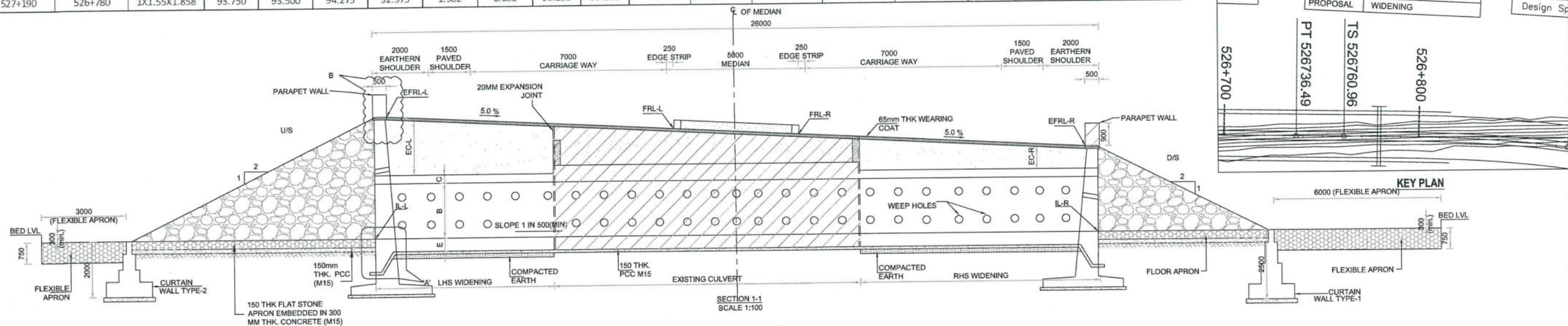


Details Of Box culvert:

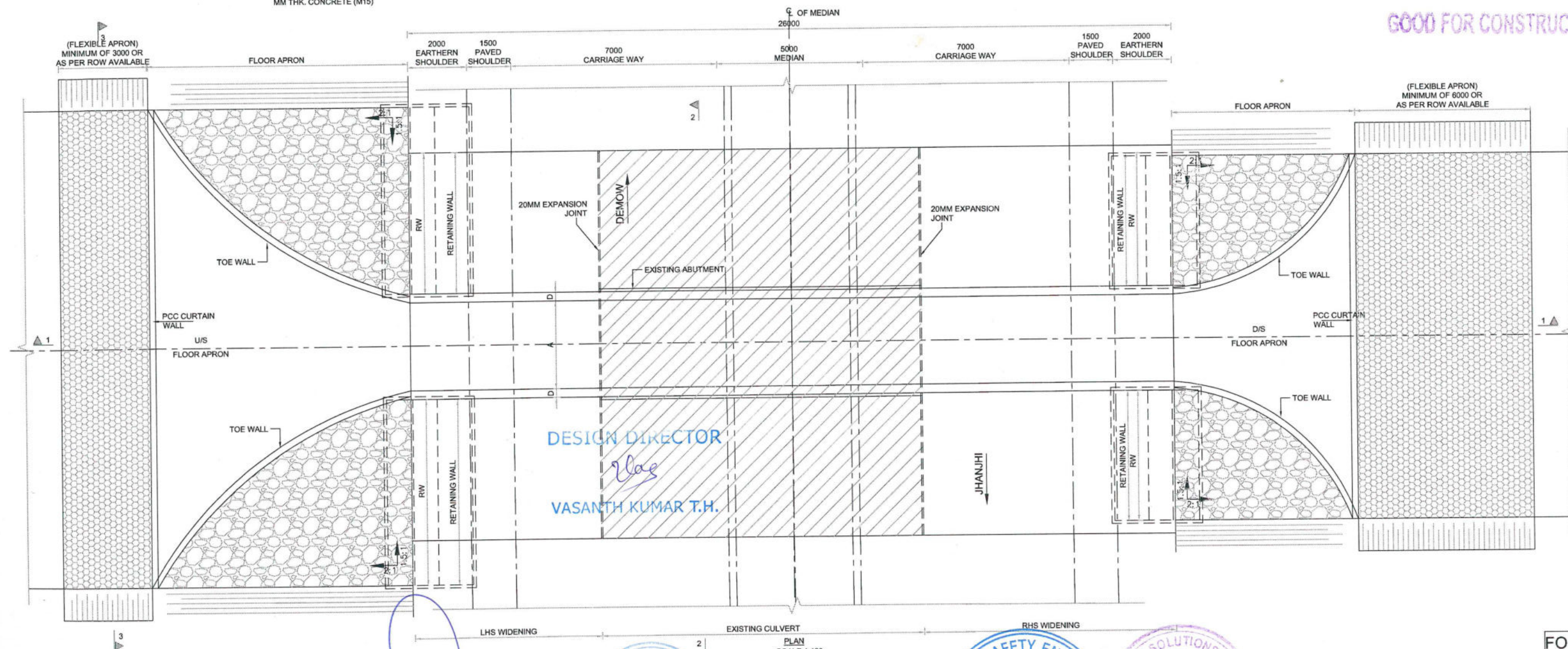
EXISTING CHAINAGE	DESIGN CHAINAGE	SPAN	FRL-L	FRL-R	EFRL-L	EFRL-R	EC-L	EC-R	IL-L	IL-R	CLEAR WIDTH (A)	CLEAR HEIGHT (B)	TOP SLAB THICKNESS (C)	WALL THICKNESS (D)	BOTTOM RAFT THICKNESS (E)	RW	FLOW DIRECTION	LHS WIDENING	RHS WIDENING
527+190	526+780	1X1.55X1.858	93.750	93.500	94.275	92.975	1.982	0.682	90.236	90.182	1.550	1.858	0.30	0.30	0.30	6.1	L-R	6.426	8.582

