



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

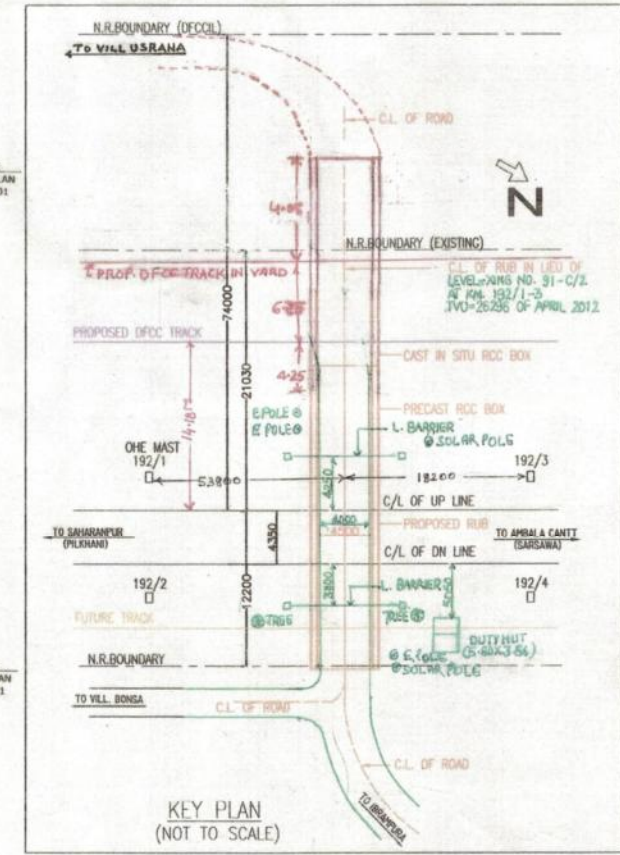
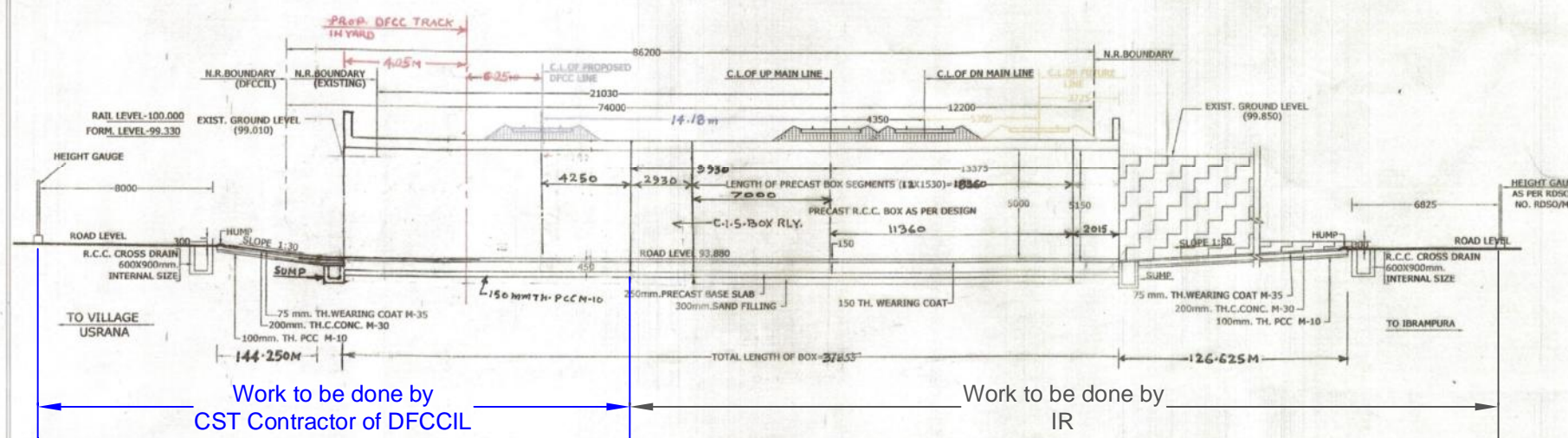
DRAWINGS - VOLUME - 5.3

SAHNEWAL - PILKHANI

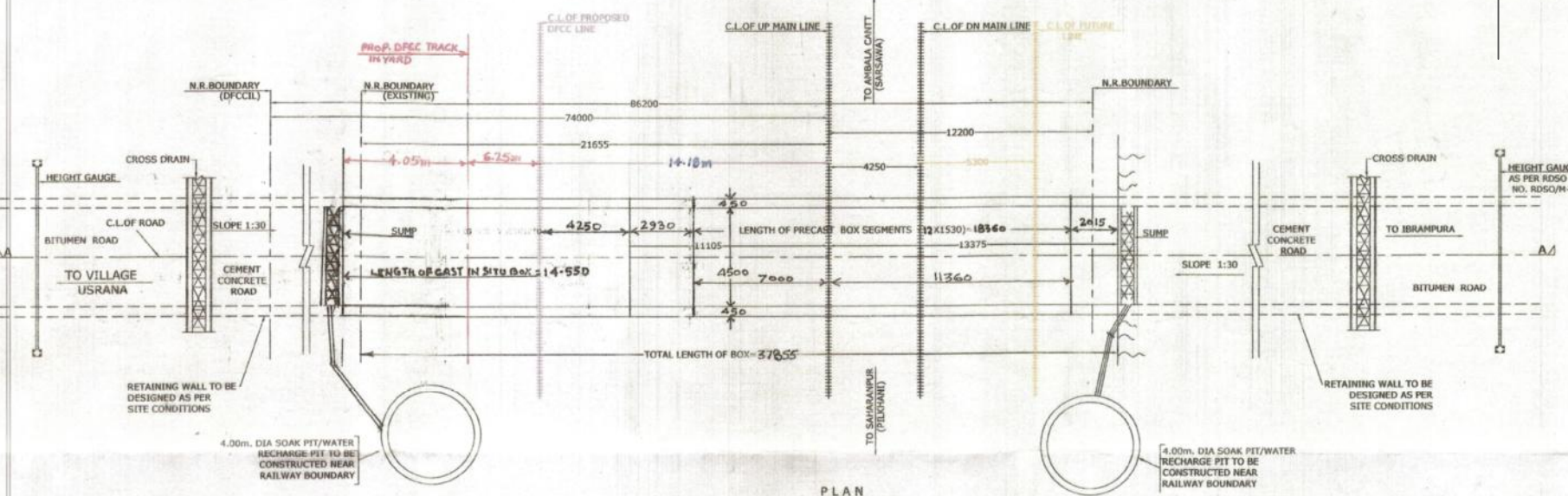
From Km. 360.200 to Km. 187.500

GAD - RUB IN LIEU OF LC

EMPLOYER
DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LIMITED
(A GOVERNMENT OF INDIA ENTERPRISES)
MINISTRY OF RAILWAYS
COUNTRY : INDIA

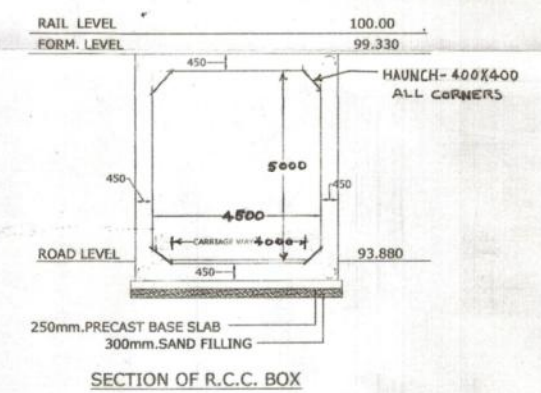
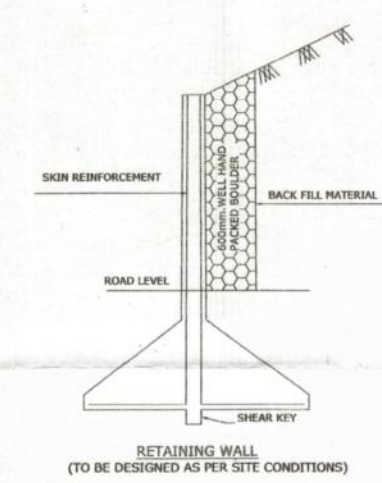


- NOTES:-
1. ALL DIMENSIONS ARE IN MM AND ALL LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.
 2. DO NOT SCALE, FOLLOW THE WRITTEN DIMENSIONS ONLY.
 3. a) CODES TO BE FOLLOWED (WITH LATEST CORRECTIONS SLIP) IN ORDER OF PREFERENCE:-
 i. IRS BRIDGE RULES.
 ii. IRS CONCRETE BRIDGE CODE.
 iii. IRS BRIDGE SUBSTRUCTURE 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 REQUIREMENT OF 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 BE APPROVED 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 OF EARTH.
 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. WORKING 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 JOB 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 DFCC 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.



CROSS SECTION

CUTTING/FILLING (-) / (+)	ROAD LEVEL	GROUND LEVEL	DISTANCE IN METRES
18.00	99.330	99.330	0.00
16.00	99.330	99.330	16.00
14.00	99.330	99.330	32.00
12.00	99.330	99.330	48.00
10.00	99.330	99.330	64.00
8.00	99.330	99.330	80.00
6.00	99.330	99.330	96.00
4.00	99.330	99.330	112.00
2.00	99.330	99.330	128.00
0.00	99.330	99.330	144.00



FEASIBILITY CERTIFICATE

THE PROPOSAL CHECKED AT SITE & FOUND FEASIBLE

SR/MD/SRE	AD/EE/TD/1918	SR/M/SRE	SR/P/W/C/AMB	SR/M/SRE	SR/P/W/SRE	SR/M/SRE	SR/M/SRE
-----------	---------------	----------	--------------	----------	------------	----------	----------

