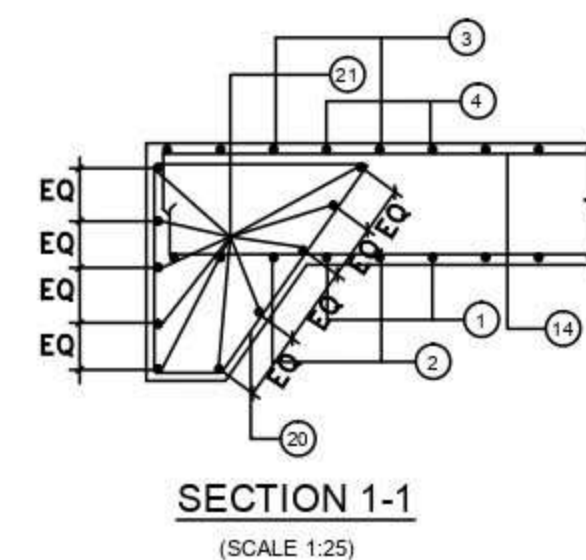
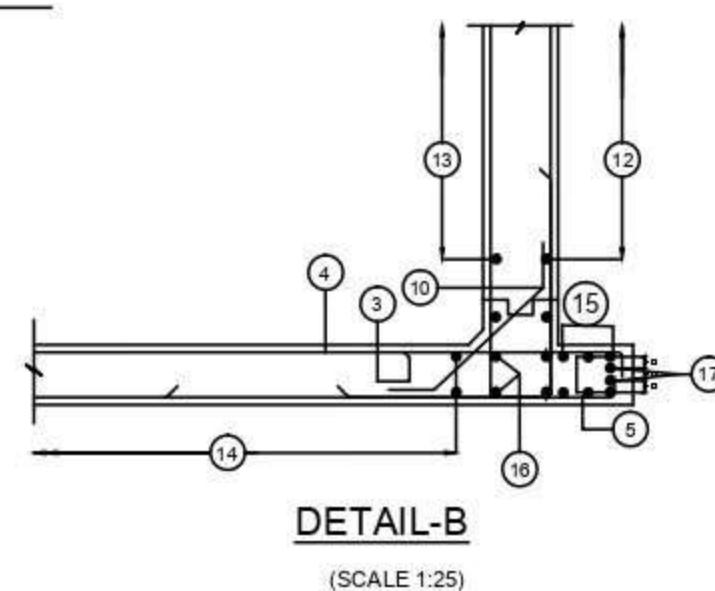
