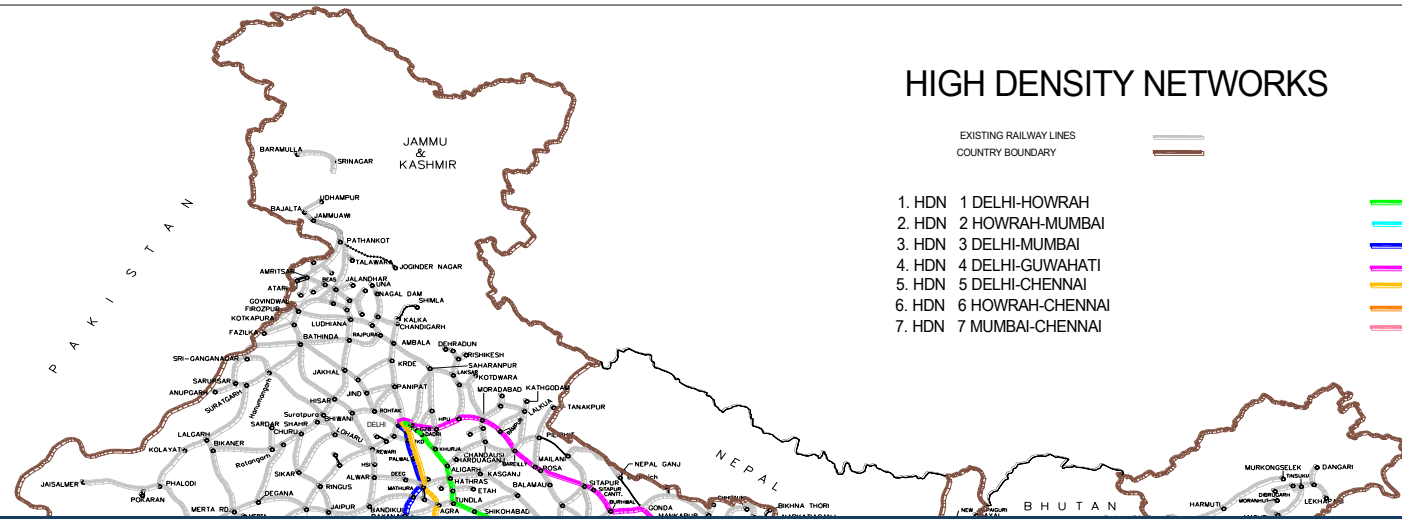


## HIGH DENSITY NETWORKS



# HIGH DENSITY NETWORK



PLANNING DIRECTORATE

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# PREFACE

The **High-Density Network (HDN)** forms the backbone of Indian Railways, accounting for **16% of the total network** (approximately **11,000 km**) yet handling a staggering **41% of total rail traffic**. Recognizing its strategic significance, a comprehensive evaluation of the **HDN 1-7 corridors** was undertaken by Planning Dte to assess **current infrastructure, capacity utilization, and future expansion plans**.

This booklet provides a **detailed overview of HDN routes**, offering insights into **existing track configurations**—whether **single, double, triple, or quadruple lines**—and ongoing sanctioned projects as of **December 2024**. It systematically presents the **line capacity utilization status** across different HDN sections, highlighting:

- **Zonal Railway-wise analysis** of HDN segments.
- **Track length and line density** with current operational details.
- **Sanctioned doubling, tripling, and auto-signaling etc projects** under implementation.
- **Future infrastructure projects** under **Feasibility Study (FLS)** and **Detailed Project Report (DPR)** stages.
- **Graphical representations and maps** illustrating the **ongoing and planned developments** across the HDN network.

With increasing passenger and freight traffic demands, a **well-planned and efficiently managed HDN network** is imperative for the seamless movement of goods and people. This booklet aims to bridge the gap between the **present infrastructure status and future expansion needs**, ensuring a **more robust and resilient Indian Railway Network** for the years ahead.

