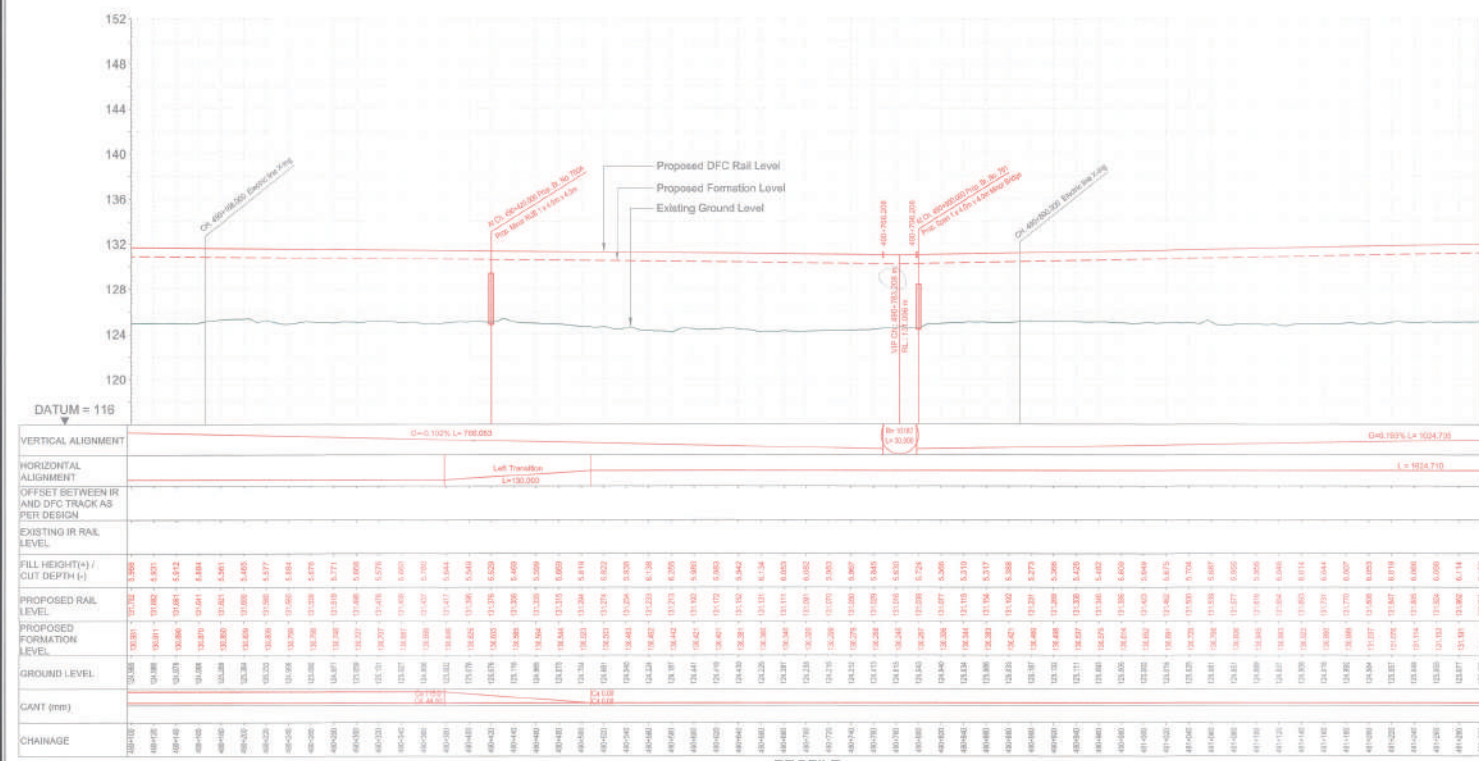


PLAN



PROFILE

SECTION-D-202

LEGEND :

- EXISTING IR TRACK
- PROPOSED DFC TRACK
- PROPOSED FORMATION
- DFC ROW LINE
- ROW
- R_TOE
- EXISTING IR TOE LINE
- DFC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN
- EDGE OF PROPOSED FORMATION TOP
- EXISTING GROUND

- NOTES :
1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
 2. ALL COORDINATE ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 48.
 3. TOP WIDTH OF EMBANKMENT / FORMATION IS 13.5M FOR DOUBLE LINE IN STRAIGHT SECTION.
 4. GAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
 5. EQUILIBRIUM SPEED HAS BEEN TAKEN AS 100 KM/H.
 6. TRACK CENTER BETWEEN DFC & EXISTING IR TRACK HAS BEEN KEPT AT MIN. 6.0M AT STRAIGHT SECTION.
 7. TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 8.0M AT STRAIGHT SECTION.
 8. GROUND SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO SPARK OUT RAINWATER.
 9. DRAINAGE FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE. HOWEVER DETAILED DRAINAGE SYSTEM DRAWINGS WILL BE SUBMITTED SEPARATELY.
 10. CABLE FALING IN PROPOSED DFC ALIGNMENT HAS TO BE SHIFTED EQUALLY.
 11. PUBLIC UTILITIES (WATER, GAS, ETC.) INTERFERING DFC TRACKS SHALL BE RELOCATED AT THE LOCATIONS WHERE EMBANKMENT HEIGHT IS > 4M IF IT IS PROPOSED TO MAINTAIN THE EMBANKMENT HEIGHT AS IS BY CUTTING THE EARTH.
 12. TRACK LEVEL ADJUSTMENT WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
 13. FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER :
DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT :
EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE :
ALIGNMENT PLAN AND PROFILE OF SLICE - 202 D FROM CH.490+100 TO CH. 491+300

DRAWING NO.	REV	SCALE
P 2	AL 0164	E HCR 1:2000 VER: 1:200

REVIEWS

REV	DATE	REMARKS
B	24.01.2017	REVISED AS PER LETTER NO. P/DC/DFCC/CLT/20170001 DATED 04/01/2017
C	26.04.2017	REVISED AS PER LETTER NO. P/DC/DFCC/CLT/20170008 DATED 26/04/2017
D	20.06.2017	REVISED AS PER LETTER NO. P/DC/DFCC/CLT/20170006 DATED 16/05/2017
E	05.07.2017	REVISED AS PER LETTER NO. P/DC/DFCC/CLT/20170009 DATED 04/07/2017

DRAWING STAGE
 FOR APPROVAL PRELIMINARY **APPROVED**
 GOOD FOR CONSTRUCTION

PMC :
SYSTRA - Mott MacDonald JV

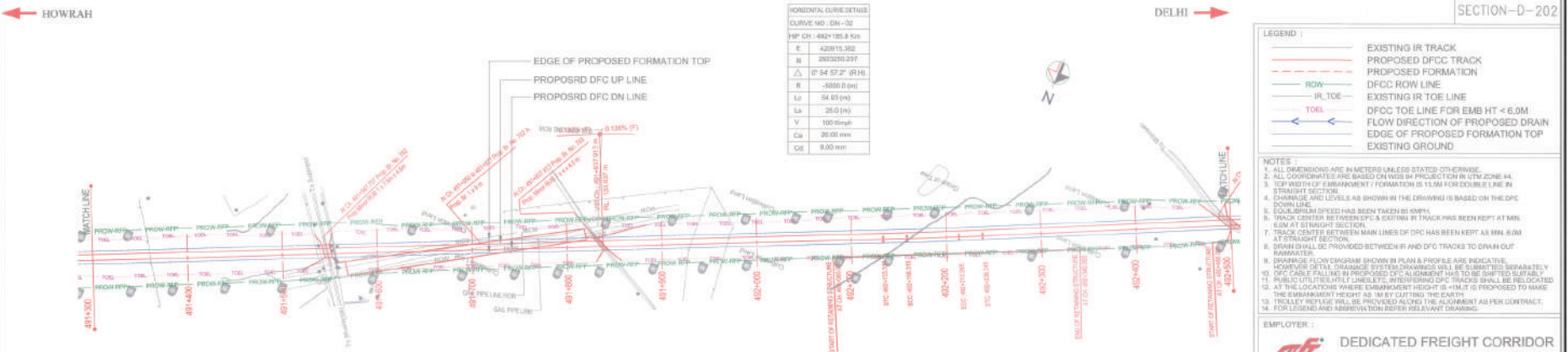
CONTRACTOR :
GIL - SIL JV

STUP CONSULTANTS PVT. LTD.
 REGISTERED OFFICE: 1204-3 BANGALORE CHAMBERS, MARATHI POINT, BANGALORE 560 021
 OFFICE OF WORK: KOLKATA

DATE	NAME	SIGN.
12.10.2017	SOURAV BARIK	
13.10.2017	SUBCHASIS PURKAYASTA	
13.10.2017	SANJIT MITRA	
SUBMITTED BY : GIL - SIL JV		
DATE	NAME	SIGN.
17.10.17	RESHAQ GUPTA	
17.10.17	K S C SINGH	
MOB BY : SYSTRA - Mott MacDonald JV		
DATE	NAME	SIGN.
18.10.17	P. AMERIKANOS	
APPROVAL BY : DFCC		
DATE	NAME	SIGN.
25.11.17	S.K. Malya	

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Handwritten notes:
 490+100
 490+200
 490+300



HORIZONTAL CURVE DETAILS

CURVE NO: DN-02

HP CH: 482+185.8 Km

E: 420915.362

W: 283203.031

Δ: (P 54 57.2°) (R.H)

R: -3020.0 (m)

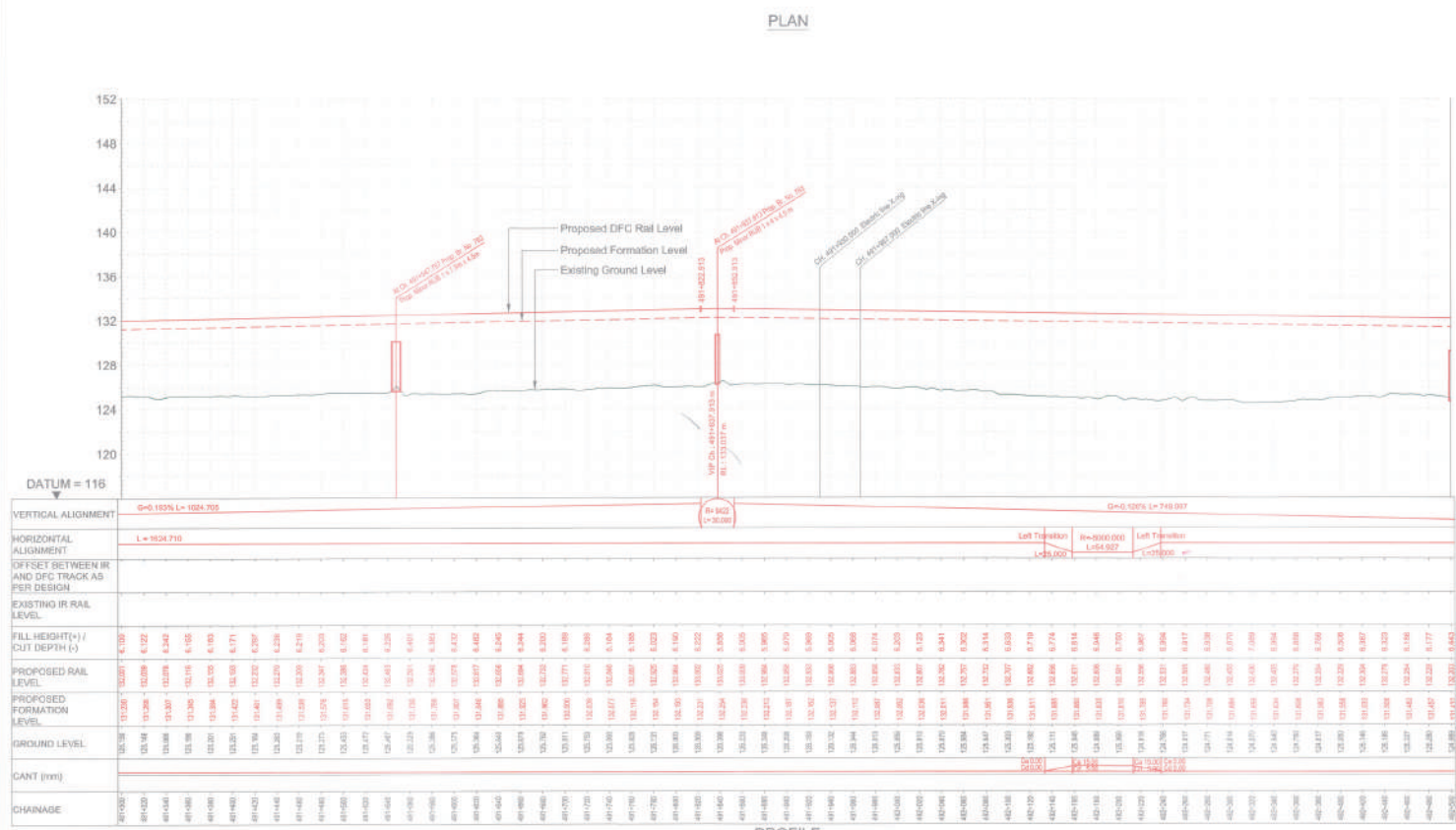
Lr: 54.03 (m)

La: 26.0 (m)

V: 100 (mmph)

Ca: 30.00 (mm)

Ga: 8.00 (mm)



VERTICAL ALIGNMENT

G=0.103% L=1024.705

G=0.120% L=748.017

HORIZONTAL ALIGNMENT

L=1024.710

Left Transition: L=24.000

Parabolic: L=3000.000

Right Transition: L=24.000

CHAINAGE	FILL HEIGHT(+)/ CUT DEPTH (-)	PROPOSED RAIL LEVEL	PROPOSED FORMATION LEVEL	GROUND LEVEL
481000	0.109	125.071	125.071	125.071
481020	0.122	125.084	125.084	125.084
481040	0.134	125.097	125.097	125.097
481060	0.146	125.110	125.110	125.110
481080	0.158	125.123	125.123	125.123
481100	0.170	125.136	125.136	125.136
481120	0.182	125.149	125.149	125.149
481140	0.194	125.162	125.162	125.162
481160	0.206	125.175	125.175	125.175
481180	0.218	125.188	125.188	125.188
481200	0.230	125.201	125.201	125.201
481220	0.242	125.214	125.214	125.214
481240	0.254	125.227	125.227	125.227
481260	0.266	125.240	125.240	125.240
481280	0.278	125.253	125.253	125.253
481300	0.290	125.266	125.266	125.266
481320	0.302	125.279	125.279	125.279
481340	0.314	125.292	125.292	125.292
481360	0.326	125.305	125.305	125.305
481380	0.338	125.318	125.318	125.318
481400	0.350	125.331	125.331	125.331
481420	0.362	125.344	125.344	125.344
481440	0.374	125.357	125.357	125.357
481460	0.386	125.370	125.370	125.370
481480	0.398	125.383	125.383	125.383
481500	0.410	125.396	125.396	125.396
481520	0.422	125.409	125.409	125.409
481540	0.434	125.422	125.422	125.422
481560	0.446	125.435	125.435	125.435
481580	0.458	125.448	125.448	125.448
481600	0.470	125.461	125.461	125.461
481620	0.482	125.474	125.474	125.474
481640	0.494	125.487	125.487	125.487
481660	0.506	125.500	125.500	125.500
481680	0.518	125.513	125.513	125.513
481700	0.530	125.526	125.526	125.526
481720	0.542	125.539	125.539	125.539
481740	0.554	125.552	125.552	125.552
481760	0.566	125.565	125.565	125.565
481780	0.578	125.578	125.578	125.578
481800	0.590	125.591	125.591	125.591
481820	0.602	125.604	125.604	125.604
481840	0.614	125.617	125.617	125.617
481860	0.626	125.630	125.630	125.630
481880	0.638	125.643	125.643	125.643
481900	0.650	125.656	125.656	125.656
481920	0.662	125.669	125.669	125.669
481940	0.674	125.682	125.682	125.682
481960	0.686	125.695	125.695	125.695
481980	0.698	125.708	125.708	125.708
482000	0.710	125.721	125.721	125.721
482020	0.722	125.734	125.734	125.734
482040	0.734	125.747	125.747	125.747
482060	0.746	125.760	125.760	125.760
482080	0.758	125.773	125.773	125.773
482100	0.770	125.786	125.786	125.786
482120	0.782	125.799	125.799	125.799
482140	0.794	125.812	125.812	125.812
482160	0.806	125.825	125.825	125.825
482180	0.818	125.838	125.838	125.838
482200	0.830	125.851	125.851	125.851
482220	0.842	125.864	125.864	125.864
482240	0.854	125.877	125.877	125.877
482260	0.866	125.890	125.890	125.890
482280	0.878	125.903	125.903	125.903
482300	0.890	125.916	125.916	125.916
482320	0.902	125.929	125.929	125.929
482340	0.914	125.942	125.942	125.942
482360	0.926	125.955	125.955	125.955
482380	0.938	125.968	125.968	125.968
482400	0.950	125.981	125.981	125.981
482420	0.962	125.994	125.994	125.994
482440	0.974	126.007	126.007	126.007
482460	0.986	126.020	126.020	126.020
482480	0.998	126.033	126.033	126.033
482500	1.010	126.046	126.046	126.046
482520	1.022	126.059	126.059	126.059
482540	1.034	126.072	126.072	126.072
482560	1.046	126.085	126.085	126.085
482580	1.058	126.098	126.098	126.098
482600	1.070	126.111	126.111	126.111
482620	1.082	126.124	126.124	126.124
482640	1.094	126.137	126.137	126.137
482660	1.106	126.150	126.150	126.150
482680	1.118	126.163	126.163	126.163
482700	1.130	126.176	126.176	126.176
482720	1.142	126.189	126.189	126.189
482740	1.154	126.202	126.202	126.202
482760	1.166	126.215	126.215	126.215
482780	1.178	126.228	126.228	126.228
482800	1.190	126.241	126.241	126.241
482820	1.202	126.254	126.254	126.254
482840	1.214	126.267	126.267	126.267
482860	1.226	126.280	126.280	126.280
482880	1.238	126.293	126.293	126.293
482900	1.250	126.306	126.306	126.306
482920	1.262	126.319	126.319	126.319
482940	1.274	126.332	126.332	126.332
482960	1.286	126.345	126.345	126.345
482980	1.298	126.358	126.358	126.358
483000	1.310	126.371	126.371	126.371

