUR DATE: JULY, 2021		Drawn By: S.MANDAL Designed By: B.DAS Checked By: A.DEY Issued By: A.K.DAS		   					
REVISIONS														



STRUCTURAL ARRANGEMENT PLAN

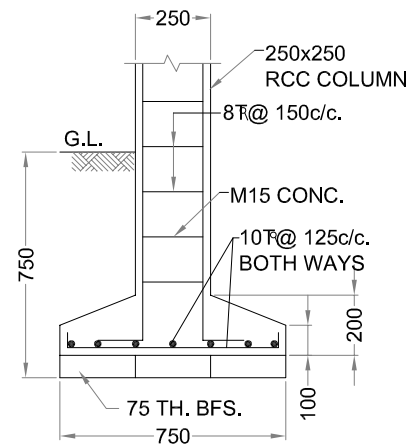


FRONT ELEVATION

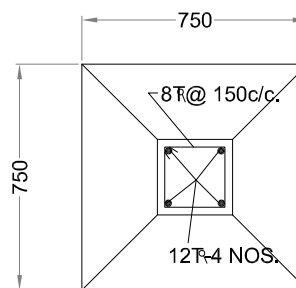


PLAN

PASSENGER SHELTER

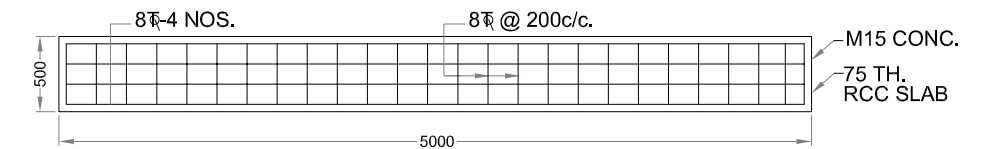


SECTION

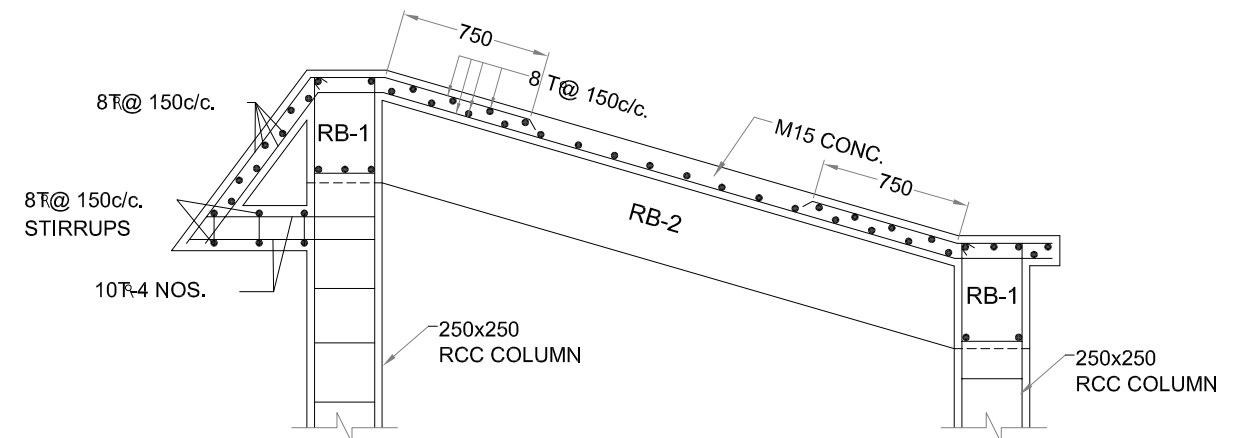


PLAN

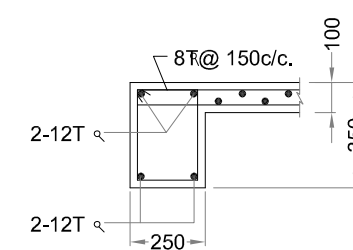
