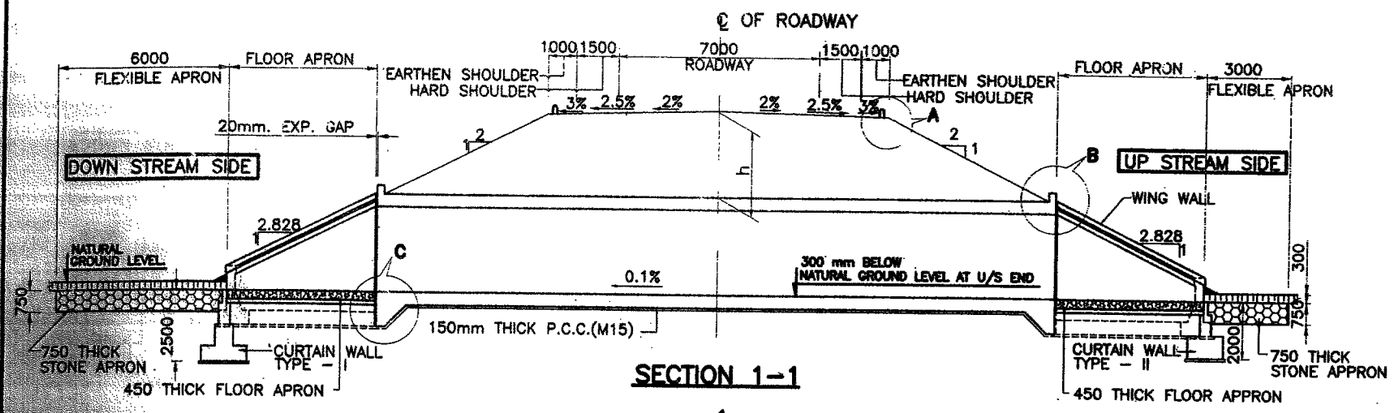
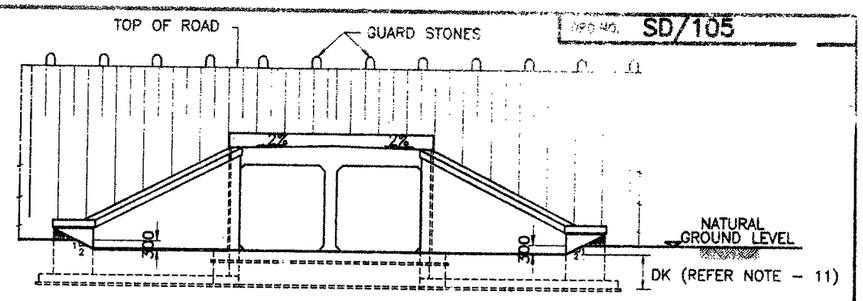
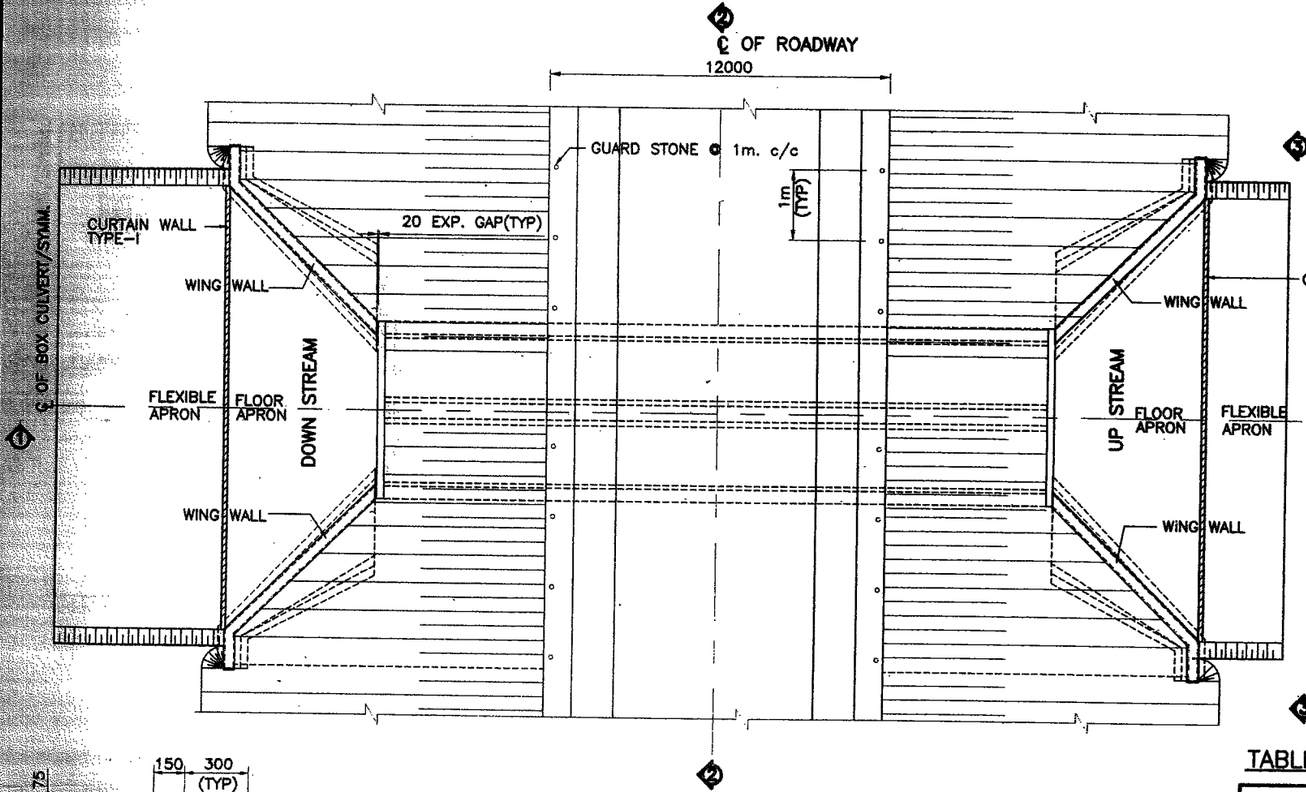
DRG NO. SD/105