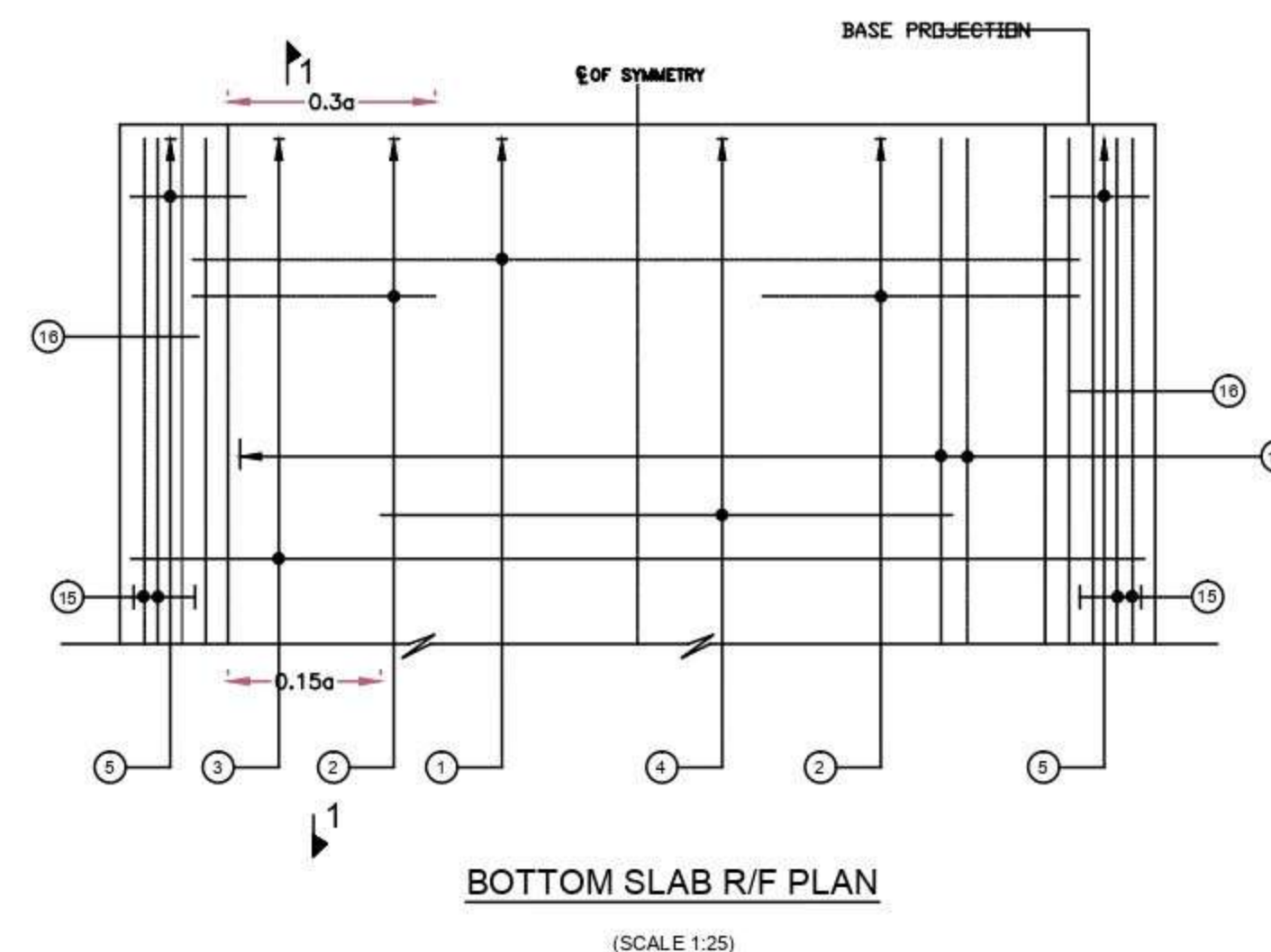
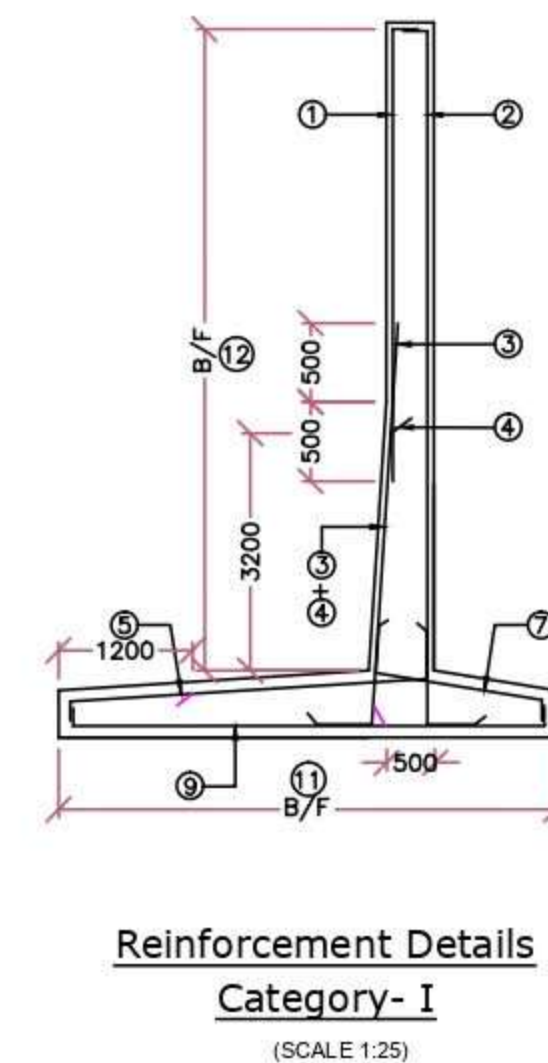