COLUMN FOUNDATION DETAILS



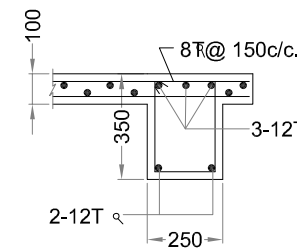
SEATING BENCH REINFORCEMENT DETAIL



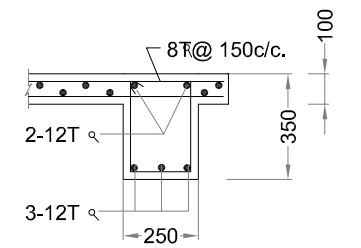
ROOF SLAB REINFORCEMENT DETAIL



2.0M BEAM SECTION
BEAM MKD. RB-2

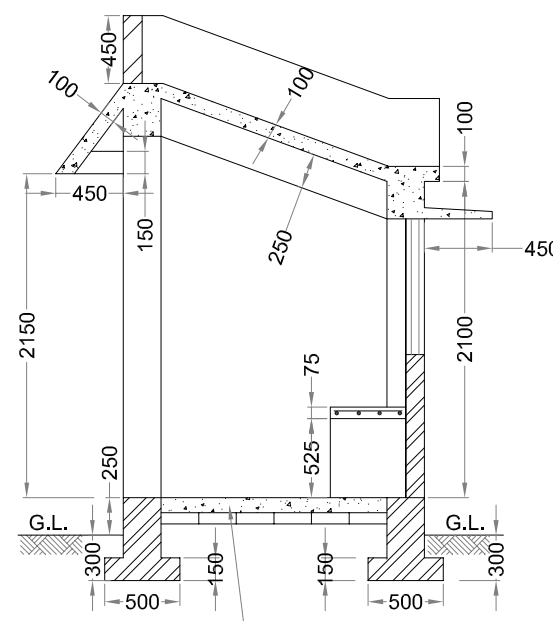


END SECTION



MID SPAN SECTION

3.0M BEAM SECTIONS
BEAM MKD. RB-1



SECTION X-X

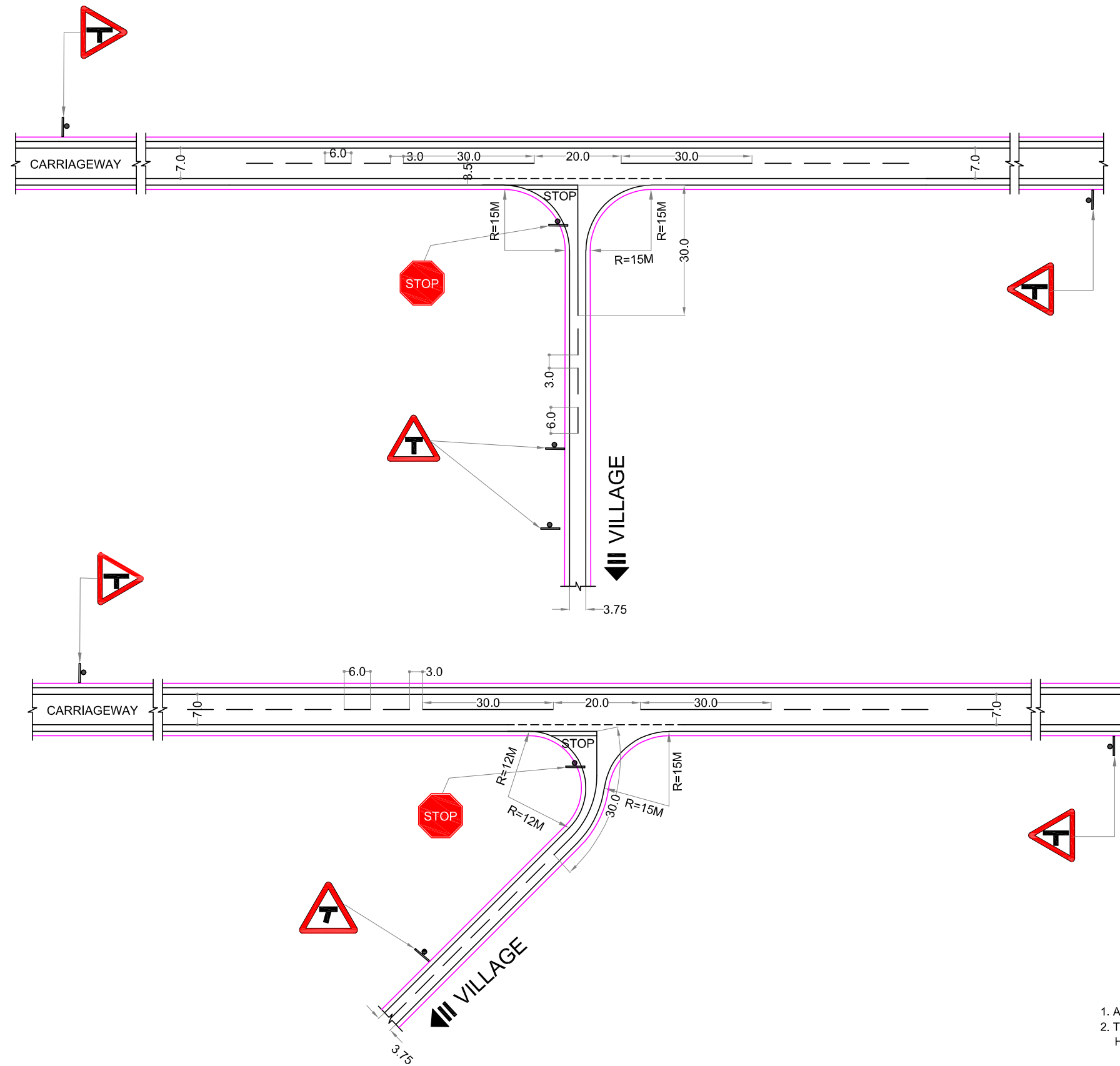
NOTE :