LEGEND :

- EXISTING IR TRACK
- - - PROPOSED DFCC TRACK
- - - PROPOSED FORMATION
- - - DFCC ROW LINE
- - - EXISTING IR TOE LINE
- - - DFCC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN
- - - EDGE OF PROPOSED FORMATION TOP
- - - EXISTING DRAIN

- NOTES :**
- ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
 - ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44.
 - TOP WIDTH OF EMBANKMENT / FORMATION IS 13.5M FOR DOUBLE LINE IN STRAIGHT SECTION.
 - CHANGES AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
 - EQUIBRISM SPEED HAS BEEN TAKEN AS 100MPH.
 - TRACK CENTER BETWEEN DFC & EXISTING IR TRACK HAS BEEN KEPT AT MIN. 6.0M AT STRAIGHT SECTION.
 - TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 6.0M AT STRAIGHT SECTION.
 - DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER.
 - PROPOSED ELEVATION SHOWN IN PLAN & PROFILE ARE INDICATIVE. HOWEVER DETAIL DRAINAGE SYSTEM DRAWINGS WILL BE SUBMITTED SEPARATELY OFF-CASE FALL IN IN PROPOSED DFC ALIGNMENT HAS TO BE SHOWN SEPARATELY.
 - PUBLIC UTILITIES (WATER, GAS, ETC.) INTERFERING DFC TRACKS SHALL BE RELOCATED AT THE LOCATIONS WHERE EMBANKMENT HEIGHT IS > 1.5M IF PROPOSED TO MAKE THE EMBANKMENT HEIGHT AS 10 FT CUT/TID THE EXISTING.
 - TRAFFIC REGULATIONS WILL BE PROVIDED FOR THE ALIGNMENT AS PER CONTRACT.
 - FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER :
 DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT :
EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE :
ALIGNMENT PLAN AND PROFILE OF SLICE - 202 D
FROM CH.491+300 TO CH. 492+900

DRAWING NO.	REV	SCALE
P 2 AL 010105	E	HCR : 1:2000 VER : 1:200

REVIEWS

REV	DATE	REMARKS
B	24.01.2017	REVISED AS PER LETTER NO. PMS/DFCC/CLT/2017/0001 DATED 02/01/2017
C	28.04.2017	REVISED AS PER LETTER NO. PMS/DFCC/CLT/2017/0101 DATED 05/05/2017
D	20.06.2017	REVISED AS PER LETTER NO. PMS/DFCC/CLT/2017/0102 DATED 19/06/2017
E	05.07.2017	REVISED AS PER LETTER NO. PMS/DFCC/CLT/2017/0103 DATED 03/07/2017

FOR APPROVAL PRELIMINARY APPROVED

GOOD FOR CONSTRUCTION

PMC :
 SYSTRA - Mott MacDonald JV

CONTRACTOR :
 GIL - SIL JV

DESIGN CONSULTANT:
 STUP Consultants Pvt. Ltd.

DATE	NAME	SIGN.
13.10.2017	BOURAV SATIK	
13.10.2017	SIDDHABIL PURKAIT	
13.10.2017	SM JIBLITA	
17.10.17	REEPK GUPTA	
17.10.17	RS P GUPTA	
18.10.17	Siddha Bil Purkait	
18.10.17	P. AMERIKANAN	

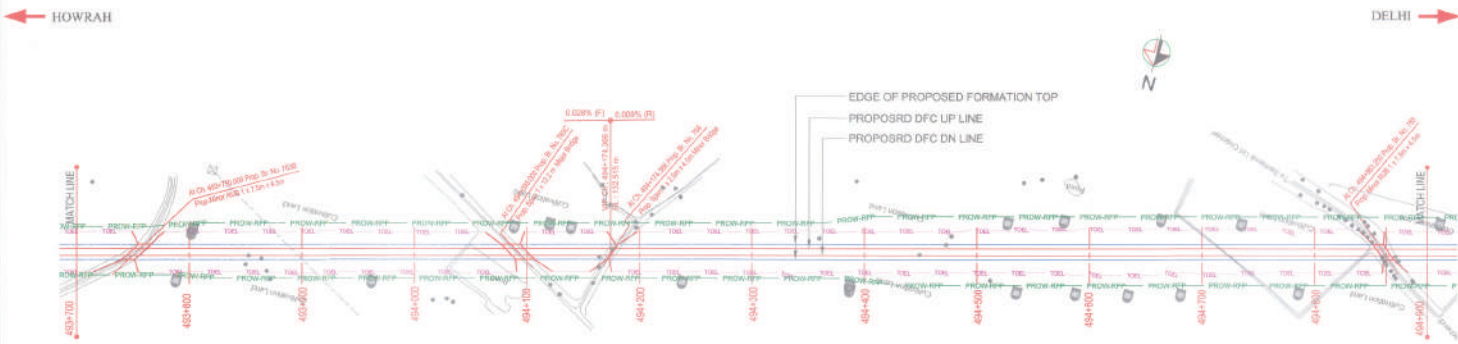
APPROVAL BY : DFCC

CHKD. DATE NAME SIGN

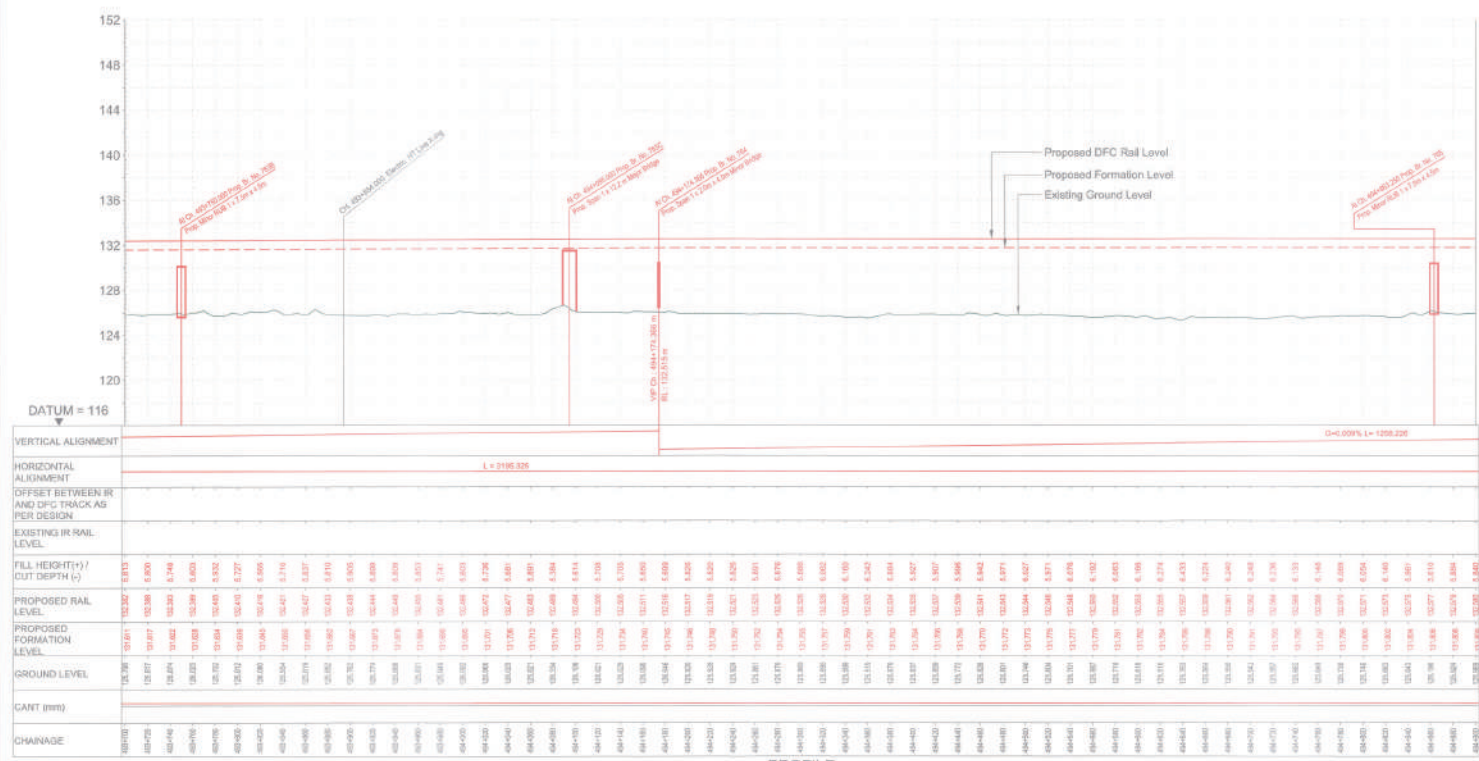
CHKD. 25/11/17

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Handwritten notes: 2017/11/25



PLAN



PROFILE

SECTION-D-202

LEGEND :

- EXISTING IR TRACK
- PROPOSED FORMATION
- DFCC ROW LINE
- F.T.O.E. EXISTING IR TOE LINE
- DFCC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN
- EDGE OF PROPOSED FORMATION TOP
- EXISTING GROUND

NOTES :

- ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
- ALL COORDINATES ARE BASED ON WGS 84 IN PROJECTION BY UTM ZONE 44.
- TRACK WIDTH OF EMBANKMENT FORMATION IS 13.5M FOR OCCUPY LINE IN STRAIGHT SECTION.
- CHANGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFCC DOWN LINE.
- EQUIVALENT SPEED HAS BEEN TAKEN AS 50 KMPH.
- TRACK CENTER BETWEEN DFCC & EXISTING IR TRACK HAS BEEN KEPT AT MIN. 4.5M AT STRAIGHT SECTION.
- TRACK CENTER BETWEEN DFCC & EXISTING IR TRACK HAS BEEN KEPT AS MIN. 4.0M AT STRAIGHT SECTION.
- DRAIN SHALL BE PROVIDED BETWEEN IR AND DFCC TRACKS TO DRAIN-OUT RAINWATER.
- DRAINAGE PATTERN SHOWN IN PLAN & PROFILE ARE INDICATIVE. HOWEVER DETAIL DRAINAGE SYSTEM DRAWINGS WILL BE SUBMITTED SEPARATELY.
- IF ANY OBSTACLE OR EXISTING STRUCTURE IS FOUND TO BE IN THE WAY OF THE PROPOSED TRACKS, THE SAME SHALL BE RELOCATED TO A SAFE PLACE WHERE EMBANKMENT HEIGHT IS > 1.8M IS PROVIDED TO MAINTAIN THE EMBANKMENT HEIGHT AS 1M BY CUTTING THE EARTH.
- TRAFFIC SIGNAGE WILL BE PROVIDED AS AND AS NECESSARY AS PER CONTRACT.
- FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWINGS.

EMPLOYER :
DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT :
EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE :
ALIGNMENT PLAN AND PROFILE OF SLICE - 202 D
 FROM CH.493+700 TO CH.494+900

DRAWING NO. : P 2 AL 09167 **REV :** [E] **SCALE :** HOR : 1:2000 VER : 1:200

REVIEWS :

REV	DATE	REMARKS
B	24.01.2017	REVISED AS PER LETTER NO. P/MS/ES/CP/CT/2017/0001 DATED 02/01/2017
C	26.04.2017	REVISED AS PER LETTER NO. P/MS/ES/CP/CT/2017/0008 DATED 29/03/2017
D	20.06.2017	REVISED AS PER LETTER NO. P/MS/ES/CP/CT/2017/0030 DATED 19/05/2017
E	05.07.2017	REVISED AS PER LETTER NO. P/MS/ES/CP/CT/2017/0039 DATED 03/07/2017

DRAWING STAGE :
 FOR APPROVAL **PRELIMINARY** **APPROVED**
 GOOD FOR CONSTRUCTION

PMC :
SYSTRA - Mott MacDonald JV

CONTRACTOR :
GIL - SIL JV

DESIGN CONSULTANT :
STUP Consultants Pvt. Ltd.

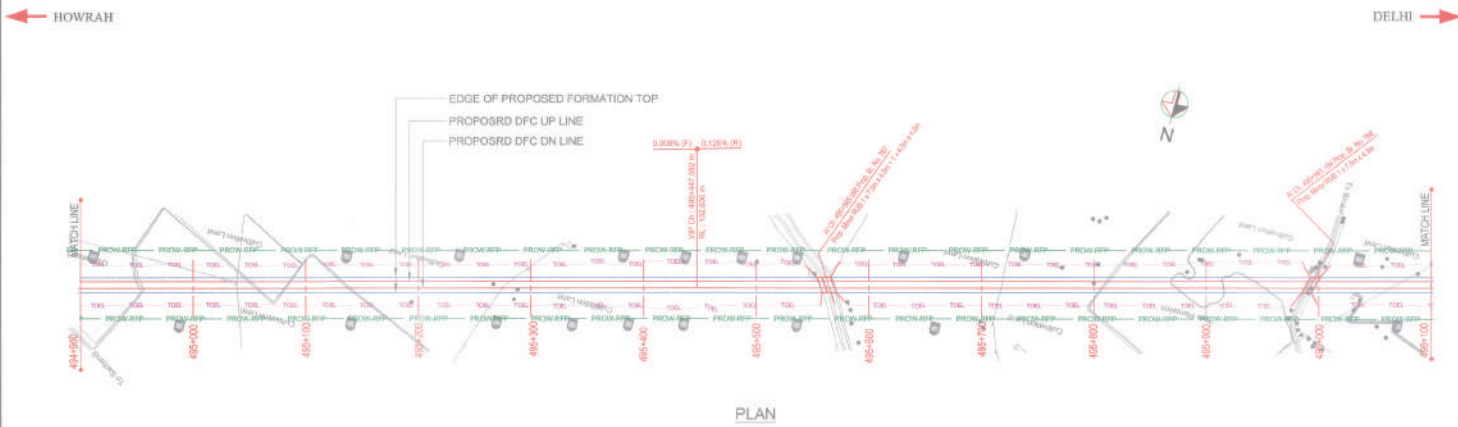
REGISTERED OFFICE :
 1004-5, RAJAJI CHAMBERS, VASANTH NAGAR, BANGALORE 560025.

OFFICE OF ORIGIN :
 KOLKATA

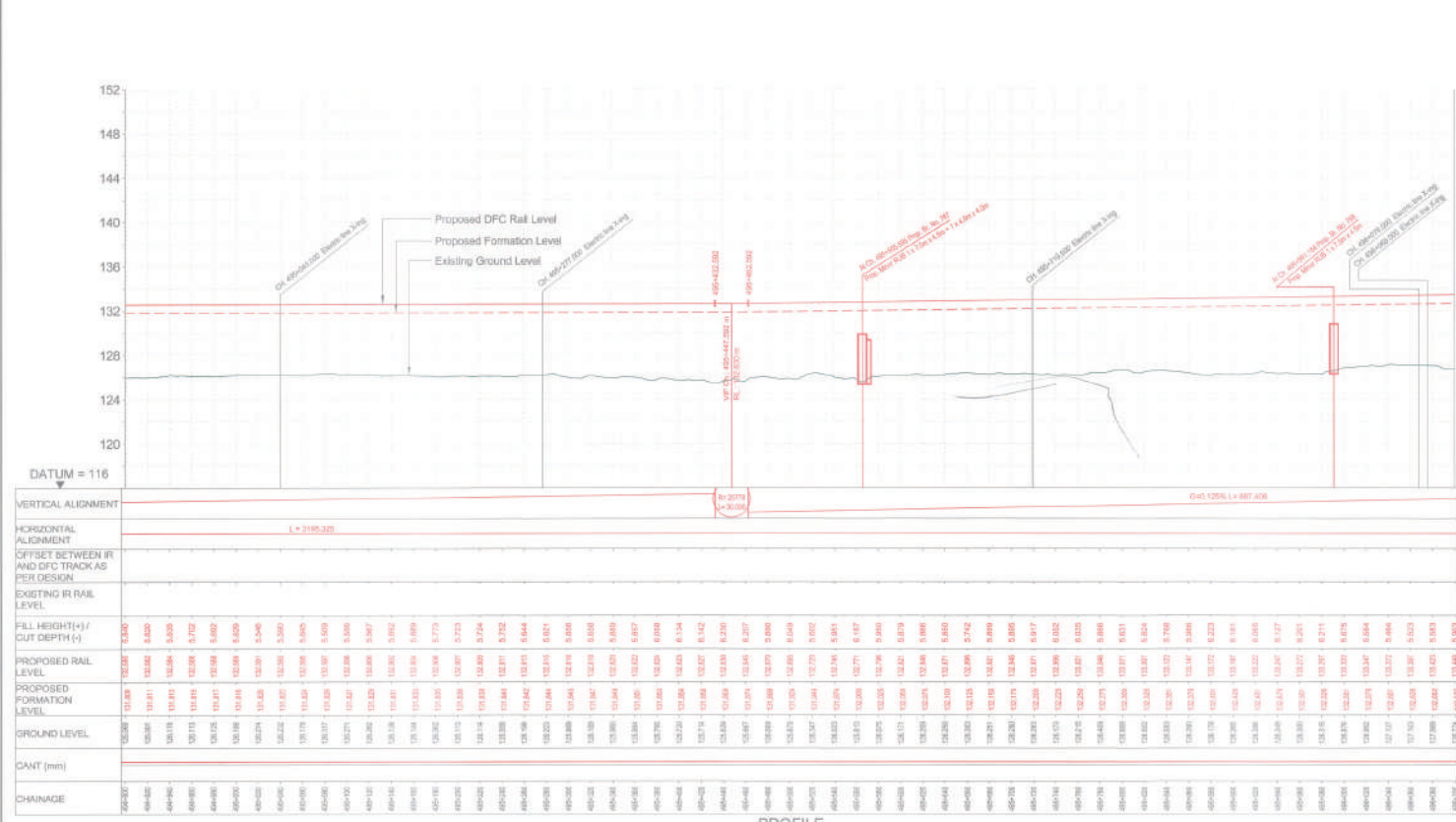
DATE	NAME	SIGN.
13.10.2017	SOURAY SATIK	[Signature]
13.10.2017	SUDDHABIL PURKAIT	[Signature]
13.10.2017	SANJIB MITRA	[Signature]
GIL - SIL JV		
DATE <td>NAME <td>SIGN.</td> </td>	NAME <td>SIGN.</td>	SIGN.
17.10.17	REERAK GUPTA	[Signature]
17.10.17	RSP Singh	[Signature]
SYSTRA - Mott MacDonald JV		
DATE <td>NAME <td>SIGN.</td> </td>	NAME <td>SIGN.</td>	SIGN.
19.10.17	P. AMERKANTH	[Signature]
DFCC		
DATE <td>NAME <td>SIGN.</td> </td>	NAME <td>SIGN.</td>	SIGN.
15.10.17	S. M. M. M.	[Signature]