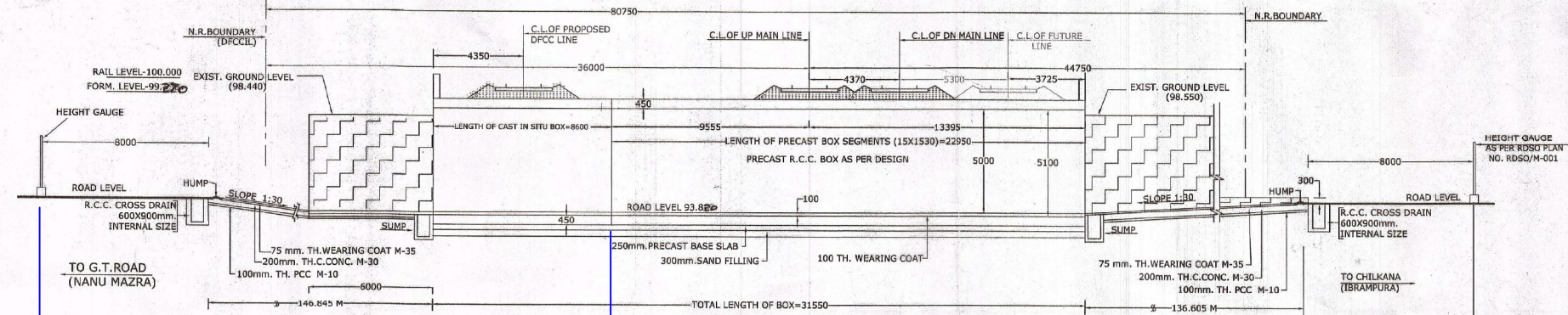
SIGNATURES OF DFCCIL AUTHORITIES

AP/ENG/UMB	DY/CM/ENG/UMB	C.P.M./UMB
------------	---------------	------------

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

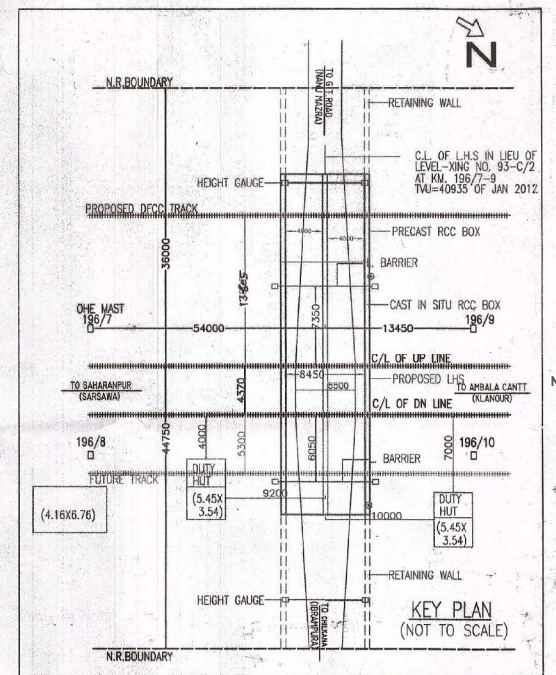
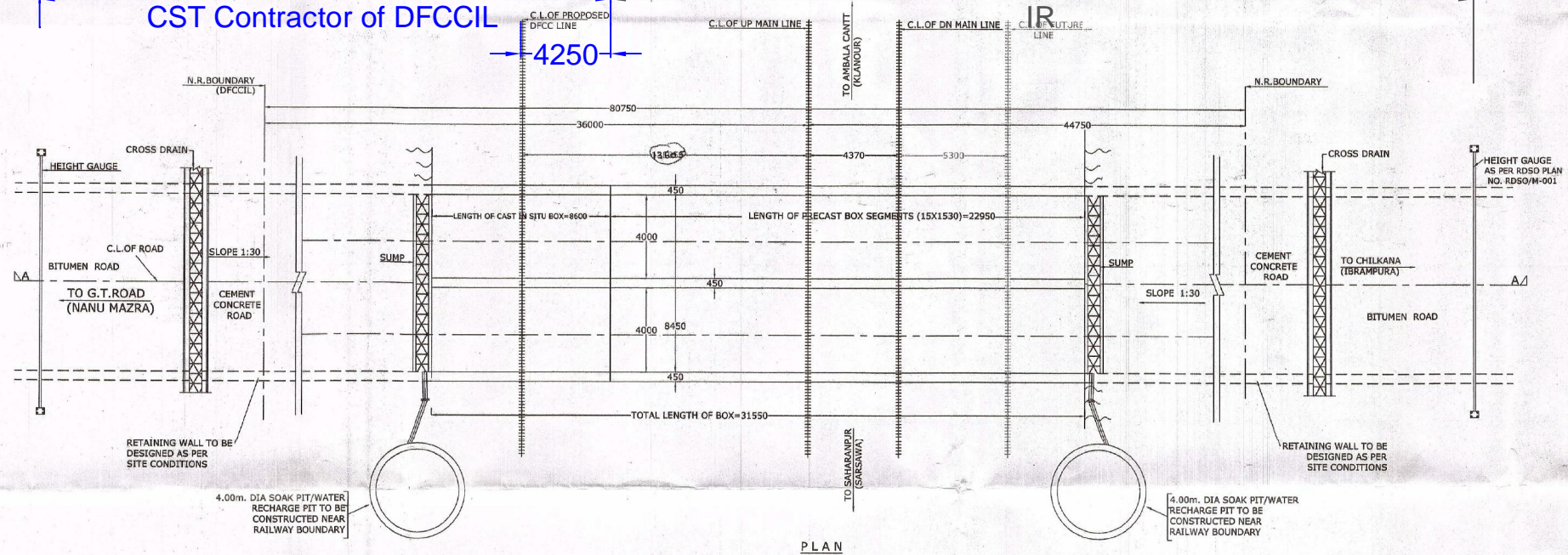
SR/PWD/SRE	XEN/PWD/SRE
------------	-------------

SR/DST/UMB	SR/DEE/UMB	SR/DEE/TRD/UMB	SR/DOW/UMB	SR/DEN/C/UMB	DRM/UMB
SR/DEE/UMB	SR/DEE/UMB	SR/DEE/UMB	SR/DEE/UMB	SR/DEE/UMB	SR/DEE/UMB



Work to be done by
CST Contractor of DFCCIL

Work to be done by
IR

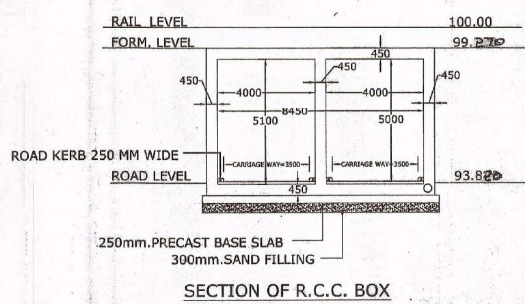


- NOTES:-
1. ALL DIMENSIONS ARE IN MM AND ALL LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.
 2. DO NOT SCALE, FOLLOW THE WRITTEN DIMENSIONS ONLY.
 3. (a) CODES TO BE FOLLOWED (WITH LATEST CORRECTIONS SLIP) IN ORDER OF PREFERENCE:-
 I. IRS BRIDGE RULES.
 II. IRS CONCRETE BRIDGE CODE.
 III. IRS BRIDGE SUBSTRUCTURE 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 REQUIREMENT OF 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 & RECORDED 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 BE APPROVED 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 OF EARTH.
 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 INEVITABLE 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 JOB 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.

TO G.T. ROAD (NANU MAZRA)



CUTTING / FILLING (-/+)	ROAD LEVEL	GROUND LEVEL	DISTANCE IN METRES
0.005	98.550	98.550	165.00
-0.212	98.408	98.620	168.00
-1.019	97.741	98.760	140.00
-1.785	97.075	98.860	120.00
-2.572	96.408	98.930	100.00
-3.229	95.741	98.970	80.00
-3.975	95.075	98.980	60.00
-4.682	94.408	98.970	40.00
-5.640	93.880	98.920	24.155
-6.120	93.880	98.880	0.00
-6.090	93.880	98.860	13.395
-5.450	94.100	98.810	20.000
-4.240	94.277	98.740	40.000
-3.487	95.433	98.620	60.000
-2.770	96.100	98.470	80.000
-2.053	96.767	98.320	100.000
-1.267	97.433	98.160	120.000
-0.540	98.100	98.000	140.000
0.146	98.767	97.830	150.000

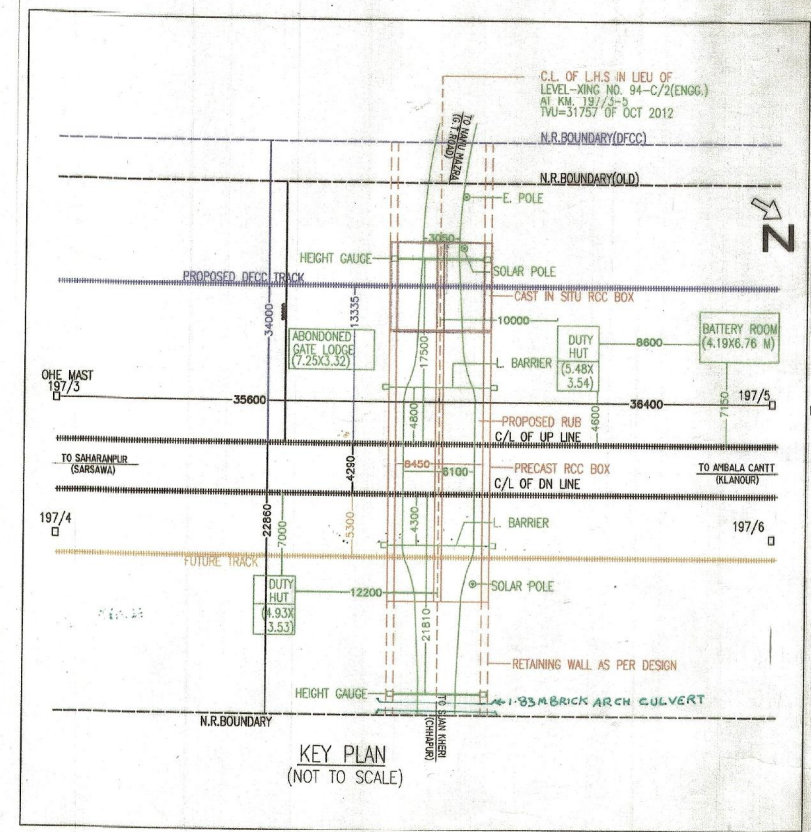
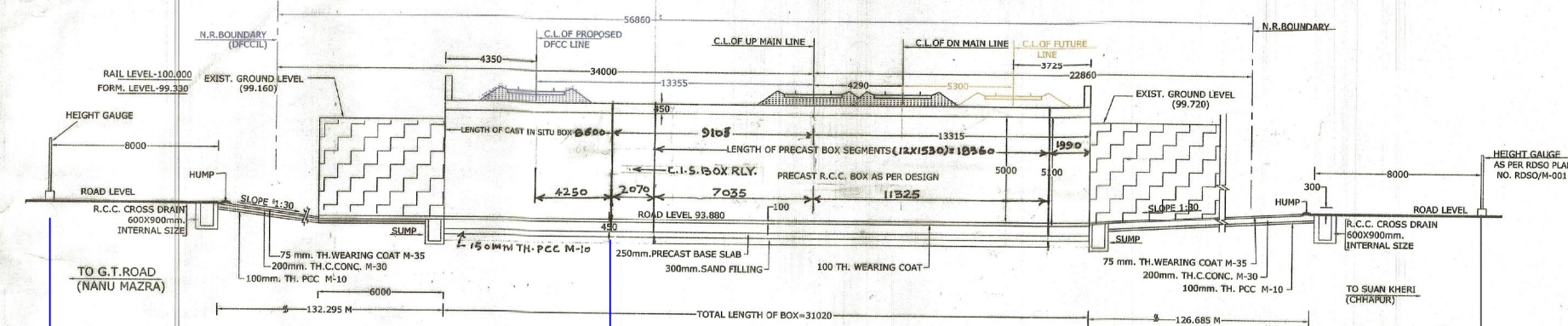