0.000	STRUCTURE NO:	37
0.000	DESCRIPTION	EXISTING PROPOSED
.573	CHAINAGE	527190 526780
NR	SPAN	1X1.550X1.858 1X1.550X1.858
	TYPE	BOX BOX
	PROPOSAL	WIDENING

0.000	Design Sp
0.000	
.573	
NR	



GOOD FOR CONSTRUCTION



PROJECT
FOUR LANING OF JHANJHI TO DEMOW
SECTION OF NH-37 FROM EXISTING CH. Km
491+050 TO Km 535+250 (DESIGN CH. Km
490+800 TO Km 534+800) IN THE STATE OF
ASSAM UNDER EPC MODE.

CLIENT
National Highways Infrastructure
Development Corporation Ltd.
Ministry of Road Transport &
Highways, Government of India
Branch office : House No.1, Panipath,
Ambikagiri Nagar, Zoo road,
Guwahati-24

CONTRACTOR
Gannon Dunkerley & Co. Ltd.
86A TOPSIA ROAD (SOUTH)
HANTE STREET, 7th FLOOR,
KOLKATA - 700045

DESIGN CONSULTANT
PROFESSIONAL CIVIL INFRA PVT. LTD.
1838, GROUND FLOOR,
SIR. M VISVESWARAYA LAYOUT,
NAGADEVANAHALLI,
BANGALORE - 560 056