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4/100
 4/100
 2/100



PLAN



PROFILE

LEGEND :

- EXISTING IR TRACK
- PROPOSED DFC TRACK
- PROPOSED FORMATION
- DFC ROW LINE
- IR TOE
- EXISTING IR TOE LINE
- DFC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN
- EDGE OF PROPOSED FORMATION TOP
- EXISTING GROUND

- NOTES :
1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
 2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44.
 3. TOP WIDTH OF EMBANKMENT / FORMATION IS 13.0M FOR DOUBLE LANE IN STRAIGHT SECTION.
 4. CHANGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC COMLINE.
 5. EQUILIBRIUM SPEED HAS BEEN TAKEN AS 160 KM/H.
 6. TRACK CENTER BETWEEN DFC & EXISTING IR TRACK HAS BEEN KEPT AT MIN. 4.0M AT STRAIGHT SECTION.
 7. TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 4.5M AT STRAIGHT SECTION.
 8. DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RUNOFF WATER.
 9. DRAINAGE FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE. HOWEVER THE DRAINAGE SYSTEM DRAWINGS WILL BE SUBMITTED SEPARATELY.
 10. DFC CABLE FALLING IN PROPOSED DFC ALIGNMENT WILL TO BE SHIFTED RELATIVELY AT THE LOCATION WHERE EMBANKMENT HEIGHT IS < 6.0M IF IT IS PROPOSED TO HAVE PUBLIC UTILITIES (HT/LINES ETC.) INTERFERING DFC TRACKS SHALL BE RELOCATED AT THE LOCATION WHERE EMBANKMENT HEIGHT IS < 6.0M IF IT IS PROPOSED TO HAVE THE EMBANKMENT HEIGHT AS 10:1 BY CUTTING THE EARTH.
 11. TRAILLY REFUSE SHALL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
 12. FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER :
DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT :
EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE :
ALIGNMENT PLAN AND PROFILE OF SLICE - 202 D FROM CH.494+000 TO CH. 496+100

DRAWING NO.	REV	SCALE
P 2 AL D 9 B B	E	HOR : 1:2000 VER : 1:200

REVIEWS

REV	DATE	REMARKS
B	24.01.2017	REVISED AS PER LETTER NO. PACSDFPC/CT/1007/00001 DATED 08/01/2017
C	25.04.2017	REVISED AS PER LETTER NO. PACSDFPC/CT/1007/01700 DATED 25/04/2017
D	20.06.2017	REVISED AS PER LETTER NO. PACSDFPC/CT/1007/03000 DATED 16/06/2017
E	03.07.2017	REVISED AS PER LETTER NO. PACSDFPC/CT/1007/03500 DATED 13/07/2017

DRAWING STAGE : **APPROVED**

FOR APPROVAL **PRELIMINARY**

GOOD FOR CONSTRUCTION

PMC :
SYSTRA - Mott MacDonald JV

CONTRACTOR :
GIL - SIL JV

DESIGN CONSULTANT:
STUP Consultants Pvt. Ltd.

DATE	NAME	SIGN.
13.10.2017	SOURAV SATK	
13.10.2017	SIDDHASSI PURKAIT	
13.10.2017	SRINIVAS MITRA	

SUBMITTED BY : **GIL - SIL JV**

DATE	NAME	SIGN.
17.10.17	REEPAK GUPTA	
17.10.17	R S P GUPTA	

NOC BY : **SYSTRA - Mott MacDonald JV**

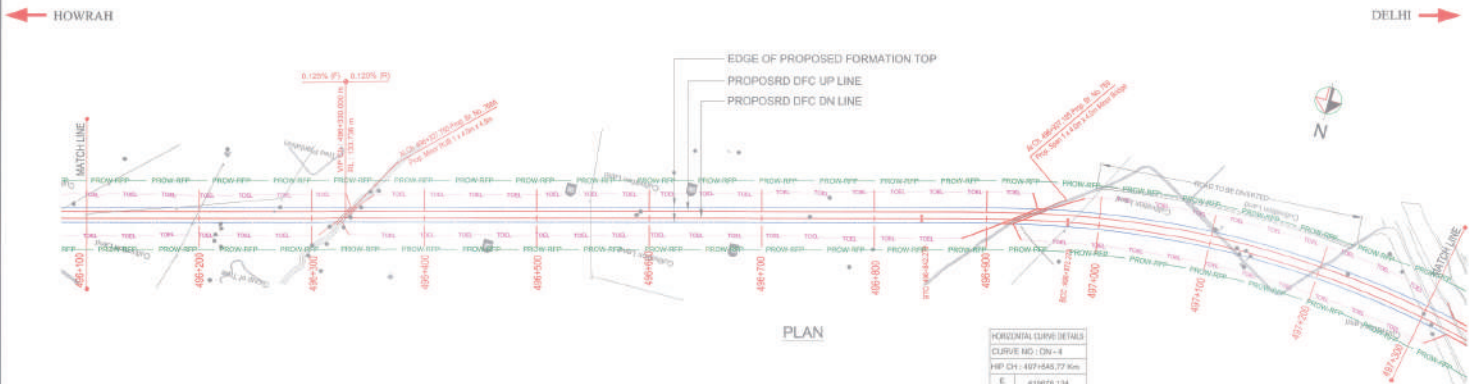
DATE	NAME	SIGN.
19.10.17	Srinivas Mitta	
19.10.17	P. AMERIKANOB	

APPROVAL BY : **DFCC**

DATE	NAME	SIGN.
25/10/17	Sr. Manager	

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Handwritten notes: ch. 494 and 496



HORIZONTAL CURVE DETAILS

CURVE NO:	CH-8
HP CH:	497+44.77 Km
E:	415876.134
N:	2921705.937
Δ:	52° 17' 17.0" (R.L.H)
R:	875.0 (M)
Lr:	1148.88 (M)
Lc:	150.0 (M)
V:	100 Km/h
Cx:	175.00 mm
Cz:	43.00 mm

- LEGEND :**
- EXISTING IR TRACK
 - - - PROPOSED DFC TRACK
 - - - PROPOSED FORMATION
 - - - DFC ROW LINE
 - - - ROW LINE
 - - - EXISTING IR TOE LINE
 - - - DFC TOE LINE FOR EMB HT < 6.0M
 - ← FLOW DIRECTION OF PROPOSED DRAIN
 - - - EDGE OF PROPOSED FORMATION TOP
 - - - EXISTING GROUND

- NOTES :**
1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
 2. ALL COORDINATES ARE BASED ON PGSI IN PROJECTION IN UTM ZONE 44.
 3. TOP WIDTH OF EMBANKMENT FORMATION IS 13.5M FOR DOUBLE LINE IN STRAIGHT SECTION.
 4. CHANGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
 5. EQUILIBRIUM SPEED HAS BEEN TAKEN AS 100 KM/H.
 6. TRACK CENTER BETWEEN DFC & EXISTING IR TRACK HAS BEEN KEPT AT MIN 5.0M AT STRAIGHT SECTION.
 7. TRACK CENTER BETWEEN MARK LINES OF DFC HAS BEEN KEPT AS MIN 6.0M AT STRAIGHT SECTION.
 8. DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER.
 9. DRAINAGE PLAN DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE. HOWEVER DETAIL DRAINAGE SYSTEM DRAWINGS WILL BE SUBMITTED SEPARATELY.
 10. DFC CALL RAIL IN PROPOSED DFC ALIGNMENT HAS TO BE SHIFTED SUTABLY.
 11. PUBLIC UTILITIES, WATER LINES ETC. INTERFERING WITH TRACKS SHALL BE RELOCATED AT THE LOCAL POINT WHERE EMBANKMENT HEIGHT IS > 1.5M IN PROPOSED TO MAKE THE EMBANKMENT HEIGHT AS 3M BY CUTTING THE EARTH.
 12. UTILITY SERVICES WILL BE PROVIDED AS PER THE ALIGNMENT AS PER CONTRACT.
 13. FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER :
DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT :
EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE :
ALIGNMENT PLAN AND PROFILE OF SLICE - 202 D
 FROM CH. 490+100 TO CH. 497+300

DRAWING NO.	REV	SCALE
P 2 AL 01010	E	HOR : 1:2000 VER : 1:200

REVIEWS

REV	DATE	REMARKS
B	24.01.2017	REVISED AS PER LETTER NO. PACS/DFCC/CT/2017/0001 DATED 03/01/2017
C	26.04.2017	REVISED AS PER LETTER NO. PACS/DFCC/CT/2017/0164 DATED 25/03/2017
D	20.06.2017	REVISED AS PER LETTER NO. PACS/DFCC/CT/2017/0233 DATED 09/05/2017
E	05.07.2017	REVISED AS PER LETTER NO. PACS/DFCC/CT/2017/0287 DATED 09/05/2017

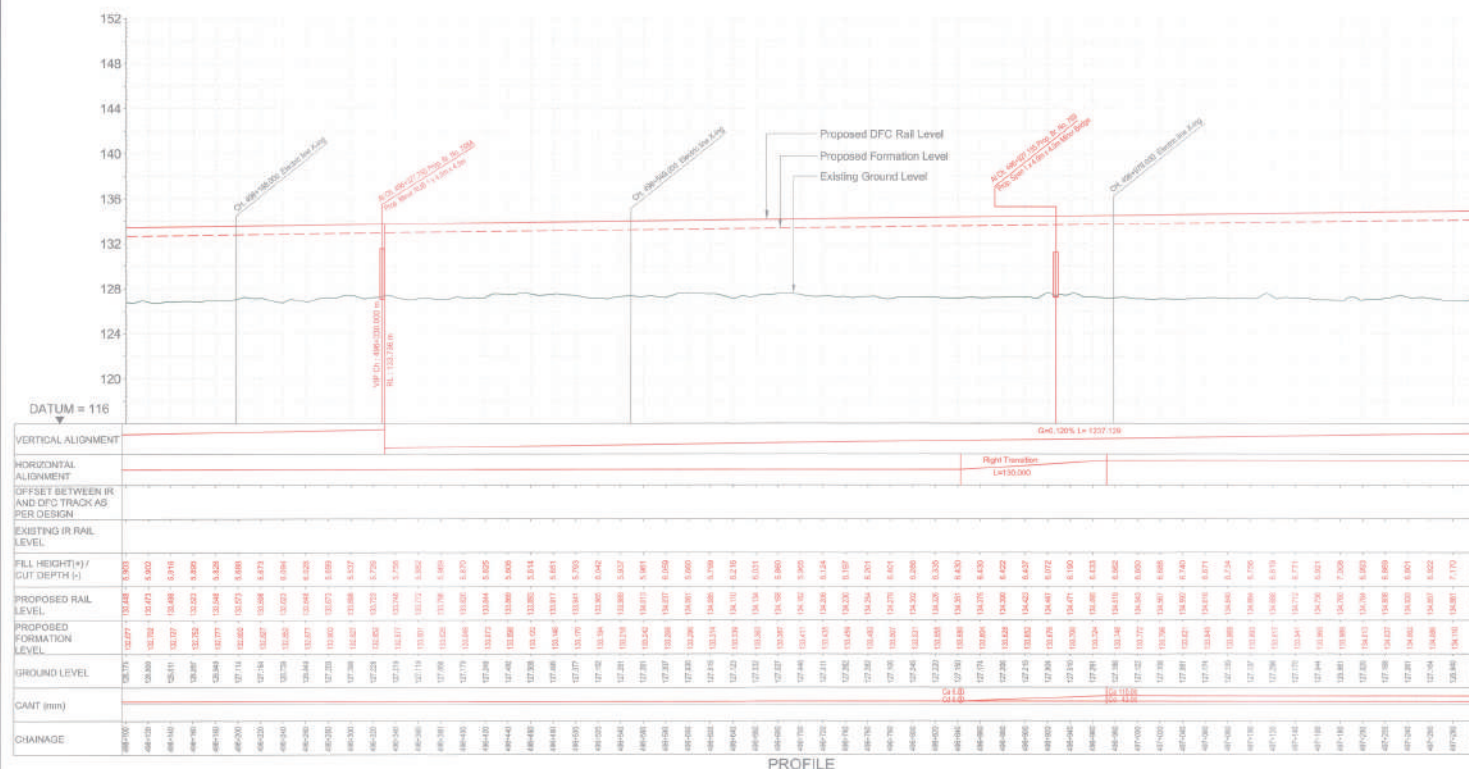
DRAWING STAGE
 FOR APPROVAL **PRELIMINARY** + **APPROVED**
 GOOD FOR CONSTRUCTION

PMC :
SYSTRA - Mott MacDonald JV

CONTRACTOR :
GIL - SIL JV

DESIGN CONSULTANT:
STUP Consultants Pvt. Ltd.

DATE	NAME	SIGN.
13.10.2017	BOURAV SATIK	
13.10.2017	BUDDHABIL PURKAIT	
13.10.2017	SANJIB MITAL	
17.10.17	REERAK GUPTA	
17.10.17	RSP SINGH	