FEASIBILITY CERTIFICATE
 THE PROPOSAL CHECKED AT SITE & FOUND FEASIBLE

SSE/N/C/SRE	SSE/P-WAY/C/AMB	SSE/WORKS/SRE	SSE/P-WAY/300	XEN/C/SRE	ADD/SRE
-------------	-----------------	---------------	---------------	-----------	---------

SIGNATURES OF DFCCIL AUTHORITIES		
<i>[Signature]</i> APM/ENGG/UMB	<i>[Signature]</i> DY.CE/ENG/UMB	CPM/UMB
SIGNATURES OF U.P. STATE PWD (B&R) AUTHORITIES		
<i>[Signature]</i> AE/PWD/SRE	<i>[Signature]</i> XEN/PWD/SRE	SE/PWD/SRE

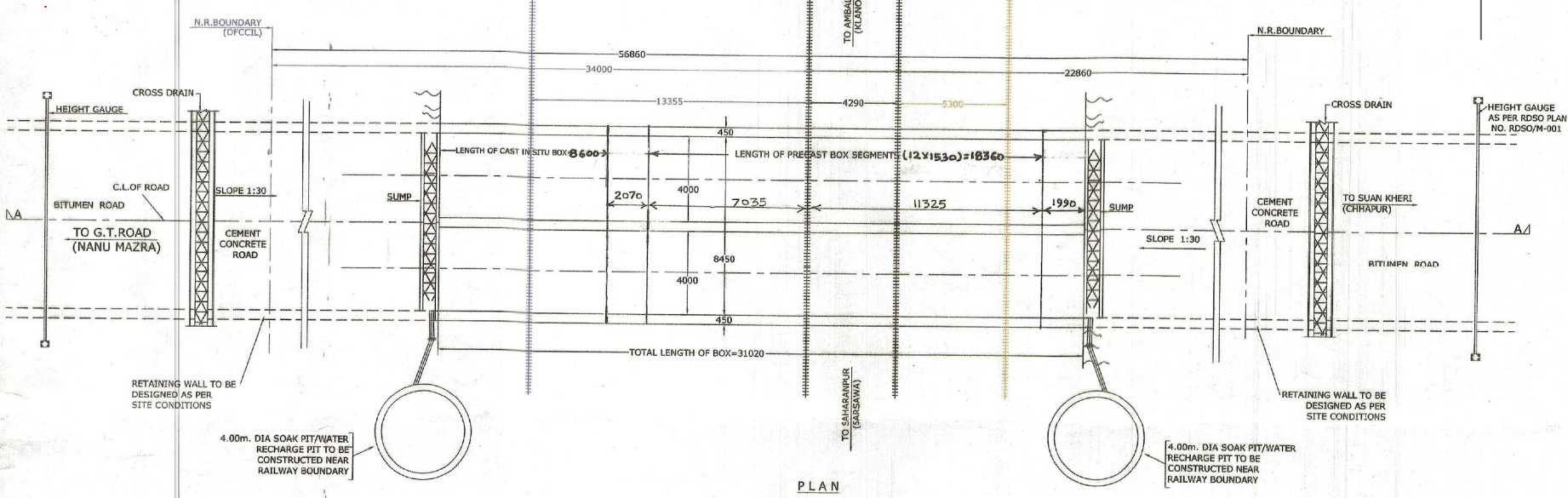
XEN/C/D-1/DLI	DY.CE/C/D-1/DLI	CE/C/SPL/DLI	XEN/Br.(S&D)BH	DY.CE/Br./BH	CBE/BH
Sr.DSTE/UMB	Sr.DEE/G/UMB	Sr.DEE/TRD/UMB	Sr.DOW/UMB	Sr.DEN/C/UMB	DRM/UMB
AE/TRD/CDG	AEE/C/UMB	XEN/C/SRE	DY.CE/C/UMB	DY.CEE/C/UMB	Sr.DEN-III/UMB



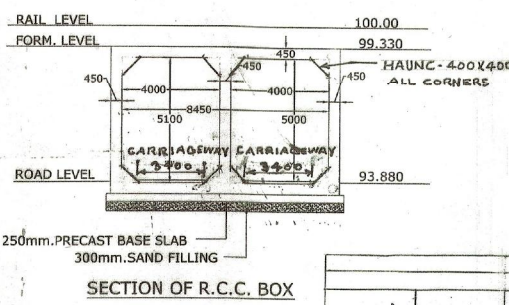
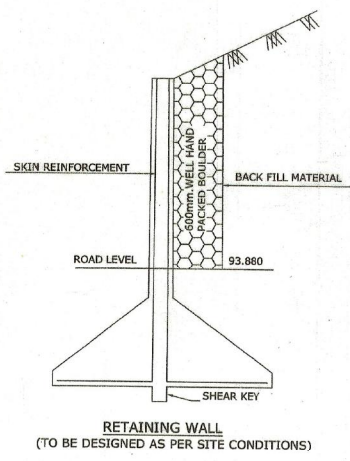
- NOTES:-
- ALL DIMENSIONS ARE IN mm AND ALL LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.
 - DO NOT SCALE, FOLLOW THE WRITTEN DIMENSIONS ONLY.
 - a) CODES TO BE FOLLOWED (WITH LATEST CORRECTIONS SLIP) IN ORDER OF PREFERENCE:-
 i. IRS BRIDGE RULES.
 ii. IRS CONCRETE BRIDGE CODE.
 iii. IRS BRIDGE SUBSTRUCTURE AND FOUNDATION CODE.
 iv. RELEVANT BIS CODES.
 b) LOADING TO BE FOLLOWED IS D.F.C. LOADING (32.5 TON AXLE LOAD).
 - HIGH YIELD STRENGTH DEFORMED (HYSD) / THERMO MECHANICAL TREATED (TMT) BARS OF GRADE Fe - 500 SATISFYING THE REQUIREMENT OF IS: 1786-1985 SHALL BE USED AS REINFORCEMENT.
 - BACK FILL SHOULD BE AS PER CLAUSE 7.5 OF IRS BRIDGE SUB-STRUCTURE AND FOUNDATION CODE.
 - ALL DIMENSION AND LEVEL SHOULD BE VERIFIED & RECORDED BEFORE EXECUTION.
 - DEPTH AND SIZE OF FOUNDATION, LENGTH OF RETURN WALL AND LEVELS SHALL BE DECIDED BASED ON SITE CONDITION (TYPE OF STRATA AND GROUND LEVEL).
 - 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 BE APPROVED BY ENGINEER.
 - TOP SURFACE AND SIDE OF BOX SHALL BE GIVEN TWO COATS OF COALTAR OR BITUMEN CONFORMING TO IS: 3070-1985 BEFORE FILLING OF EARTH.
 - WEEP HOLES OF 75mm DIA. PVC PIPES @ 1000mm C/C SHOULD BE PROVIDED IN EARTH/ BALAST RETAINER.
 - TOP OF SLAB/BOX SHALL HAVE A WEARING COURSE OF 1 IN 40 TOWARDS OUTER SIDE FOR PROPER DRAINAGE.
 - 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.
 - 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.
 - THE DIFFERENCE BETWEEN PROPOSED RAIL LEVEL (RL) & PROPOSED FORMATION LEVEL (FL) HAS BEEN ASSUMED AS 730mm.
 - PROPER OUTLETS ON D/S SIDE FOR DRAINAGE OF DISCHARGE IS TO BE ENSURED.
 - 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.
 - SAFE BEARING CAPACITY OF SOIL SHALL BE CONFIRMED BY SUITABLE METHOD BEFORE CONSTRUCTION WORK. IT SHALL BE GREATER THAN MAXIMUM FOUNDATION PRESSURE.
 - THE GAD SHOULD SATISFY THE LATEST APPROVED SCHEDULE OF DIMENSION FOR DFCC.
 - SAFE WORKING AT SITE INCLUDING SAFETY OF TRAINS SHOULD BE ENSURED BY CONTRACTOR.
 - 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.
 - METHODOLOGY FOR CONSTRUCTION OF SUBWAY OF DFC PORTION SHALL BE GOT APPROVED FROM ENGINEER.
 - DIVERSION OF LC FOR EXECUTION OF WORK SHALL BE UNDER THE SCOPE OF DFC CONTRACTOR. METHODOLOGY FOR THE SAME SHALL BE GOT APPROVED FROM DFCC & IR BOTH.
 - HEIGHT GAUGES ON DFC SIDE SHALL BE SHIFTED AS PER APPROVED PLAN.
 - EXISTING WORK SHOWN IN BLACK.
 - PROPOSED WORK SHOWN IN RED.
 - DFCC WORK SHOWN IN BLUE.
 - TEMPORARY DIVERTED WORK SHOWN IN MAGENTA.
 - THE WORK OF RUB WILL BE EXECUTED IN SYNCHRONIZATION WITH IR WORK. A JOINT PROGRAMME SHALL BE MADE WITH IR FOR CONSTRUCTION.

Work to be done by
 CST Contractor of DFCCIL

Work to be done by
 IR



CUTTING / FILLING (-/+)	ROAD LEVEL	GROUND LEVEL	DISTANCE IN METERS
0.139	98.089	97.950	50.00
-0.344	97.795	98.100	40.00
1.061	97.005	98.150	20.00
-1.837	96.433	98.260	30.00
2.564	95.726	98.330	80.00
3.250	95.089	98.360	60.00
4.047	94.433	98.470	40.00
5.280	93.880	99.160	23.205
-6.120	93.880	100.000	6.000
6.830	93.880	99.720	113.315
7.367	94.103	99.450	20.000
8.111	94.708	99.880	40.000
9.934	95.436	99.870	66.000
11.207	96.103	99.310	88.000
14.481	96.760	98.290	104.000
17.764	97.418	98.200	120.000
21.023	98.103	98.080	140.000



FEASIBILITY CERTIFICATE
 THE PROPOSAL CHECKED AT SITE & FOUND FEASIBLE

SSE/TRD/SRE	ADBE/TRD/MB	SSE/W/SRE	SSE/P-WAY/C/AMB	SSE/NRWS/SRE	SSE/P-WAY/SRE	XEN/C/SRE	JDN/SRE
-------------	-------------	-----------	-----------------	--------------	---------------	-----------	---------

SIGNATURES OF DFCCIL AUTHORITIES

<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
AP/ENGG/UMB	DY.CM/ENGG/UMB	CPM/UMB