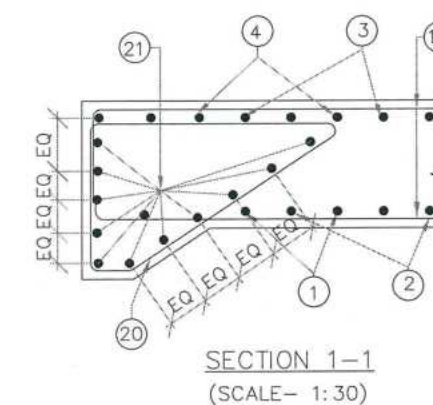
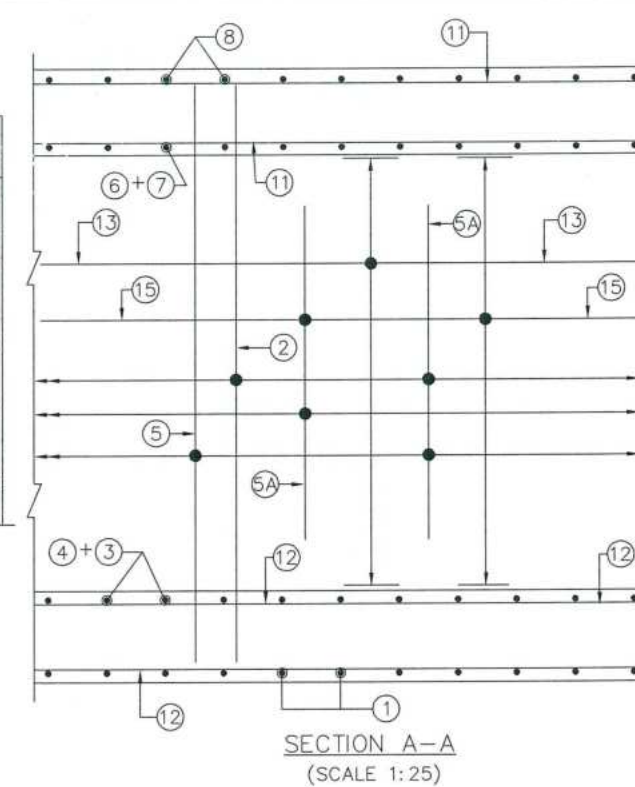
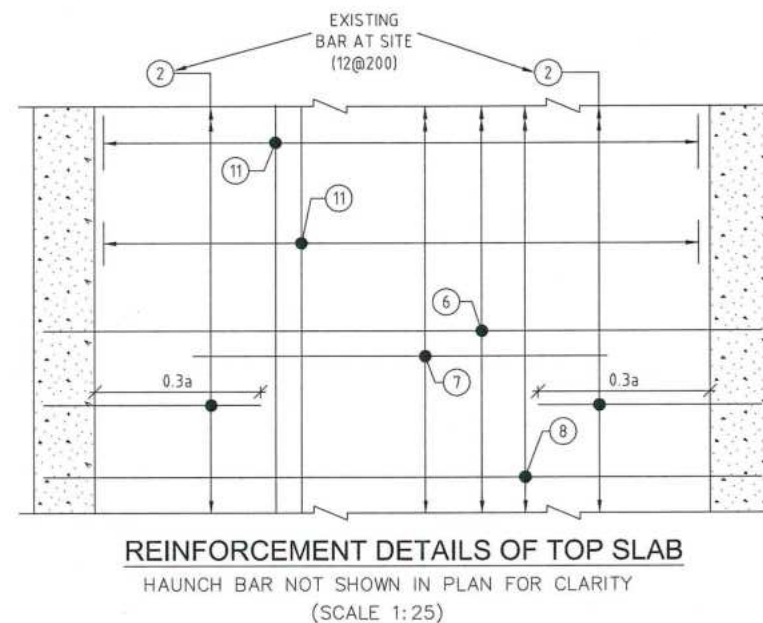
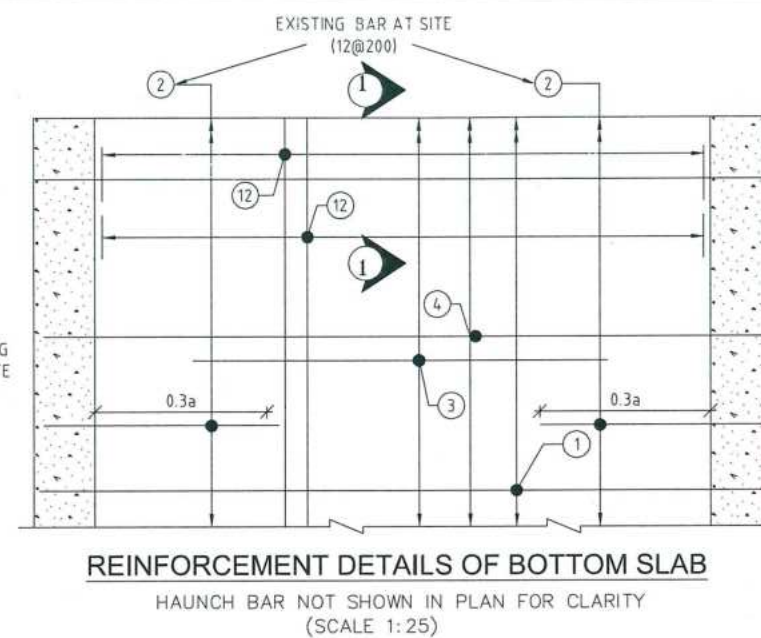