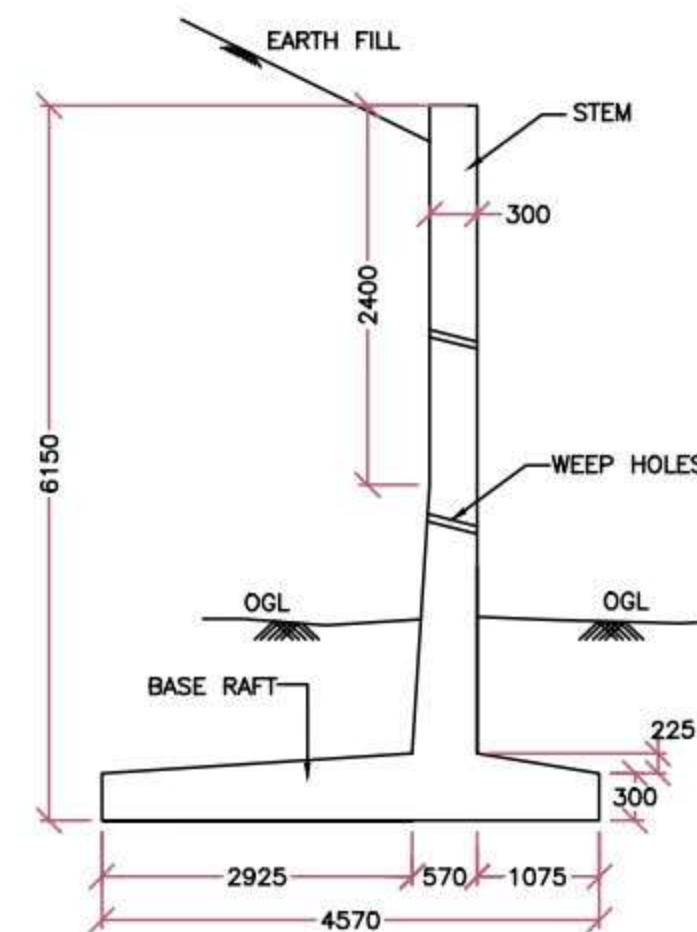
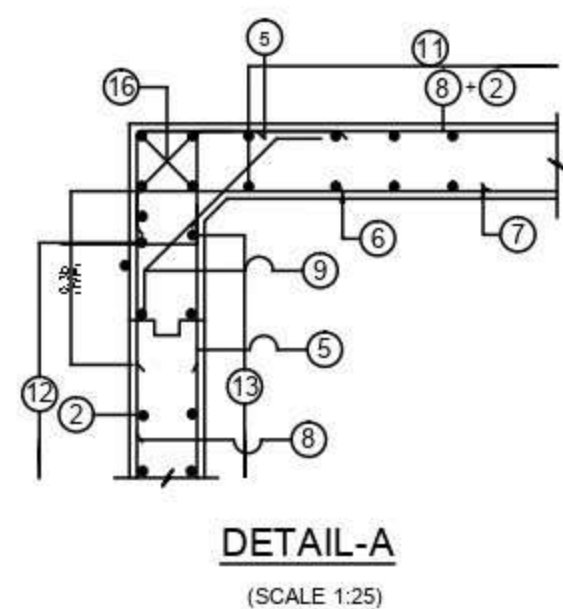