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

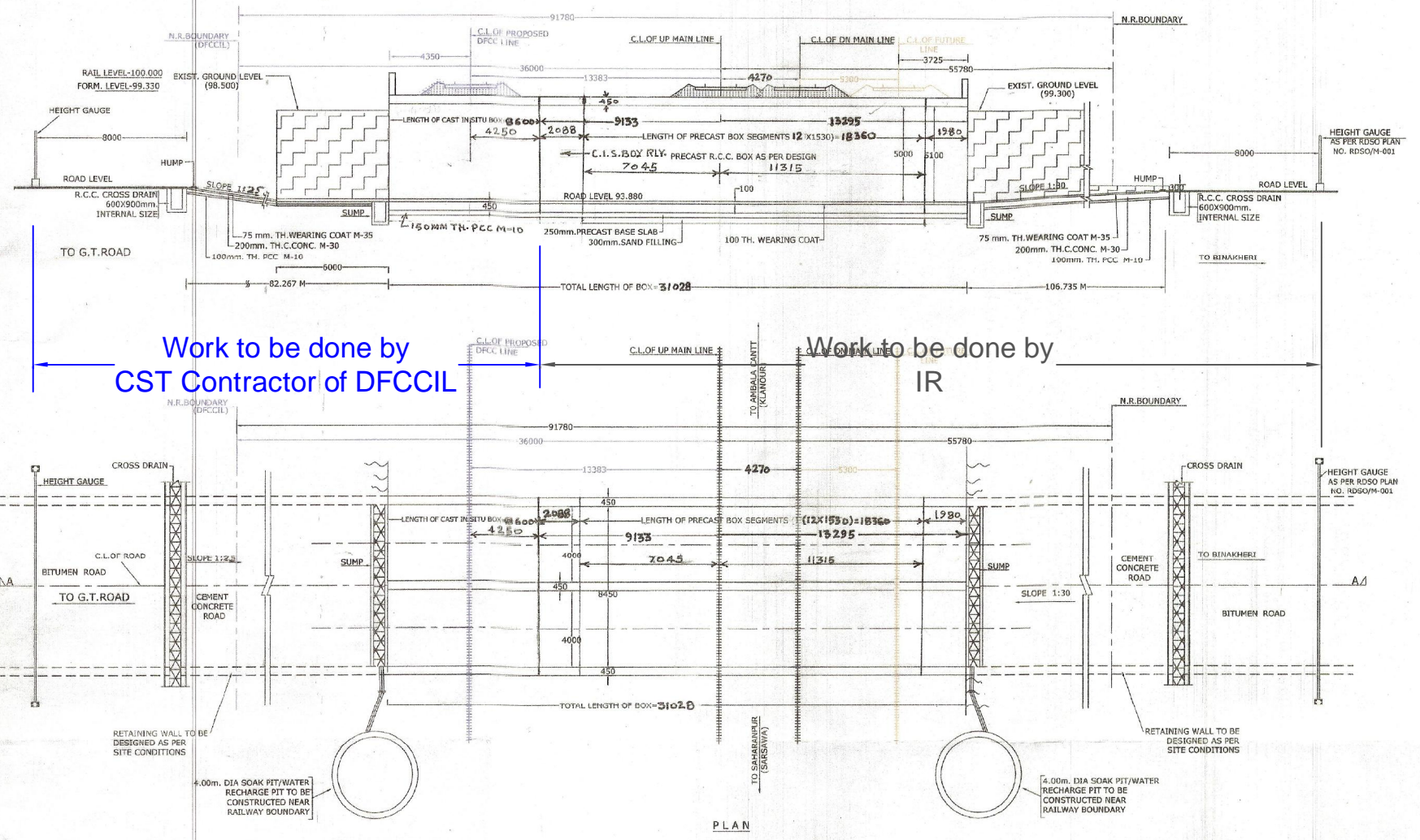
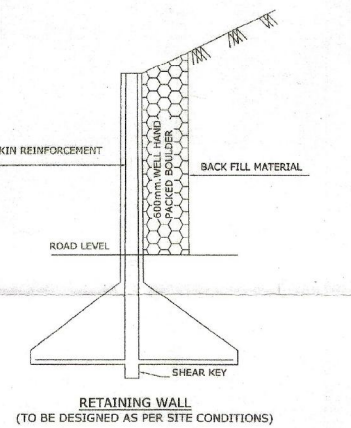
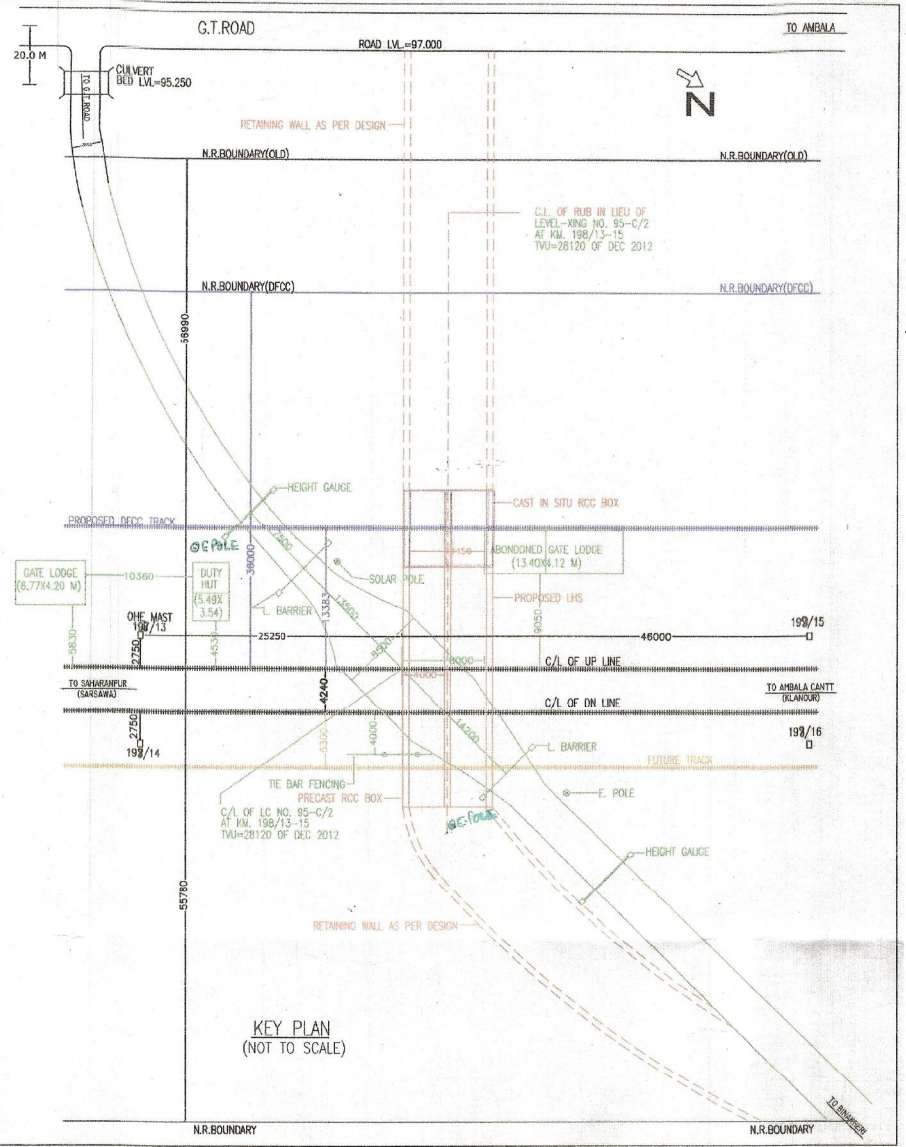
<i>[Signature]</i>	<i>[Signature]</i>
AE/PWD/SRE	XEN/PWD/SRE

CE/C/SPL/DLI

<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
Sr.DTE/UMB	Sr.DEE/G/UMB	Sr.DEE/TRD/UMB	Sr.DOM/UMB	Sr.DEN/C/UMB	DRM/UMB
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
AE/TRD/CDG	AE/C/UMB	XEN/C/SRE	DY.CE/C/UMB	DY.CE/C/JUC	Sr.DEN-III/UMB

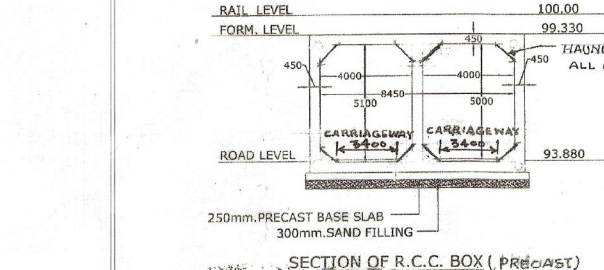
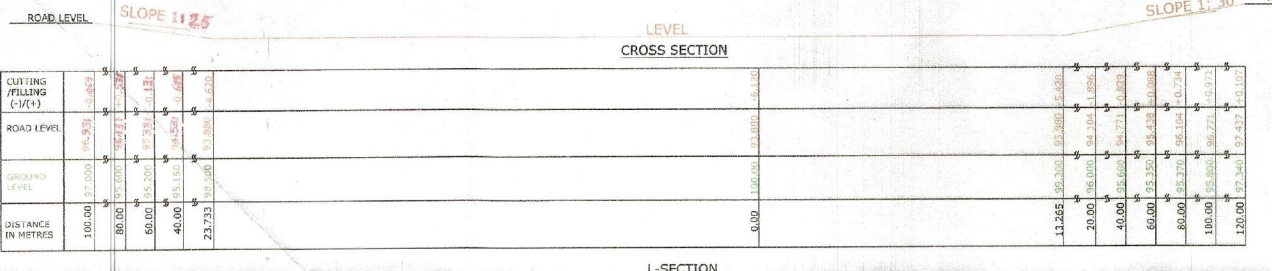
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
AE/PWD/SRE	ADBE/TRD/MB	SSE/W/SRE	SSE/P-WAY/C/AMB

- NOTES :-
1. ALL DIMENSIONS ARE IN MM AND ALL LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.
 2. DO NOT SCALE, FOLLOW THE WRITTEN DIMENSIONS ONLY.
 3. (.) CODES TO BE FOLLOWED (WITH LATEST CORRECTIONS SLIP) IN ORDER OF PREFERENCE :-
 - i. I.R.S. BRIDGE RULES.
 - ii. I.R.S. CONCRETE BRIDGE CODE.
 - iii. I.R.S. BRIDGE SUBSTRUCTURE AND FOUNDATION CODE.
 - iv. RELEVANT BIS CODES.
 4. HIGH YIELD STRENGTH DEFORMED (HYSD) / THERMO MECHANICAL TREATED (TMT) BARS OF GRADE F_y 500 SATISFYING THE REQUIREMENT IS: 1786-1985 SHALL BE USED AS REINFORCEMENT.
 5. BACK FILL SHOULD BE AS PER CLAUSE 7.5 OF I.R.S. 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 BE APPROVED 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 OF EARTH.
 10. WEEP HOLES OF 75mm DIA. PVC PIPES @ 1000mm C/C SHOULD BE PROVIDED IN EARTH / BALAST RETAINERS.
 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 INEVITABLE 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 MING 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 OF C & SIGNAL CABLE MAY EXIST ADJACENT TO IR TRACK. THE SAME IS TO BE PROTECTED TO PREVENT DAMAGE OF CABLE. NO JOB 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 DFCC & 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. DFCC 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.



