डेडीकेटेड फ्रेट कोरीडोर

DESIGN AND CONSTRUCTION OF CIVIL, STRUCTURES AND TRACK WORKS FOR SINGLE LINE RAILWAY INVOLVING FORMATION IN EMBANKMENTS/CUTTINGS, BALLAST ON FORMATION, TRACK WORKS, BRIDGES, STRUCTURES, BUILDINGS, YARDS, INTEGRATION WITH IR EXISTING RAILWAY SYSTEM AND TESTING & COMMISSIONING ON DESIGN-BUILD LUMP SUM BASIS FOR SAHNEWAL - PILKHANI SECTION OF EASTERN DEDICATED FREIGHT CORRIDOR

Contract Package: 301

ICB No. HQ/EN/EC/D-B/SAHNEWAL - PILKHANI

PART - 4 - REFERENCE DOCUMENT

DRAWINGS - VOLUME - 5.3

SAHNEWAL - PILKHANI

From Km. 360.200 to Km. 187.500

GAD - RUB IN LIEU OF LC

EMPLOYER

DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LIMITED

(A GOVERNMENT OF INDIA ENTERPRISES)

MINISTRY OF RAILWAYS

COUNTRY : INDIA

CONTENTS GAD - RUB IN LIEU OF LC (CONTRACT PACKAGE 301)

SL. NO.	DESCRIPTION	DRAWING NO.	REVISION NO.	REMARKS
1	LC No. 91 - C/2	N.R.DY.CE/C/UMB. PLAN NO. P-421/DYCE/C/UMB/14	R0	
2	LC No. 93 - C/2	N.R.DY.CE/C/UMB. PLAN NO. P-422/DYCE/C/UMB/14	R0	
3	LC No. 94 - C/2	N.R.DY.CE/C/UMB. PLAN NO. P-423/DYCE/C/UMB/14	R0	
4	LC No. 95 - C/2	N.R.DY.CE/C/UMB. PLAN NO. P-424/DYCE/C/UMB/14	R0	
5	LC No. 96 - C	N.R.PLAN NO. B-96/SAHARANPUR-AMBALA-2012/AMBALA		
6	LC No. 102 - C/2	N.R.DY.CE/C/UMB. PLAN NO. P-425/DY.CE/C/UMB/14	R0	
7	LC No. 104 - C/2	N.R.DY.CE/C/UMB. PLAN NO. P-426/DY.CE/C/UMB/14	R0	
8	LC No. 113 - C	N.R.DY.CE(C) UMB. PLAN NO. P-402/DY.CE/C/UMB/2013	R0	
9	LC No. 114-C /2-E	N.R.DY.CE(C) UMB. PLAN NO. P-403/DY.CE/C/UMB/2013	R0	
10	LC No. 115-C /2-E	N.R.DY.CE(C) UMB. PLAN NO. P-404/DY.CE/C/UMB/2013	R0	
11	LC No. 117-C/3	N.R.DY.CE/C/UMB. PLAN NO. P-427/DY.CE/C/UMB/2014	R0	
12	LC No. 119-C	N.R.DY.CE(C) UMB. PLAN NO. P-407/DY.CE/C/UMB/2013	R0	
13	LC No. 120-C/3	N.R.DY.CE/C/UMB. PLAN NO. P-428/DY.CE/C/UMB/2014	R0	
14	LC No. 121 - C /2-E	N.R.DY.CE(C) UMB. PLAN NO. P-408/DY.CE/C/UMB/2013	R0	
15	LC No. 128-C	N.R.DY.CE(C) UMB. PLAN NO. P-401/DY.CE/C/UMB/2013	R0	
16	LC No. 142-C	N.R.DY.CE/C-II/ PLAN NO. P-441/RUB/UMB-LDH/C-II/CDG/2015	R0	
17	LC No. 164-C	----------		

CONTENTS GAD - RUB IN LIEU OF LC (CONTRACT PACKAGE 301)

SL. NO.	DESCRIPTION	DRAWING NO.	REVISION NO.	REMARKS

GENERAL CONSULTANT

AECOM Asia Co. Ltd.

9TH FLOOR, INFINITY TOWER C DLF CYBER CITY
DLF PHASE II GURGAON 122002, INDIA

TITLE

CONTENTS GAD -RUB IN LIEU OF LC (301)

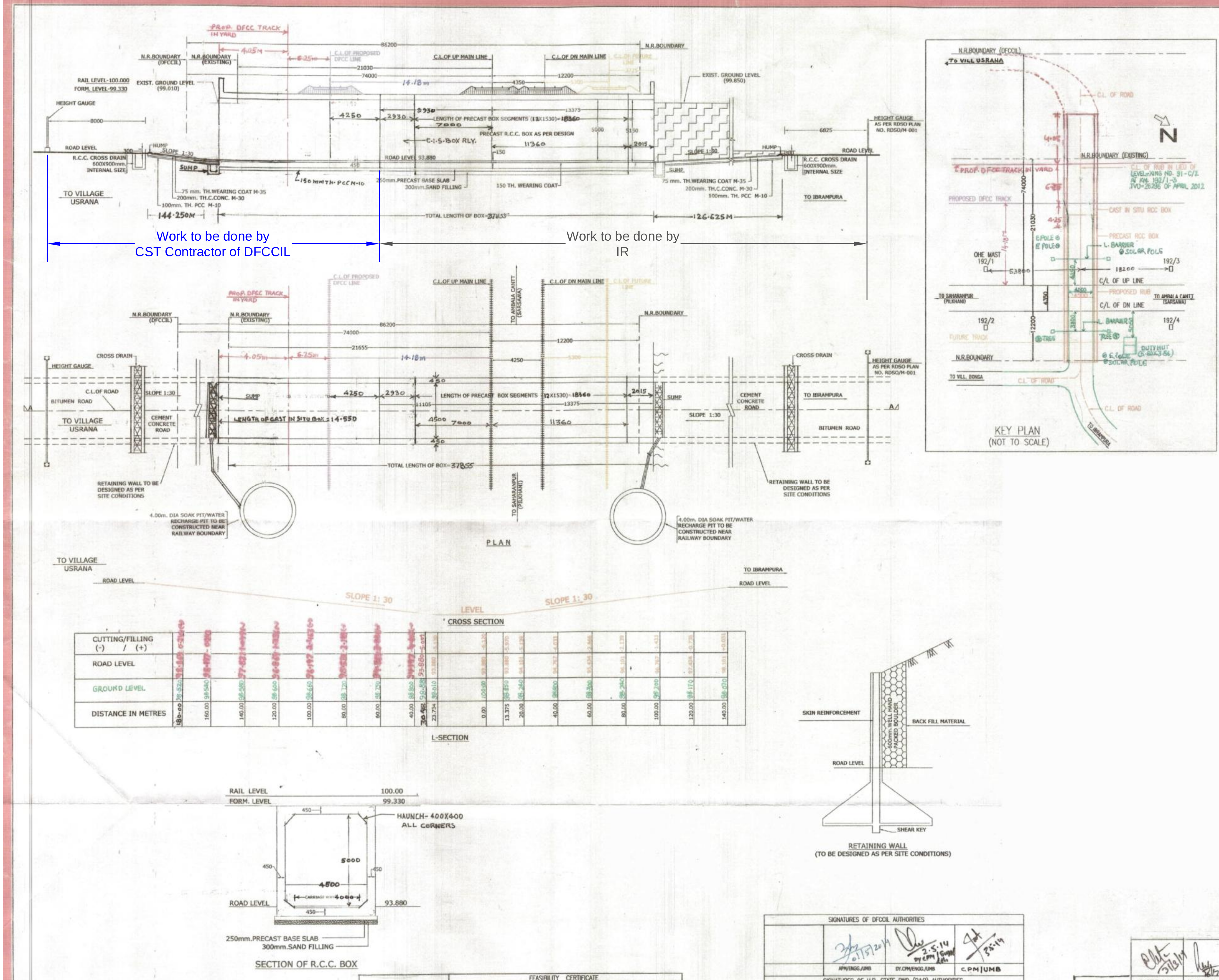
DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

(A GOVERNMENT OF INDIA ENTERPRISE)

EASTERN CORRIDOR

PROJECT

SAHNEWAL TO PILKHANI



N.R.H.Q.E. (P) PLAN NO.

N.R.DY.CE/C/UMB. PLAN NO.P-421/DYCE/C/UMB/14

NORTHERN RAILWAY

DRAWING OFFICE (CONST.) AMBALA

AMBALA DIVISION

CONSTRUCTION OF SINGLE LANE ROAD UNDER BRIDGE IN LIEU OF LEVEL CROSSING NO. 91-C/2 AT KM.192/1-3 IN BETWEEN SARSAWA & PILKHANI RAILWAY STATION ON SRE-UMB SECTION. (SIZE OF BOX = 1X4.50X5.15 M)

GENERAL-ARRANGEMENT DRAWING

SCALE :- 1:200, 1:400

PINK BOOK ITEM NO:-396 OF YEAR 2013-14

NOTES: –

1. ALL DIMENSIONS ARE IN mm AND ALL LEVELS IN METERS UNLESSOTHERWISE SPECIFIED.
2. DO NOT SCALE, FOLLOW THE WRITTEN DIMENSIONS ONLY.
3. a) CODES TO BE FOLLOWED (WITH LATEST CORRECTIONS SLIP) IN ORDER OF PREFERENCE:–
   i. IRS BRIDGE RULES.
   ii. IRS CONCRETE BRIDGE CODE.
   iii. IRS BRIDGE SUBSTRUCTURE AND FOUNDATION CODE.
   iv. RELEVANT BIS CODES.