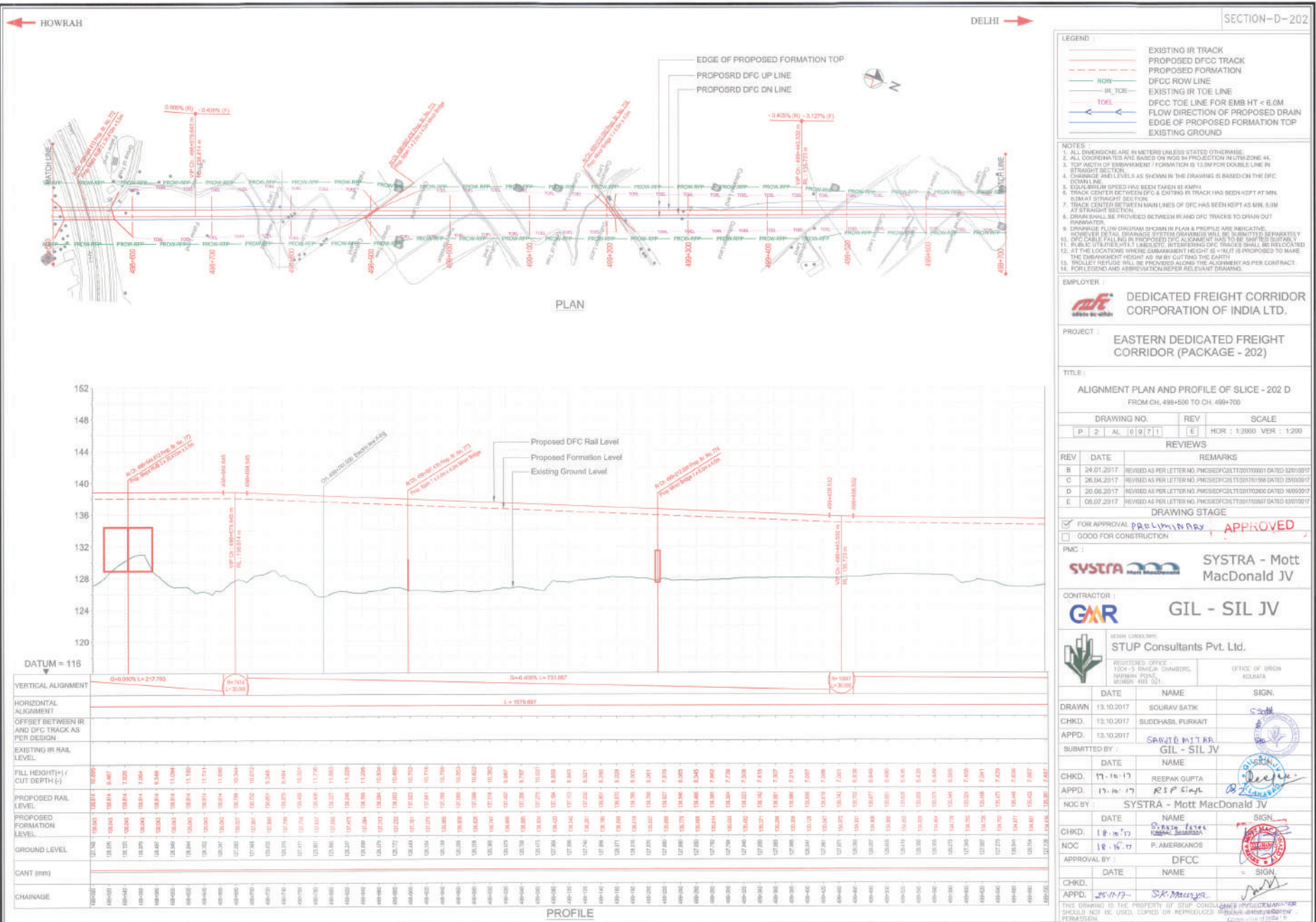


CHAINAGE	FILL HEIGHT / GUT DEPTH (C)	PROPOSED RAIL LEVEL	PROPOSED FORMATION LEVEL	GROUND LEVEL
489+00	0.00	128.00	128.00	128.00
489+10	0.00	128.00	128.00	128.00
489+20	0.00	128.00	128.00	128.00
489+30	0.00	128.00	128.00	128.00
489+40	0.00	128.00	128.00	128.00
489+50	0.00	128.00	128.00	128.00
489+60	0.00	128.00	128.00	128.00
489+70	0.00	128.00	128.00	128.00
489+80	0.00	128.00	128.00	128.00
489+90	0.00	128.00	128.00	128.00
490+00	0.00	128.00	128.00	128.00
490+10	0.00	128.00	128.00	128.00
490+20	0.00	128.00	128.00	128.00
490+30	0.00	128.00	128.00	128.00
490+40	0.00	128.00	128.00	128.00
490+50	0.00	128.00	128.00	128.00
490+60	0.00	128.00	128.00	128.00
490+70	0.00	128.00	128.00	128.00
490+80	0.00	128.00	128.00	128.00
490+90	0.00	128.00	128.00	128.00
491+00	0.00	128.00	128.00	128.00
491+10	0.00	128.00	128.00	128.00
491+20	0.00	128.00	128.00	128.00
491+30	0.00	128.00	128.00	128.00
491+40	0.00	128.00	128.00	128.00
491+50	0.00	128.00	128.00	128.00
491+60	0.00	128.00	128.00	128.00
491+70	0.00	128.00	128.00	128.00
491+80	0.00	128.00	128.00	128.00
491+90	0.00	128.00	128.00	128.00
492+00	0.00	128.00	128.00	128.00
492+10	0.00	128.00	128.00	128.00
492+20	0.00	128.00	128.00	128.00
492+30	0.00	128.00	128.00	128.00
492+40	0.00	128.00	128.00	128.00
492+50	0.00	128.00	128.00	128.00
492+60	0.00	128.00	128.00	128.00
492+70	0.00	128.00	128.00	128.00
492+80	0.00	128.00	128.00	128.00
492+90	0.00	128.00	128.00	128.00
493+00	0.00	128.00	128.00	128.00
493+10	0.00	128.00	128.00	128.00
493+20	0.00	128.00	128.00	128.00
493+30	0.00	128.00	128.00	128.00
493+40	0.00	128.00	128.00	128.00
493+50	0.00	128.00	128.00	128.00
493+60	0.00	128.00	128.00	128.00
493+70	0.00	128.00	128.00	128.00
493+80	0.00	128.00	128.00	128.00
493+90	0.00	128.00	128.00	128.00
494+00	0.00	128.00	128.00	128.00
494+10	0.00	128.00	128.00	128.00
494+20	0.00	128.00	128.00	128.00
494+30	0.00	128.00	128.00	128.00
494+40	0.00	128.00	128.00	128.00
494+50	0.00	128.00	128.00	128.00
494+60	0.00	128.00	128.00	128.00
494+70	0.00	128.00	128.00	128.00
494+80	0.00	128.00	128.00	128.00
494+90	0.00	128.00	128.00	128.00
495+00	0.00	128.00	128.00	128.00
495+10	0.00	128.00	128.00	128.00
495+20	0.00	128.00	128.00	128.00
495+30	0.00	128.00	128.00	128.00
495+40	0.00	128.00	128.00	128.00
495+50	0.00	128.00	128.00	128.00
495+60	0.00	128.00	128.00	128.00
495+70	0.00	128.00	128.00	128.00
495+80	0.00	128.00	128.00	128.00
495+90	0.00	128.00	128.00	128.00
496+00	0.00	128.00	128.00	128.00
496+10	0.00	128.00	128.00	128.00
496+20	0.00	128.00	128.00	128.00
496+30	0.00	128.00	128.00	128.00
496+40	0.00	128.00	128.00	128.00
496+50	0.00	128.00	128.00	128.00
496+60	0.00	128.00	128.00	128.00
496+70	0.00	128.00	128.00	128.00
496+80	0.00	128.00	128.00	128.00
496+90	0.00	128.00	128.00	128.00
497+00	0.00	128.00	128.00	128.00
497+10	0.00	128.00	128.00	128.00
497+20	0.00	128.00	128.00	128.00
497+30	0.00	128.00	128.00	128.00

PROFILE

ak
Rajendra

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LEGEND

- EXISTING IR TRACK
- PROPOSED DFC TRACK
- PROPOSED FORMATION
- DFC ROW LINE
- IR TOE
- EXISTING IR TOE LINE
- DFC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN
- EDGE OF PROPOSED FORMATION TOP
- EXISTING GROUND

- NOTES**
1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
 2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 48.
 3. TOP WIDTH OF EMBANKMENT / FORMATION IS 13.5M FOR DOUBLE LINE IN STRAIGHT SECTION.
 4. CHANGE RATE LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC ROW LINE.
 5. EQUAL BURN SPEED HAS BEEN TAKEN AS 40M/H.
 6. TRACK CENTER BETWEEN OFF & SETTING IN TRACK HAS BEEN KEPT AT MIN. 2.0M AT STRAIGHT SECTION.
 7. TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 4.0M AT STRAIGHT SECTION.
 8. DRAINAGE SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER.
 9. CHANGE FLOW DIRECTION SHOWN IN PLAN & PROFILE ARE INDICATIVE. HOWEVER THE DRAINAGE SYSTEM DRAWINGS WILL BE SUBMITTED SEPARATELY.
 10. DFC CABLE LAYING IN PROPOSED DFC ALIGNMENT HAS TO BE KEPT TO THE LEFT OF PUBLIC UTILITIES (LINES) ETC. INTERFERING DFC TRACKS SHALL BE RELOCATED AT THE LOCATIONS WHERE EMBANKMENT HEIGHT IS < 4.0 FT. IS PROPOSED TO MAKE THE EMBANKMENT HEIGHT AS MIN BY CUTTING THE EARTH.
 11. TRIPLE LEVELS WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
 12. FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER :
DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT :
EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE :
ALIGNMENT PLAN AND PROFILE OF SLICE - 202 D
 FROM CH. 498+500 TO CH. 499+700

DRAWING NO.	REV	SCALE
P 2 AL 0 0 7 1 1	E	HOR : 1:2000 VER : 1:200

REVIEWS

REV	DATE	REMARKS
B	24.01.2017	REVISED AS PER LETTER NO. PMS/DFCC/CT/2017/00011 DATED 22/01/2017
C	26.04.2017	REVISED AS PER LETTER NO. PMS/DFCC/CT/2017/00019 DATED 26/03/2017
D	20.06.2017	REVISED AS PER LETTER NO. PMS/DFCC/CT/2017/00020 DATED 16/05/2017
E	05.07.2017	REVISED AS PER LETTER NO. PMS/DFCC/CT/2017/00021 DATED 03/07/2017

DRAWING STAGE
 FOR APPROVAL **PRELIMINARY** **APPROVED**
 GOOD FOR CONSTRUCTION

PAC :
SYSTRA - Mott MacDonald JV

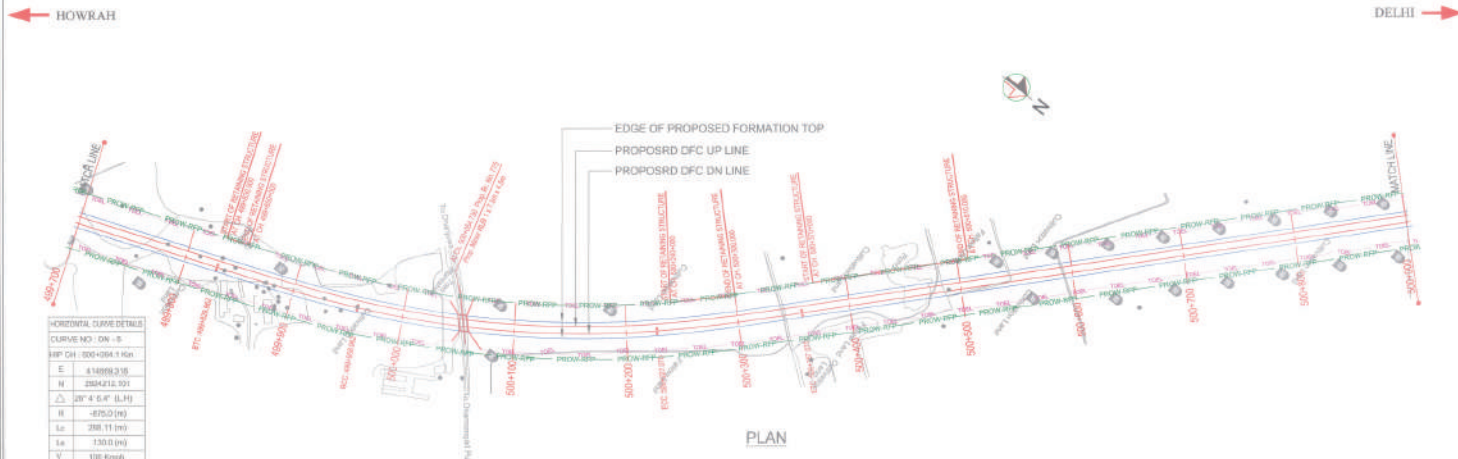
CONTRACTOR :
GIL - SIL JV

CONSULTANT :
STUP Consultants Pvt. Ltd.
 REGISTERED OFFICE: 1204-5, SHAKA, SHAMBERG, WARANGAL (INDIA), MEMBER 402 221. OFFICE OF ORIGIN: KOLKATA

DATE	NAME	SIGN.
13.10.2017	SOURAV SATIK	
13.10.2017	BUDDHACHAL PURKAIT	
13.10.2017	SAWJID K T K	
13.10.2017	GIL - SIL JV	
17.10.17	REPAK GUPTA	
17.10.17	RS P Singh	
18.10.17	P. AMERKANGOS	
18.10.17	DFCC	

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ch. 498+500
 ch. 499+700

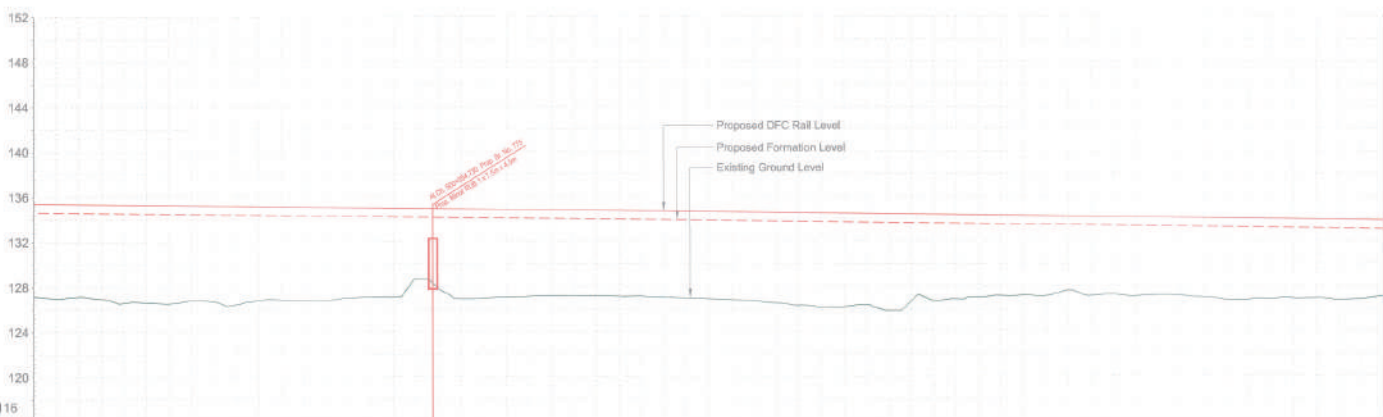


HORIZONTAL CURVE DETAILS

CURVE NO. DN - 18

MB CH - 100+000 to 1 Km

E	4189963.10
N	2334212.101
Δ	20° 4' 6.4" (LH)
R	4750.0 (M)
Lc	280.11 (M)
Ls	130.0 (M)
V	190 (kmph)
C	116.00 (mm)
Gd	43.50 (mm)



VERTICAL ALIGNMENT	Left Transition (L=130.00)		Gr=127% (L=2167.02)	Right Transition (L=130.00)
HORIZONTAL ALIGNMENT				
OFFSET BETWEEN IR AND DFC TRACK AS PER DESIGN				
EXISTING IR RAIL LEVEL				
FILL HEIGHT (+) / CUT DEPTH (-)	12.32	7.05	7.05	12.32
PROPOSED RAIL LEVEL	123.97	123.97	123.97	123.97
PROPOSED FORMATION LEVEL	123.97	123.97	123.97	123.97
GROUND LEVEL	123.97	123.97	123.97	123.97
CANT (mm)				
CHAINAGE	499+700	499+750	499+800	500+000

LEGEND

- EXISTING IR TRACK
- PROPOSED DFC TRACK
- PROPOSED FORMATION
- DFCC ROW LINE
- IR_TCE
- EXISTING IR TOE LINE
- DFCC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN
- EDGE OF PROPOSED FORMATION TOP
- EXISTING GROUND

- NOTES
- ALL DIMENSIONS ARE IN METRIC UNLESS STATED OTHERWISE
 - ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44
 - TOP BENCH OF EMBARKMENT / FORMATION IS 13.0M FOR DOUBLE LINE IN STRAIGHT SECTION
 - VERTICAL CURVE LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE
 - GRADIENTS IN SLOPE HAS BEEN TAKEN AS SHOWN
 - TRACK CENTER BETWEEN DFC & EXISTING IR TRACK HAS BEEN KEPT AT MIN. 5.0M IN STRAIGHT SECTION
 - TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 6.0M IN STRAIGHT SECTION
 - DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER
 - DRAINAGE FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE. HOWEVER DETAIL DRAINAGE SYSTEM DRAWINGS WILL BE SUBMITTED SEPARATELY
 - TOE LABEL FILLING IN PROPOSED DFC ALIGNMENT HAS TO BE SHOWN SUBSTANTLY
 - PUBLIC UTILITIES (L.T. LINES ETC.) INTERFERING DFC TRACKS SHALL BE RELOCATED AT THE LOCATION WHERE EMBARKMENT HEIGHT IS 4.0M IF PROVIDED TO HAVE THE EMBARKMENT HEIGHT AS 5M BY CUTTING THE EARTH
 - TROLEY RAILS WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT
 - FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING

EMPLOYER :
dedicated freight corridor
DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT :
EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE :
ALIGNMENT PLAN AND PROFILE OF SLICE - 202 D
FROM CH. 499+700 TO CH. 500+000

DRAWING NO.	REV	SCALE
P 2	AL 09/12	1:2500 VER : 1:200

REVIEWS

REV	DATE	REMARKS
B	24.01.2017	REVISED AS PER LETTER NO. PMS/DFCC/CT/1000/PO/001 DATED 09/01/17
C	20.06.2017	REVISED AS PER LETTER NO. PMS/DFCC/CT/1000/PO/001 DATED 09/01/17
D	20.06.2017	REVISED AS PER LETTER NO. PMS/DFCC/CT/1000/PO/001 DATED 09/01/17
E	05.07.2017	REVISED AS PER LETTER NO. PMS/DFCC/CT/1000/PO/001 DATED 09/01/17

DRAWING STAGE
 FOR APPROVAL P.E. L1/MB/Rev
 GOOD FOR CONSTRUCTION
APPROVED

PMC :
SYSTRA SYSTRA - Mott MacDonald JV

CONTRACTOR :
GMR GIL - SIL JV

STUP CONSULTANTS
STUP Consultants Pvt. Ltd.