MATERIAL



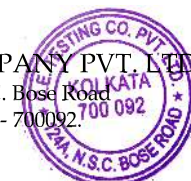
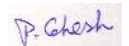



- a) CONCRETE : i) M-20 FOR FOUNDATION, COLUMNS, BEAMS & SLABS.
ii) M-15 OR 1:3:6 FOR LEVELING COURSE (P.C.C.)
- b) STEEL : CONFORMING TO IS:1786
- c) CONCRETE MORTAR : i) 1:4 (1 CEMENT : 4 SAND) FOR BRICK WORK & CEILING PLASTER.
ii) 1:6 (1 CEMENT : 6 SAND) FOR WALL PLASTER.

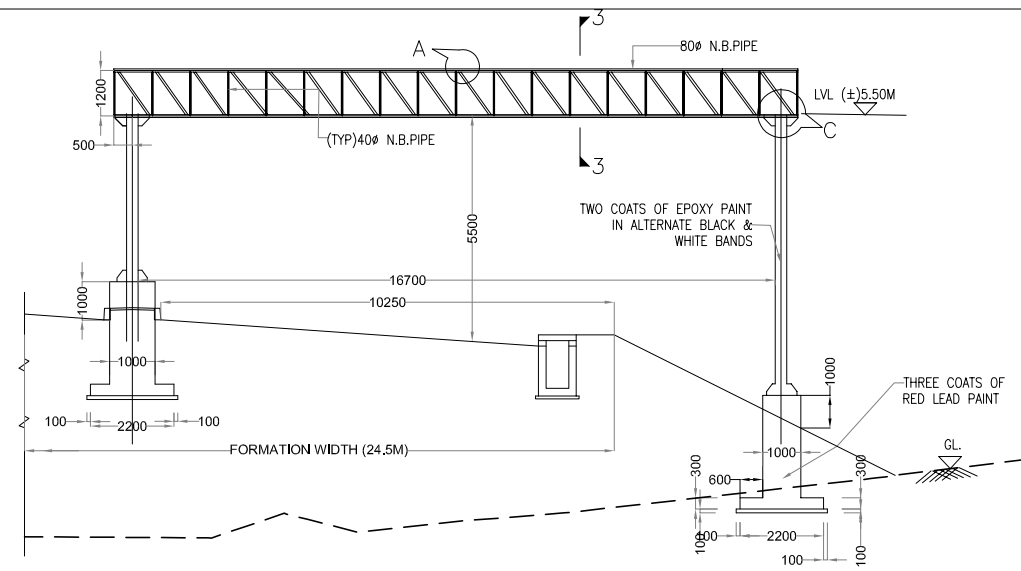
ALL DIMENSIONS ARE IN MILIMETER.