Work to be done by CST Contractor of DFCCIL

Work to be done by IR



FEASIBILITY CERTIFICATE

THE PROPOSAL CHECKED AT SITE & FOUND FEASIBLE

SSE (TRP)/SRE	ABEE/TRD/UMB	SSE/W/SRE	SSE/T-INT/UMB	SSE/W/SRE	SSE/P-W/SRE	XEN/DR/SRE	ADN/SRE
---------------	--------------	-----------	---------------	-----------	-------------	------------	---------

SIGNATURES OF DFCCIL AUTHORITIES

AP/ENG/AMB	DY/CHRG/AMB	CPM/AMB
------------	-------------	---------

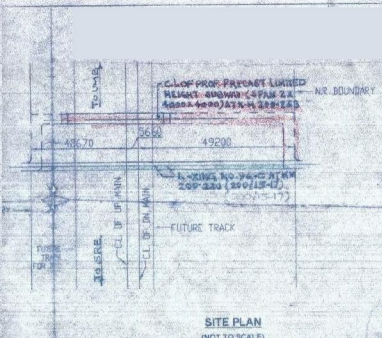
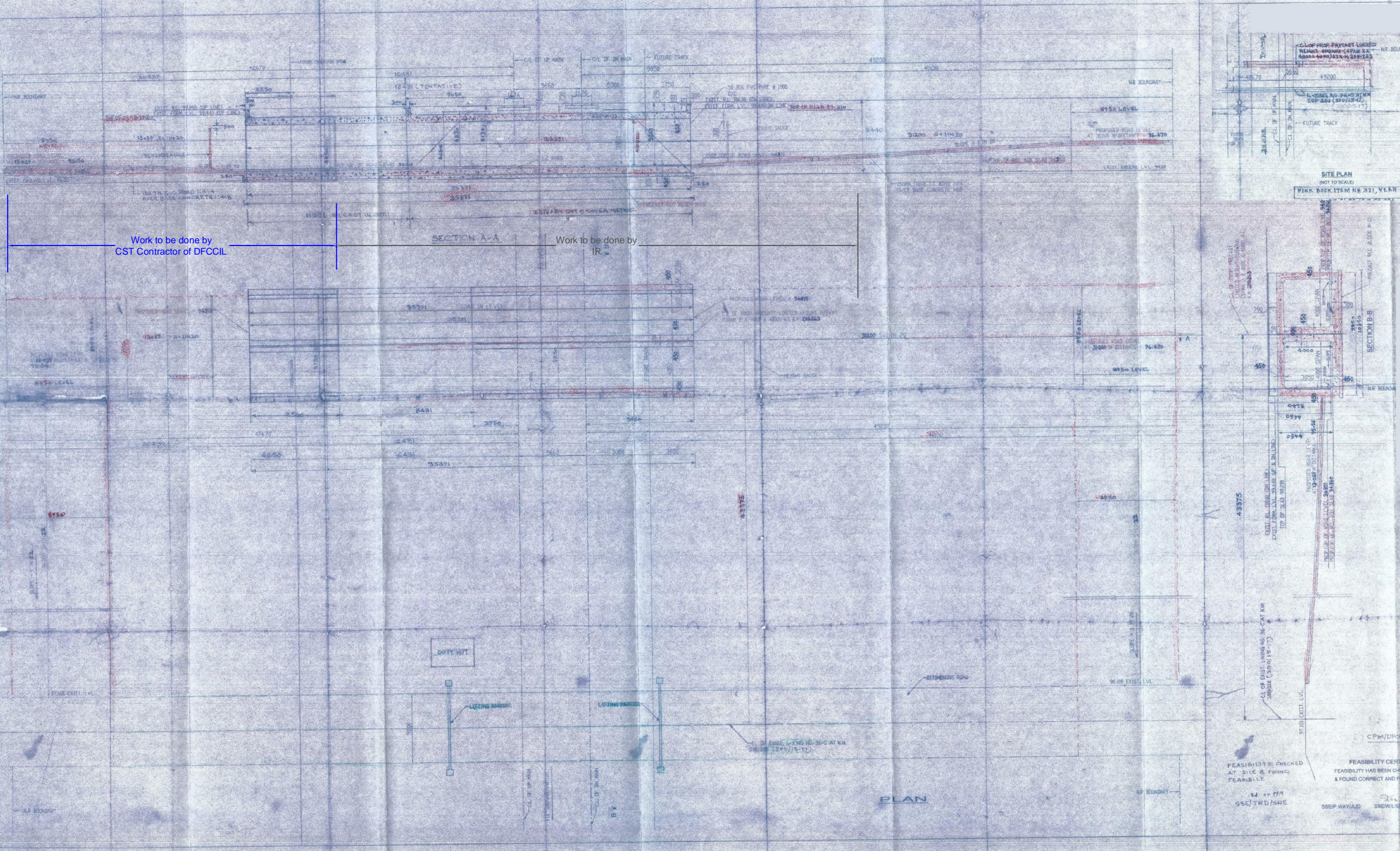
SIGNATURES OF U.P. STATE PWD (B&R) AUTHORITIES

AE/PWD/SRE	XEN/PWD/SRE
------------	-------------

AE/TD/CDG	AE/C/UMB	XEN/SRE	DY.CE/UMB	DY.CEE/JUC	Sr.DEN-II/UMB
-----------	----------	---------	-----------	------------	---------------

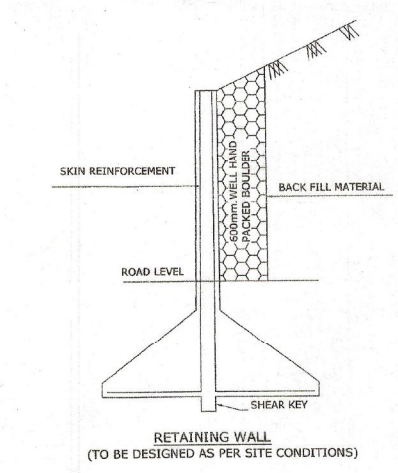
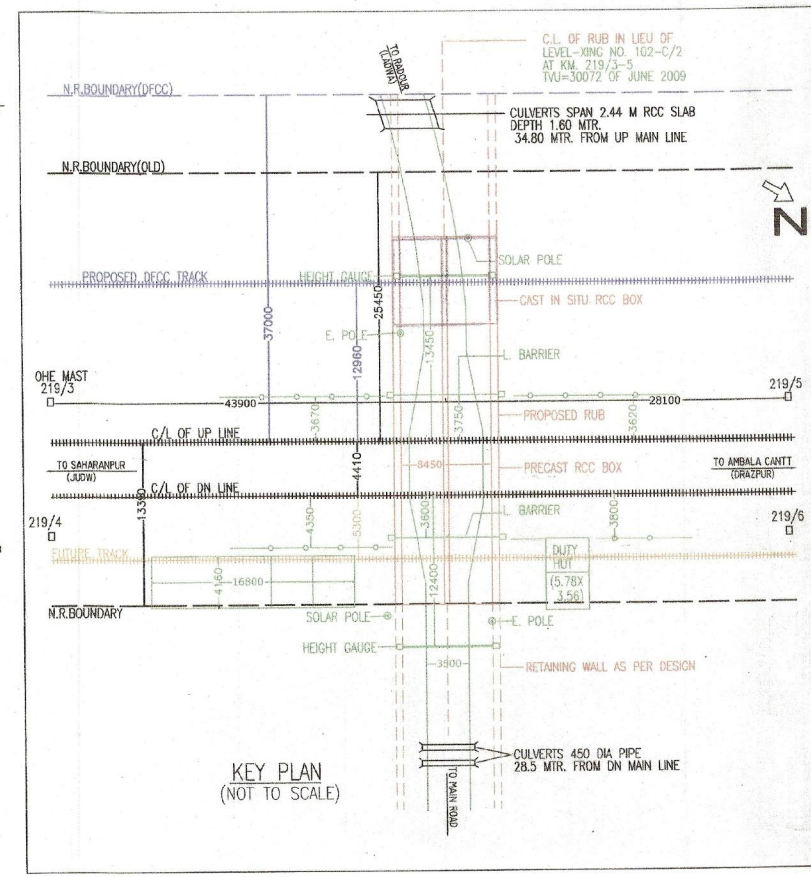
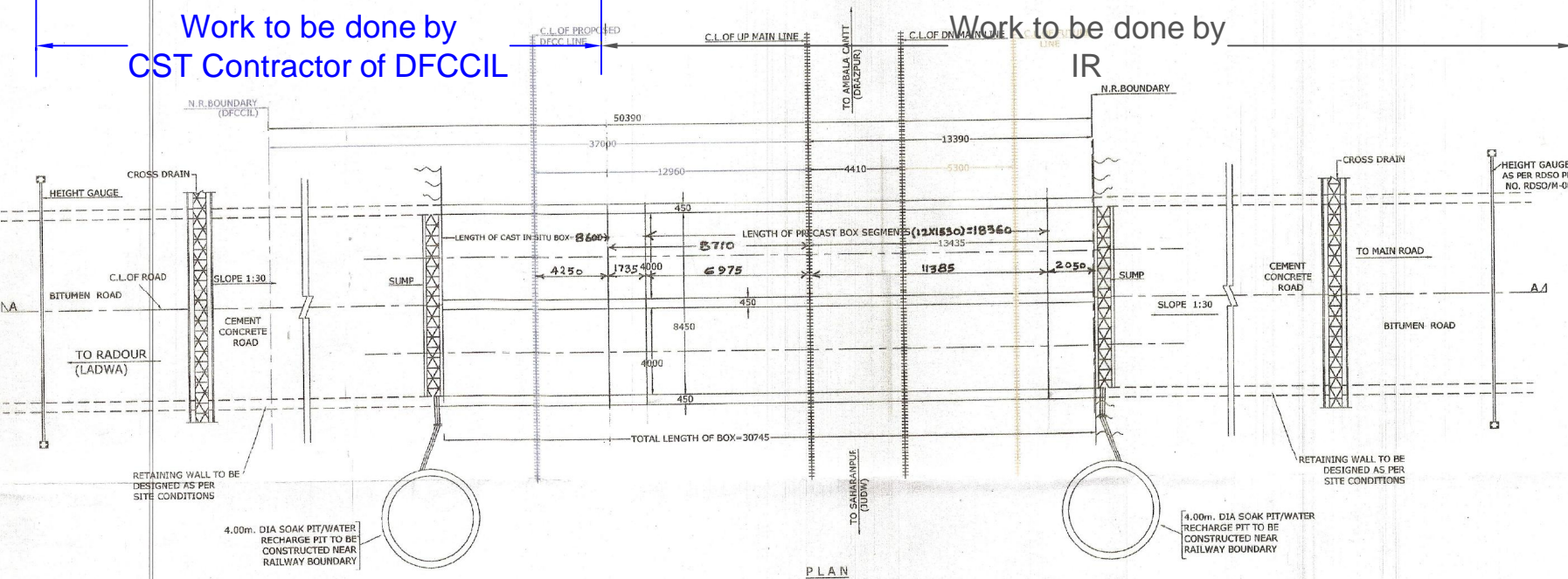
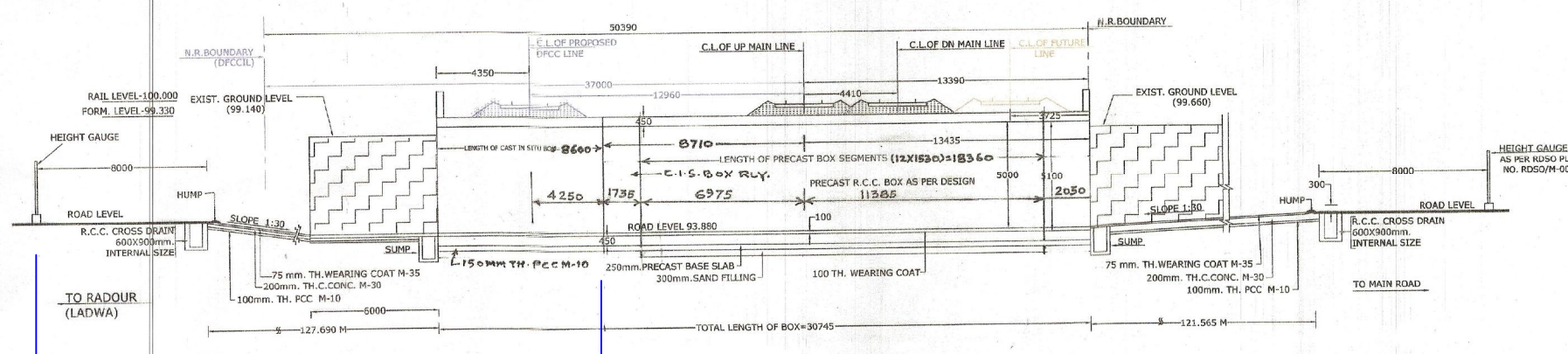
C/E/C/S/L/D/L