DATE	NAME	SIGN.
13.10.2017	SOURAV SATIK	<i>Sourav Satik</i>
13.10.2017	SIDDHANT PURKAYAST	<i>Siddhant Purkayast</i>
13.10.2017	SANJIB DUTTA	<i>Sanjib Dutta</i>
	GIL - SIL JV	

SUBMITTED BY :
DATE :
NAME :
SIGN. :

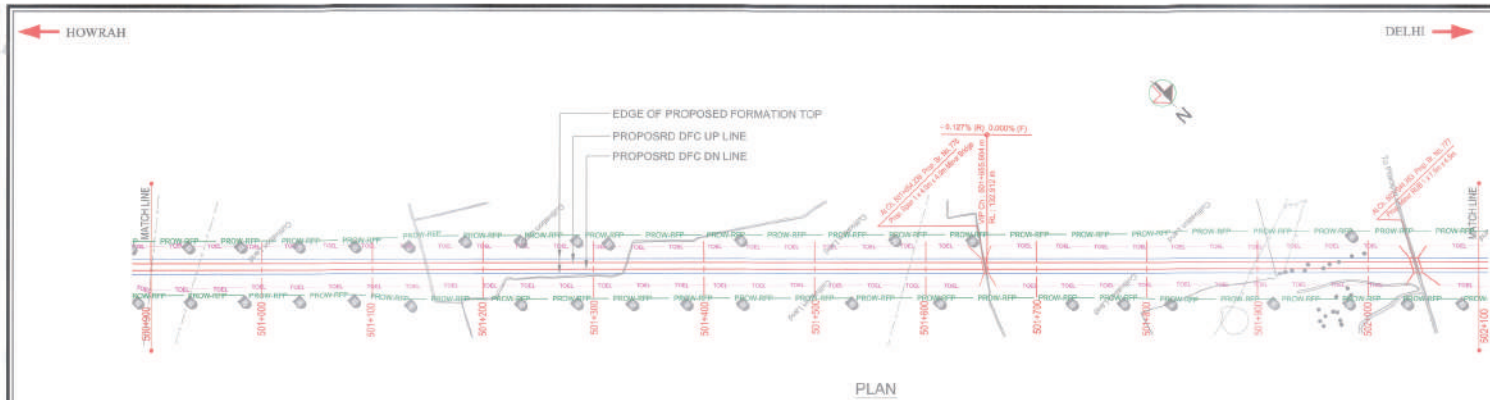
NO. BY : SYSTRA - Mott MacDonald JV

DATE	NAME	SIGN.
17.10.17	REEMPA GUPTA	<i>Reempa Gupta</i>
17.10.17	R S P Singh	<i>R S P Singh</i>

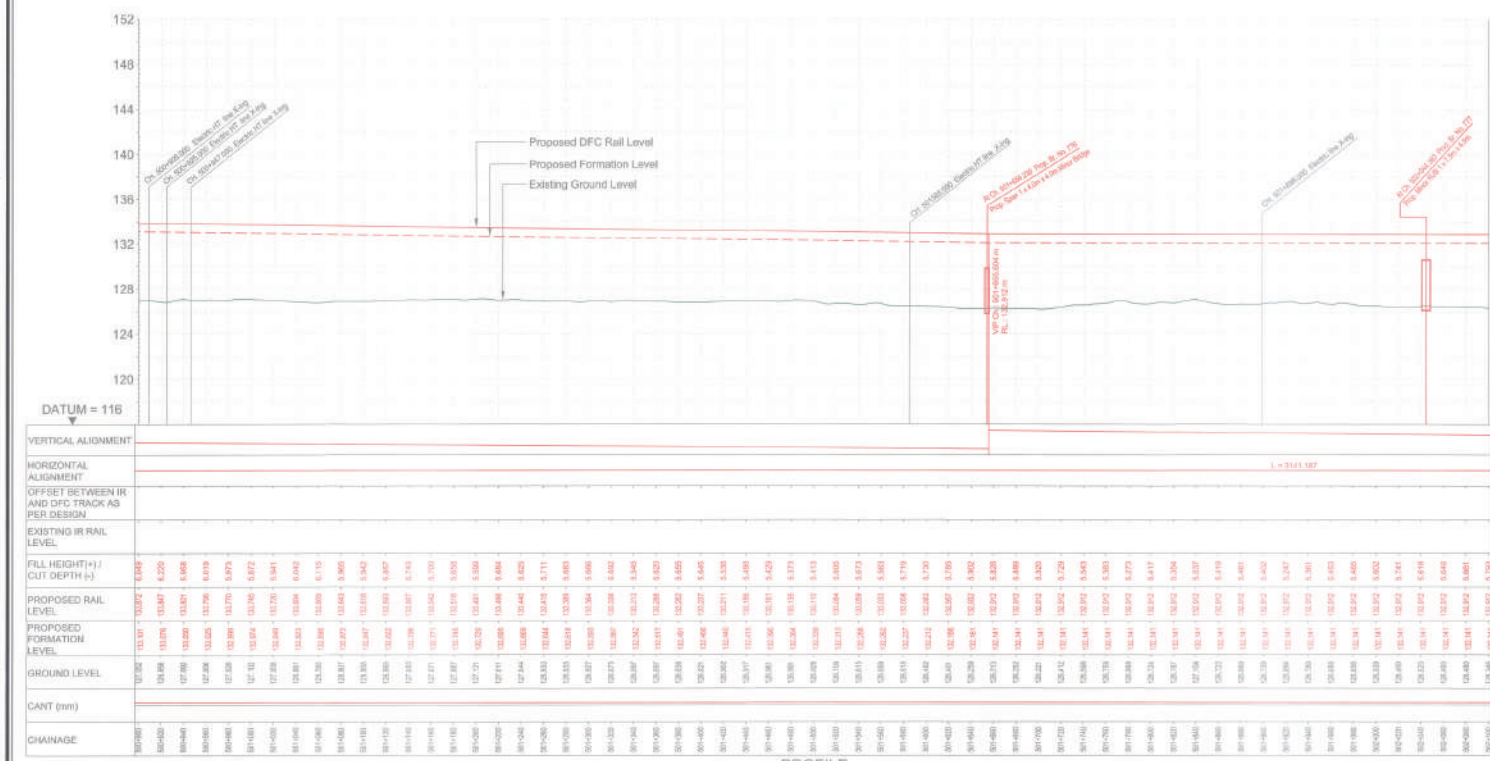
APPROVAL BY :
DATE :
NAME :
SIGN. :

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Handwritten notes and signatures at the bottom of the page.



PLAN



PROFILE

LEGEND :

- EXISTING IR TRACK
- PROPOSED DFC TRACK
- PROPOSED FORMATION
- DFC ROW LINE
- F_TOE
- EXISTING IR TOE LINE
- DFC TOE LINE FOR EMB HT = 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN
- EDGE OF PROPOSED FORMATION TOP
- EXISTING GROUND

- NOTES :
1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
 2. ALL COORDINATES ARE BASED ON WGS84 PROJECTION IN UTM ZONE 44.
 3. THE WIDTH OF EMBANKMENT / FORMATION IS 13.5M FOR DOUBLE LINE IN STRAIGHT SECTION.
 4. CHANGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC ROW LINE.
 5. EQUILIBRIUM PROFILE WAS TAKEN AS AWP.
 6. TRACK CENTER BETWEEN DFC TRACKS IN TRACK HAS BEEN KEPT AT MIN. 8.5M AT STRAIGHT SECTION.
 7. TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 6.0M AT STRAIGHT SECTION.
 8. DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER.
 9. DRAINAGE PLAN/ALIGNED DRAWING SHOWING PLAN AND PROFILE ARE INDICATIVE. HOWEVER DETAILED DRAINAGE SYSTEM DRAWINGS WILL BE SUBMITTED SEPARATELY.
 10. CFC CABLE FALLING IN PROPOSED DFC ALIGNMENT HAS TO BE SHIFTED SUITABLY.
 11. PUBLIC UTILITIES, PLAT LINES, ETC. INTERFERING DFC TRACKS SHALL BE RELOCATED.
 12. AT THE LOCATIONS WHERE EMBANKMENT HEIGHT IS > 18.0 IT IS PROPOSED TO NAME THE EMBANKMENT HEIGHT AS 'M' BY CUTTING THE EARTH.
 13. TRAILER BEHALF WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
 14. FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER :
 DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT :
 EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE:
 ALIGNMENT PLAN AND PROFILE OF SLICE - 202 D
 FROM CH. 500+00 TO CH. 502+100

DRAWING NO.	REV.	SCALE
F 2 AL 0 9 7 3	E	HCR : 1:2000 VER : 1:200

REVIEWS

REV.	DATE	REMARKS
B	24.01.2017	REVISED AS PER LETTER NO. PMC/SIDPC/CA/1100110001 DATED 02/01/2017
C	26.04.2017	REVISED AS PER LETTER NO. PMC/SIDPC/CA/1100110001 DATED 26/03/2017
D	20.08.2017	REVISED AS PER LETTER NO. PMC/SIDPC/CA/1100110001 DATED 16/08/2017
E	05.07.2017	REVISED AS PER LETTER NO. PMC/SIDPC/CA/1100110001 DATED 03/07/2017

DRAWING STAGE
 FOR APPROVAL PRELIMINARY APPROVED
 GOOD FOR CONSTRUCTION

PMC :
 SYSTRA - Mott MacDonald JV

CONTRACTOR :
 GIL - SIL JV

DESIGN CONSULTANT:
 STUP Consultants Pvt. Ltd.
 REGISTERED OFFICE: 1004-5, BANGLA CHAWRI, NARAINA, P.O. NARAINA, NEW DELHI-110028

DATE	NAME	SIGN.
13.10.2017	GOURAV SATIK	
13.10.2017	BUDDHABIL PURKAIT	
13.10.2017	SANJITA MITRA	
SUBMITTED BY : GIL - SIL JV		
DATE	NAME	SIGN.
17.10.17	REERAK GUPTA	
17.10.17	RES P. SINGH	
NOC BY : SYSTRA - Mott MacDonald JV		
DATE	NAME	SIGN.
19.10.17	Sudesh K. Puri	
	P. AMERIKANAN	
DATE	NAME	SIGN.
	DFCC	
18.10.17	S. N. MISHRA	

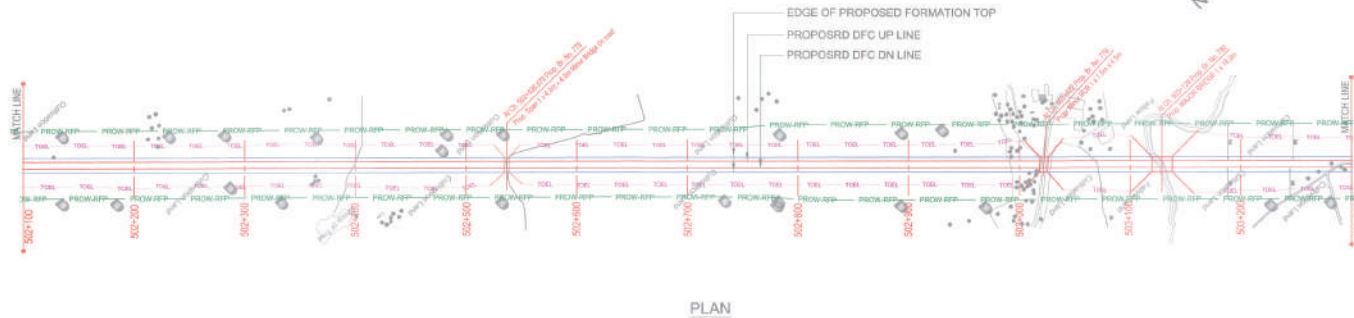
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ch. 500+00 to 502+100

← HOWRAH

DELHI →

SECTION-D-202



PLAN

LEGEND :

- EXISTING IR TRACK
- PROPOSED DFC TRACK
- PROPOSED FORMATION
- ROW
- IR TOE
- EXISTING IR TOE LINE
- DFC TOE LINE FOR EMB HT = 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN
- EDGE OF PROPOSED FORMATION TOP
- EXISTING GROUND

- NOTES
1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
 2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 48.
 3. TOP WIDTH OF EMBANKMENT FORMATION IS 13.9M FOR DOUBLE LINE IN STRAIGHT SECTION.
 4. CHANGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWNLINE.
 5. EQUILIBRIUM OPTED HAS BEEN TAKEN IN NORTH.
 6. TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 0.0M AT STRAIGHT SECTION.
 7. DRAIN SHALL BE PROVIDED BETWEEN IT AND DFC TRACKS TO DRAIN OUT WATER.
 8. DRAINAGE FLOW DIAGRAM SHOWN IN PLAN A PROFILE ARE INDICATIVE. HOWEVER DETAILED DRAINAGE SYSTEM DRAWINGS WILL BE SUBMITTED SEPARATELY.
 9. DFC CABLE TALLIES IN PROPOSED DFC ALIGNMENT HAS TO BE PROVIDED SEPARATELY.
 10. PUBLIC UTILITIES (LIFT LINES, ETC.) INTERFERING DFC TRACKS SHALL BE RELOCATED AT THE LOCATION WHERE EMBANKMENT HEIGHT IS 6.0M IT IS PROPOSED TO RAISE THE EMBANKMENT HEIGHT AS 7M BY CUTTING THE EARTH.
 11. TRACKS AT BIDGE SHALL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
 12. FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER
DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT : **EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)**

TITLE : **ALIGNMENT PLAN AND PROFILE OF SLICE - 202 D**
 FROM CH. 502+100 TO CH. 503+300

DRAWING NO.	REV	SCALE
P 2	AL 0 (0,1) 4	E HOR : 1:2000 VER : 1:200

REVIEWS

REV	DATE	REMARKS
B	24.01.2017	REVISED AS PER LETTER NO. PKCSSEPC/CLT/2017/00001 DATED 23/01/2017
C	28.04.2017	REVISED AS PER LETTER NO. PKCSSEPC/CLT/2017/00001 DATED 28/04/2017 AND REVISED AS PER LETTER NO. PKCSSEPC/CLT/2017/00001 DATED 28/04/2017
D	29.06.2017	REVISED AS PER LETTER NO. PKCSSEPC/CLT/2017/00000 DATED 16/05/2017
E	05.07.2017	REVISED AS PER LETTER NO. PKCSSEPC/CLT/2017/00001 DATED 03/07/2017

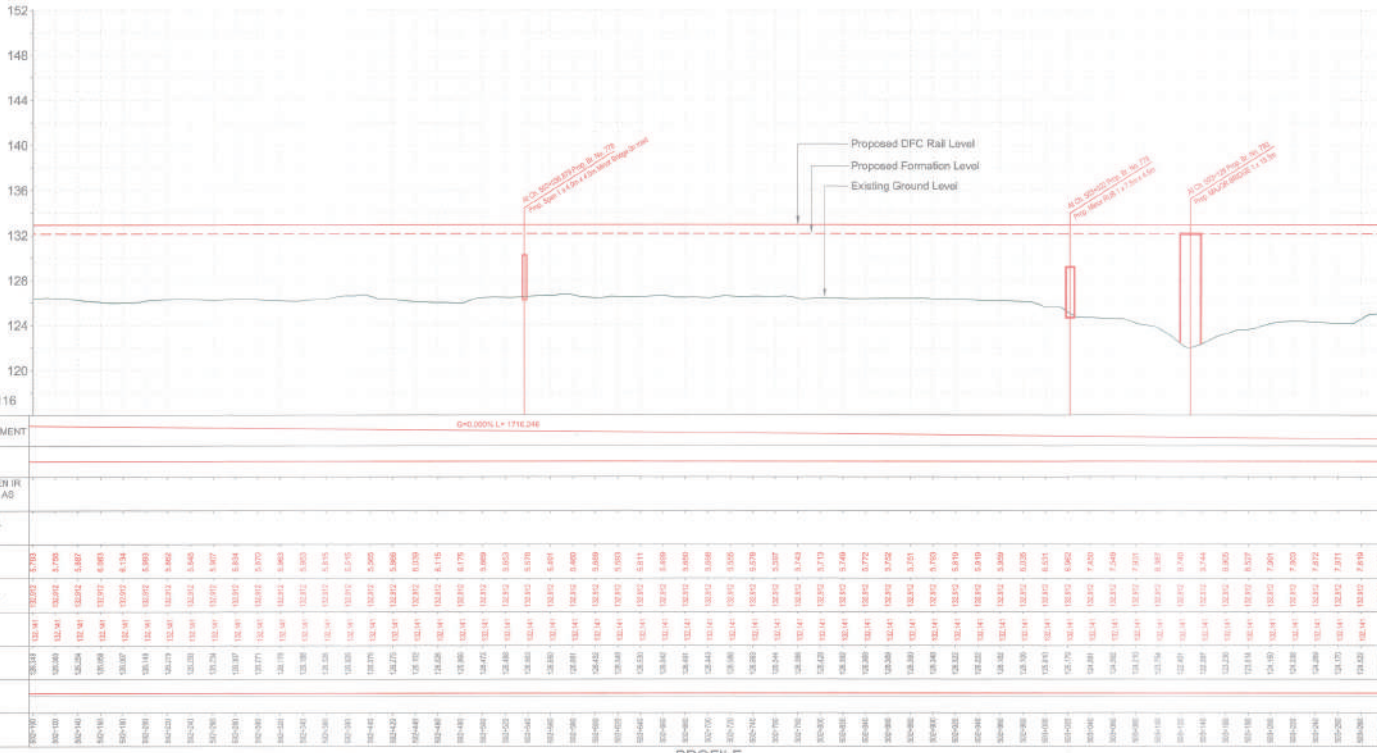
DRAWING STAGE
 FOR APPROVAL **PRELIMINARY** **APPROVED**
 GOOD FOR CONSTRUCTION

PMC : **SYSTRA - Mott MacDonald JV**

CONTRACTOR : **GIL - SIL JV**

DESIGN CONSULTANT : **STUP Consultants Pvt. Ltd.**
 REGISTERED OFFICE : 100-A/3, RAJALAKSHMI, HARIDWAR, PUNJ, INDIA-241001
 OFFICE OF ORIGIN : KOLKATA