   b) LOADING TO BE FOLLOWED IS D.F.C. LOADING (32.5 TON AXLE LOAD).
4. HIGH YIELD STRENGTH DEFORMED (HYSD) / THERMO MECHANICAL TREATED (TMT) BARS OF GRADE Fe – 500 SATISFYING THE REQUIREMENTOF IS: 1786–1985 SHALL BE USED AS REINFORCEMENT.
5. BACK FILL SHOULD BE AS PER CLAUSE 7.5 OF IRS BRIDGE SUB–STRUCTURE AND FOUNDATION CODE.
6. ALL DIMENSION AND LEVEL SHOULD BE VERIFIED & RECONCILED BEFORE EXECUTION.
7. DEPTH AND SIZE OF FOUNDATION, LENGTH OF RETURN WALL AND LEVELS SHALL BE DECIDED BASED ON SITE CONDITION (TYPE OF STRATA AND GROUND LEVEL).
8. THIS GAD IS TENTATIVE AND IS MEANT ONLY FOR GUIDANCE OF THE BIDDER. ALL THE ENGINEERING DETAILS ARE TO BE DESIGNED BY THE CONTRACTOR AS PER SITE CONDITIONS/DIMENSIONS SHALL BEAPPROVED BY ENGINEER.
9. TOP SURFACE AND SIDE OF BOX SHALL BE GIVEN TWO COATS OF COALTAR OR BITUMEN CONFORMING TO IS: 3070–1965 BEFORE FILLING OFEARTH.
10. WEEP HOLES OF 75mm DIA. PVC PIPES @ 1000mm C/C SHOULD BE PROVIDED IN EARTH/ BALAST RETAINER.
11. TOP OF SLAB/BOX SHALL HAVE A WEARING COURSE OF 1 IN 40 TOWARDS OUTER SIDE FOR PROPER DRAINAGE.
12. WORK SCHEME SHALL BE SUCH THAT ADJACENT IR TRACK IS NOT AFFECTED IN ANYWAY. HOWEVER, IF IT IS INESCAPABLE THE ENGINEER WILL DECIDE THE IMPOSITION OF TEMPORARY SPEED RESTRICTION.
13. THE EXISTING TRACK SHALL BE PROTECTED BEFORE EXECUTION OF WORK. DESIGN OF SUCH PROTECTION WORK SHALL BE DONE BY THE CONTRACTOR AND SHALL BE APPROVED BY THE ENGINEER.
14. THE DIFFERENCE BETWEEN PROPOSED RAIL LEVEL (RL) & PROPOSED FORMATION LEVEL (FL) HAS BEEN ASSUMED AS 730mm.
15. PROPER OUTLETS ON D/S SIDE FOR DRAINAGE OF DISCHARGE IS TO BE ENSURED.
16. SUITABLE DRAIN HAS TO BE PROVIDED BETWEEN THE IR AND DFC FORMATIONS AND THE WING WALLS SHOULD HAVE PROVISION FOR DISCHARGE OF FLOW FROM THESE DRAINS.
17. SAFE BEARING CAPACITY OF SOIL SHALL BE CONFIRMED BY SUITABLE METHOD BEFORE CONSTRUCTION WORK. IT SHALL BE GREATER THAN MAXIMUM FOUNDATION PRESSURE.
18. THE GAD SHOULD SATISFY THE LATEST APPROVED SCHEDULE OF DIMENSION FOR DFCC.
19. SAFE WORKING AT SITE, INCLUDING SAFETY OF TRAINS SHOULD BE ENSURED BY CONTRACTOR.
20. AT PRESENT OFC & SIGNAL CABLE MAY EXIST ADJACENT TO IR TRACK. THE SAME IS TO BE PROTECTED TO PREVENT DAMAGE OF CABLE. NO JCB WORKING WILL BE ALLOWED NEAR CABLES.
21. METHODOLOGY FOR CONSTRUCTION OF SUBWAY OF DFC PORTION SHALL BE GOT APPROVED FROM ENGINEER.
22. DIVERSION OF LC FOR EXECUTION OF WORK SHALL BE UNDER THE SCOPE OF DFC CONTRACTOR. METHODOLOGY FOR THE SAME SHALL BE GOT APPROVED FROM DFCCIL & IR BOTH.
23. HEIGHT GAUGES ON DFC SIDE SHALL BE SHIFTED AS PER APPROVED PLAN.
24. EXISTING WORK SHOWN IN BLACK.
25. PROPOSED WORK SHOWN IN RED.
26. DFCCIL WORK SHOWN IN BLUE.
27. TEMPORARY DIVERTED WORK SHOWN IN MAGENTA.
28. THE WORK OF RUB WILL BE EXECUTED IN SYNCHRONIZATION WITH IR WORK. A JOINT PROGRAMME SHALL BE MADE WITH IR FOR CONSTRUCTION.

FEASIBILITY CERTIFICATE

THE PROPOSAL CHECKED AT SITE & FOUND FEASIBLE

SIGNATURES OF DFCCIL AUTHORITIES

AM/ENGG./UMB | DY.CPM/ENGG./UMB | C.P.M/UMB

SIGNATURES OF U.P. STATE PWD (B&R) AUTHORITIES

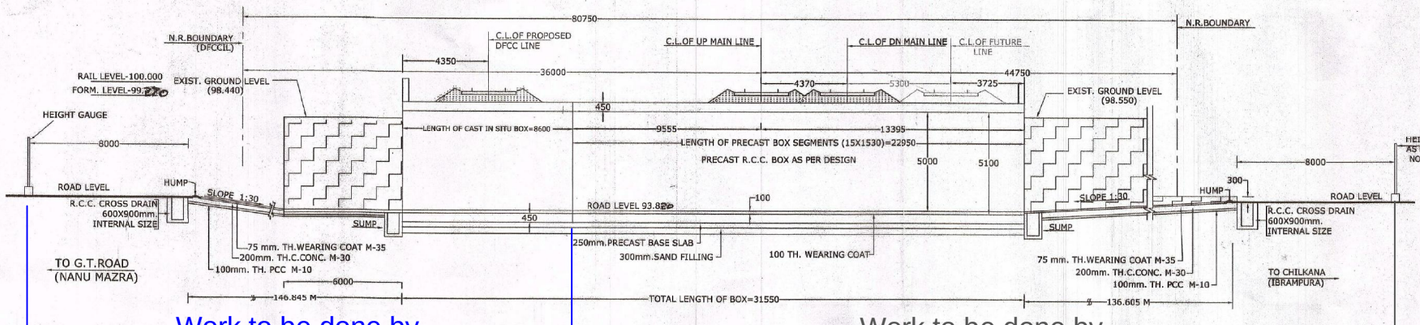
AE/PWD/SRE | XEN/PWD/SRE

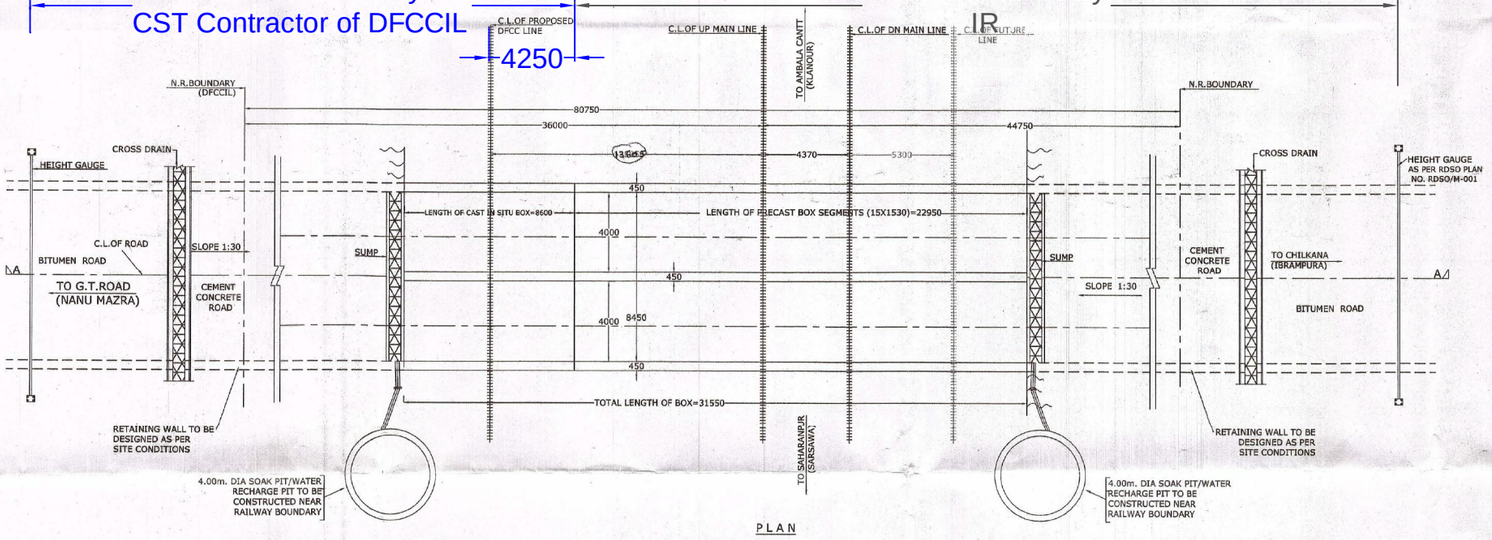
CE/C/SPL/DLI

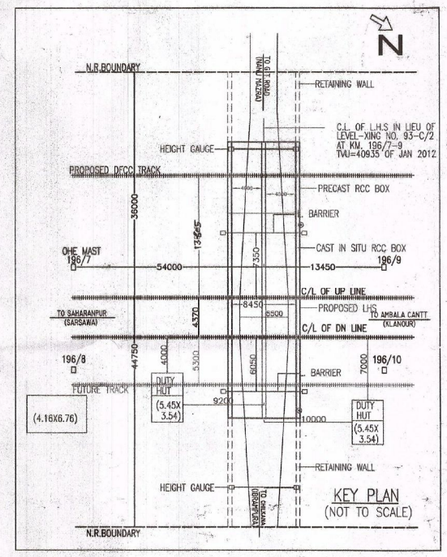
Sr.DSTE/UMB | Sr.DEE/G/UMB | Sr.DEE/TRD/UMB | Sr.DOM/UMB | Sr. DEN/C/UMB | DRM/UMB

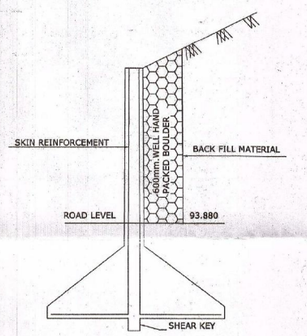
AEE/C/CDG | AEE/C/UMB | XEN/C/SRE | DY.CE/C/UMB | DY.CEE/C/JUC | Sr.DEN-III/UMB

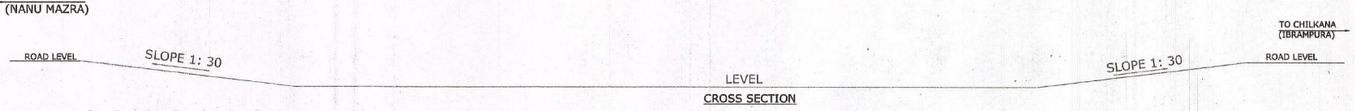
SSE/TRD/SRE | ADEE/TRD/UMB | SSE/W/C/SRE | SSE/P-WAY/C/UMB | SSE/WORKS/SRE | SSE/P-WAY/JUD | XEN/C/SRE | AEN/SRE











PLAN

RETAINING WALL
(TO BE DESIGNED AS PER SITE CONDITIONS)

CROSS SECTION

CUTTING /FILLING (-)/(+)	-0.005	-0.212	-1.019	-1.765	-2.522	-3.229	-3.975	-4.862	-5.640	-6.120	-6.090	-5.150	-4.243	-3.487	-2.770	-2.053	-1.267	-0.540	-0.146
ROAD LEVEL	98.578	98.408	97.741	97.075	96.408	95.741	95.075	94.408	93.880	93.880	93.880	94.100	94.767	95.433	96.100	96.767	97.433	98.100	98.434
GROUND LEVEL	98.550	98.620	98.760	98.840	98.930	98.970	99.050	99.270	99.520	100.00	99.970	99.610	99.010	98.920	98.870	98.820	98.700	98.640	98.570
DISTANCE IN METRES	165.00	160.00	140.00	120.00	100.00	80.00	60.00	40.00	24.155	0.00	13.395	20.00	40.00	60.00	80.00	100.00	120.00	140.00	150.00

L-SECTION

SECTION OF R.C.C. BOX

N.R.H.Q.E. (P) PLAN NO.

N.R.DY.CE/C/UMB. PLAN NO.P-422/DY.CE/C/UMB/14

NORTHERN RAILWAY

DRAWING OFFICE (CONST.) AMBALA

AMBALA DIVISION

CONSTRUCTION OF TWO LANE ROAD UNDER BRIDGE IN LIEU OF LEVEL CROSSING NO. 93-C/2 AT KM.196/7-9 IN BETWEEN SARSAWA & KLANOUR RAILWAY STATION ON SRE-UMB SECTION ON DFCC ROUTE.