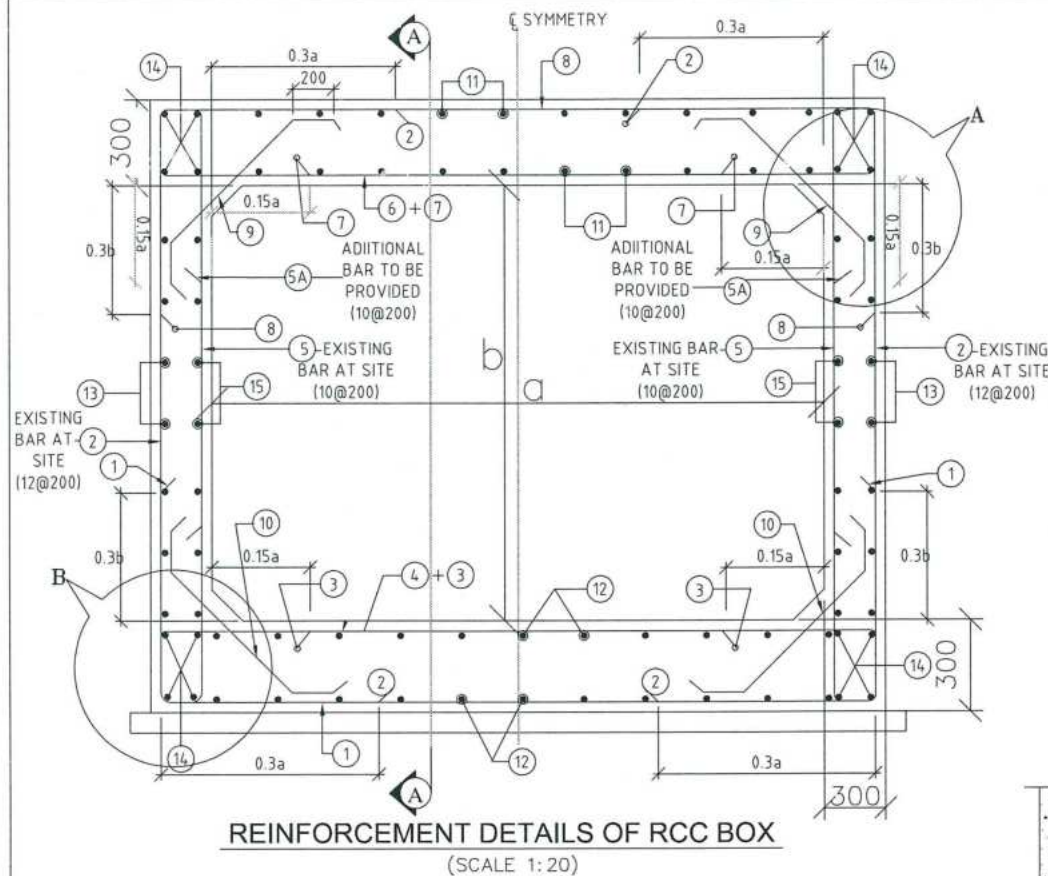
PROOF CONSULTANT
CHETAN INFRA TECH
CONSULTANTS (P) LTD.
7/11, 1ST FLOOR,
13th MAIN, SRINAGAR,
OPP. PES COLLEGE,
BENGALURU-560056