Sr.DSTE/UMB	Sr.DEE/G/UMB	Sr.DEE/TRD/UMB	Sr.DOM/UMB	Sr.DEN/C/UMB	DRN/UMB
-------------	--------------	----------------	------------	--------------	---------



- NOTES -
1. ALL DIMENSIONS ARE IN MM AND ALL LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.
 2. DO NOT SCALE. FOLLOW THE WRITTEN DIMENSIONS ONLY.
 3. O.D. CODES TO BE FOLLOWED (WITH LATEST CORRECTIONS SLP) IN ORDER OF PREFERENCE:
I. IRS BRIDGE RULES.
II. IRS CONCRETE BRIDGE CODE.
III. IRS BRIDGE SUBSTRUCTURE AND FOUNDATION CODE.
IV. RELEVANT IRS CODES.
 4. LOADS TO BE FOLLOWED IS D.F.C. LOADING (32.5 TON AXLE LOAD).
 5. HIGH YIELD STRENGTH DEFORMED (HYSD) / THERMO MECHANICAL TREATED (TMT) BARS OF GRADE Fe 500 SATISFYING THE REQUIREMENT OF IS: 1786-1985 SHALL BE USED AS REINFORCEMENT.
 6. BACK FILL SHOULD BE AS PER CLAUSE 7.5 OF IRS BRIDGE SUB-STRUCTURE AND FOUNDATION CODE.
 7. ALL DIMENSION AND LEVEL SHOULD BE VERIFIED & RECONCILED BEFORE EXECUTION.
 8. DEPTH AND SIZE OF FOUNDATION, LENGTH OF RETURN WALL AND LEVELS SHALL BE DECIDED BASED ON SITE CONDITION (TYPE OF STRATA AND GROUND LEVEL).
 9. THE CAD IS TENTATIVE AND IS MEANT ONLY FOR GUIDANCE OF THE WORKER. ALL THE DIMENSIONING DETAILS ARE TO BE DESIGNED BY THE CONTRACTOR AS PER SITE CONDITIONS/DIMENSIONS SHALL BE APPROVED BY ENGINEER.
 10. TOP SURFACE AND SIDE OF BOX SHALL BE GIVEN TWO COATS OF COAL TAR OR BITUMEN CONFORMING TO IS: 3070-1985 BEFORE FILLING OF GRAVEL.
 11. KEEP HOLES OF 75mm DIA. PVC PIPES @ 1000mm C/C SHOULD BE PROVIDED IN EARLY/ BALAST RETAINER.
 12. TOP OF SLAB/BOX SHALL HAVE A WEARING COURSE OF 1 IN 40 TOWARDS OUTER SIDE FOR PROPER DRAINAGE.
 13. WORK SCHEDULE SHALL BE SUCH THAT ADJACENT IR TRACK IS NOT AFFECTED IN ANYWAY. HOWEVER, IF IT IS INEVITABLE THE ENGINEER WILL DECIDE THE IMPOSITION OF TEMPORARY SPEED RESTRICTION.
 14. THE EXISTING TRACK SHALL BE PROTECTED BEFORE EXECUTION OF WORK. REGION OF SLOTT PROTECTION WORK SHALL BE DONE BY THE CONTRACTOR AND SHALL BE APPROVED BY THE ENGINEER.
 15. THE DIFFERENCE BETWEEN PROPOSED RAIL LEVEL (RL) & PROPOSED FORMATION LEVEL (FL) HAS BEEN ASSUMED AS 730mm.
 16. PROPER OUTLETS ON D/S SIDE FOR DRAINAGE OF DISCHARGE IS TO BE ENSURED.
 17. SUTABLE 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.
 18. SAFE BEARING CAPACITY OF SOIL SHALL BE CONFIRMED BY SUTABLE METHOD BEFORE CONSTRUCTION WORK. IT SHALL BE GREATER THAN MAXIMUM FOUNDATION PRESSURE.
 19. THE CAD SHOULD SATISFY THE LATEST APPROVED SCHEDULE OF WORKING FOR DFC.
 20. AT PRESENT O.P.C. & SIGNAL CABLE MAY EXIST ADJACENT TO IR TRACK. THE SAME IS TO BE PROTECTED TO PREVENT DAMAGE OF CABLE. NO JOB 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 DFCCL & 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. DFCCL WORK SHOWN IN BLUE.
 27. TEMPORARY DIVERTED WORK SHOWN IN MAGENTA.
 28. THE WORK SHALL BE EXECUTED IN SYNCHRONIZATION WITH IR WORK. A JOINT PROGRAMME SHALL BE MADE WITH IR FOR CONSTRUCTION.

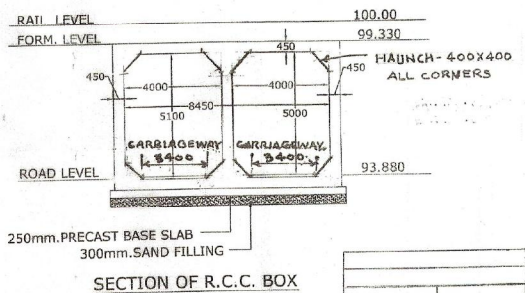
अम्बाला मंडल	
संशोधन-अम्बाला खण्ड में सरसावा-कलानौर स्टेशन के मध्य सम्पन्न संख्या 96 सी.सी.एम.एम. काम उन्माई को सस्ता बनाने हेतु (मं.सं. 300/2012-13/अम्बाला/2012)	कट एवम कवर विधि द्वारा
प्रमाण ब्यक्तियोग्य अधिकारी	महान्त अधिकारी
अम्बाला मंडल	महान्त अधिकारी
संशोधन-अम्बाला खण्ड में सरसावा-कलानौर स्टेशन के मध्य सम्पन्न संख्या 96 सी.सी.एम.एम. काम उन्माई को सस्ता बनाने हेतु (मं.सं. 300/2012-13/अम्बाला/2012)	कट एवम कवर विधि द्वारा



- NOTES:-
1. ALL DIMENSIONS ARE IN MM AND ALL LEVELS IN METERS UNLESS OTHERWISE 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 REQUIREMENT 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 BE APPROVED 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 OPEARH.
 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 DFC & SIGNAL CABLE MAY EXIST ADJACENT TO IR TRACK. THE SAME IS TO BE PROTECTED TO PREVENT DAMAGE OF CABLE. NO JOB 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.

CROSS SECTION

CUTTING / FILLING (+/-)	ROAD LEVEL	GROUND LEVEL	DISTANCE IN METRES
0.00	99.330	99.330	145.00
0.00	99.330	97.780	140.00
0.00	99.330	97.120	120.00
0.00	99.330	96.460	100.00
0.00	99.330	95.800	80.00
0.00	99.330	95.140	60.00
0.00	99.330	94.480	40.00
0.00	99.330	93.820	23.310
0.00	99.330	93.160	0.00
0.00	99.330	92.500	13.435
0.00	99.330	91.840	20.00
0.00	99.330	91.180	40.00
0.00	99.330	90.520	60.00
0.00	99.330	89.860	80.00
0.00	99.330	89.200	100.00
0.00	99.330	88.540	120.00
0.00	99.330	87.880	140.00
0.00	99.330	87.220	160.00
0.00	99.330	86.560	180.00
0.00	99.330	85.900	200.00
0.00	99.330	85.240	220.00
0.00	99.330	84.580	240.00
0.00	99.330	83.920	260.00
0.00	99.330	83.260	280.00
0.00	99.330	82.600	300.00
0.00	99.330	81.940	320.00
0.00	99.330	81.280	340.00
0.00	99.330	80.620	360.00
0.00	99.330	79.960	380.00
0.00	99.330	79.300	400.00
0.00	99.330	78.640	420.00
0.00	99.330	77.980	440.00
0.00	99.330	77.320	460.00
0.00	99.330	76.660	480.00
0.00	99.330	76.000	500.00
0.00	99.330	75.340	520.00
0.00	99.330	74.680	540.00
0.00	99.330	74.020	560.00
0.00	99.330	73.360	580.00
0.00	99.330	72.700	600.00
0.00	99.330	72.040	620.00
0.00	99.330	71.380	640.00
0.00	99.330	70.720	660.00
0.00	99.330	70.060	680.00
0.00	99.330	69.400	700.00
0.00	99.330	68.740	720.00
0.00	99.330	68.080	740.00
0.00	99.330	67.420	760.00
0.00	99.330	66.760	780.00
0.00	99.330	66.100	800.00
0.00	99.330	65.440	820.00
0.00	99.330	64.780	840.00
0.00	99.330	64.120	860.00
0.00	99.330	63.460	880.00
0.00	99.330	62.800	900.00
0.00	99.330	62.140	920.00
0.00	99.330	61.480	940.00
0.00	99.330	60.820	960.00
0.00	99.330	60.160	980.00
0.00	99.330	59.500	1000.00



FEASIBILITY CERTIFICATE

THE PROPOSAL CHECKED AT SITE & FOUND FEASIBLE

SSR/DIR/UMBS	SSR/DIR/UMBS	SSR/DIR/UMBS	SSR/DIR/UMBS	SSR/DIR/UMBS	SSR/DIR/UMBS	SSR/DIR/UMBS	SSR/DIR/UMBS
--------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------