(SIZE OF BOX = 2 X 4.00 X 5.10 M)

GENERAL-ARRANGEMENT DRAWING

SCALE :- 1:100

PINK BOOK ITEM NO:-395 OF YEAR 2013-14

NOTES: -

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21.2.14			
JE/D/C/UMB	SSE/D/C/UMB	SSE/W/C/SRE	SSE/E/C/UMB

FEASIBILITY CERTIFICATE

THE PROPOSAL CHECKED AT SITE & FOUND FEASIBLE

	22/2/14	24.02.14		21.2.14	
SSE/W/C/SRE	SSE/P-WAY/C/UMB	SSE/WORKS/SRE	SSE/P-WAY/JUD	XEN/C/SRE	ADEN/SRE

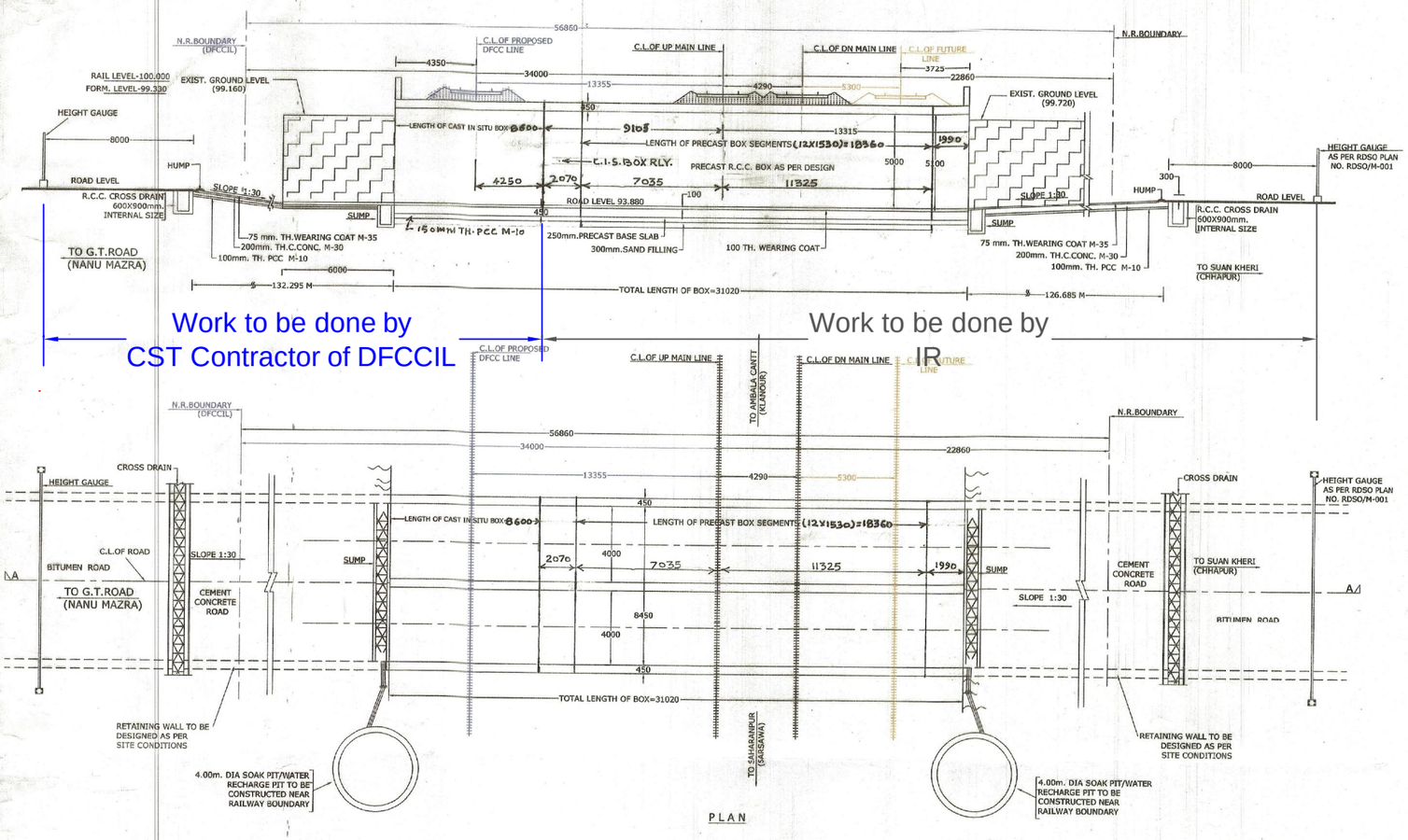
SIGNATURES OF DFCCIL AUTHORITIES

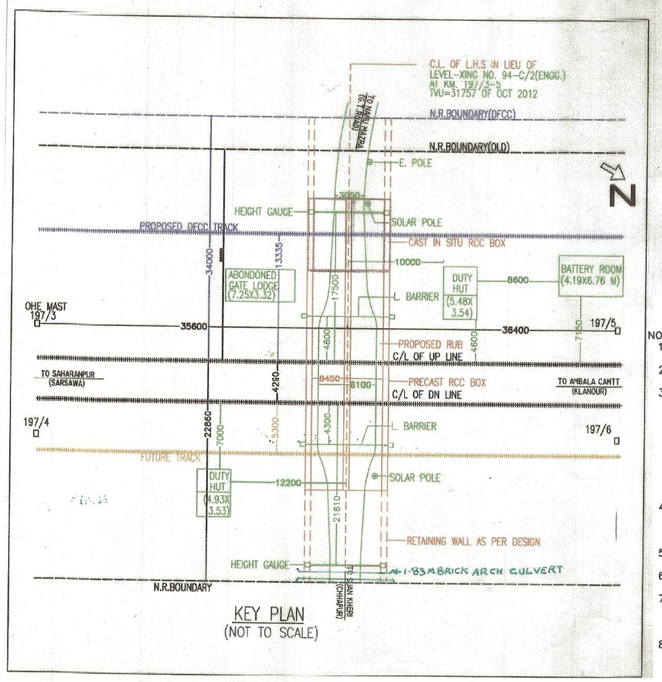
	14/3/2014	Natraj 22/3/14	
	APM/ENGG./UMB	DY.CPM/ENGG./UMB	CPM / UMB

SIGNATURES OF U.P. STATE PWD (B&R) AUTHORITIES

	24/02/14	24/2/14	
	AE/PWD/SRE	XEN/PWD/SRE	SE/PWD/SRE

XEN/C/D-I/DLI	DY.CE/C/D-I/DLI	CE/C/SPL/DLI	XEN/Br.(S&D)BH	DY.CE/Br./BH	CBE/BH
Sr.DSTE/UMB	Sr.DEE/G/UMB	Sr.DEE/TRD/UMB	Sr.DOM/UMB	Sr. DEN/C/UMB	DRM/UMB
		21.2.14	21/2/14		21/3/14
AE/TRD/CDG	AEE/C/UMB	XEN/C/SRE	DY.CE/C/UMB	DY.CEE/C/JUC	Sr.DEN-III/UMB





N.R.H.Q.E. (P) PLAN NO.	
N.R.DY.CE/C/UMB. PLAN NO. P-423/DY.CE/C/UMB/14	
NORTHERN RAILWAY	
DRAWING OFFICE (CONST) AMBALA	
AMBALA DIVISION	
CONSTRUCTION OF TWO LANE ROAD UNDER BRIDGE IN LIEU OF LEVEL CROSSING NO. 94-C/2 AT KM.197/3-5 IN BETWEEN SARSAWA & KLANOUR RAILWAY STATION ON SRE-UMB SECTION ON DFCC ROUTE (SIZE OF BOX = 2 X4.00 X 5.10 M)	
GENERAL-ARRANGEMENT DRAWING	
SCALE :– 1:100	
PINK BOOK ITEM NO:–395 OF YEAR 2013–14	

NOTES: –

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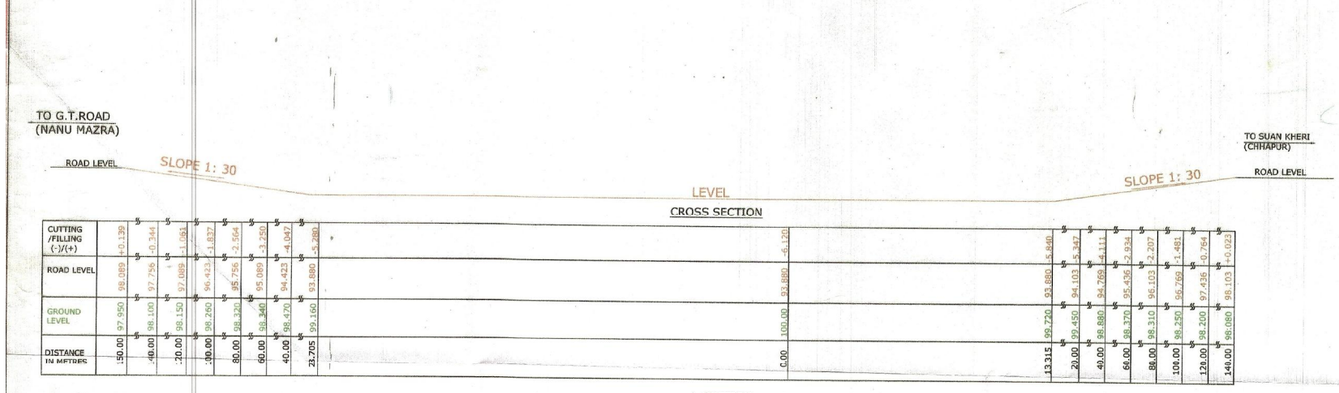
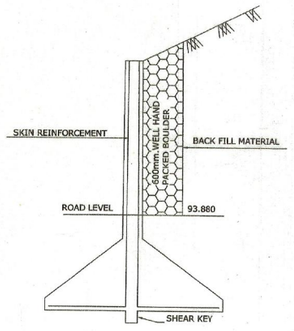
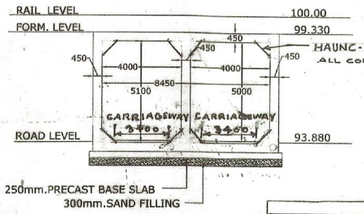






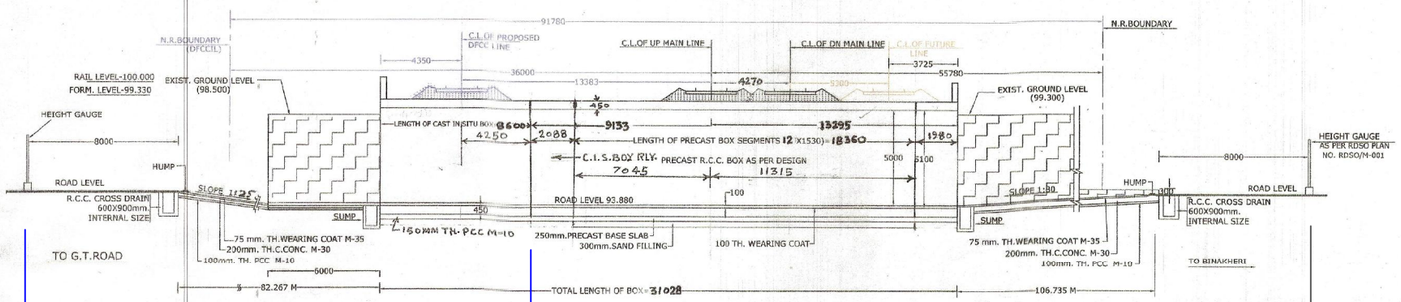
SIGNATURES OF DFCCIL AUTHORITIES		
APM/ENGG./UMB	DY.CPM/ENGG./UMB	CPM/UMB
SIGNATURES OF U.P. STATE PWD (B&R) AUTHORITIES		
AE/PWD/SRE	XEN/PWD/SRE	

FEASIBILITY CERTIFICATE							
THE PROPOSAL CHECKED AT SITE & FOUND FEASIBLE							
SSE/TRD/SRE	ADEE/TRD/UMB	SSE/W/C/SRE	SSE/P-WAY/C/UMB	SSE/WORKS/SRE	SSE/P-WAY/SRE	XEN/C/SRE	ADEN/SRE