SAFETY CONSULTANT
SMART SAFETY SERVICES
3-5-6 & 7, HARI HARA NIVAS,
GUMMAKONDA COLONY,
HYDERGUDA,
HYDERABAD - 500048

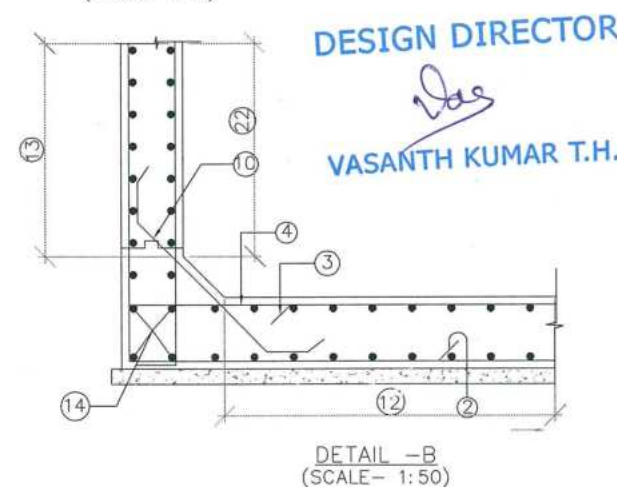
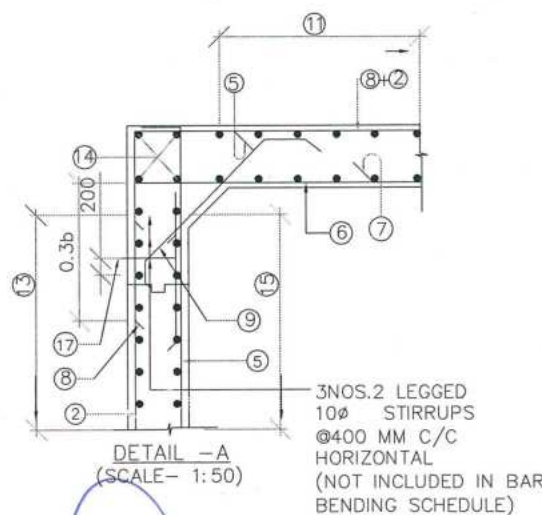
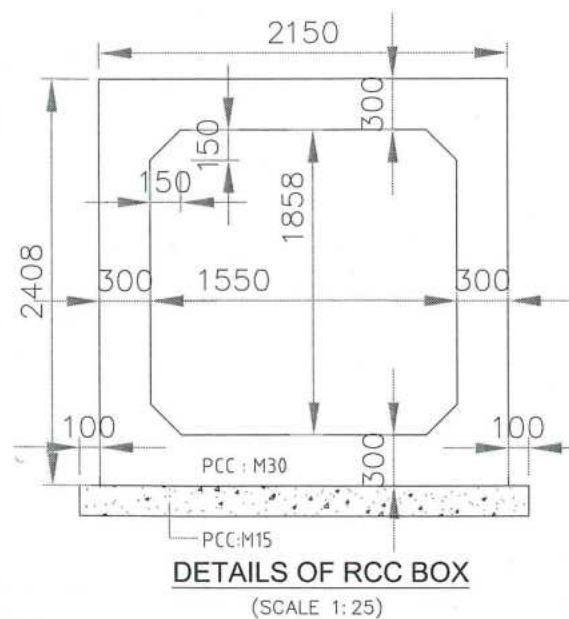
AUTHORITY ENGINEER
VOYANTS SOLUTIONS PVT. LTD.
403, 4th Floor, BPTP Park
Center, Block A, Jal Vayu
Vihar, Sector 30,
Gurgaon, Haryana 122001

NAME	SHEET SIZE
DESIGN DIRECTOR	A2
PROOF CONSULTANT	SCALE
SAFETY CONSULTANT	AS SHOWN
AUTHORITY CONSULTANT	SHEET No.
	01 OF 02

FOR APPROVAL
TITLE: GENERAL ARRANGEMENT
DRAWING OF BOX CULVERT
(WIDENING) AT DESIGN CH 526+780
(EXISTING CH 527+190)
DRAWING No.
PCIPL/NH-37/J-D/STR/BC/21
REV.
00

DESIGN CH: 526+780
SCHEDULE OF REINFORCEMENT

BAR MARK	SHAPE OF BARS (NOT TO SCALE)	BAR DIA IN mm	SPACING OR NO. OF BAR
1		12	200 C/C
2	EXISTING BAR AT SITE	12	200 C/C
3		10	100 C/C
4		12	200 C/C
5	EXISTING BAR AT SITE	10	200 C/C
5A	ADDITIONAL BAR TO BE PROVIDED	200	200 C/C
6		12	200 C/C
7		10	200 C/C
8		12	200 C/C
9		10	200
10		10	200
11		10	200
12		10	200
13		10	200
14		10	16 NOS.
15		10	200
16		NOT USED	
17		10	250
18		NOT USED	
19		NOT USED	
20		10	150
21		10	20 NOS.