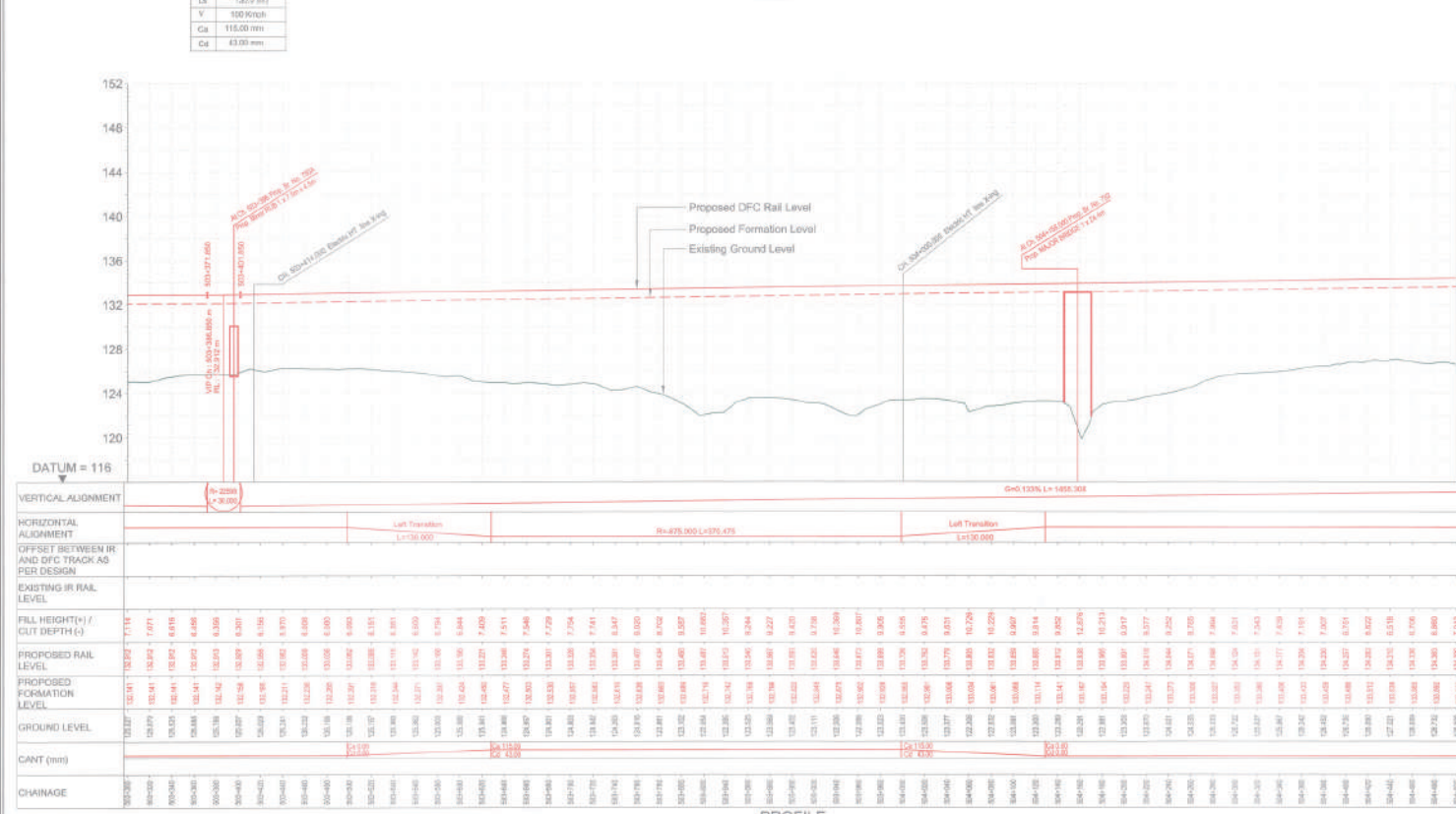
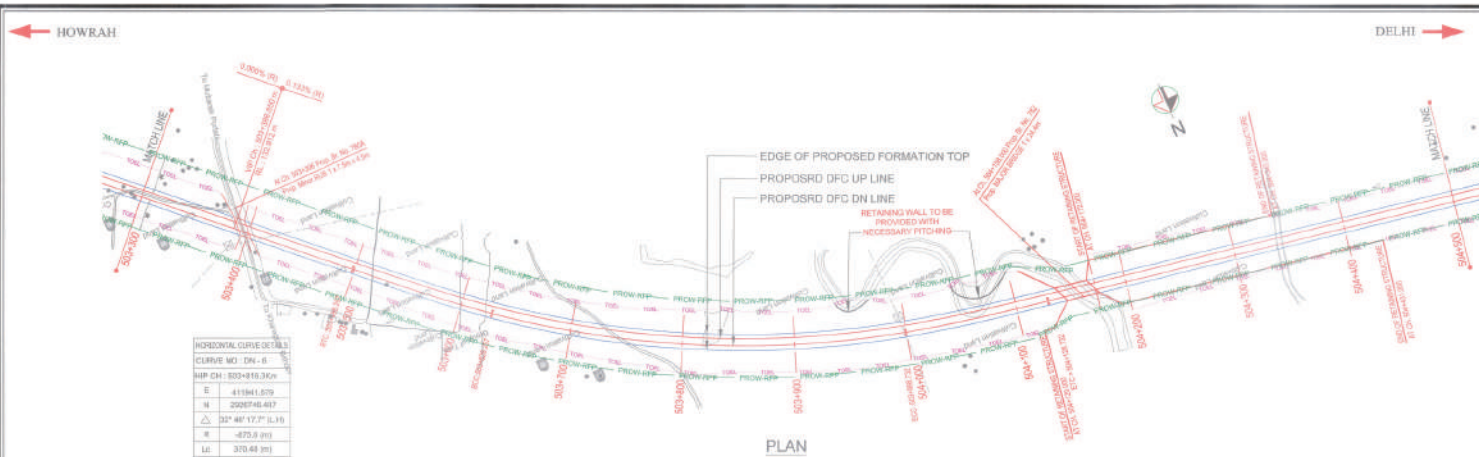
DATE	NAME	SIGN.
13.10.2017	BOURAV BATHI	
13.10.2017	BUDDHABHAI PURKAIT	
13.10.2017	SPRIL & PULKA	
SUBMITTED BY : GIL - SIL JV		
DATE	NAME	SIGN.
17.10.17	REERAK GUPTA	
17.10.17	RS P Singh	
NOC BY : SYSTRA - Mott MacDonald JV		
DATE	NAME	SIGN.
18.10.17	SHRUTI BANERJEE	
18.10.17	P. AMERIKKAN	
APPROVAL BY : DFCC		
DATE	NAME	SIGN.
25/11/17	SM. Manoj	



PROFILE

STATION	EXISTING IR RAIL LEVEL	FILL HEIGHT(+)/ CUT DEPTH (-)	PROPOSED RAIL LEVEL	PROPOSED FORMATION LEVEL	GROUND LEVEL	CANT (mm)	CHAINAGE
502+100	126.94	13.06	139.00	139.00	126.94		502+100
502+105	126.90	13.10	139.00	139.00	126.90		502+105
502+110	126.86	13.14	139.00	139.00	126.86		502+110
502+115	126.82	13.18	139.00	139.00	126.82		502+115
502+120	126.78	13.22	139.00	139.00	126.78		502+120
502+125	126.74	13.26	139.00	139.00	126.74		502+125
502+130	126.70	13.30	139.00	139.00	126.70		502+130
502+135	126.66	13.34	139.00	139.00	126.66		502+135
502+140	126.62	13.38	139.00	139.00	126.62		502+140
502+145	126.58	13.42	139.00	139.00	126.58		502+145
502+150	126.54	13.46	139.00	139.00	126.54		502+150
502+155	126.50	13.50	139.00	139.00	126.50		502+155
502+160	126.46	13.54	139.00	139.00	126.46		502+160
502+165	126.42	13.58	139.00	139.00	126.42		502+165
502+170	126.38	13.62	139.00	139.00	126.38		502+170
502+175	126.34	13.66	139.00	139.00	126.34		502+175
502+180	126.30	13.70	139.00	139.00	126.30		502+180
502+185	126.26	13.74	139.00	139.00	126.26		502+185
502+190	126.22	13.78	139.00	139.00	126.22		502+190
502+195	126.18	13.82	139.00	139.00	126.18		502+195
502+200	126.14	13.86	139.00	139.00	126.14		502+200
502+205	126.10	13.90	139.00	139.00	126.10		502+205
502+210	126.06	13.94	139.00	139.00	126.06		502+210
502+215	126.02	13.98	139.00	139.00	126.02		502+215
502+220	125.98	14.02	139.00	139.00	125.98		502+220
502+225	125.94	14.06	139.00	139.00	125.94		502+225
502+230	125.90	14.10	139.00	139.00	125.90		502+230
502+235	125.86	14.14	139.00	139.00	125.86		502+235
502+240	125.82	14.18	139.00	139.00	125.82		502+240
502+245	125.78	14.22	139.00	139.00	125.78		502+245
502+250	125.74	14.26	139.00	139.00	125.74		502+250
502+255	125.70	14.30	139.00	139.00	125.70		502+255
502+260	125.66	14.34	139.00	139.00	125.66		502+260
502+265	125.62	14.38	139.00	139.00	125.62		502+265
502+270	125.58	14.42	139.00	139.00	125.58		502+270
502+275	125.54	14.46	139.00	139.00	125.54		502+275
502+280	125.50	14.50	139.00	139.00	125.50		502+280
502+285	125.46	14.54	139.00	139.00	125.46		502+285
502+290	125.42	14.58	139.00	139.00	125.42		502+290
502+295	125.38	14.62	139.00	139.00	125.38		502+295
502+300	125.34	14.66	139.00	139.00	125.34		502+300

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SECTION-D-202

LEGEND:

- EXISTING IR TRACK
- PROPOSED DFCC TRACK
- PROPOSED FORMATION
- DFCC ROW LINE
- IR TOE
- EXISTING IR TOE LINE
- DFCC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN
- EDGE OF PROPOSED FORMATION TOP
- EXISTING GROUND

NOTES:

- ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
- ALL COORDINATES ARE BASED ON PERSH 84 PROJECTION IN UTM ZONE 48.
- TOP WIDTH OF EMBANKMENT FORMATION IS 13.0M FOR DOUBLE LINE IN STRAIGHT SECTION.
- CHANGING AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFCC ROW LINE.
- EQUAL BRIM SPEED HAS BEEN TAKEN AS 160 KM/H.
- TRACK CENTER BETWEEN DFCC & EXISTING IR TRACK HAS BEEN KEPT AT MIN. 6.0M AT STRAIGHT SECTION.
- TRACK CENTER BETWEEN MAIN LINES OF DFCC HAS BEEN KEPT AS MIN. 6.0M AT STRAIGHT SECTION.
- DRAIN SHALL BE PROVIDED BETWEEN IR AND DFCC TRACKS TO DRAIN OUT RAINFALL.
- GROUND FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE HOWEVER DETAILED DRAINAGE SYSTEM DRAWINGS WILL BE SUBMITTED SEPARATELY.
- CABLE FALLS AND PROPOSED CABLE ALIGNMENT HAS BEEN SHOWN SEPARATELY.
- PUBLIC UTILITIES, HT LT LINES, ETC. INTERFERING DFCC TRACKS SHALL BE RELOCATED AS AT THE LOCATION WHERE EMBANKMENT HEIGHT IS > 4.5M IT IS PROPOSED TO BARE THE EMBANKMENT HEIGHT AS 4M BY CUTTING THE EARTH.
- PROBLEMS RESOLVE WILL BE THROUGH THE AGREEMENT AS PER CONTRACT.
- FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER:

dfcc DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT:

EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE:

ALIGNMENT PLAN AND PROFILE OF SLICE - 202 D
FROM CH. 803+300 TO CH. 904+500

DRAWING NO.	REV	SCALE
P 2	AL 0975	E
HOR : 1:2000 VER : 1:200		

REVIEWS

REV	DATE	REMARKS
B	24.01.2017	REVISED AS PER LETTER NO. PMS/DFCC/CT/2017/0000 DATED 23/01/2017
C	26.04.2017	REVISED AS PER LETTER NO. PMS/DFCC/CT/2017/0000 DATED 23/01/2017
D	30.06.2017	REVISED AS PER LETTER NO. PMS/DFCC/CT/2017/0000 DATED 23/01/2017
E	05.07.2017	REVISED AS PER LETTER NO. PMS/DFCC/CT/2017/0000 DATED 23/01/2017

DRAWING STAGE

FOR APPROVAL **PRELIMINARY APPROVED**

GOOD FOR CONSTRUCTION

PMC:

SYSTRA SYSTRA - Mott MacDonald JV

CONTRACTOR:

GAR GIL - SIL JV

DESIGN CONSULTANT:

STUP STUP Consultants Pvt. Ltd.

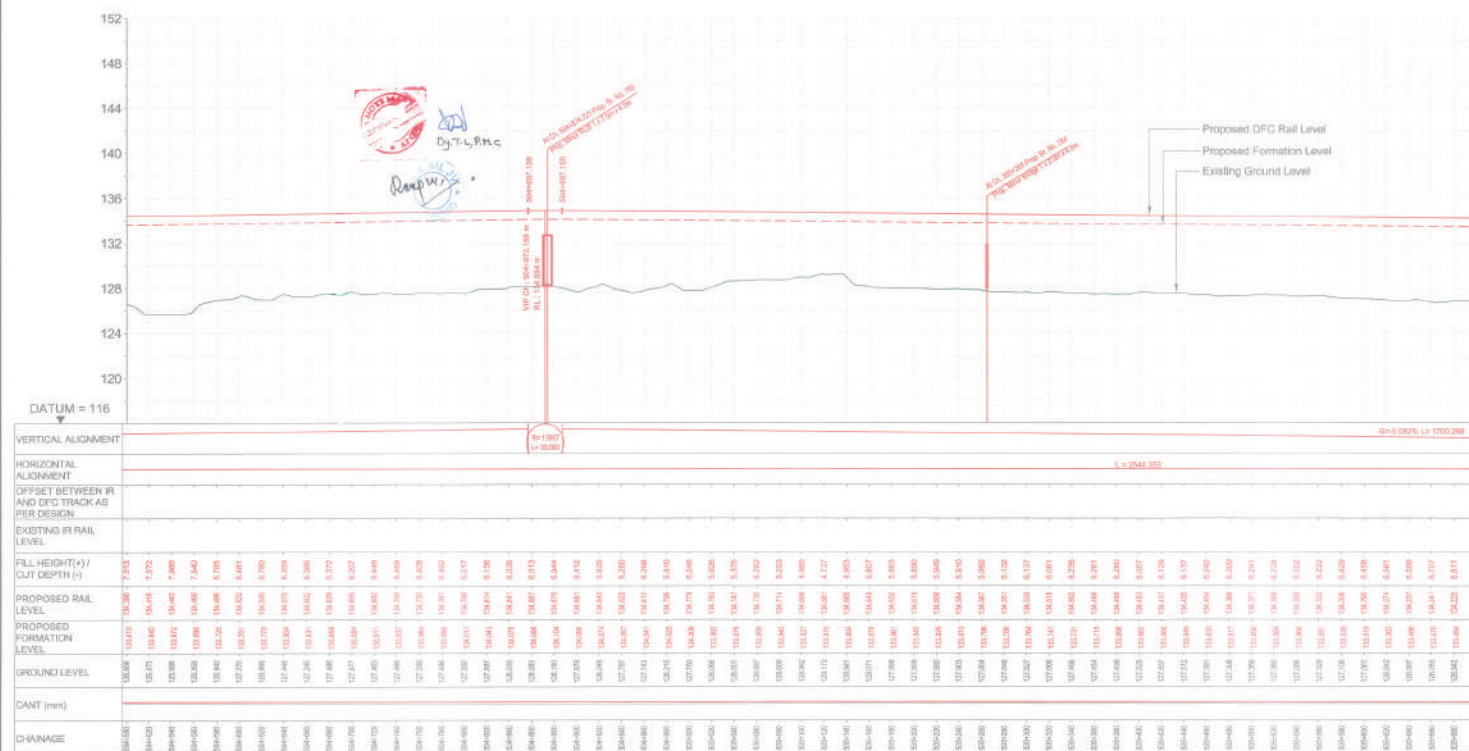
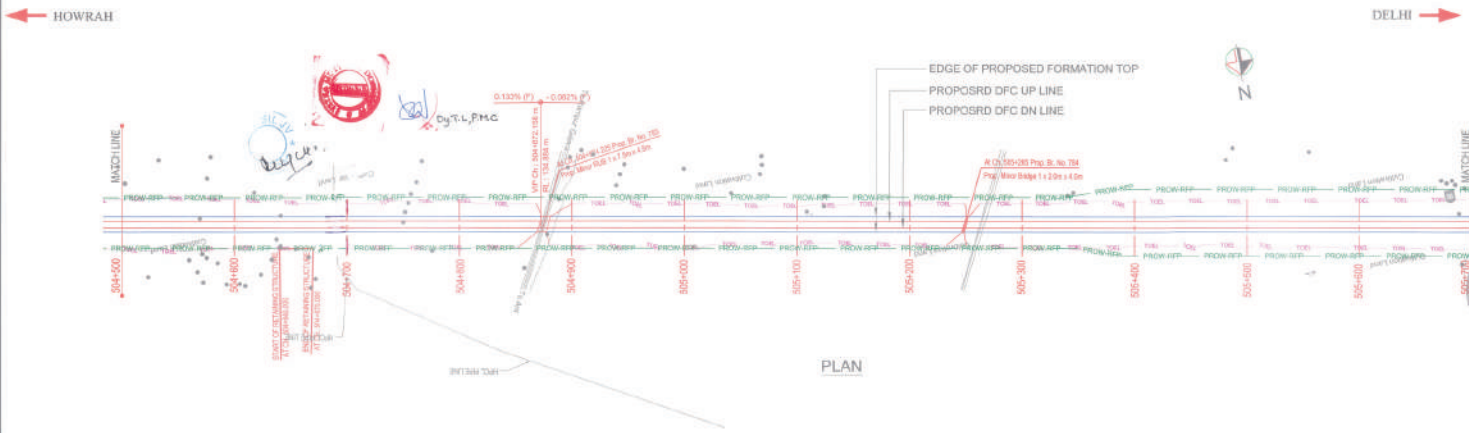
REGISTERED OFFICE: 1204-D, SURESH CHANDRA, SARVAPALLY ROAD, HYDRABAD - 500015.