JE/D/C/UMB	SSE/D/C/UMB	SSE/W/C/SRE	SSE/E/C/UMB

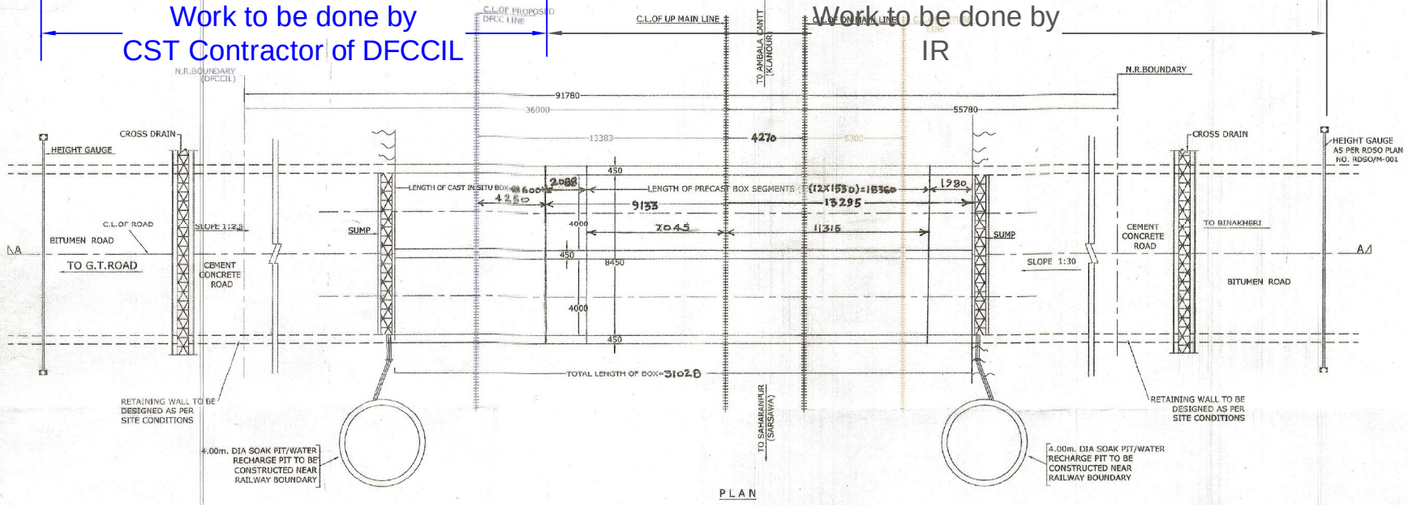
			CE/C/SPL/DLI		
Sr.DSTE/UMB	Sr.DEE/G/UMB	Sr.DEE/TRD/UMB	Sr.DOM/UMB	Sr. DEN/C/UMB	DRM/UMB
AE/TRD/CDG	AEE/C/UMB	XEN/C/SRE	DY.CE/C/UMB	DY.CEE/C/JUC	Sr.DEN-III/UMB

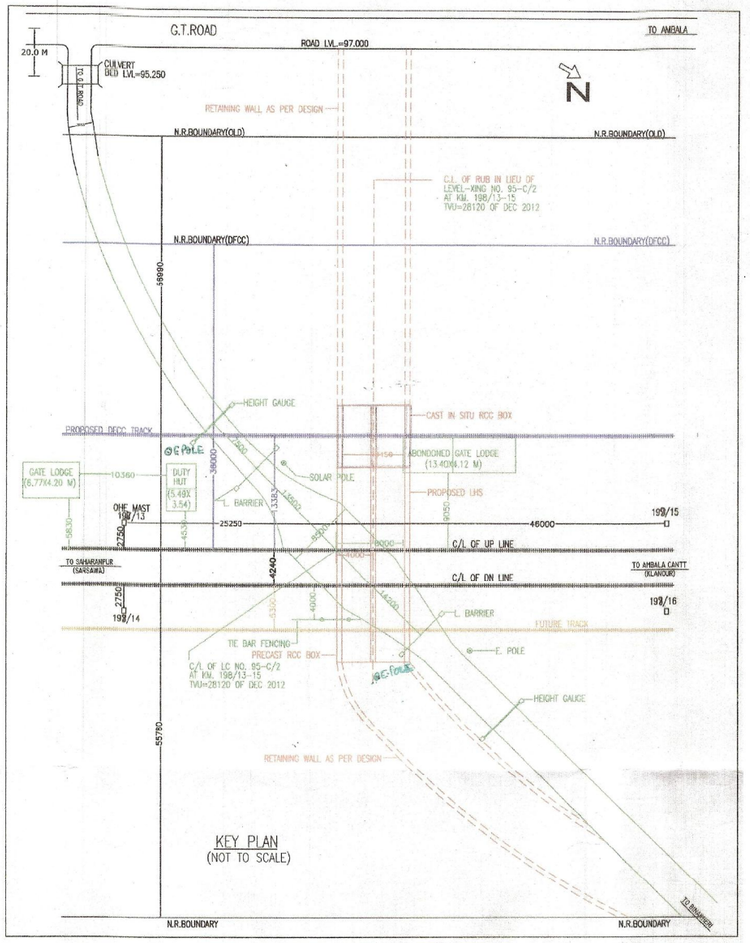
1 of 1

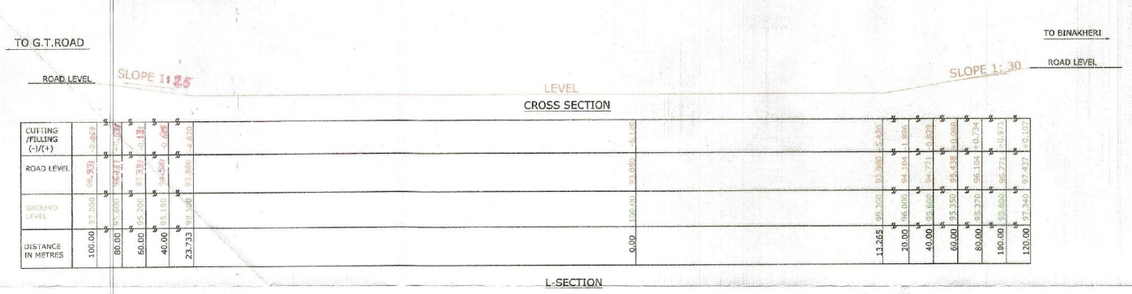


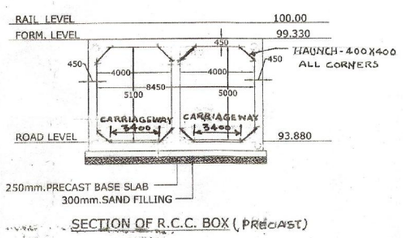
Work to be done by CST Contractor of DFCCIL

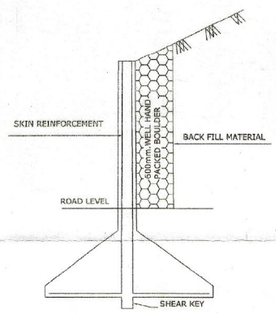
Work to be done by IR











N.R.H.Q.E. (P) PLAN NO.

N.R.DY.CE/C/UMB. PLAN NO.P-424/DY.CE/C/UMB/14

NORTHERN RAILWAY

DRAWING OFFICE (CONST.) AMBALA

AMBALA DIVISION

CONSTRUCTION OF TWO LANE ROAD UNDER BRIDGE IN LIEU OF LEVEL CROSSING NO. 95-C/2 AT KM.198/13-15 IN BETWEEN SARSAWA & KLANOUR RAILWAY STATION ON SRE-UMB SECTION ON DFCC ROUTE.
(SIZE OF BOX = 2 X 4.00 X 5.10 M)