Scale :- N.T.S.						CLIENT: NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. PTI Building, 3rd Floor, 4, Parliament Street, New Delhi - 110001	TITLE: DETAILS OF TYPICAL PASSENGER SHELTER	CONSULTANT: CE TESTING COMPANY PVT. LTD. 124-A, N.S.C. Bose Road, Kolkata - 700092	DWG NO :- CET/4047/NHIDCL/NH-37/I-J/FDPR/MISC- 09			
DATE: JULY, 2021									PROJECT: CONSULTANCY SERVICES FOR CARRYING OUT FEASIBILITY STUDY, PREPARATION OF DETAILED PROJECT REPORT AND PROVIDING PRE-CONSTRUCTION SERVICES IN RESPECT OF 4 LANING WITH PAVED SHOULDER OF IMPHAL-JIRIBAM SECTION OF NH-37 (NH-53) (LENGTH- 220 KM) IN THE STATE OF MANIPUR			
MKD.	DATE	DESCRIPTION	CHKD.	APPRD.	SUBMISSION TYPE: FINAL DETAILED PROJECT REPORT (PACKAGE NO. V)			Drawn By: P.Ghosh Designed By: B.DAS Checked By: S.SADHU Issued By: A.K.DAS				
REVISIONS												

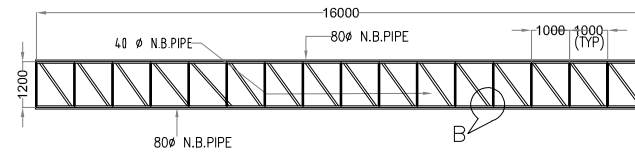


1. ALL DIMENSION ARE IN METER UNLESS OTHERWISE MENTIONED
 2. THE DESIGN IS SUITABLE FOR AN INTERSECTION OF A TWO LANE STATE HIGHWAY AND A SINGLE LANE OTHER DISTRICT ROAD / VILLAGE ROAD

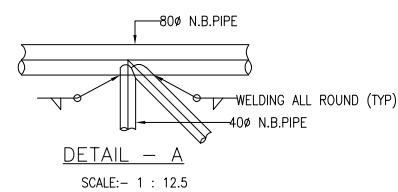
<table border="1"> <thead> <tr> <th>MKD.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>CHKD.</th> <th>APPRD.</th> </tr> </thead> <tbody> <tr> <td colspan="5" style="text-align: center;">REVISIONS</td> </tr> </tbody> </table>					MKD.	DATE	DESCRIPTION	CHKD.	APPRD.	REVISIONS					Scale :- N.T.S		CLIENT: NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. PTI Building, 3rd Floor, 4, Parliament Street, New Delhi - 110001	TITLE: TYPICAL DETAILS OF MINOR INTERSECTION	CONSULTANT :  CETEST Engineering Consultants <small>AN ISO 9001, ISO 14001 & OHSAS 18001 Certified Company</small>	 CETEST CO. PVT. LTD. 124-A, N.S.C. Bose Road Kolkata - 700092	DWG NO :-CET/4047/NHIDCL/NH-37/I-J/FDPR/MISC- 10 REVISION MKD. - R0 SHEET NO. - 01 OF 01
MKD.	DATE	DESCRIPTION	CHKD.	APPRD.																	
REVISIONS																					
DATE: JULY, 2021					PROJECT: CONSULTANCY SERVICES FOR CARRYING OUT FEASIBILITY STUDY, PREPARATION OF DETAILED PROJECT REPORT AND PROVIDING PRE-CONSTRUCTION SERVICES IN RESPECT OF 4 LANING WITH PAVED SHOULDER OF IMPHAL-JIRIBAM SECTION OF NH-37 (NH-53) (LENGTH-220 KM) IN THE STATE OF MANIPUR	SUBMISSION TYPE : FINAL DETAILED PROJECT REPORT PACKAGE-V	Drawn By.  P.GHOSH	Designed By.  B.DAS	Checked By.  S.SADHU	Issued By.  A.K.DAS											