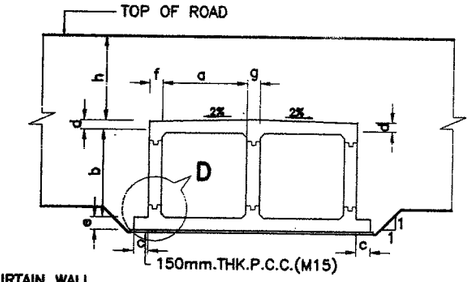
SECTION 1–1



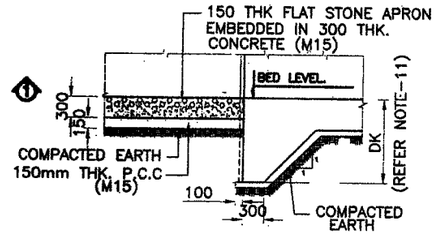
VIEW – 3–3



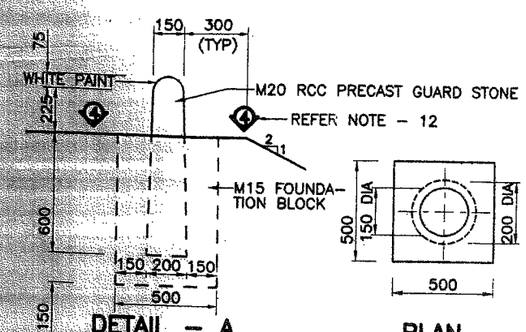
PLAN AT ROAD LEVEL



SECTION 2–2



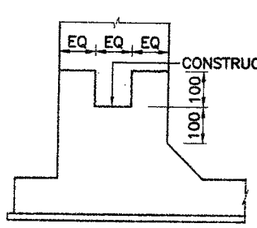
DETAIL – C



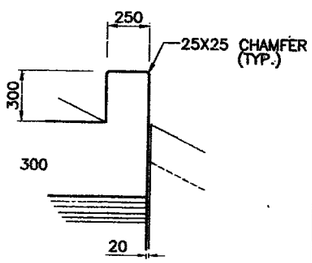
DETAIL – A

PLAN

DETAIL OF PRECAST GUARD



DETAIL – D



DETAIL – B

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE MENTIONED. ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED.
2. FOR GENERAL NOTES AND REFERENCE DRAWINGS REFER DRG. NO. SD/101.
3. FOR REINFORCEMENT DETAILS REFER DRG. NO. SD/114.
4. FOR DETAILS OF WING WALL REFER DWG. NO. SD/113.
5. SOIL DENSITY ON THE BACKFILL AND EARTH CUSHION SHOULD CONFIRM TO CLAUSE 305.2.1.5 OF MOST SEPCIFICATION.
6. NET BEARING CAPACITY REQUIRED FOR SOIL IS DIVIDED IN FOUR CATEGORIES AS SHOWN BELOW :