GENERAL-ARRANGEMENT DRAWING

SCALE :- 1:100

PINK BOOK ITEM NO:-396 OF YEAR 2013-14

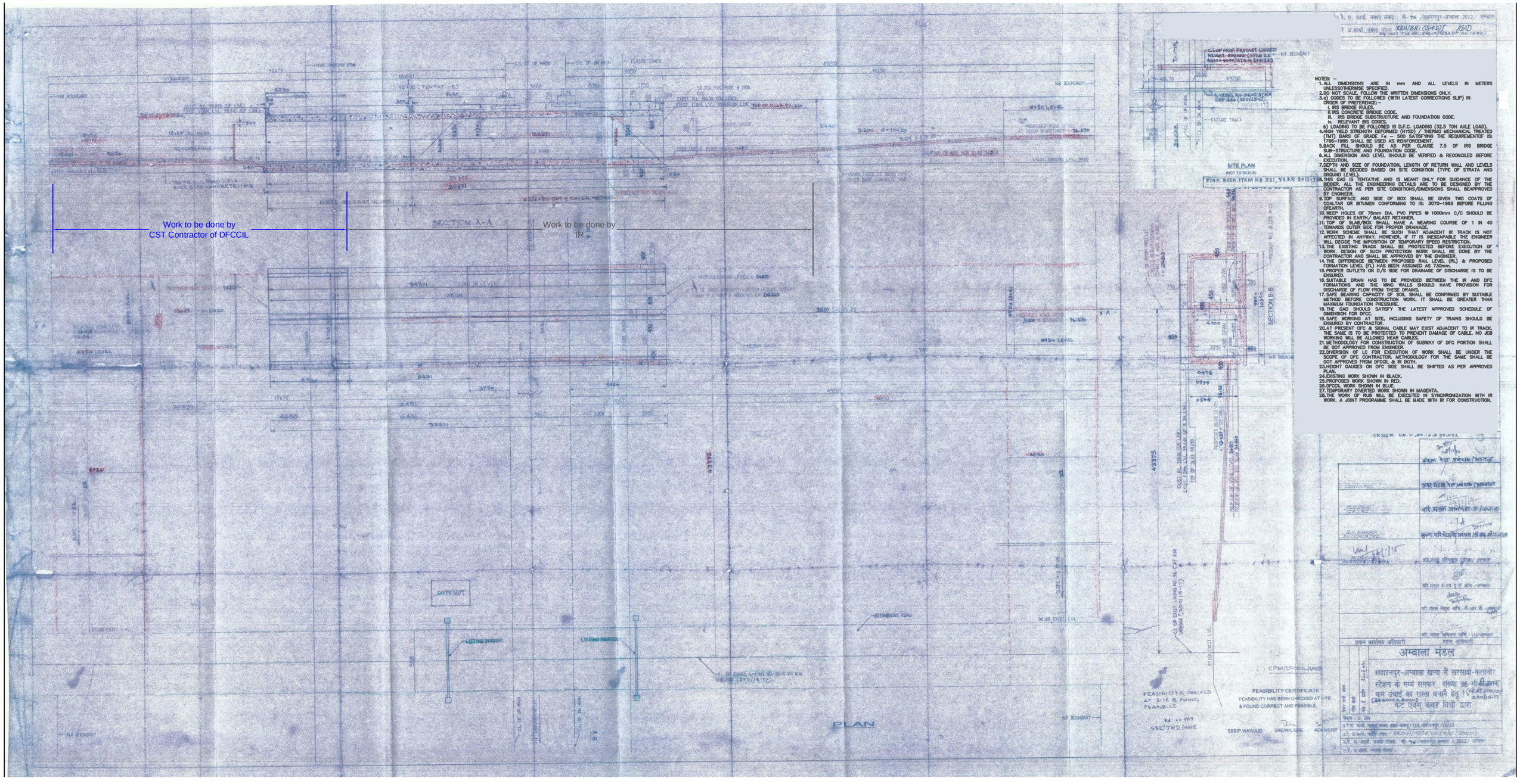
NOTES: -

1. ALL DIMENSIONS ARE IN mm AND ALL LEVELS IN METERS UNLESSOTHERWISE SPECIFIED.
2. DO NOT SCALE, FOLLOW THE WRITTEN DIMENSIONS ONLY.
3. a) CODES TO BE FOLLOWED (WITH LATEST CORRECTIONS SLIP) IN ORDER OF PREFERENCE: -
   i. IRS BRIDGE RULES.
   ii. IRS CONCRETE BRIDGE CODE.
   iii. IRS BRIDGE SUBSTRUCTURE AND FOUNDATION CODE.
   iv. RELEVANT BIS CODES.
   b) LOADING TO BE FOLLOWED IS D.F.C. LOADING (32.5 TON AXLE LOAD).
4. HIGH YIELD STRENGTH DEFORMED (HYSD) / THERMO MECHANICAL TREATED (TMT) BARS OF GRADE Fe - 500 SATISFYING THE REQUIREMENTOF IS: 1786-1985 SHALL BE USED AS REINFORCEMENT.
5. BACK FILL SHOULD BE AS PER CLAUSE 7.5 OF IRS BRIDGE SUB-STRUCTURE AND FOUNDATION CODE.
6. ALL DIMENSION AND LEVEL SHOULD BE VERIFIED & RECONCILED BEFORE EXECUTION.
7. DEPTH AND SIZE OF FOUNDATION, LENGTH OF RETURN WALL AND LEVELS SHALL BE DECIDED BASED ON SITE CONDITION (TYPE OF STRATA AND GROUND LEVEL).
8. THIS GAD IS TENTATIVE AND IS MEANT ONLY FOR GUIDANCE OF THE BIDDER. ALL THE ENGINEERING DETAILS ARE TO BE DESIGNED BY THE CONTRACTOR AS PER SITE CONDITIONS/DIMENSIONS SHALL BEAPPROVED BY ENGINEER.
9. TOP SURFACE AND SIDE OF BOX SHALL BE GIVEN TWO COATS OF COALTAR OR BITUMEN CONFORMING TO IS: 3070-1965 BEFORE FILLING OFEARTH.
10. WEEP HOLES OF 75mm DIA. PVC PIPES @ 1000mm C/C SHOULD BE PROVIDED IN EARTH/ BALAST RETAINER.
11. TOP OF SLAB/BOX SHALL HAVE A WEARING COURSE OF 1 IN 40 TOWARDS OUTER SIDE FOR PROPER DRAINAGE.
12. WORK SCHEME SHALL BE SUCH THAT ADJACENT IR TRACK IS NOT AFFECTED IN ANYWAY. HOWEVER, IF IT IS INESCAPABLE THE ENGINEER WILL DECIDE THE IMPOSITION OF TEMPORARY SPEED RESTRICTION.
13. THE EXISTING TRACK SHALL BE PROTECTED BEFORE EXECUTION OF WORK. DESIGN OF SUCH PROTECTION WORK SHALL BE DONE BY THE CONTRACTOR AND SHALL BE APPROVED BY THE ENGINEER.
14. THE DIFFERENCE BETWEEN PROPOSED RAIL LEVEL (RL) & PROPOSED FORMATION LEVEL (FL) HAS BEEN ASSUMED AS 730mm.
15. PROPER OUTLETS ON D/S SIDE FOR DRAINAGE OF DISCHARGE IS TO BE ENSURED.
16. SUITABLE DRAIN HAS TO BE PROVIDED BETWEEN THE IR AND DFC FORMATIONS AND THE WING WALLS SHOULD HAVE PROVISION FOR DISCHARGE OF FLOW FROM THESE DRAINS.
17. SAFE BEARING CAPACITY OF SOIL SHALL BE CONFIRMED BY SUITABLE METHOD BEFORE CONSTRUCTION WORK. IT SHALL BE GREATER THAN MAXIMUM FOUNDATION PRESSURE.
18. THE GAD SHOULD SATISFY THE LATEST APPROVED SCHEDULE OF DIMENSION FOR DFCC.
19. SAFE WORKING AT SITE, INCLUDING SAFETY OF TRAINS SHOULD BE ENSURED BY CONTRACTOR.
20. AT PRESENT OFC & SIGNAL CABLE MAY EXIST ADJACENT TO IR TRACK. THE SAME IS TO BE PROTECTED TO PREVENT DAMAGE OF CABLE. NO JCB WORKING WILL BE ALLOWED NEAR CABLES.
21. METHODOLOGY FOR CONSTRUCTION OF SUBWAY OF DFC PORTION SHALL BE GOT APPROVED FROM ENGINEER.
22. DIVERSION OF LC FOR EXECUTION OF WORK SHALL BE UNDER THE SCOPE OF DFC CONTRACTOR. METHODOLOGY FOR THE SAME SHALL BE GOT APPROVED FROM DFCCIL & IR BOTH.
23. HEIGHT GAUGES ON DFC SIDE SHALL BE SHIFTED AS PER APPROVED PLAN.
24. EXISTING WORK SHOWN IN BLACK.
25. PROPOSED WORK SHOWN IN RED.
26. DFCCIL WORK SHOWN IN BLUE.
27. TEMPORARY DIVERTED WORK SHOWN IN MAGENTA.
28. THE WORK OF RUB WILL BE EXECUTED IN SYNCHRONIZATION WITH IR WORK. A JOINT PROGRAMME SHALL BE MADE WITH IR FOR CONSTRUCTION.

SIGNATURES OF DFCCIL AUTHORITIES			
	APM/ENGG./UMB	DY.CPM/ENGG./UMB	CPM/UMB
SIGNATURES OF U.P. STATE PWD (B&R) AUTHORITIES			
	AE/PWD/SRE	XEN/PWD/SRE	

FEASIBILITY CERTIFICATE									
THE PROPOSAL CHECKED AT SITE & FOUND FEASIBLE									
SSE/TRD/SRE	AEE/TRD/UMB	SSE/W/C/SRE	SSE/P-WAY/C/UMB	SSE/WORKS/SRE	SSE/P-WAY/SWD	XEN/C/SRE	ADEN/SRE		

			CE/C/SPL/DLI		
Sr.DSTE/UMB	Sr.DEE/G/UMB	Sr.DEE/TRD/UMB	Sr.DOM/UMB	Sr. DEN/C/UMB	DRM/UMB
AE/TRD/CDG	AEE/C/UMB	XEN/C/SRE	DY.CE/C/UMB	DY.CEE/C/JUC	Sr.DEN-II/UMB


Work to be done by
CST Contractor of DFCCIL
SECTION A-A
Work to be done by
IR
PLAN
SITE PLAN
(NOT TO SCALE)
SECTION B-B
NOTES: –
1. ALL DIMENSIONS ARE IN mm AND ALL LEVELS IN METERS UNLESSOTHERWISE SPECIFIED.
2. DO NOT SCALE, FOLLOW THE WRITTEN DIMENSIONS ONLY.
3. a) CODES TO BE FOLLOWED (WITH LATEST CORRECTIONS SLIP) IN ORDER OF PREFERENCE: –
I. IRS BRIDGE RULES.
II. IRS CONCRETE BRIDGE CODE.
III. IRS BRIDGE SUBSTRUCTURE AND FOUNDATION CODE.
iv. RELEVANT BIS CODES.
b) LOADING TO BE FOLLOWED IS D.F.C. LOADING (32.5 TON AXLE LOAD).
4. HIGH YIELD STRENGTH DEFORMED (HYSD) / THERMO MECHANICAL TREATED (TMT) BARS OF GRADE Fe – 500 SATISFYING THE REQUIREMENTOF IS: 1786–1985 SHALL BE USED AS REINFORCEMENT.
5. BACK FILL SHOULD BE AS PER CLAUSE 7.5 OF IRS BRIDGE SUB–STRUCTURE AND FOUNDATION CODE.
6. ALL DIMENSION AND LEVEL SHOULD BE VERIFIED & RECONCILED BEFORE EXECUTION.
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9. TOP SURFACE AND SIDE OF BOX SHALL BE GIVEN TWO COATS OF COALTAR OR BITUMEN CONFORMING TO IS: 3070–1985 BEFORE FILLING OFEARTH.
10. WEEP HOLES OF 75mm DIA. PVC PIPES @ 1000mm C/C SHOULD BE PROVIDED IN EARTH/ BALAST RETAINER.
11. TOP OF SLAB/ROX SHALL HAVE A WEARING COURSE OF 1 IN 40 TOWARDS OUTER SIDE FOR PROPER DRAINAGE.
12. WORK SCHEME SHALL BE SUCH THAT ADJACENT IR TRACK IS NOT AFFECTED IN ANYWAY. HOWEVER, IF IT IS INESCAPABLE THE ENGINEER WILL DECIDE THE IMPOSITION OF TEMPORARY SPEED RESTRICTION.
13. THE EXISTING TRACK SHALL BE PROTECTED BEFORE EXECUTION OF WORK. DESIGN OF SUCH PROTECTION WORK SHALL BE DONE BY THE CONTRACTOR AND SHALL BE APPROVED BY THE ENGINEER.
14. THE DIFFERENCE BETWEEN PROPOSED RAIL LEVEL (RL) & PROPOSED FORMATION LEVEL (FL) HAS BEEN ASSUMED AS 730mm.
15. PROPER OUTLETS ON D/S SIDE FOR DRAINAGE OF DISCHARGE IS TO BE ENSURED.
16. SUITABLE DRAIN HAS TO BE PROVIDED BETWEEN THE IR AND DFC FORMATIONS AND THE WING WALLS SHOULD HAVE PROVISION FOR DISCHARGE OF FLOW FROM THESE DRAINS.
17. SAFE BEARING CAPACITY OF SOIL SHALL BE CONFIRMED BY SUITABLE METHOD BEFORE CONSTRUCTION WORK. IT SHALL BE GREATER THAN MAXIMUM FOUNDATION PRESSURE.
18. THE GAD SHOULD SATISFY THE LATEST APPROVED SCHEDULE OF DIMENSION FOR DFCC.
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22. DIVERSION OF LC FOR EXECUTION OF WORK SHALL BE UNDER THE SCOPE OF DFC CONTRACTOR. METHODOLOGY FOR THE SAME SHALL BE GOT APPROVED FROM DFCCIL & IR BOTH.
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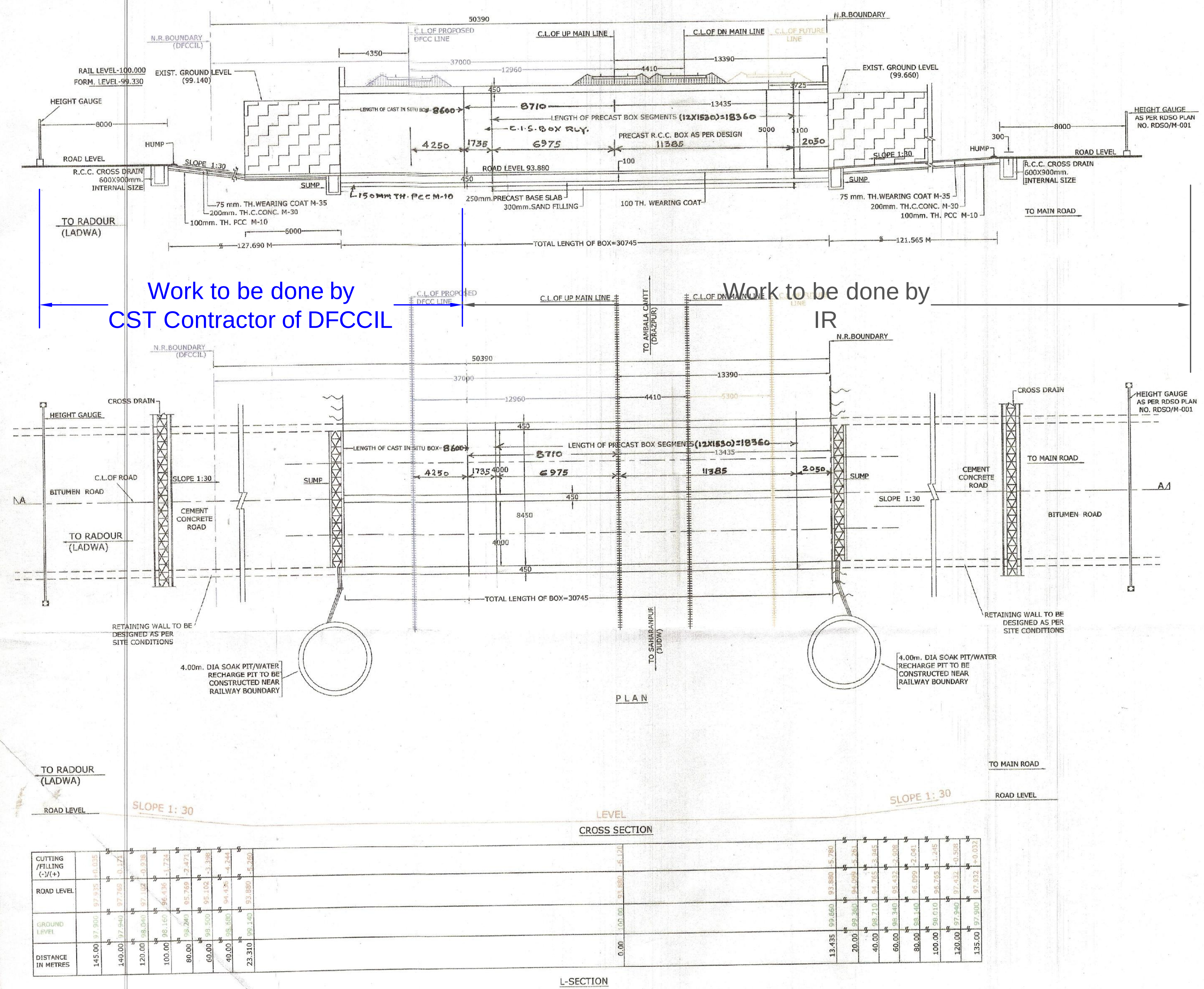
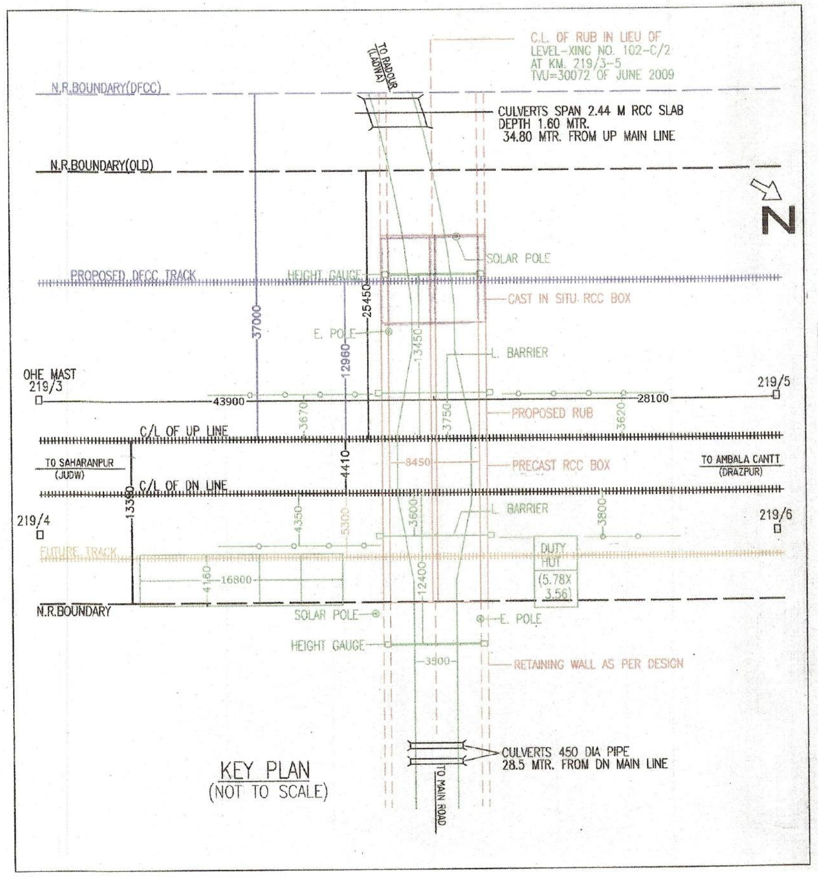
28. THE WORK OF RUB WILL BE EXECUTED IN SYNCHRONIZATION WITH IR WORK. A JOINT PROGRAMME SHALL BE MADE WITH IR FOR CONSTRUCTION.
अम्बाला मंडल
सहारनपुर–अम्बाला खण्ड में सरसावा–कलानौर स्टेशन के मध्य समपार संख्या 96–सी हेतु
FEASIBILITY CERTIFICATE
FEASIBILITY HAS BEEN CHECKED AT SITE & FOUND CORRECT AND FEASIBLE.
FEASIBILITY IS CHECKED AT SITE & FOUND FEASIBLE
SSE/TRD/SRE
SSE/P.WAY/JUD
SSE/W/SRE
ADEN/SRP
CPM/DFCCIL/JUD