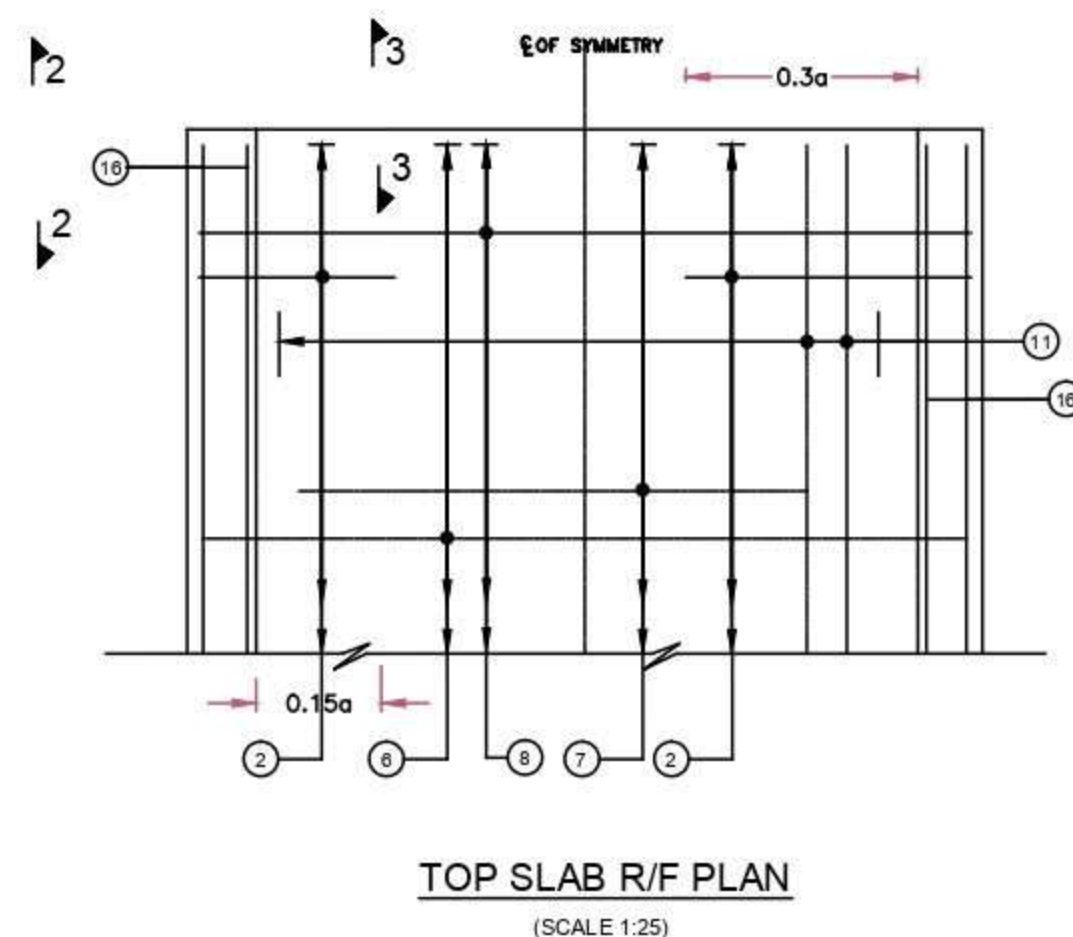
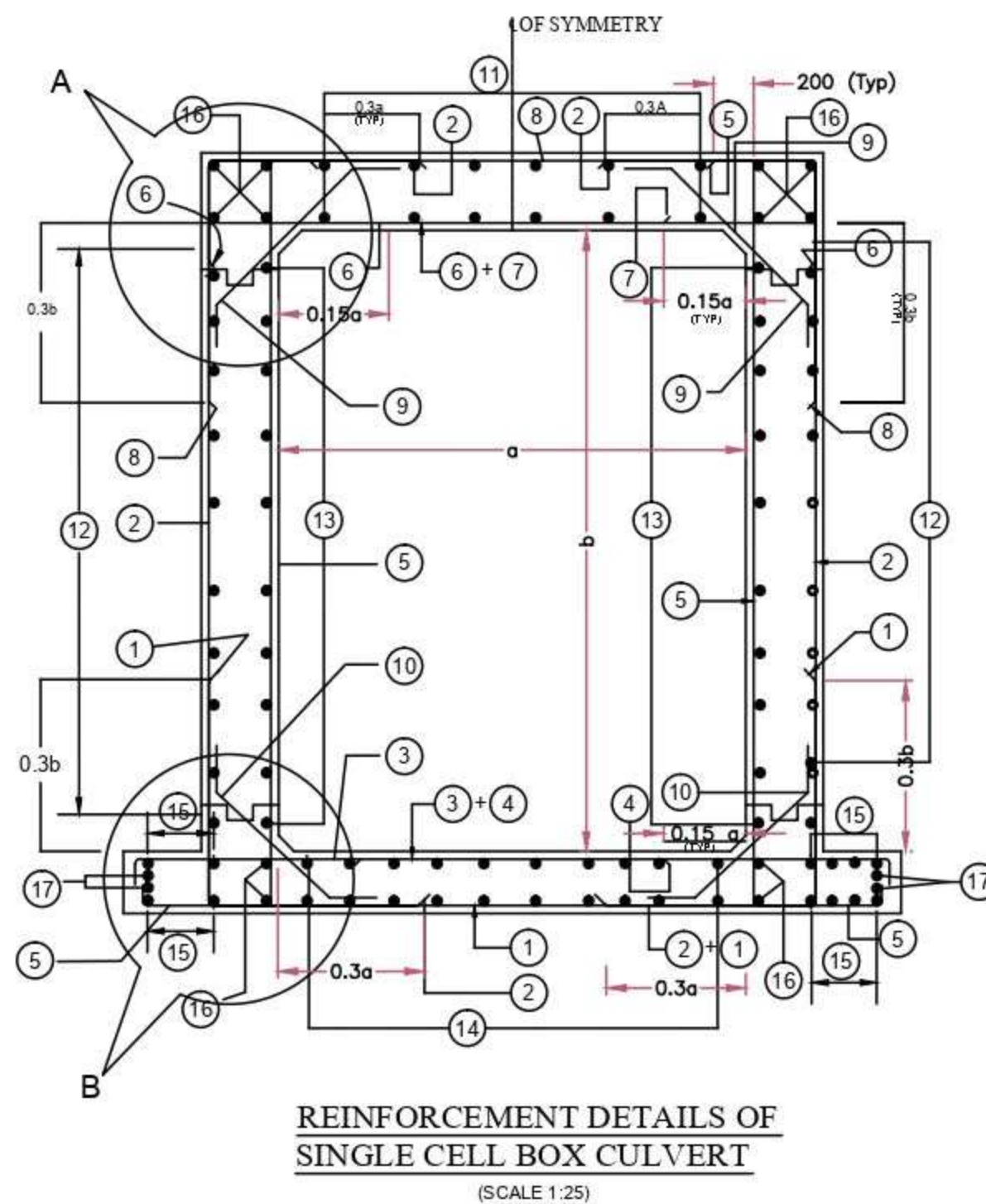