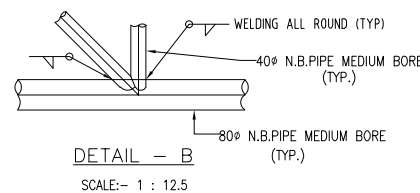
ELEVATION OF GANTRY AT KM 5+730
SCALE:- 1 : 125



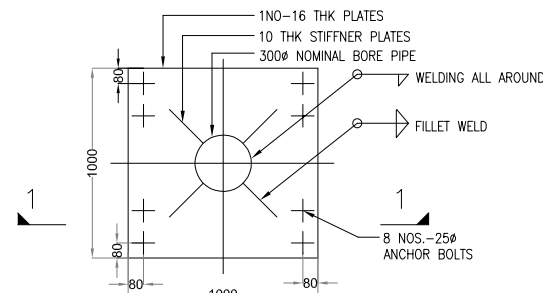
TOP AND BOTTOM PLAN
SCALE:- 1 : 125



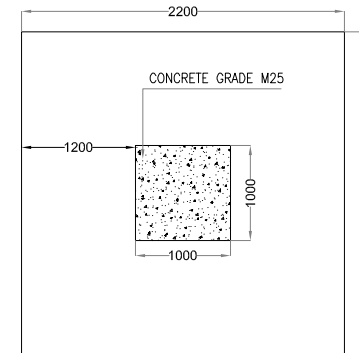
DETAIL - A
SCALE:- 1 : 12.5



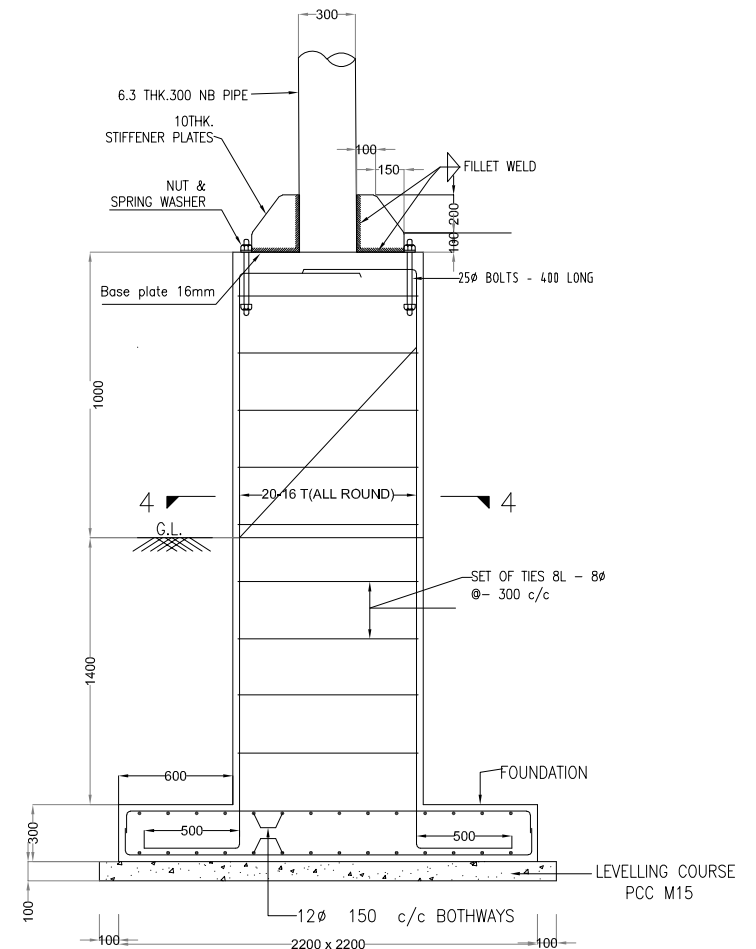
DETAIL - B
SCALE:- 1 : 12.5



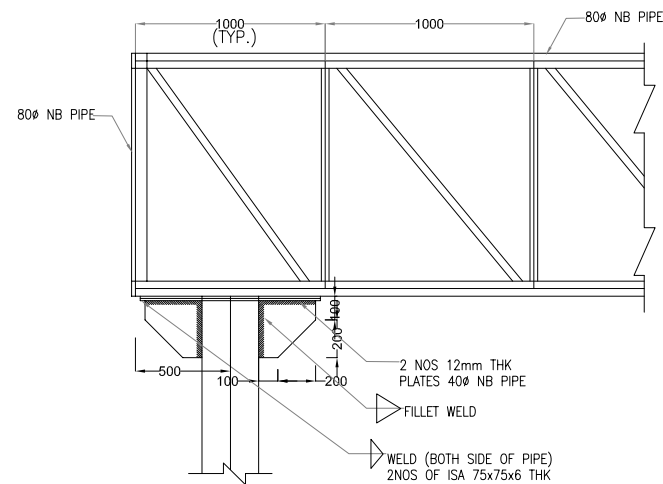
DETAILS OF COLUMN BASE P-1
SCALE:- 1 : 25



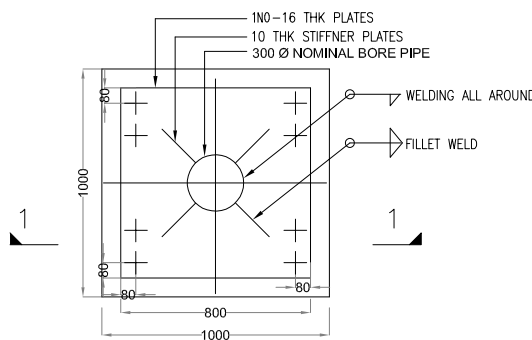
GA PLAN FOR COLUMN
SCALE:- 1 : 25



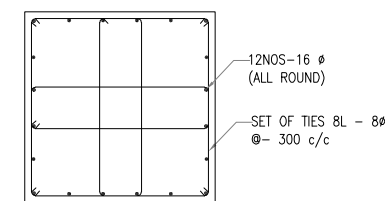
SECTION 1-1
SCALE:- 1 : 25



DETAIL - C
SCALE:- 1 : 25





DETAILS OF COLUMN BASE
SCALE:- 1 : 25



SECTION 4-4
SCALE:- 1 : 25

- NOTES:
- BESIDES THE ABOVE, STANDARDS AND SPECIFICATIONS MENTIONED IN IRC : SP : 84-2014 SHALL BE FOLLOWED STRICTLY WHENEVER APPLICABLE.
 - ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE MENTIONED.
 - GRADE OF CONCRETE IN LEVELLING COURSE PCC M15
 - GRADE OF CONCRETE IN FOUNDATION RCC M25