CATEGORY	::	NET BEARING CAPACITY REQUIRED FOR SOIL
A	::	5 T/M^2
B	::	10 T/M^2
C	::	15 T/M^2
D	::	20 T/M^2

7. SOFT AND LOOSE PATCHES IN THE BEARING AREA ARE TO BE REPLACED BY COMPACTED GRANULAR FILLS WITH LAYERS NOT EXCEEDING 300mm.
8. DESIGNS ARE GIVEN FOR THE BOX CELL STRUCTURES ONLY. THESE HAVE NO BEARING WITH THE DESIGN OF EMBANKMENT WHICH WILL BE TAKEN UP, BY ENGINEER–IN–CHARGE SEPERATELY.
9. ALL CASES WITH EARTH CUSHION OF 3m TO 5m HEIGHT ARE SAFE FOR SUDDEN DRAW DOWN CONDITION.
10. FOR EARTH CUSHION BETWEEN 3m AND 4m, BOX WITH 4m EARTH CUSHION IS TO BE USED AND FOR EARTH CUSHION BETWEEN 4m TO 5m, BOX WITH 5m EARTH CUSHION IS TO BE USED. NO RECOMMENDATION IS GIVEN FOR BOX CULVERT WITH EARTH CUSHION BELOW 3m HEIGHT.
11. 'DK' IS DEPTH OF KEY AT BASE SLAB.

FOR BASE SLAB THICKNESS	VALUE OF 'DK'
UPTO 900mm	1200mm.
GREATER THAN 900mm	e+300mm

e = BASE SLAB THICKNESS

12. FOR SECTION 4–4 DETAILS REFER DR. NO. SD/114 (SHEET 1 OF 4).

TABLE SHOWING SALIENT DIMENSIONS

BOX CELL DESIGNATION No/ab/Ec	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	f (mm)	g (mm)	h (mm)	CATEGORY OF BEARING CAPACITY (T/m2)	DESIGN BASE PRESSURE (T/m2)
2/22/3	2000	2000	300	270	300	250	250	3000	B	7.70
2/22/4	2000	2000	300	300	350	250	250	4000	B	9.00
2/22/5	2000	2000	300	320	350	270	250	5000	C	10.16
2/23/3	2000	3000	500	300	350	350	250	3000	B	9.24
2/23/4	2000	3000	500	320	350	350	250	4000	C	10.41
2/23/5	2000	3000	400	350	350	380	250	5000	C	11.54
2/32/3	3000	2000	300	400	420	300	250	3000	B	7.97
2/32/4	3000	2000	300	450	470	300	250	4000	B	9.30
2/32/5	3000	2000	300	500	500	300	250	5000	C	10.46
2/33/3	3000	3000	300	400	420	350	250	3000	B	8.52
2/33/4	3000	3000	300	430	450	380	250	4000	B	9.80
2/33/5	3000	3000	300	480	480	400	250	5000	C	11.01

GOVERNMENT OF INDIA
MINISTRY OF SURFACE TRANSPORT
(ROADS WING) , NEW DELHI.

STANDARD DRAWINGS FOR BOX CELL STRUCTURES

DOUBLE CELL R.C.C BOX CULVERT
2m x 2m TO 3m x3m
(WITH EARTH CUSHION)

GENERAL ARRANGEMENT

DESIGNED BY	CHECKED BY	APPROVED FOR ISSUE BY	1999
(A.R.GHOSH) CES (I) LTD	(M.C.TANDON) TCPL	(C.C.BHATTACHARYA) C.E (R) S&R MOST	SD/105

Source: MoST Standard Drawings for Box Cell Culverts (2000) - older reference, verify with current IRC / MoRTH. Scan cleaned by helptheengineer.com