Km.37+485			
BAR MARK	SHAPE OF BARS (NOT TO SCALE)	BAR DIA IN MM	SPACING IN MM
①		20	280
②		20	280
③		28	180
④	NOT USED		
⑤		12	200
⑥		28	280
⑦	NOT USED		
⑧		20	280
⑨		10	220
⑩		10	220
⑪		12	180
⑫		12	220
⑬		10	200
⑭		12	220
⑮		12	220
⑯		12	12 NOS
⑰		10	4 NOS
⑱		10	150
⑲		12	20 NOS



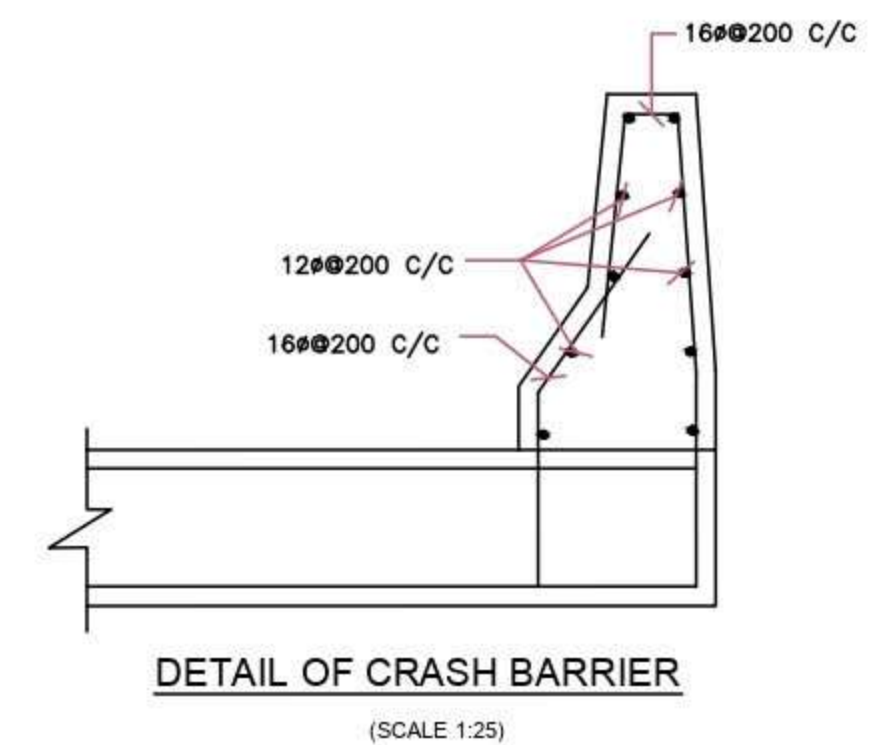
REINFORCEMENT DETAILS FOR WING WALL

Bar No:	①	②	③	④	⑤	⑥
Bar Shape						
Category-I	20 @ 140 c/c	20 @ 200 c/c	28 @ 140 c/c	20 @ 140 c/c	20 @ 140 c/c	28 @ 140 c/c

Bar No:	⑦	⑧	⑨	⑩	⑪
Bar Shape					
Category-I	20 @ 200 c/c	10 @ 180 c/c	12 @ 180 c/c	20 @ 120 c/c	20 @ 120 c/c

NOTES FOR WING WALL:-

- ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN METER.
- GRADE OF CONCRETE FOR RCC WORKS :--- M30
GRADE OF CONCRETE FOR PCC WORKS :--- M15
- CLEAR COVER TO REINFORCEMENT IN BASE RAFT = 75MM
ALL OTHER COMPONENTS = 40MM
- LAPPING IS STAGGERED AND NOT MORE THAN 50% OF BAR IS LAPPED AT A SECTION .MINIMUM LAP LENGTH IS 30 TIMES DIA OF BAR FOR BAR MARK 9 & 10 AND 72 TIMES DIA OF BAR FOR OTHER BARS.
- WEEP HOLES ARE PROVIDED STARTING 150MM ABOVE GROUND LEVEL AND SPACED 1000MM C/C ON STAGGERED DIRECTION. SLOPE OF 1:20 IS PROVIDED TOWARDS THE DRAINING FACE.
- 600MM THICK FILTER MEDIA IS PROVIDED BEHIND RETAINING WALL UP TO TOP OF EMBANKMENT.