SIGNATURES OF DFCCIL AUTHORITIES

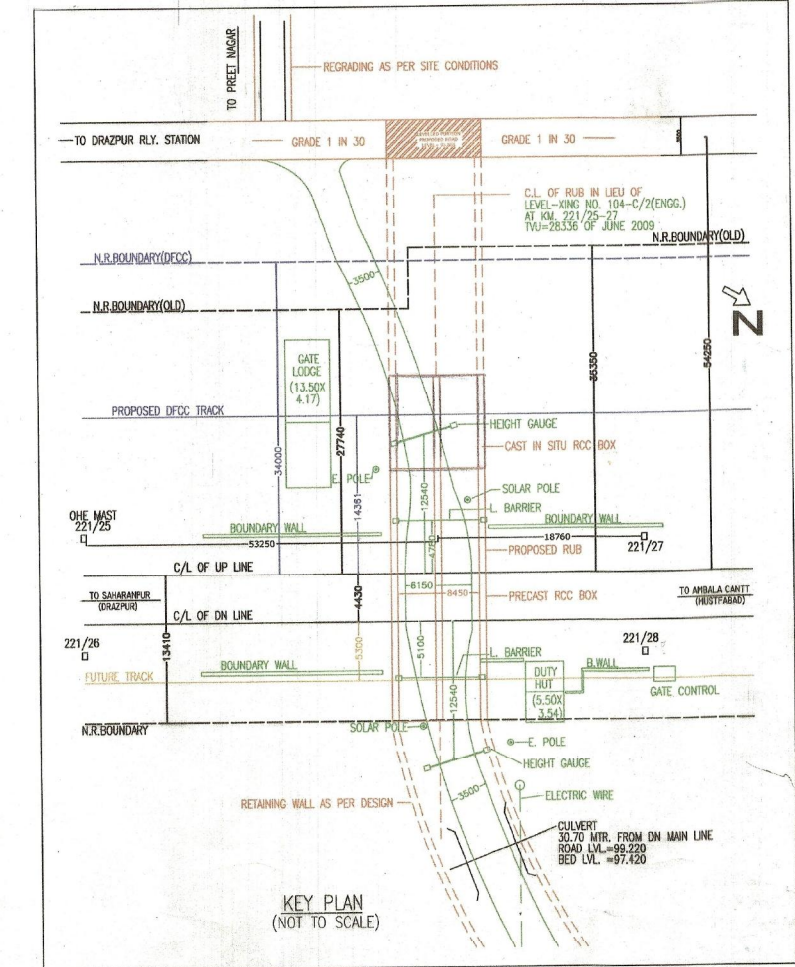
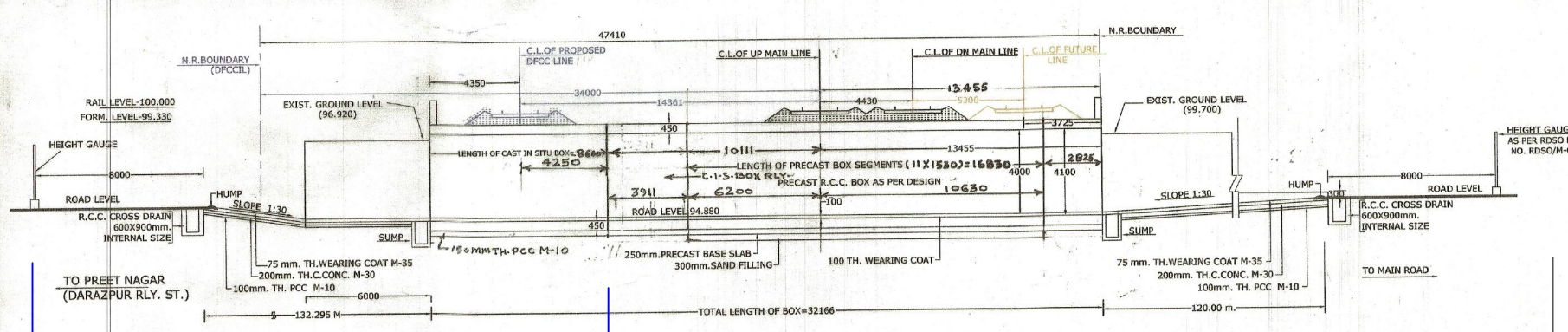
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
APR/ENGG/UMBS	DY.CP/ENGG/UMBS	CP/UMBS

SIGNATURES OF HARYANA STATE PWD (B&R) AUTHORITIES

<i>[Signature]</i>	<i>[Signature]</i>
SDE/PWD/BSR/ YAMUNANAGAR	XEN/PWD/BSR/ YAMUNANAGAR

<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
Sr.DS/UMBS	Sr.DEE/G/UMBS	Sr.DEE/TRD/UMBS	Sr.DOM/UMBS	Sr.DEN/C/UMBS	DRM/UMBS
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
AEE/TRD/C/CDG	AEE/C/UMBS	XEN/C/SRE	DY.CE/C/UMBS	DY.CE/C/UMBS	Sr.DEN-III/UMBS

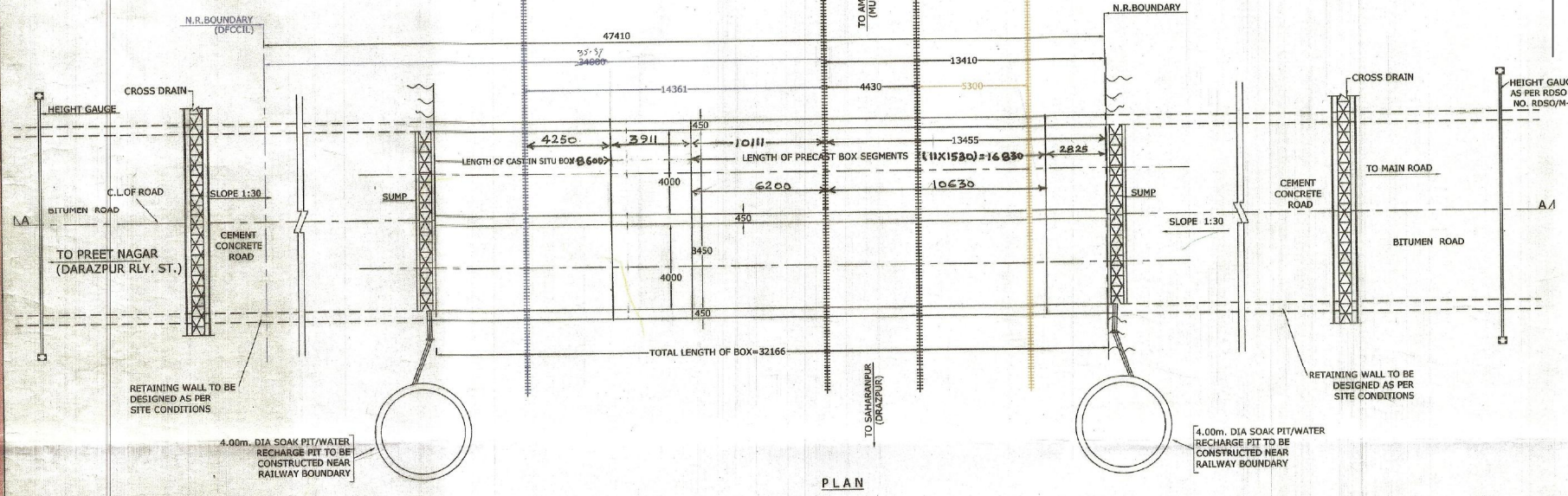
NORTHERN RAILWAY
DRAWING OFFICE (CONSTR.) AMBALA
AMBALA DIVISION
CONSTRUCTION OF TWO LANE ROAD UNDER BRIDGE IN LIEU OF LEVEL XING NO. 104-C/2 AT KM.221/25-27 IN BETWEEN DRAZPUR & MUSTFABAD RAILWAY STATIONS ON SRE-UMB SECTION ON DFCC ROUTE (SIZE OF BOX = 2 X 4.00 X 4.10 M)
GENERAL-ARRANGEMENT DRAWING
SCALE :- 1:100
PINK BOOK ITEM NO:-395 OF YEAR 2013-14



- NOTES:-
1. ALL DIMENSIONS ARE IN mm AND ALL LEVELS IN METERS UNLESS OTHERWISE 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 REQUIREMENT OF 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 LEVEL 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 BE APPROVED 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 OF EARTH.
 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 INEVITABLE 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 DFCC & 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. DFCC 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.

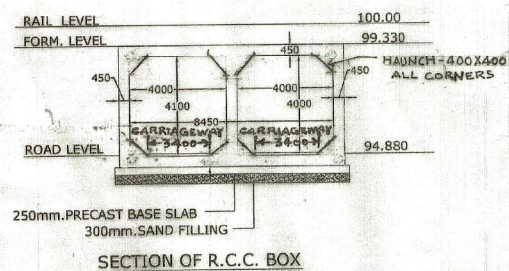
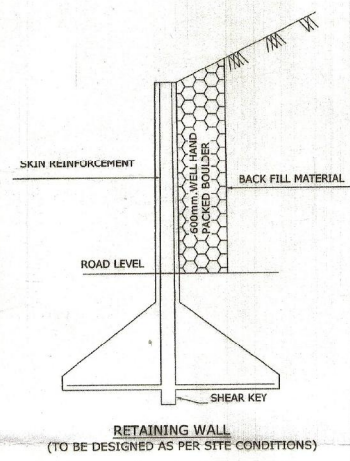
Work to be done by
CST Contractor of DFCCIL

Work to be done by
IR



CROSS SECTION

CUTTING/FILLING (+/-)	ROAD LEVEL	GROUND LEVEL	DISTANCE IN METRES
1.196	95.865	97.770	54.250
1.170	95.390	97.100	40.000
2.040	94.880	96.920	24.711
-5.120	94.880	100.000	0.000
-4.820	94.880	99.700	13.455
-4.65	95.085	99.280	20.000
-3.125	95.765	99.000	40.000
-3.380	96.431	98.820	60.000
-1.442	97.098	98.540	80.000
-0.475	97.765	98.240	100.000
-0.053	98.097	98.150	110.000



FEASIBILITY CERTIFICATE

THE PROPOSAL CHECKED AT SITE & FOUND FEASIBLE

SEE/PRO/SRE	ADRE/TRD/UMS	SEE/N/SRE	SEE/P-WY/C/UMB	SEE/WORKS/SRE	SEE/P-WY/3/UM	SEE/P-WY/2/UM	SEE/N/SRE	ADN/SRE
-------------	--------------	-----------	----------------	---------------	---------------	---------------	-----------	---------

SIGNATURES OF DFCCIL AUTHORITIES

APM/ENGS/UMB	DY.CPM/ENGS/UMB	CPM/UMB
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>

SIGNATURES OF HARYANA STATE PWD (R&R) AUTHORITIES

SDE/PWD/B&R YAMUNANAGAR	XEN/PWD/B&R YAMUNANAGAR
<i>[Signature]</i>	<i>[Signature]</i>

SEE/PRO/SRE	ADRE/TRD/UMS	SEE/N/SRE	SEE/P-WY/C/UMB	SEE/WORKS/SRE	SEE/P-WY/3/UM	SEE/P-WY/2/UM	SEE/N/SRE	ADN/SRE
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>