NORTHERN RAILWAY

N.R.H.Q.E. (P) PLAN NO.

N.R.DY.CE/C/UMB. PLAN NO.P-425/DY.CE/C/UMB/2014

DRAWING OFFICE (CONST.) AMBALA

AMBALA DIVISION

CONSTRUCTION OF TWO LANE ROAD UNDER BRIDGE IN LIEU OF LEVEL XING NO. 102-C/2 AT KM.219/3-5 IN BETWEEN JAGADHARI WORKSHOP & DRAZPUR RAILWAY STATION ON SRE-UMB SECTION ON DFCC ROUTE (SIZE OF BOX = 2 X 4.00 X 5.10 M)

GENERAL-ARRANGEMENT DRAWING

SCALE :- 1:100

PINK BOOK ITEM NO:-395 OF YEAR 2013-14

NOTES: -

1. ALL DIMENSIONS ARE IN mm AND ALL LEVELS IN METERS UNLESSOTHERWISE SPECIFIED.
2. DO NOT SCALE, FOLLOW THE WRITTEN DIMENSIONS ONLY.
3. a) CODES TO BE FOLLOWED (WITH LATEST CORRECTIONS SLIP) IN ORDER OF PREFERENCE:-
   i. IRS BRIDGE RULES.
   ii. IRS CONCRETE BRIDGE CODE.
   iii. IRS BRIDGE SUBSTRUCTURE AND FOUNDATION CODE.
   iv. RELEVANT BIS CODES.
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5. BACK FILL SHOULD BE AS PER CLAUSE 7.5 OF IRS BRIDGE SUB-STRUCTURE AND FOUNDATION CODE.
6. ALL DIMENSION AND LEVEL SHOULD BE VERIFIED & RECONCILED BEFORE EXECUTION.
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9. TOP SURFACE AND SIDE OF BOX SHALL BE GIVEN TWO COATS OF COALTAR OR BITUMEN CONFORMING TO IS: 3070-1965 BEFORE FILLING OFEARTH.
10. WEEP HOLES OF 75mm DIA. PVC PIPES @ 1000mm C/C SHOULD BE PROVIDED IN EARTH/ BALAST RETAINER.
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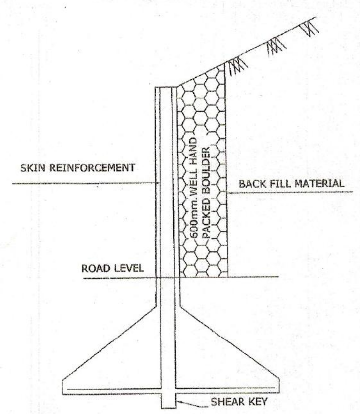
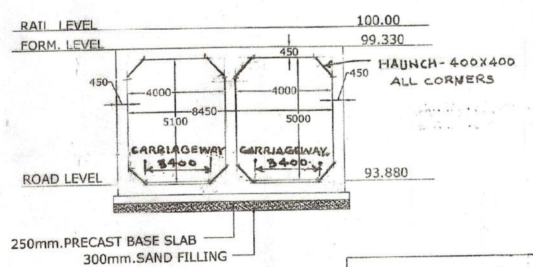


RETAINING WALL
(TO BE DESIGNED AS PER SITE CONDITIONS)