NOTES FOR BOX :-

- ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN METER.
- GRADE OF CONCRETE FOR RCC WORKS :--- M30
GRADE OF CONCRETE FOR PCC WORKS :--- M15
- CLEAR COVER TO REINFORCEMENT IN BASE RAFT = 75MM
ALL OTHER COMPONENTS = 40MM
- GRADE OF REINFORCEMENT STEEL IS HYSD BARS CONFORMING TO IS 1786 WITH Fe 415
- NOT MORE THAN 50% OF BAR IS LAPPED AT A SECTION AND LAPPING IS STAGGERED LAP LENGTH = 72 X DIA. OF THE BAR FOR MAIN & 30 TIMES DIA OF BAR FOR DISTRIBUTION BARS.

CLIENT

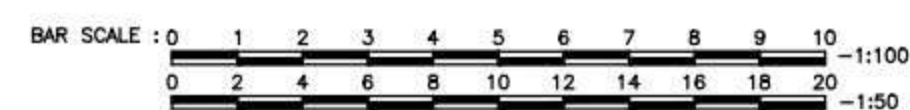


NATIONAL HIGHWAY AUTHORITY OF INDIA
(Ministry of Road Transport & Highways)
Government of India.

INDEPENDANT ENGINEER

SA INFRASTRUCTURE CONSULTANTS PVT LTD
IN JOINT VENTURE WITH
QUEST ENGINEERS & CONSULTANTS PVT LTD.
1101B, 11Floor, Tower A-II, Ansal Corporate Park,
Plot No.7A/1, Sector-142,
Noida - 201 301, India

PROJECT: FOUR LANE OF PONDICHERRY TINDIVANAM SECTION (FROM KM 0/000 TO KM 38/608 OF NH-66)



REINFORCEMENT DETAILS OF BOX CULVERT AND RETURN WALL

TITLE:-
Box Culvert at Km 37.485
(1 x 5.0 x 2.0)

PROJECT:

Junction Improvement and Construction of Slip Road at Km. 37+506 (Marakkanam Junction) in the project of Pondicherry - Tindivanam section of NH-32 (Old No. NH-66) in the State of Tamil Nadu on EPC mode.