JE/D/C/UMB	SEE/N/C/UMB	SEE/N/C/SRE	SEE/N/C/UMB
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>

N.R.H.Q.E. PLAN NO. P-818-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

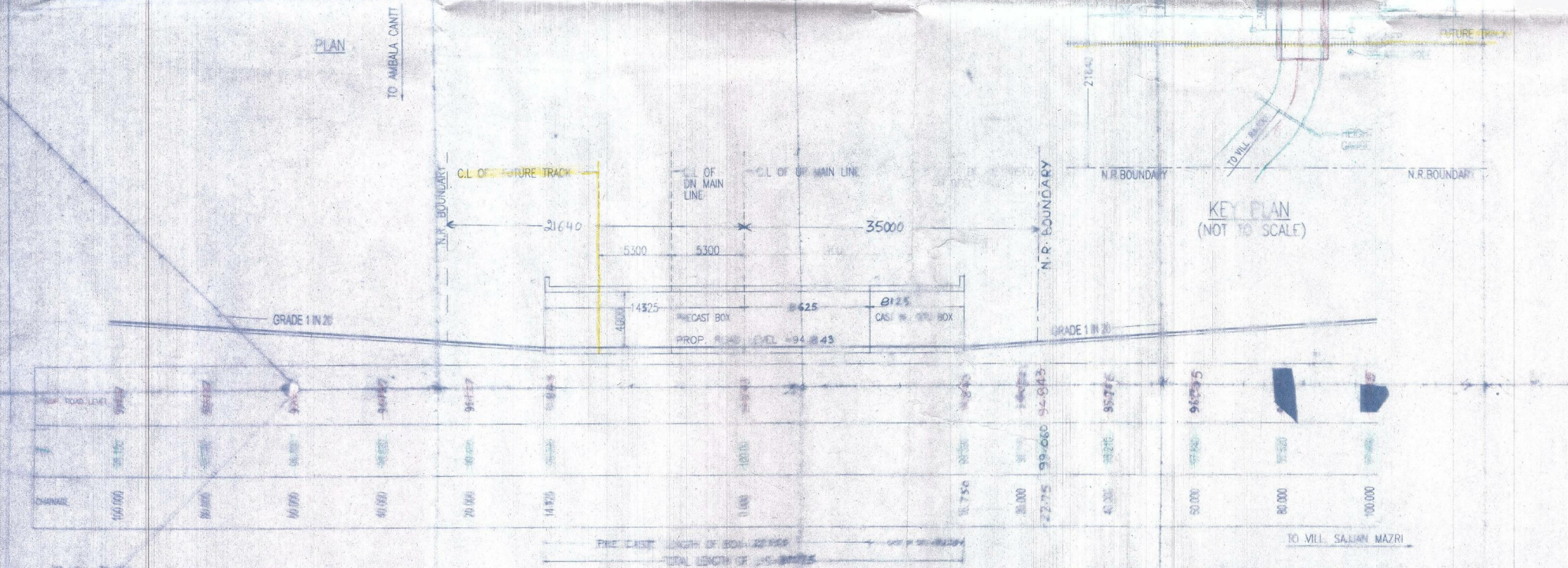
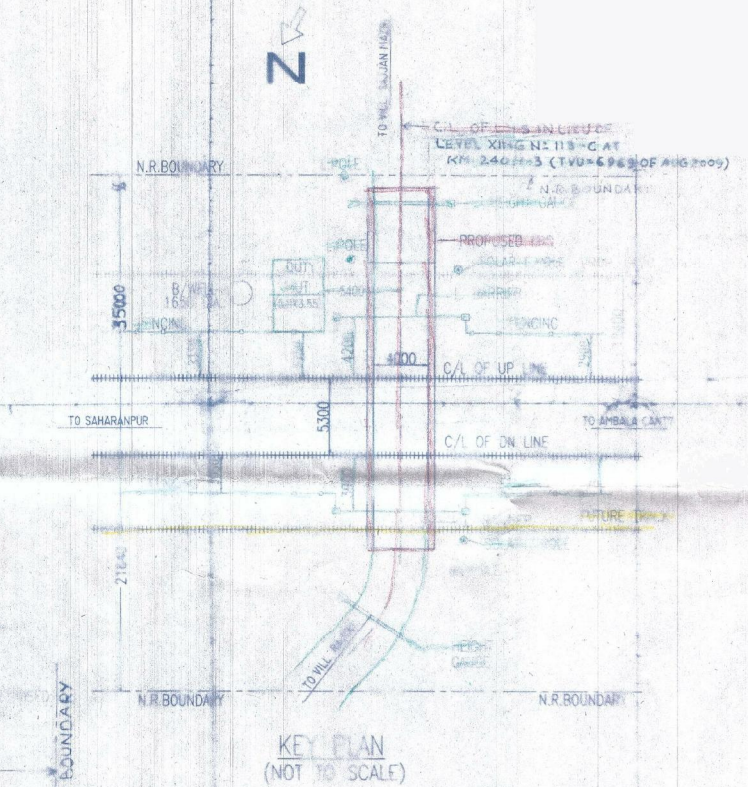
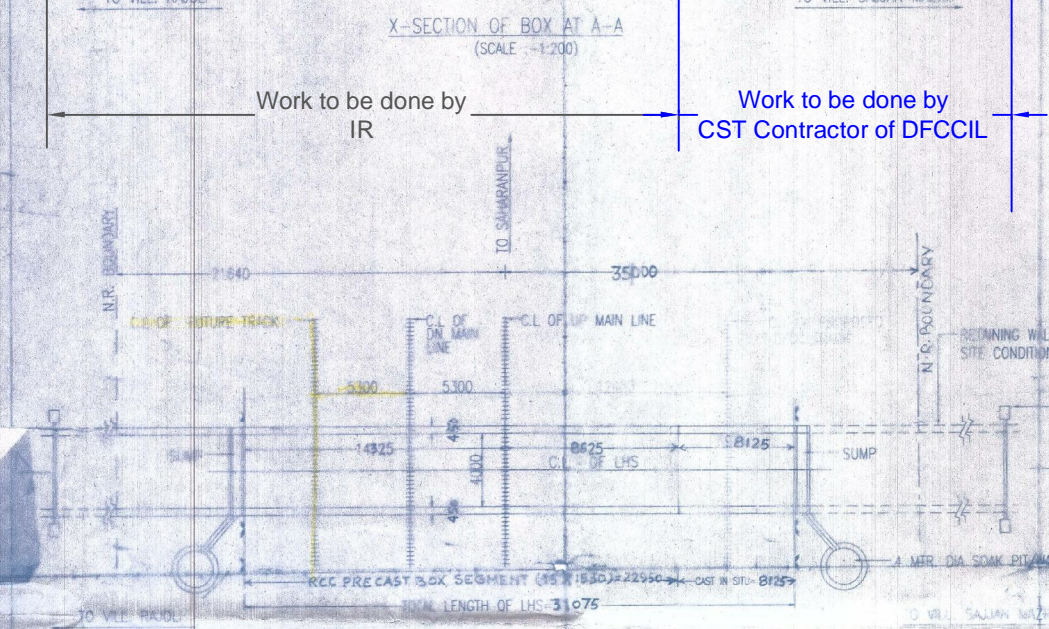
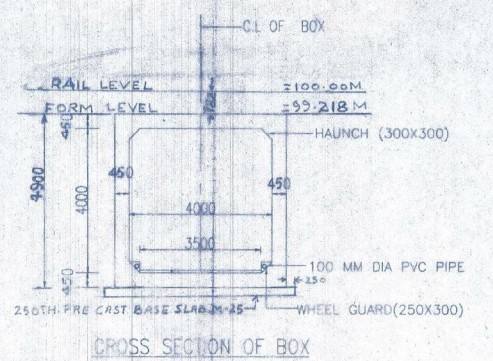
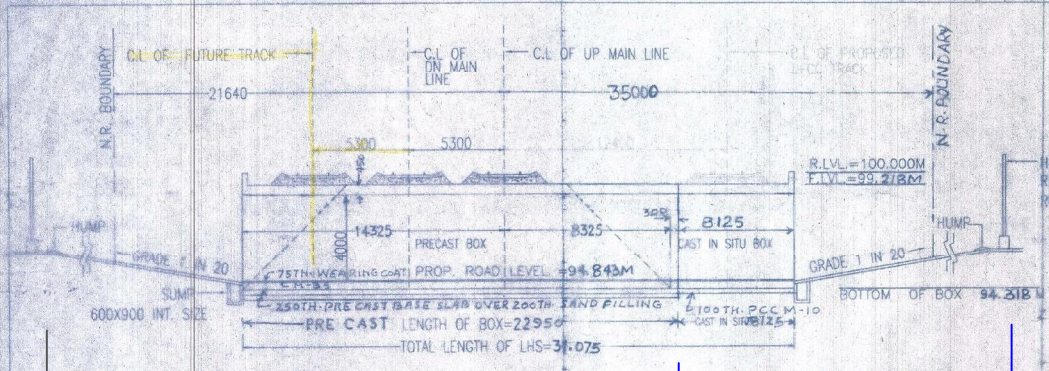
DRAWING OFFICE (CONST.) AMBALA

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



- NOTES:-
- ALL DIMENSIONS ARE IN mm AND ALL LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.
 - DO NOT SCALE, FOLLOW THE WRITTEN DIMENSIONS ONLY.
 - a) CODES TO BE FOLLOWED (WITH LATEST CORRECTIONS SLIP) IN ORDER OF PREFERENCE:-
 - IRS BRIDGE RULES.
 - IRS CONCRETE BRIDGE CODE.
 - IRS BRIDGE SUBSTRUCTURE AND FOUNDATION CODE.
 - 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 REQUIREMENT OF 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 BE APPROVED BY ENGINEER.
 - 9.TOP SURFACE AND SIDE OF BOX SHALL BE GIVEN TWO COATS OF COALTAR OR BITUMEN CONFORMING TO IS: 3070-1985 BEFORE FILLING OF EARTH.
 - 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 DFC.
 - 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 DFC & 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.DFCOL 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									
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SE/D/C/UMB	SSE/D/C/UMB	JE/W/C/UMB	SSE/C/E/UMB	E/W/C/UMB	SSE/P-WAY/C/UMB	SSE/WORKS/UMB	SSE/P-WAY/UMB	VEN/C/UMB	AEN/UMB

SIGNATURES OF DFCOL AUTHORITIES		
APM/ENR.	DY.CPM/ENR/UMB	CPM/ENR.
SIGNATURES OF STATE PWD (R&P) AUTHORITIES		
SUB DIV ENGR./W&M&A EXECUTIVE ENGR./AMBALA		

CE/CSPL/D&I					
Sr. DEE/G/UMB	Sr. DEE/TRD/UMB	Sr. DSE/UMB	Sr. DGM/UMB	Sr. DEE/C/UMB	DRM/UMB
XEN/C/UMB	AEL/C/UMB	DY.CE/C/UMB	DY.CEE/C/JUC		GEN/HQ/UMB