OFFICE OF ORDER: KOLKATA

DATE	NAME	SIGN.
13.10.2017	SOURAV SATIK	[Signature]
13.10.2017	BUDDHABATI PURKAIT	[Signature]
13.10.2017	SARAJI & MITRA	[Signature]
GIL - SIL JV		
17.10.17	REEPAR GUPTA	[Signature]
17.10.17	R S P SINGH	[Signature]
NO BY: SYSTRA - Mott MacDonald JV		
DATE	NAME	SIGN.
12.10.17	[Signature]	[Signature]
12.10.17	P. AMERKANGOS	[Signature]
APPROVAL BY: DFCC		
DATE	NAME	SIGN.
25.11.17	[Signature]	[Signature]

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di. 09/07/17



STATION	EXISTING IR RAIL LEVEL	FILL HEIGHT (+) / CUT DEPTH (-)	PROPOSED RAIL LEVEL	PROPOSED FORMATION LEVEL	GROUND LEVEL	CANT (mm)	CHARGE
504+00	124.80	7.53	130.26	130.26	124.80		
504+01	124.85	7.52	130.31	130.31	124.85		
504+02	124.90	7.49	130.36	130.36	124.90		
504+03	124.95	7.46	130.41	130.41	124.95		
504+04	125.00	7.43	130.46	130.46	125.00		
504+05	125.05	7.40	130.51	130.51	125.05		
504+06	125.10	7.37	130.56	130.56	125.10		
504+07	125.15	7.34	130.61	130.61	125.15		
504+08	125.20	7.31	130.66	130.66	125.20		
504+09	125.25	7.28	130.71	130.71	125.25		
504+10	125.30	7.25	130.76	130.76	125.30		
504+11	125.35	7.22	130.81	130.81	125.35		
504+12	125.40	7.19	130.86	130.86	125.40		
504+13	125.45	7.16	130.91	130.91	125.45		
504+14	125.50	7.13	130.96	130.96	125.50		
504+15	125.55	7.10	131.01	131.01	125.55		
504+16	125.60	7.07	131.06	131.06	125.60		
504+17	125.65	7.04	131.11	131.11	125.65		
504+18	125.70	7.01	131.16	131.16	125.70		
504+19	125.75	6.98	131.21	131.21	125.75		
504+20	125.80	6.95	131.26	131.26	125.80		
504+21	125.85	6.92	131.31	131.31	125.85		
504+22	125.90	6.89	131.36	131.36	125.90		
504+23	125.95	6.86	131.41	131.41	125.95		
504+24	126.00	6.83	131.46	131.46	126.00		
504+25	126.05	6.80	131.51	131.51	126.05		
504+26	126.10	6.77	131.56	131.56	126.10		
504+27	126.15	6.74	131.61	131.61	126.15		
504+28	126.20	6.71	131.66	131.66	126.20		
504+29	126.25	6.68	131.71	131.71	126.25		
504+30	126.30	6.65	131.76	131.76	126.30		
504+31	126.35	6.62	131.81	131.81	126.35		
504+32	126.40	6.59	131.86	131.86	126.40		
504+33	126.45	6.56	131.91	131.91	126.45		
504+34	126.50	6.53	131.96	131.96	126.50		
504+35	126.55	6.50	132.01	132.01	126.55		
504+36	126.60	6.47	132.06	132.06	126.60		
504+37	126.65	6.44	132.11	132.11	126.65		
504+38	126.70	6.41	132.16	132.16	126.70		
504+39	126.75	6.38	132.21	132.21	126.75		
504+40	126.80	6.35	132.26	132.26	126.80		
504+41	126.85	6.32	132.31	132.31	126.85		
504+42	126.90	6.29	132.36	132.36	126.90		
504+43	126.95	6.26	132.41	132.41	126.95		
504+44	127.00	6.23	132.46	132.46	127.00		
504+45	127.05	6.20	132.51	132.51	127.05		
504+46	127.10	6.17	132.56	132.56	127.10		
504+47	127.15	6.14	132.61	132.61	127.15		
504+48	127.20	6.11	132.66	132.66	127.20		
504+49	127.25	6.08	132.71	132.71	127.25		
504+50	127.30	6.05	132.76	132.76	127.30		

LEGEND :

- EXISTING IR TRACK
- - - PROPOSED DFC TRACK
- - - PROPOSED FORMATION
- - - ROW
- - - DFC ROW LINE
- - - IR TOE
- - - EXISTING IR TOE LINE
- - - DFC TOE LINE FOR EMB HT < 6.0M
- - - FLOW DIRECTION OF PROPOSED DRAIN
- - - EDGE OF PROPOSED FORMATION TOP
- - - EXISTING GROUND

NOTES :

- ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
- ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 48.
- TOP WIDTH OF ENVIRONMENT FORMATION IS 15M FOR DOUBLE LINE IN STRAIGHT SECTION.
- CHARGE AND LEVEL AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
- FOURBAR SPECIES HAS BEEN TAKEN 10 MTRS.
- TRACK CENTER BETWEEN DFC & EXISTING IR TRACK HAS BEEN KEPT AT MIN. 6.0M AT STRAIGHT SECTION.
- TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 6.0M AT STRAIGHT SECTION.
- DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT INFLTRATE.
- DRAINAGE FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE. HOWEVER DETAILED DRAINAGE SYSTEM DRAWINGS WILL BE SUBMITTED SEPARATELY.
- CRIP CABLES FALLING PARALLEL TO ALIGNMENT ARE TO BE DIVERTED SEPARATELY.
- PUBLIC UTILITIES (WATER LINES ETC.) INTERFERING DFC TRACKS SHALL BE RELOCATED TO THE LOCATION WHERE ENHANCEMENT HEIGHT IS 11 METR IS PROPOSED TO MAKE THE ENHANCEMENT HEIGHT AS 1M BY CUTTING THE EARTH.
- TRUCKLY SURFACE WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
- FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER :
DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT :
EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE :
ALIGNMENT PLAN AND PROFILE OF SLICE D
 FROM CH. 504+00 TO CH. 505+00

DRAWING NO. : P 2 AL 0978
REV : E
SCALE : HOR : 1:2000 VER : 1:200

REVIEWS

REV	DATE	REMARKS
B	24.01.2017	REVISED AS PER LETTER NO. P/MS/DFCC/CT/2017/0001 DATED 03/01/2017
C	28.04.2017	REVISED AS PER LETTER NO. P/MS/DFCC/CT/2017/0148 DATED 29/03/2017
D	28.06.2017	REVISED AS PER LETTER NO. P/MS/DFCC/CT/2017/0200 DATED 19/05/2017
E	05.07.2017	REVISED AS PER LETTER NO. P/MS/DFCC/CT/2017/0209 DATED 03/07/2017

DRAWING STAGE
 FOR APPROVAL **PRELIMINARY** **APPROVED**
 GOOD FOR CONSTRUCTION

PAC :
SYSTRA - Mott MacDonald JV

CONTRACTOR :
GIL - SIL JV

DESIGN CONSULTANT :
STUP Consultants Pvt. Ltd.

REGISTERED OFFICE :
 1004-3, TRINAKRA CHAWWEL, NARAYAN PURI, KOLKATA, WEST BENGAL, INDIA - 700016

OFFICE OF DESIGN :
 KOLKATA

DATE	NAME	SIGN
13.10.2017	SUSANTA ROY	
13.10.2017	SUDDHABIR PURKAIT	
13.10.2017	SARJIT MITTAL	
17.11.17	REERAK GUPTA	
17.11.17	RIP SINGH	
17.11.17	P. AMERKANOB	
17.11.17	S.M. RAJAYYA	

APPROVAL BY : DFCC

APPROVED : 20/11/17

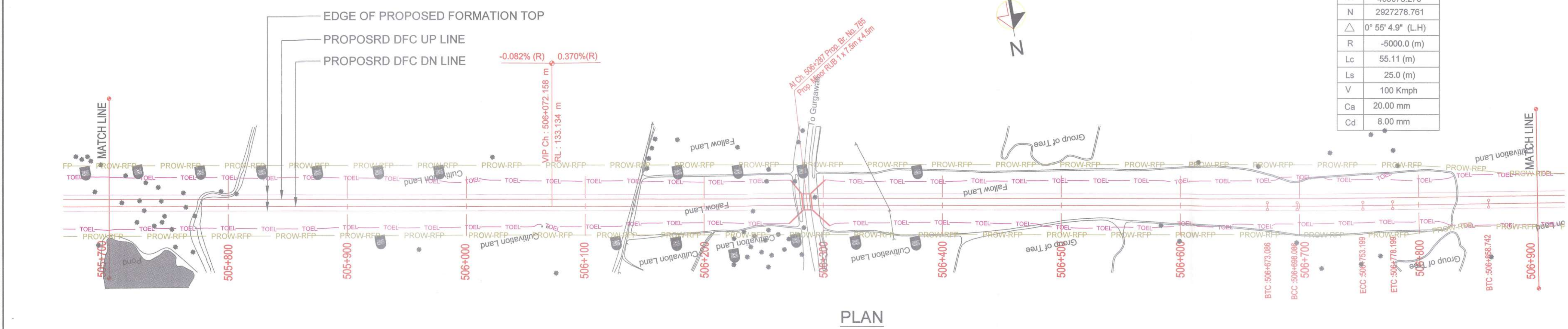
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ch 505
 505

← HOWRAH

DELHI →

SECTION-D-202



HORIZONTAL CURVE DETAILS

CURVE NO : DN - 7

HIP CH : 506+725.6 Km

E 409076.270

N 2927278.761

Δ 0° 55' 4.9" (L.H)

R -5000.0 (m)

Lc 55.11 (m)

Ls 25.0 (m)

V 100 Kmph

Ca 20.00 mm

Cd 8.00 mm

LEGEND :

- EXISTING IR TRACK
- PROPOSED DFCC TRACK
- - - PROPOSED FORMATION
- ROW — DFCC ROW LINE
- IR_TOE — EXISTING IR TOE LINE
- TOEL — DFCC TOE LINE FOR EMB HT < 6.0M
- ← FLOW DIRECTION OF PROPOSED DRAIN
- EDGE OF PROPOSED FORMATION TOP
- EXISTING GROUND

- NOTES :
- ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
 - ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44.
 - TOP WIDTH OF EMBANKMENT / FORMATION IS 13.5M FOR DOUBLE LINE IN STRAIGHT SECTION.
 - CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFCC DOWN LINE.
 - EQUILIBRIUM SPEED HAS BEEN TAKEN 85 KM/PH.
 - TRACK CENTER BETWEEN DFC & EXISTING IR TRACK HAS BEEN KEPT AT MIN. 6.0M AT STRAIGHT SECTION.
 - TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 6.0M AT STRAIGHT SECTION.
 - DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER.
 - DRAINAGE FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE. HOWEVER DETAIL DRAINAGE SYSTEM DRAWINGS WILL BE SUBMITTED SEPARATELY.
 - OFC CABLE FALLING IN PROPOSED DFC ALIGNMENT HAS TO BE SHIFTED SUITABLY.
 - PUBLIC UTILITIES, HT/LT LINES, ETC. INTERFERING DFC TRACKS SHALL BE RELOCATED.
 - AT THE LOCATIONS WHERE EMBANKMENT HEIGHT IS < 1M, IT IS PROPOSED TO MAKE THE EMBANKMENT HEIGHT AS 1M BY CUTTING THE EARTH.
 - TROLLEY REFUGE WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
 - FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER :

DFCC DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT :

EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE :

ALIGNMENT PLAN AND PROFILE OF SLICE - 202 D
FROM CH. 505+700 TO CH. 506+900

DRAWING NO.	REV	SCALE
P 2 AL 0 9 7 7	G	HOR : 1:2000 VER : 1:200

REVIEWS

REV	DATE	REMARKS
D	20.06.2017	REVISED AS PER LETTER NO. PMCS/EDFC2/LTT/2017/02600 DATED 16/05/2017
E	05.07.2017	REVISED AS PER LETTER NO. PMCS/EDFC2/LTT/2017/03597 DATED 03/07/2017
F	06.03.2018	REVISED AS PER CO-ORDINATE OF APL-1 RECEIVED FROM GMR
G	24.04.2018	REVISED TO MATCH PROFILE WITH APL-1

DRAWING STAGE

FOR APPROVAL

GOOD FOR CONSTRUCTION

PMC :

SYSTRA Mott MacDonald SYSTRA - Mott MacDonald JV

CONTRACTOR :

GMR GIL - SIL JV

DESIGN CONSULTANT:

STUP Consultants Pvt. Ltd.

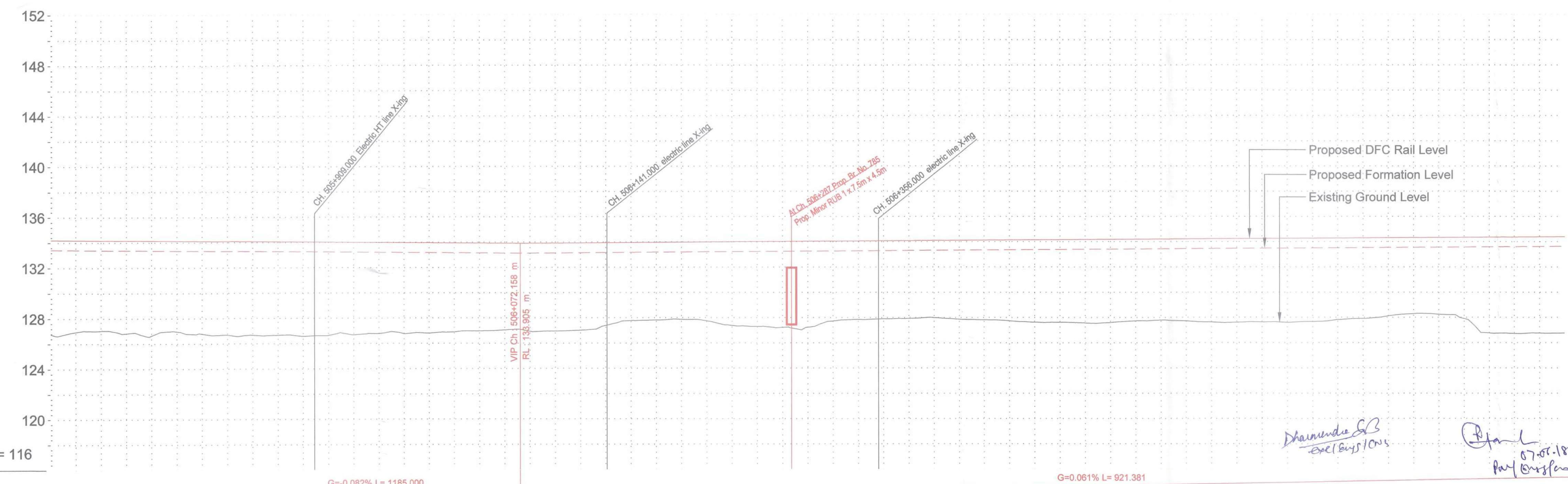
REGISTERED OFFICE : 1004-5 RAHEJA CHAMBERS, NARIMAN POINT, MUMBAI 400 021.