 - 80 φ AND 40 φ NB PIPES ARE HEAVY
 - OVERHEAD CLEARANCE SHALL BE 5.5M

Scale :- N.T.S							CLIENT: NATIONAL HIGHWAYS AND INFRASTRUCTURE DEVELOPMENT CORPORATION LTD. PTI Building, 3rd Floor, 4, Parliament Street, New Delhi - 110001		TITLE: TYPICAL DETAILS OF GANTRY GIRDER FOR OVERHEAD SIGNS		CONSULTANT :  CE TESTING COMPANY PVT. LTD. 124-A, N.S.C. Bose Road, Kolkata - 700092.		DWG NO :-CET/4047/NHIDCL/NH-37/I-J/FDPR/MISC- 11 REVISION MKD. - R0 SHEET NO. - 01 OF 01	
DATE: JULY, 2021					PROJECT: CONSULTANCY SERVICES FOR CARRYING OUT FEASIBILITY STUDY, PREPARATION OF DETAILED PROJECT REPORT AND PROVIDING PRE-CONSTRUCTION SERVICES IN RESPECT OF 4 LANING WITH PAVED SHOULDER OF IMPHAL-JIRIBAM SECTION OF NH-37 (NH-53) (LENGTH- 220 KM) IN THE STATE OF MANIPUR		SUBMISSION TYPE: FINAL DETAILED PROJECT REPORT		PACKAGE-V		Drawn By: P.GHOSH Designed By: B.DAS Checked By: S.SADHU Issued By: A.K.DAS			
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