DESIGN DIRECTOR
Das
VASANTH KUMAR T.H.

NOTES:

- ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS ARE IN METERS.
- DIMENSIONS ARE NOT TO BE SCALED, ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.
- GRADE OF CONCRETE : M30 FOR BOX.
- GRADE OF STEEL : Fe500.
- CLEAR COVER TO REINFORCEMENT SHALL BE AS FOLLOWS.
TOP SLAB = 75mm (TOP FACE); 50mm (BOTTOM FACE)
BOTTOM SLAB = 50mm (TOP FACE); 75mm (BOTTOM FACE)
OUTER WALL = 75mm (EARTH FACE); 50mm (WATER FACE).
- ANCHORAGE LENGTH SHALL BE 40x BAR DIA (ϕ)
- LAP LENGTH OF THE STEEL SHALL BE PROVIDED AS BELOW.
LAP LENGTH = $K \times l$
 $K = 1.00$ (<25% LAPPED BAR RELATIVE TO TOTAL CROSS SECTIONAL AREA.)
 $K = 1.15$ (33% LAPPED BAR RELATIVE TO TOTAL CROSS SECTIONAL AREA.)
 $K = 1.40$ (50% LAPPED BAR RELATIVE TO TOTAL CROSS SECTIONAL AREA.)
ALTERNATIVELY BAR SPLICE COUPLER CAN BE USED FOR REBAR LAPPING AND SPLICING.
- NOT MORE THAN 50% OF BARS CAN BE LAPPED AT A SECTION AND LAPS SHALL BE STAGGERED.
- FOR DETAILS OF APPROACH SLAB, HAND RAILING RETAINING WALL, REFER SEPARATE MISCELLANEOUS DRAWINGS.
- SBC OF SOIL BELOW THE BOX STRUCTURE SHALL NOT BE LESS THAN 13.0 T/Sq.m

FOR APPROVAL

PROJECT	CLIENT	CONTRACTOR	DESIGN CONSULTANT	PROOF CONSULTANT	SAFETY CONSULTANT	AUTHORITY ENGINEER	NAME	SHEET SIZE	TITLE: REINFORCEMENT DETAILS OF BOX CULVERT (1X1.55X1.858) AT DESIGN CHAINAGE 526+780 (EXISTING CHAINAGE 527+190)
FOUR LANE OF JHANJHI TO DEMOW SECTION OF NH-37 FROM EXISTING CH. Km 491+050 TO Km 535+250 (DESIGN CH. Km 490+800 TO Km 534+800) IN THE STATE OF ASSAM UNDER EPC MODE.	National Highways Infrastructure Development Corporation Ltd. Ministry of Road Transport & Highways, Government of India Branch office : House No.1, Panipath, Ambikagiri Nagar, Zoo road, Guwahati-24	Ganapathi Enterprises Pvt. Ltd. 88A, TOPSA ROAD (SOUTH) WHITE STREET, 7th FLOOR, KOLKATA - 700048	PROFESSIONAL CIVIL INFRA PVT. LTD. #1638, GROUND FLOOR, SIR M VISVESWARAYA LAYOUT, NAGADEVANAHALLI, BANGALORE - 560 056	CHETAN INFRA-TECH CONSULTANTS (P) LTD. #1, 1ST FLOOR, MAIN, SRINAGAR, OPP. PES COLLEGE, BENGALURU-560048	SMART SAFETY SERVICES #3-5-6-7, HARI HARA NIVAS, GUMMAKONDA COLONY, HYDERABAD - 500048	VOYANTS SOLUTIONS PVT. LTD. 402-4th Floor, BPTP Park Central Block A, Jal Vayu Vihar, Sector 30, Gurgaon, Haryana 122001	NAME	A2	DRAWING No.
							SCALE	AS SHOWN	REV.
							SHEET No.	01 OF 01	00