OFFICE OF ORIGIN KOLKATA

DATE	NAME	SIGN.
24.04.2018	SUSANTA ROY	
24.04.2018	SUDDHASIL PURKAIT	
24.04.2018	SANJIB MITRA	
SUBMITTED BY : GIL - SIL JV		
DATE	NAME	SIGN.
21.05.18	REEPAK GUPTA	
21.05.18	R.S.P. Singh	
NOC BY : SYSTRA - Mott MacDonald JV		
DATE	NAME	SIGN.
01-06-18	G.M. PRAKASH KAMAL SHARMA	
01-06-18	P. AMERIKANOS	
APPROVAL BY : DFCC		
DATE	NAME	SIGN.
08.06.18	J.K. MAURYA	

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PLAN



DATUM = 116

CH	EXISTING IR RAIL LEVEL	FILL HEIGHT (+) / CUT DEPTH (-)	PROPOSED RAIL LEVEL	PROPOSED FORMATION LEVEL	GROUND LEVEL	CANT (mm)	CHAINAGE
505+700	126.757	133.437	134.238	134.238	126.757	0.00	505+700
505+720	126.936	133.421	134.182	134.182	126.936	0.00	505+720
505+740	127.047	133.405	134.176	134.176	127.047	0.00	505+740
505+760	126.830	133.389	134.180	134.180	126.830	0.00	505+760
505+780	126.642	133.372	134.143	134.143	126.642	0.00	505+780
505+800	126.975	133.356	134.127	134.127	126.975	0.00	505+800
505+820	126.785	133.340	134.111	134.111	126.785	0.00	505+820
505+840	126.683	133.323	134.094	134.094	126.683	0.00	505+840
505+860	126.675	133.307	134.078	134.078	126.675	0.00	505+860
505+880	126.685	133.291	134.062	134.062	126.685	0.00	505+880
505+900	126.579	133.274	134.045	134.045	126.579	0.00	505+900
505+920	126.640	133.258	134.029	134.029	126.640	0.00	505+920
505+940	126.680	133.242	134.013	134.013	126.680	0.00	505+940
505+960	126.785	133.225	133.996	133.996	126.785	0.00	505+960
505+980	126.780	133.209	133.980	133.980	126.780	0.00	505+980
506+000	126.884	133.193	133.964	133.964	126.884	0.00	506+000
506+020	126.888	133.177	133.948	133.948	126.888	0.00	506+020
506+040	126.981	133.160	133.931	133.931	126.981	0.00	506+040
506+060	127.054	133.144	133.915	133.915	127.054	0.00	506+060
506+080	126.949	133.128	133.900	133.900	126.949	0.00	506+080
506+100	126.983	133.111	133.882	133.882	126.983	0.00	506+100
506+120	127.029	133.093	133.864	133.864	127.029	0.00	506+120
506+140	127.399	133.075	133.846	133.846	127.399	0.00	506+140
506+160	127.773	133.057	133.828	133.828	127.773	0.00	506+160
506+180	127.815	133.039	133.810	133.810	127.815	0.00	506+180
506+200	127.870	133.021	133.792	133.792	127.870	0.00	506+200
506+220	127.748	133.003	133.774	133.774	127.748	0.00	506+220
506+240	127.384	132.985	133.756	133.756	127.384	0.00	506+240
506+260	127.301	132.967	133.738	133.738	127.301	0.00	506+260
506+280	127.235	132.949	133.720	133.720	127.235	0.00	506+280
506+300	127.244	132.931	133.702	133.702	127.244	0.00	506+300
506+320	127.735	132.913	133.684	133.684	127.735	0.00	506+320
506+340	127.849	132.895	133.666	133.666	127.849	0.00	506+340
506+360	127.907	132.877	133.648	133.648	127.907	0.00	506+360
506+380	127.884	132.859	133.630	133.630	127.884	0.00	506+380
506+400	127.987	132.841	133.612	133.612	127.987	0.00	506+400
506+420	127.870	132.823	133.594	133.594	127.870	0.00	506+420
506+440	127.824	132.805	133.576	133.576	127.824	0.00	506+440
506+460	127.743	132.787	133.558	133.558	127.743	0.00	506+460
506+480	127.632	132.769	133.540	133.540	127.632	0.00	506+480
506+500	127.629	132.751	133.522	133.522	127.629	0.00	506+500
506+520	127.571	132.733	133.504	133.504	127.571	0.00	506+520
506+540	127.606	132.715	133.486	133.486	127.606	0.00	506+540
506+560	127.737	132.697	133.468	133.468	127.737	0.00	506+560
506+580	127.805	132.679	133.450	133.450	127.805	0.00	506+580
506+600	127.726	132.661	133.432	133.432	127.726	0.00	506+600
506+620	127.638	132.643	133.414	133.414	127.638	0.00	506+620
506+640	127.615	132.625	133.396	133.396	127.615	0.00	506+640
506+660	127.638	132.607	133.378	133.378	127.638	0.00	506+660
506+680	127.611	132.589	133.360	133.360	127.611	0.00	506+680
506+700	127.679	132.571	133.342	133.342	127.679	0.00	506+700
506+720	127.825	132.553	133.324	133.324	127.825	0.00	506+720
506+740	127.910	132.535	133.306	133.306	127.910	0.00	506+740
506+760	128.115	132.517	133.288	133.288	128.115	0.00	506+760
506+780	128.283	132.499	133.270	133.270	128.283	0.00	506+780
506+800	128.249	132.481	133.252	133.252	128.249	0.00	506+800
506+820	127.909	132.463	133.234	133.234	127.909	0.00	506+820
506+840	128.771	132.445	133.216	133.216	128.771	0.00	506+840
506+860	128.732	132.427	133.198	133.198	128.732	0.00	506+860
506+880	128.780	132.409	133.180	133.180	128.780	0.00	506+880
506+900	128.761	132.391	133.162	133.162	128.761	0.00	506+900

PROFILE

← HOWRAH

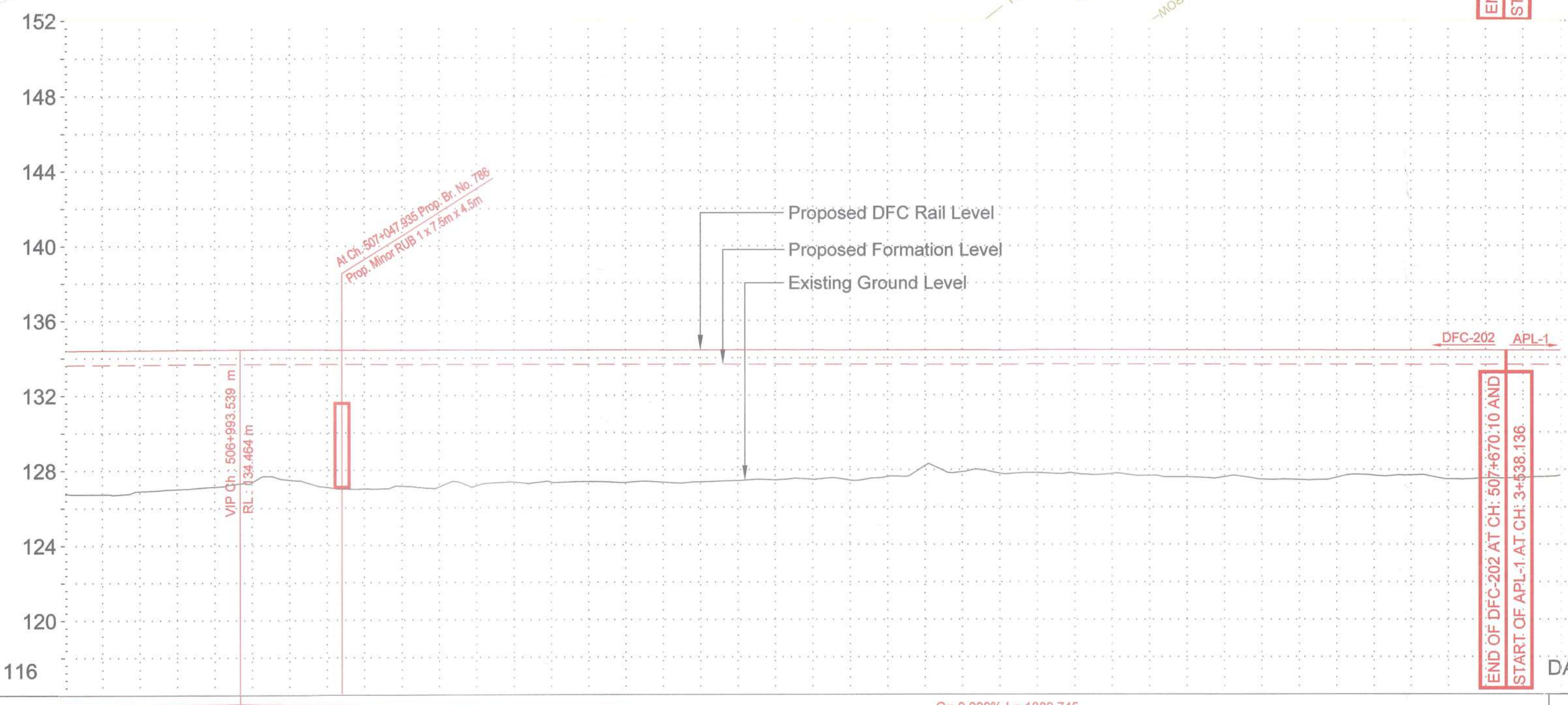
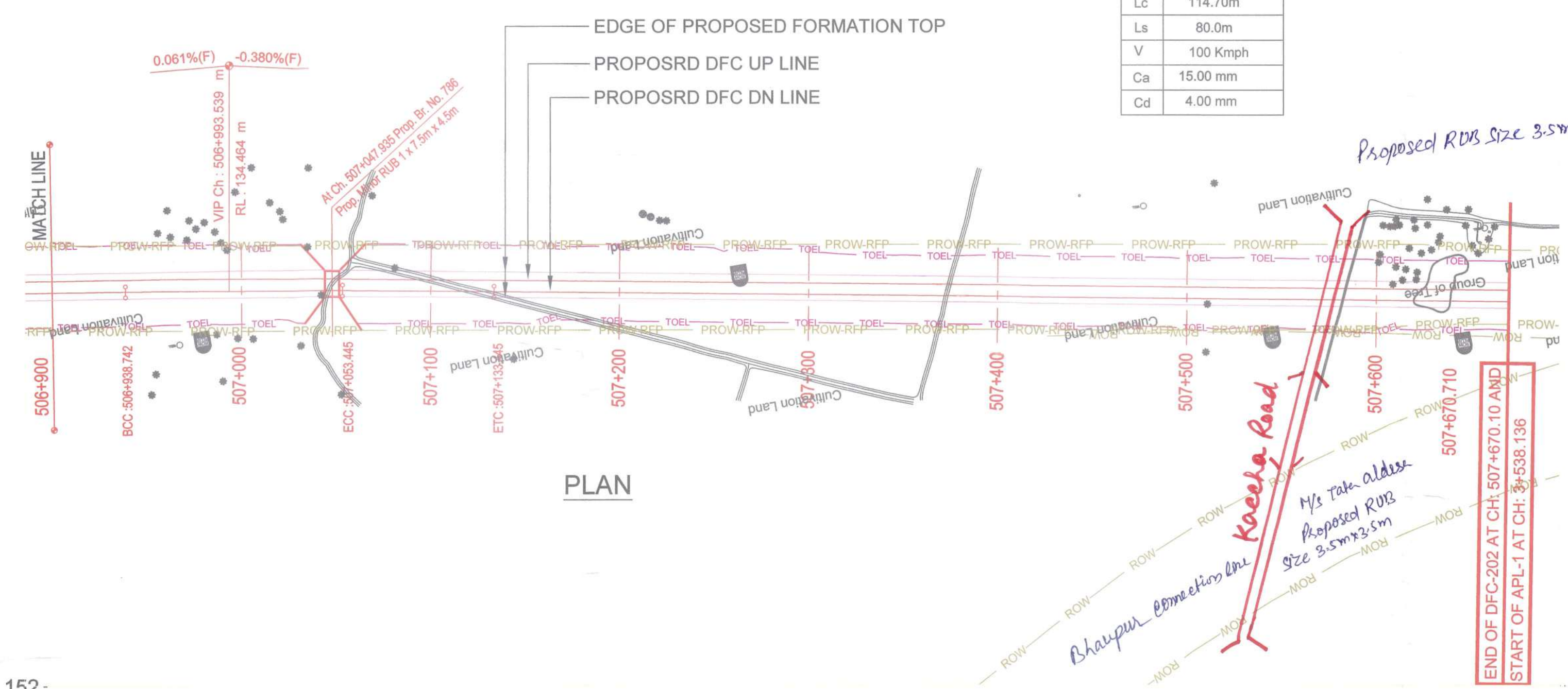
OPTION-2

DELHI →

SECTION-D-202

HORIZONTAL CURVE DETAILS

CURVE NO :	DN - 9
HIP CH :	507+011.8 Km
E	408809.342
N	2927322.317
△	1° 29' 14.7" (R.H)
R	7500.0m
Lc	114.70m
Ls	80.0m
V	100 Km/h
Ca	15.00 mm
Cd	4.00 mm



NOTE :

1. There is 92 mm Level difference between Benchmark at the interface of DFC-202 and APL-1. The level of Benchmark of DFC-202 is 92 mm Higher than the benchmark Level of APL-1
2. Profile of APL-1 from CH:3538.136 TO 3650(111.864M) need to be Lowered / Modified
- 3) During Physical possession of Land PAP has given application and Commanding R.O.B. M/s TATA also proposed R.O.B of size 3.5m x 3.5m on the same road crossing. Hence same size 3.5m x 3.5m may be provided at approximate ch. 507+550 (Details enclosed)

VERTICAL ALIGNMENT	G=0.061% L= 921.381	G=-0.009% L= 1880.745
HORIZONTAL ALIGNMENT	Transition L=80.000 R=7500.000 L=114.703	Right Transition L=80.000 L= 654.255
OFFSET BETWEEN IR AND DFC TRACK AS PER DESIGN		
EXISTING IR RAIL LEVEL		
FILL HEIGHT (+) / CUT DEPTH (-)		
PROPOSED RAIL LEVEL		
PROPOSED FORMATION LEVEL		
GROUND LEVEL		
CANT (mm)	Ca 15.00 Cd 4.00	
CHAINAGE	506+900 to 507+670.710	

VERTICAL ALIGNMENT	L=310.242 m G= F 1.263	Lvc=40.00 R=16796.77
HORIZONTAL ALIGNMENT	Straight =3982.21m *	
FILL HEIGHT (+) / CUT DEPTH (-)		
PROPOSED RAIL LEVEL		
PROPOSED FORMATION LEVEL		
GROUND LEVEL		
EXISTING RAIL LEVEL		
CANT		
DRAIN		
CHAINAGE	3300 to 3640	

LEGEND :

- EXISTING IR TRACK
- PROPOSED DFCC TRACK
- PROPOSED FORMATION
- DFCC ROW LINE
- IR_TOE
- EXISTING IR TOE LINE
- TOEL
- DFCC TOE LINE FOR EMB HT < 6.0M
- FLOW DIRECTION OF PROPOSED DRAIN
- EDGE OF PROPOSED FORMATION TOP
- EXISTING GROUND

NOTES :

1. ALL DIMENSIONS ARE IN METERS UNLESS STATED OTHERWISE.
2. ALL COORDINATES ARE BASED ON WGS 84 PROJECTION IN UTM ZONE 44.
3. TOP WIDTH OF EMBANKMENT / FORMATION IS 13.5M FOR DOUBLE LINE IN STRAIGHT SECTION.
4. CHAINAGE AND LEVELS AS SHOWN IN THE DRAWING IS BASED ON THE DFC DOWN LINE.
5. EQUILIBRIUM SPEED HAS BEEN TAKEN 85 KMPH.
6. TRACK CENTER BETWEEN DFC & EXISTING IR TRACK HAS BEEN KEPT AT MIN. 6.0M AT STRAIGHT SECTION.
7. TRACK CENTER BETWEEN MAIN LINES OF DFC HAS BEEN KEPT AS MIN. 6.0M AT STRAIGHT SECTION.
8. DRAIN SHALL BE PROVIDED BETWEEN IR AND DFC TRACKS TO DRAIN OUT RAINWATER.
9. DRAINAGE FLOW DIAGRAM SHOWN IN PLAN & PROFILE ARE INDICATIVE. HOWEVER DETAIL DRAINAGE SYSTEM DRAWINGS WILL BE SUBMITTED SEPARATELY
10. OFC CABLE FALLING IN PROPOSED DFC ALIGNMENT HAS TO BE SHIFTED SUITABLY
11. PUBLIC UTILITIES, HT/LT LINES, ETC. INTERFERING DFC TRACKS SHALL BE RELOCATED
12. AT THE LOCATIONS WHERE EMBANKMENT HEIGHT IS < 1M, IT IS PROPOSED TO MAKE THE EMBANKMENT HEIGHT AS 1M BY CUTTING THE EARTH
13. TROLLEY REFUGE WILL BE PROVIDED ALONG THE ALIGNMENT AS PER CONTRACT.
14. FOR LEGEND AND ABBREVIATION REFER RELEVANT DRAWING.

EMPLOYER : **mf** DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

PROJECT : EASTERN DEDICATED FREIGHT CORRIDOR (PACKAGE - 202)

TITLE : ALIGNMENT PLAN AND PROFILE OF SLICE - 202 D FROM CH. 506+900 TO CH. 507+670.720

DRAWING NO.	REV	SCALE
P 2 AL 0 9 7 8	G	HOR : 1:2000 VER : 1:200

REVIEWS

REV	DATE	REMARKS
D	20.06.2017	REVISED AS PER LETTER NO. PMCS/EDFC2/LTT/2017/02600 DATED 16/05/2017
E	05.07.2017	REVISED AS PER LETTER NO. PMCS/EDFC2/LTT/2017/03597 DATED 03/07/2017
F	06.03.2018	REVISED AS PER CO-ORDINATE OF APL-1 RECEIVED FROM GMR
G	24.04.2018	REVISED TO MATCH PROFILE WITH APL-1

DRAWING STAGE

FOR APPROVAL

GOOD FOR CONSTRUCTION

PMC : **SYSTRA** Mott MacDonald

CONTRACTOR : **GMR** GIL - SIL JV

DESIGN CONSULTANT: **STUP Consultants Pvt. Ltd.**

REGISTERED OFFICE : 1004-5 RAHEJA CHAMBERS, NARIMAN POINT, MUMBAI 400 021.

OFFICE OF ORIGIN: KOLKATA

DATE	NAME	SIGN.
24.04.2018	SUSANTA ROY	
24.04.2018	SUDDHASIT PURKAIT	
24.04.2018	SANJIB MITRA	

SUBMITTED BY : GIL - SIL JV

DATE	NAME	SIGN.
21.05.18	REEPAK GUPTA	
21.05.18	R.S.P. Singh	

NOC BY : SYSTRA - Mott MacDonald JV

DATE	NAME	SIGN.
01-06-18	KAMAL SHARMA	
01-06-18	P. AMERIKANOS	

APPROVAL BY : DFCC

DATE	NAME	SIGN.
08.06.18	S.K. MAURYA	

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