SECTION OF R.C.C. BOX

FEASIBILITY CERTIFICATE
THE PROPOSAL CHECKED AT SITE & FOUND FEASIBLE

SSE/TRD/C/SRE	AEE/TRD/UMB	SSE/W/C/SRE	SSE/P-WAY/C/UMB	SSE/WORKS/SRE	SSE/P-WAY/JUD	XEN/C/SRE	ADEN/SRE

JE/D/C/UMB	SSE/D/C/UMB	SSE/W/C/SRE	SSE/E/C/UMB

SIGNATURES OF DFCCIL AUTHORITIES

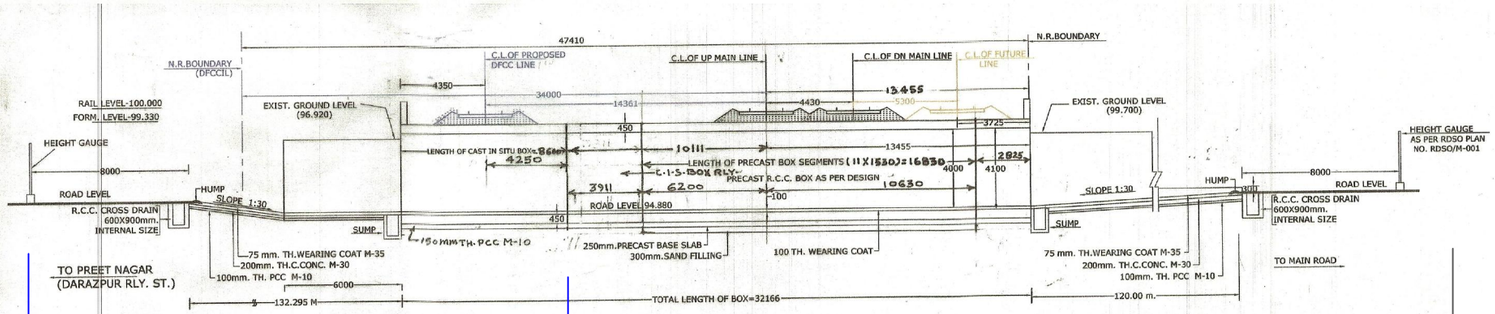
APM/ENGG./UMB	DY.CPM/ENGG./UMB	CPM/UMB

SIGNATURES OF HARYANA STATE PWD (B&R) AUTHORITIES

SDE/PWD/B&R/ YAMUNANAGAR	XEN/PWD/B&R/ YAMUNANAGAR

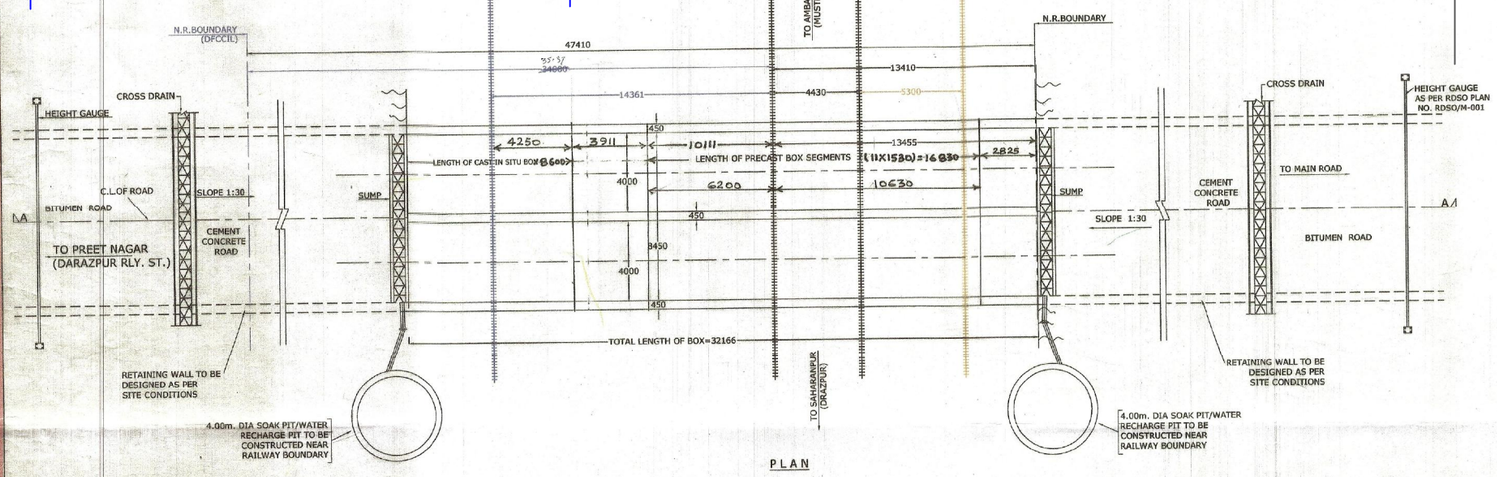
CE/C/SPL/DLI

Sr.DSTE/UMB	Sr.DEE/G/UMB	Sr.DEE/TRD/UMB	Sr.DOM/UMB	Sr. DEN/C/UMB	DRM/UMB
AEE/TRD/C/CDG	AEE/C/UMB	XEN/C/SRE	DY.CE/C/UMB	DY.CEE/C/JUC	Sr.DEN-III/UMB

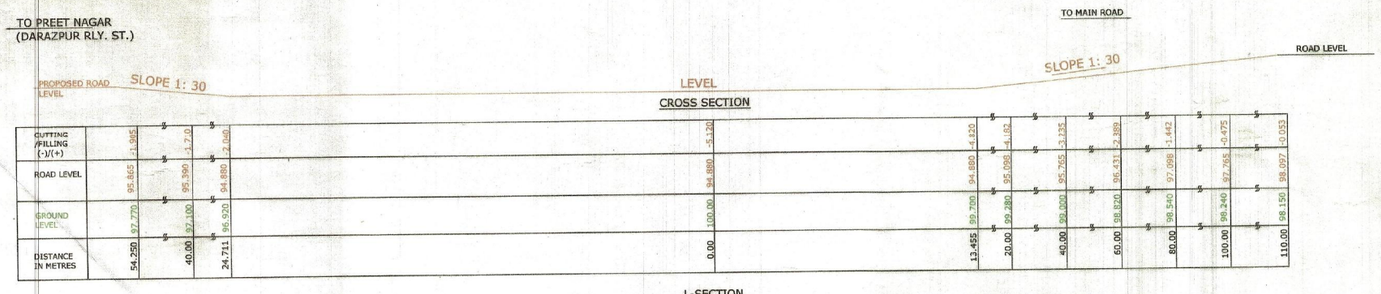


Work to be done by CST Contractor of DFCCIL

Work to be done by IR

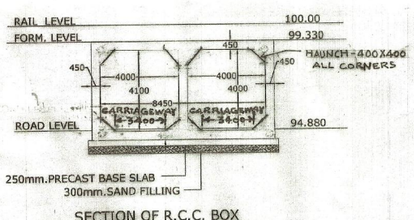


PLAN

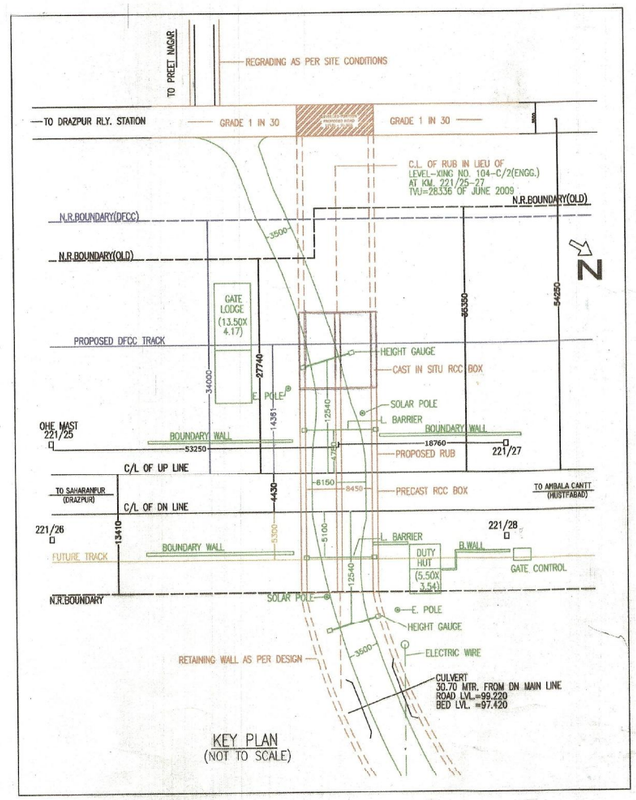


CROSS SECTION

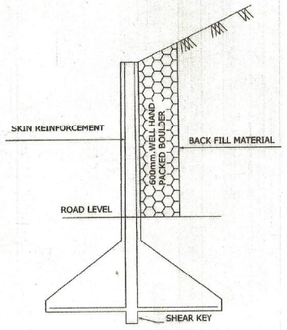
L-SECTION



SECTION OF R.C.C. BOX



KEY PLAN
(NOT TO SCALE)



RETAINING WALL
(TO BE DESIGNED AS PER SITE CONDITIONS)

N.R.H.Q.E. (P) PLAN NO.

N.R.DY.CE/C/UMB. PLAN NO.P-426/DY.CE/C/UMB/2014

NORTHERN RAILWAY

DRAWING OFFICE (CONST.) AMBALA

AMBALA DIVISION

CONSTRUCTION OF TWO LANE ROAD UNDER BRIDGE IN LIEU OF LEVEL XING NO. 104-C/2 AT KM.221/25-27 IN BETWEEN DRAZPUR & MUSTFABAD RAILWAY STATIONS ON SRE-UMB SECTION ON DFCC ROUTE (SIZE OF BOX = 2 X 4.00 X 4.10 M)

GENERAL-ARRANGEMENT DRAWING

SCALE :— 1:100

PINK BOOK ITEM NO:—398 OF YEAR 2013—14

NOTES: —

1. ALL DIMENSIONS ARE IN mm AND ALL LEVELS IN METERS UNLESSOTHERWISE SPECIFIED.
2. DO NOT SCALE, FOLLOW THE WRITTEN DIMENSIONS ONLY.
3. a) CODES TO BE FOLLOWED (WITH LATEST CORRECTIONS SLIP) IN ORDER OF PREFERENCE:—
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   ii. IRS CONCRETE BRIDGE CODE.
   iii. IRS BRIDGE SUBSTRUCTURE AND FOUNDATION CODE.
   iv. RELEVANT BIS CODES.
   b) LOADING TO BE FOLLOWED IS D.F.C. LOADING (32.5 TON AXLE LOAD).
4. HIGH YIELD STRENGTH DEFORMED (HYSD) / THERMO MECHANICAL TREATED (TMT) BARS OF GRADE Fe — 500 SATISFYING THE REQUIREMENTOF IS: 1786—1985 SHALL BE USED AS REINFORCEMENT.
5. BACK FILL SHOULD BE AS PER CLAUSE 7.5 OF IRS BRIDGE SUB—STRUCTURE AND FOUNDATION CODE.
6. ALL DIMENSION AND LEVEL SHOULD BE VERIFIED & RECONCILED BEFORE EXECUTION.
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9. TOP SURFACE AND SIDE OF BOX SHALL BE GIVEN TWO COATS OF COALTAR OR BITUMEN CONFORMING TO IS: 3070—1965 BEFORE FILLING OFEARTH.
10. WEEP HOLES OF 75mm DIA. PVC PIPES @ 1000mm C/C SHOULD BE PROVIDED IN EARTH/ BALAST RETAINER.
11. TOP OF SLAB/BOX SHALL HAVE A WEARING COURSE OF 1 IN 40 TOWARDS OUTER SIDE FOR PROPER DRAINAGE.
12. WORK SCHEME SHALL BE SUCH THAT ADJACENT IR TRACK IS NOT AFFECTED IN ANYWAY. HOWEVER, IF IT IS INESCAPABLE THE ENGINEER WILL DECIDE THE IMPOSITION OF TEMPORARY SPEED RESTRICTION.
13. THE EXISTING TRACK SHALL BE PROTECTED BEFORE EXECUTION OF WORK. DESIGN OF SUCH PROTECTION WORK SHALL BE DONE BY THE CONTRACTOR AND SHALL BE APPROVED BY THE ENGINEER.
14. THE DIFFERENCE BETWEEN PROPOSED RAIL LEVEL (RL) & PROPOSED FORMATION LEVEL (FL) HAS BEEN ASSUMED AS 730mm.
15. PROPER OUTLETS ON D/S SIDE FOR DRAINAGE OF DISCHARGE IS TO BE ENSURED.
16. SUITABLE DRAIN HAS TO BE PROVIDED BETWEEN THE IR AND DFC FORMATIONS AND THE WING WALLS SHOULD HAVE PROVISION FOR DISCHARGE OF FLOW FROM THESE DRAINS.
17. SAFE BEARING CAPACITY OF SOIL SHALL BE CONFIRMED BY SUITABLE METHOD BEFORE CONSTRUCTION WORK. IT SHALL BE GREATER THAN MAXIMUM FOUNDATION PRESSURE.
18. THE GAD SHOULD SATISFY THE LATEST APPROVED SCHEDULE OF DIMENSION FOR DFCC.
19. SAFE WORKING AT SITE, INCLUDING SAFETY OF TRAINS SHOULD BE ENSURED BY CONTRACTOR.
20. AT PRESENT OFC & SIGNAL CABLE MAY EXIST ADJACENT TO IR TRACK. THE SAME IS TO BE PROTECTED TO PREVENT DAMAGE OF CABLE. NO JCB WORKING WILL BE ALLOWED NEAR CABLES.
21. METHODOLOGY FOR CONSTRUCTION OF SUBWAY OF DFC PORTION SHALL BE GOT APPROVED FROM ENGINEER.
22. DIVERSION OF LC FOR EXECUTION OF WORK SHALL BE UNDER THE SCOPE OF DFC CONTRACTOR. METHODOLOGY FOR THE SAME SHALL BE GOT APPROVED FROM DFCCIL & IR BOTH.
23. HEIGHT GAUGES ON DFC SIDE SHALL BE SHIFTED AS PER APPROVED PLAN.
24. EXISTING WORK SHOWN IN BLACK.
25. PROPOSED WORK SHOWN IN RED.
26. DFCCIL WORK SHOWN IN BLUE.
27. TEMPORARY DIVERTED WORK SHOWN IN MAGENTA.
28. THE WORK OF RUB WILL BE EXECUTED IN SYNCHRONIZATION WITH IR WORK. A JOINT PROGRAMME SHALL BE MADE WITH IR FOR CONSTRUCTION.