# ABBREVIATIONS LIST

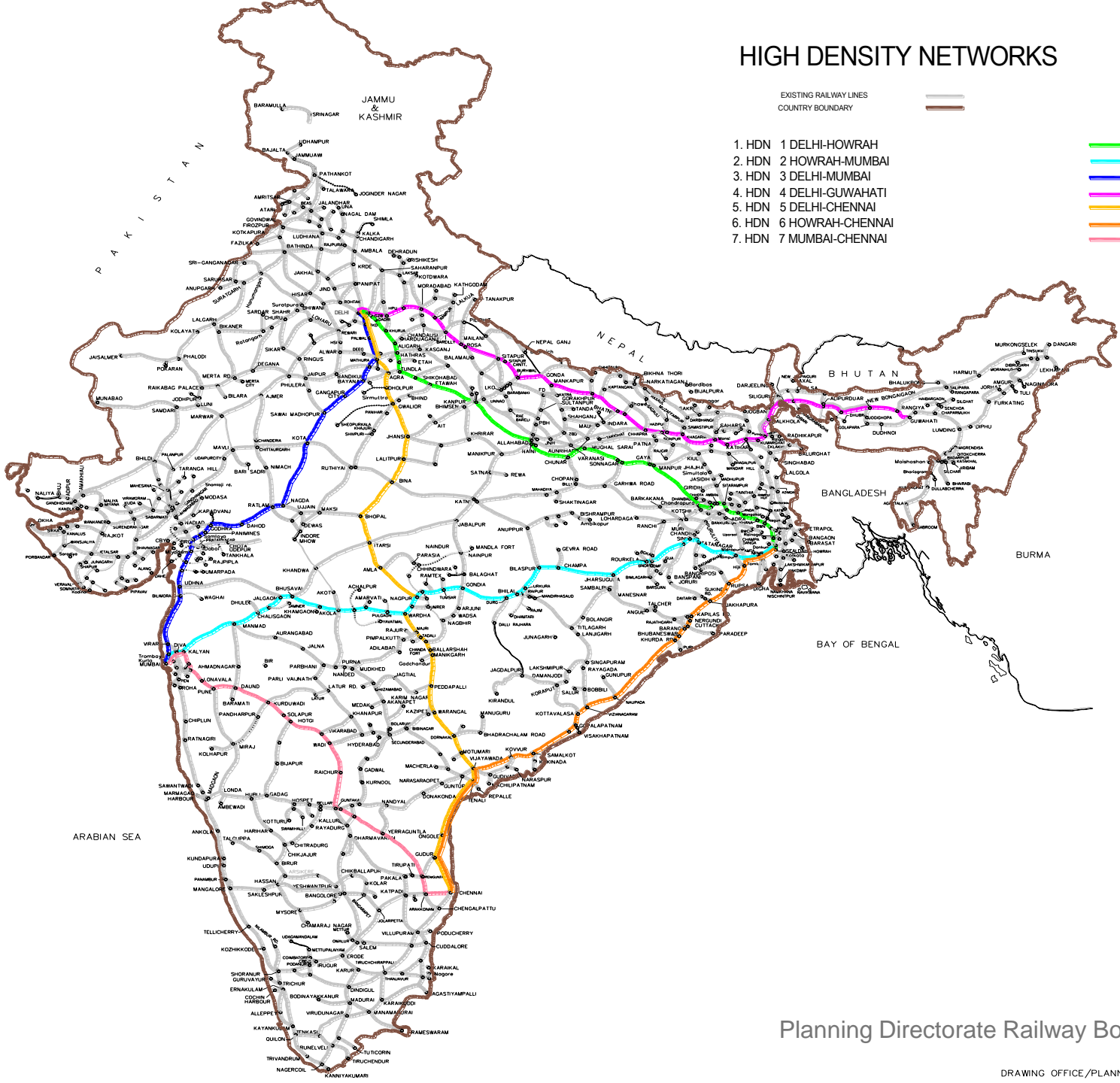
S.no	Abbreviation	Description	S.no	Abbreviation	Description	S.no	Abbreviation	Description
1	SL	Single line	19	With MB	With Maintenance Block	37	BLY	Bally
2	DL	Double line	20	MUTP	Mumbai urban transport project	38	HGJ	Harduaganj
3	TL	Triple line	21	IBS	Intermediate block signaling	39	RJB	Rajabera
4	QL	Quadruple line	22	CSR	Clear standing room	40	MIA	Mania
5	MACL	Multiple Aspect Colour Light	23	HDN	High Density Network	41	DWA	Dailwara
6	ABS	Absolute block signalling	24	BAD	Baad	42	KHE	Kankather
7	DPR	Detailed project report	25	SYAE	Liluah sorting yard cabin	43	AUB	Aluabari
8	DFC	Dedicated freight corridor	26	DDU	Pt. Deen Dayal Upadhyaya	44	KDPR	Kumedpur
9	DSDC	Double stack dwarf container	27	GZB	Ghaziabad	45	RYS	Rasuiya
10	M/L	Main line	28	B/W	Between	46	NBQ	New Bongaigaon
11	Group route 'A'	Max. permissible speed (MPS) – 160 km./hr	29	BQT	Bhakhtarnagar	47	BUD	Badlapur
12	Group route 'B'	Max. permissible speed – 130 km./hr	30	KQR	Koderma	48	SEGM	Sewagram
13	Group route 'C'	Suburban sections	31	GKC	Gorakhpur cantt	49	NRS	Nagaria sadat
14	Group route 'D'	MPS - 100 km./hr	32	CHPG	Chhapra Gramin	50	MIL	Milak
15	Group route 'D' spl	Taffic grows in future & MPS -100km./hr at present	33	MRVC	Mumbai rail vikas corporation ltd	51	CTC	Centralised traffic control
16	ROR	Rail over rail	34	BZA	Vijayawada	52	CLJ	Colonelganj
17	PWP	Preliminary works programme	35	TDC	Target date of completion	53	PMR	Pitambarpur
18	WIP	Work in progress	36	DCOP	Durgapur coke oven plant	54	KXM	Kitham