SIGNATURES OF DFCCIL AUTHORITIES			
	1/3/14	22/3/14	22.3.14
	APM/ENGG/UMB	DY.CPM/ENGG/UMB	CPM/UMB
SIGNATURES OF HARYANA STATE PWD (B&R) AUTHORITIES			
	SDE/PWD/B&R YAMUNANAGAR	XEN/PWD/B&R YAMUNANAGAR	

FEASIBILITY CERTIFICATE								
THE PROPOSAL CHECKED AT SITE & FOUND FEASIBLE								
SSE/PRD/SRE	ADEN/TRD/UMB	SSE/W/C/SRE	SSE/P-WAY/C/UMB	SSE/WORKS/SRE	SSE/P-WAY/JUC	XEN/C/SRE	ADEN/SRE

				CE/C/SPL/DLI			
JE/D/C/UMB	SSE/B/C/UMB	SSE/W/C/SRE	SSE/E/C/UMB	Sr.DSTE/UMB	Sr.DEE/G/UMB	Sr.DEE/TRD/UMB	Sr.DOM/UMB	Sr. DEN/C/UMB	DRM/UMB
AEE/TRD/C/CDG	AEE/C/UMB	XEN/C/SRE	DY.CE/C/UMB	DY.CEE/C/JUC	Sr.DEN-III/UMB				

N.R.H.Q.E. PLAN NO. P-BIB-RB/2014 SH.NO.1

N.R.H.Q.E.(P) PLAN NO.

N.R.DY.C.E.(C) UMB PLAN NO. P-402/DY.CE/C/UMB/2013

NORTHERN RAILWAY

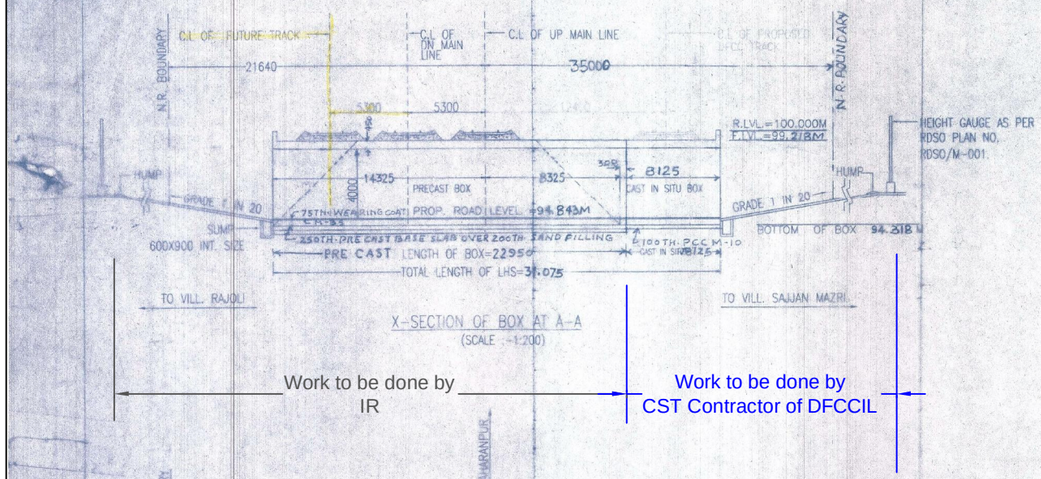
DRAWING OFFICE (CONST.) AMBALA

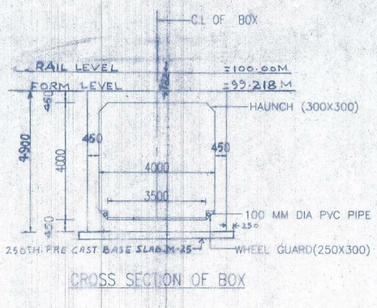
CONSTRUCTION OF SINGLE LANE ROAD UNDER BRIDGE IN LIEU OF LEVEL CROSSING NO. 113-C AT KM.240/1-3 IN BETWEEN BARARA & TANDWAL RAILWAY STATION ON SRE-UMB SECTION. (SIZE OF BOX = 1 X 4.00 X 4.00 M)

GENERAL-ARRANGEMENT DRAWING

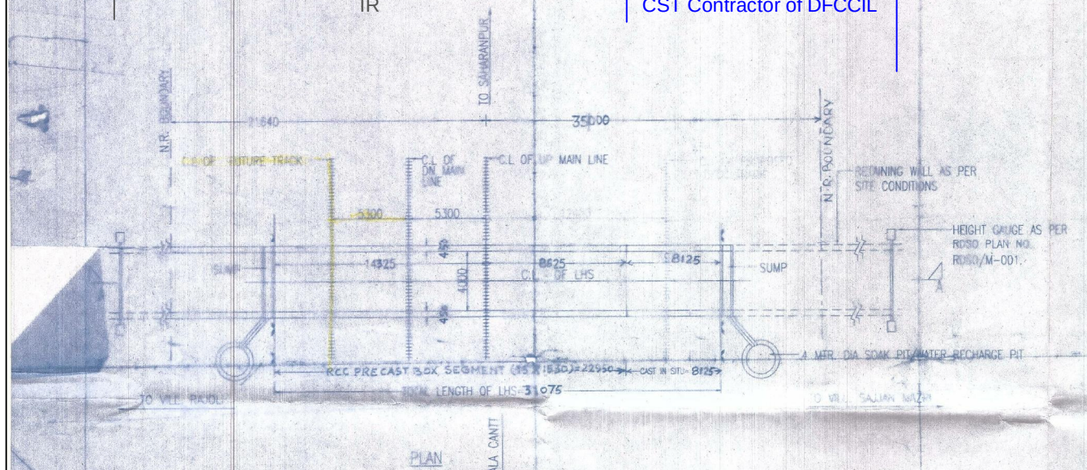
SCALE :- 1:200, 1:400

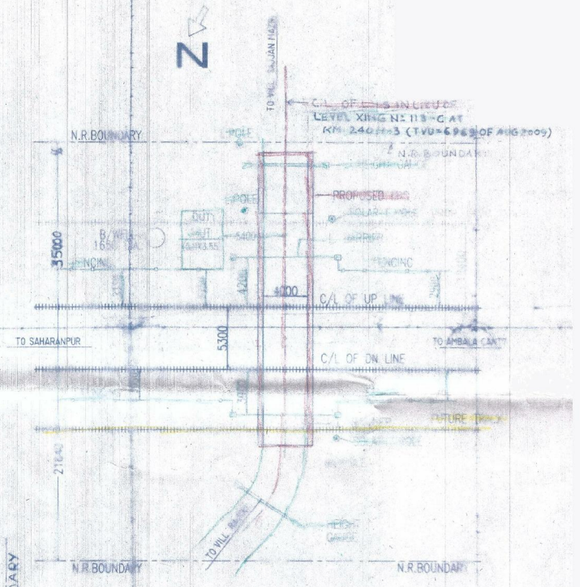
PINK BOOK ITEM NO:- 413 OF YEAR 2013-14



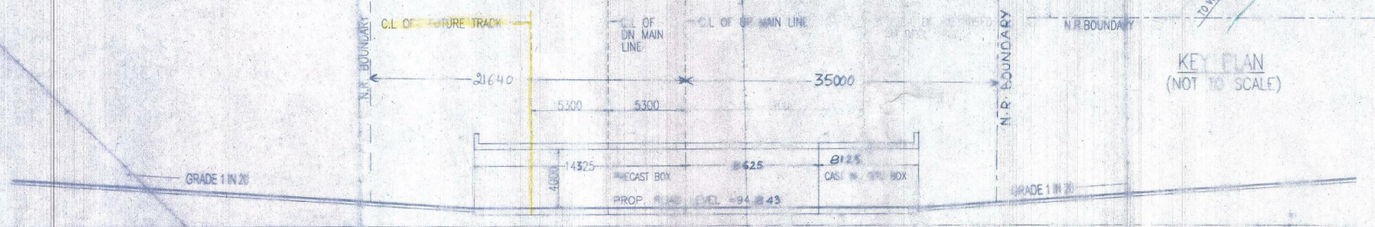


CROSS SECTION OF BOX





KEY PLAN
(NOT TO SCALE)



L-SECTION ROAD

NOTES: -

1. ALL DIMENSIONS ARE IN mm AND ALL LEVELS IN METERS UNLESSOTHERWISE SPECIFIED.
2. DO NOT SCALE, FOLLOW THE WRITTEN DIMENSIONS ONLY.
3. a) CODES TO BE FOLLOWED (WITH LATEST CORRECTIONS SLIP) IN ORDER OF PREFERENCE: -
   i. IRS BRIDGE RULES.
   ii. IRS CONCRETE BRIDGE CODE.
   iii. IRS BRIDGE SUBSTRUCTURE AND FOUNDATION CODE.
   iv. RELEVANT BIS CODES.
   b) LOADING TO BE FOLLOWED IS D.F.C. LOADING (32.5 TON AXLE LOAD).
4. HIGH YIELD STRENGTH DEFORMED (HYSD) / THERMO MECHANICAL TREATED (TMT) BARS OF GRADE Fe - 500 SATISFYING THE REQUIREMENTOF IS: 1786-1985 SHALL BE USED AS REINFORCEMENT.
5. BACK FILL SHOULD BE AS PER CLAUSE 7.5 OF IRS BRIDGE SUB-STRUCTURE AND FOUNDATION CODE.
6. ALL DIMENSION AND LEVEL SHOULD BE VERIFIED & RECONCILED BEFORE EXECUTION.
7. DEPTH AND SIZE OF FOUNDATION, LENGTH OF RETURN WALL AND LEVELS SHALL BE DECIDED BASED ON SITE CONDITION (TYPE OF STRATA AND GROUND LEVEL).
8. THIS GAD IS TENTATIVE AND IS MEANT ONLY FOR GUIDANCE OF THE BIDDER. ALL THE ENGINEERING DETAILS ARE TO BE DESIGNED BY THE CONTRACTOR AS PER SITE CONDITIONS/DIMENSIONS SHALL BEAPPROVED BY ENGINEER.
9. TOP SURFACE AND SIDE OF BOX SHALL BE GIVEN TWO COATS OF COALTAR OR BITUMEN CONFORMING TO IS: 3070-1965 BEFORE FILLING OFEARTH.
10. WEEP HOLES OF 75mm DIA. PVC PIPES @ 1000mm C/C SHOULD BE PROVIDED IN EARTH/ BALAST RETAINER.
11. TOP OF SLAB/BOX SHALL HAVE A WEARING COURSE OF 1 IN 40 TOWARDS OUTER SIDE FOR PROPER DRAINAGE.
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26. DFCOL WORK SHOWN IN BLUE.
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28. THE WORK OF RUB WILL BE EXECUTED IN SYNCHRONIZATION WITH IR WORK. A JOINT PROGRAMME SHALL BE MADE WITH IR FOR CONSTRUCTION.

FEASIBILITY CERTIFICATE
THE PROPOSAL CHECKED AT SITE & FOUND FEASIBLE

JE/D/C/UMB	SSE/D/C/UMB	JE/W/C/UMB	SSE/C/E/UMB	JE/W/C/UMB	SSE/P-WAY/C/UMB	SSE/WORKS/UMB	SSE/P-WAY/UMB	XEN/C/UMB	AEN/UMB	SSE/TRD/UMB	ADRE/TRD/UMB

SIGNATURES OF DFCOL AUTHORITIES

APM/ENGG.	DY.C.PM/ENGG./UMB	CPM/ENGG.

SIGNATURES OF STATE PWD (B&R) AUTHORITIES

SUB DIV ENGG/HSMBA AMBALA	EXECUTIVE ENGG/HSMBA AMBALA

CE/C.ISPL/DLI					
Sr. DEE/G/UMB	Sr. DEE/TRD/UMB	Sr. DSTE/UMB	Sr. DBM/UMB	Sr DEN/C/UMB	DRM/UMB
XEN/C/UMB	AEE/C/UMB	DY.CE/C/UMB	DY.CEE/C/JUC		DEN/HQ./UMB