# HIGH DENSITY NETWORKS

EXISTING RAILWAY LINES  
COUNTRY BOUNDARY



- 1. HDN 1 DELHI-HOWRAH
- 2. HDN 2 HOWRAH-MUMBAI
- 3. HDN 3 DELHI-MUMBAI
- 4. HDN 4 DELHI-GUWAHATI
- 5. HDN 5 DELHI-CHENNAI
- 6. HDN 6 HOWRAH-CHENNAI
- 7. HDN 7 MUMBAI-CHENNAI

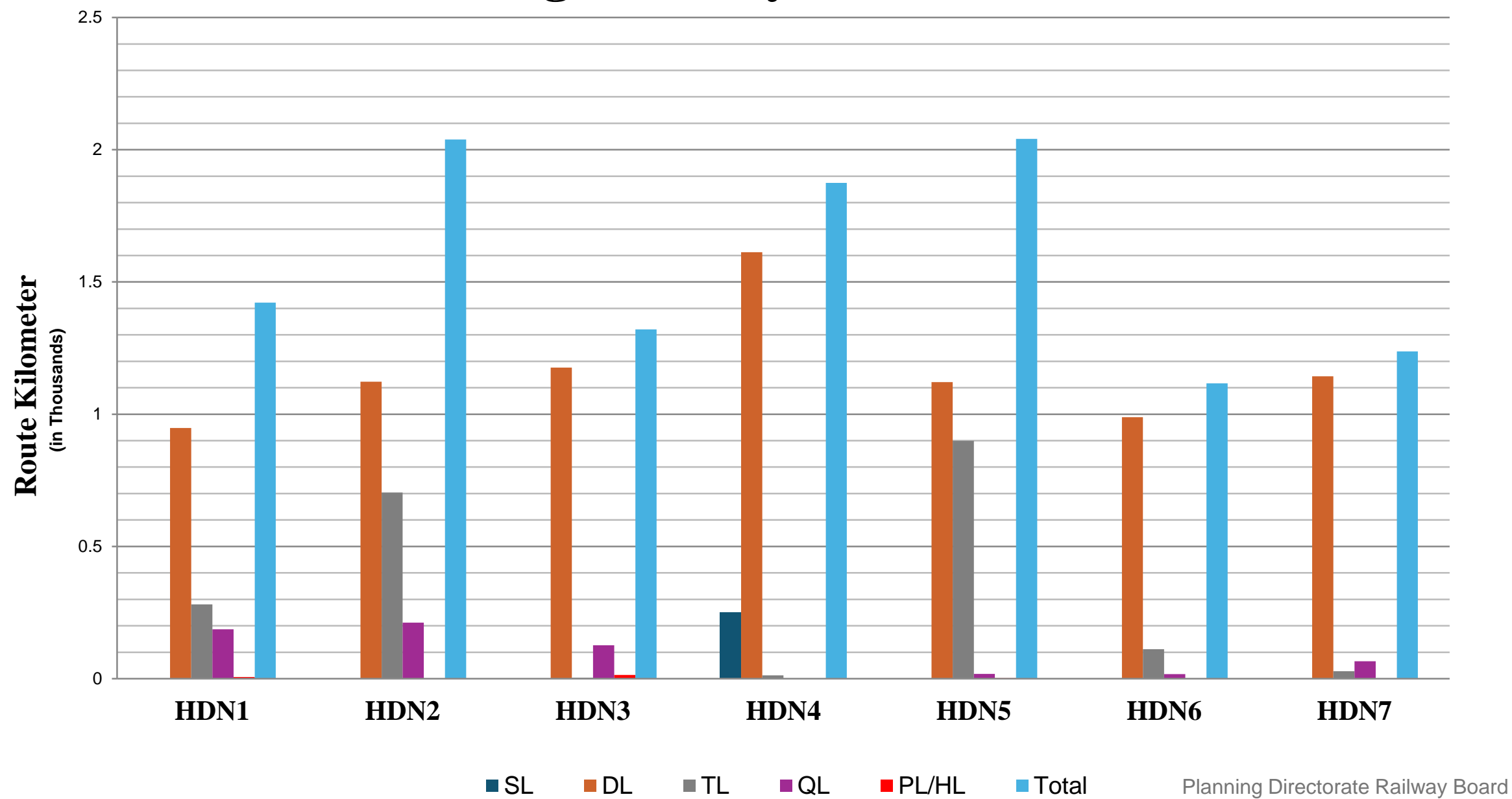


Planning Directorate Railway Board

# HDN - ROUTE KILOMETER SUMMARY

HDN	Single line	Double line	Triple line	Quadruple line	Penta/Hexa line	Total
HDN 1	0	948	280.75	186.61	6.57	1421.93
HDN 2	0	1123.1	704	211.67	0	2038.77
HDN 3	0	1176.64	4.01	125.91	13.97	1320.53
HDN 4	250.32	1612.26	12.34	0	0	1874.92
HDN 5	0	1120.97	899.53	17.95	2.22	2040.67
HDN 6	0	988.85	111	17	0	1116.85
HDN 7	0	1143.3	28	66.26	0	1237.56
<b>TOTAL</b>	<b>250.32</b>	<b>8113.12</b>	<b>2039.63</b>	<b>625.4</b>	<b>22.76</b>	<b>11051.23</b>

# High Density Route IR



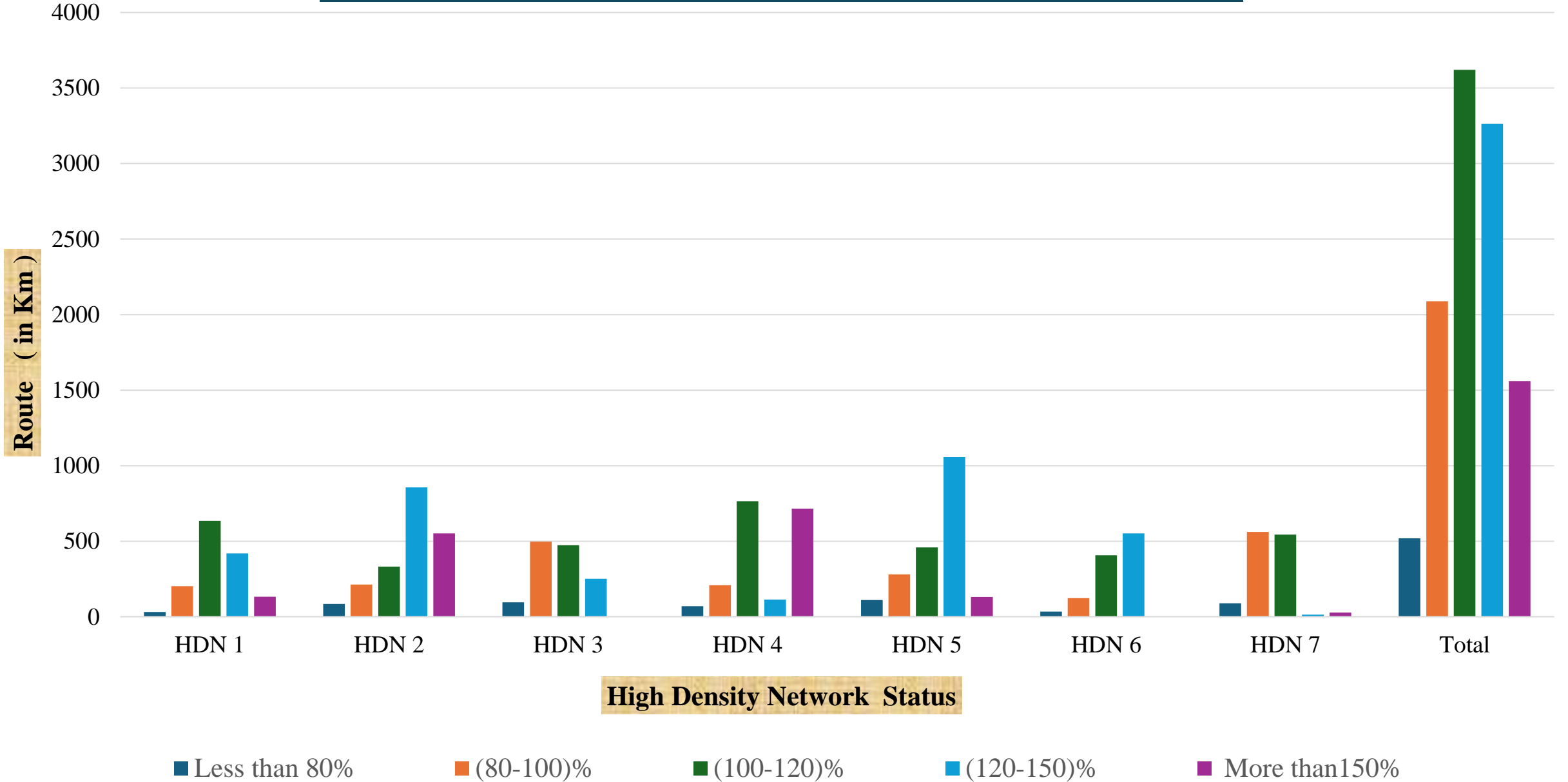
# Line Capacity Utilisation status of High Density Network on IR

(Route km-wise)

HDN	Less than 80%	(80-100)%	(100-120)%	(120-150)%	More than150%	Total Route Kilometre
HDN1	31.34	202.2	635.9	419.7	132.8	1421.93
HDN2	85.2	213.54	332.22	856.11	551.7	2038.77
HDN3	96.46	498	474.75	251.32	0	1320.53
HDN4	70.4	209.46	765.35	113.2	715.6	1874.01
HDN5	110.84	280.3	459.79	1057.7	132	2040.67
HDN6	35	123	407	551.85	0	1116.85
HDN7	89.69	561.55	544.32	14	28	1237.56
<b>Total (in Km)</b>	518.9	2088	3619	3264	1560	<b>11050</b>

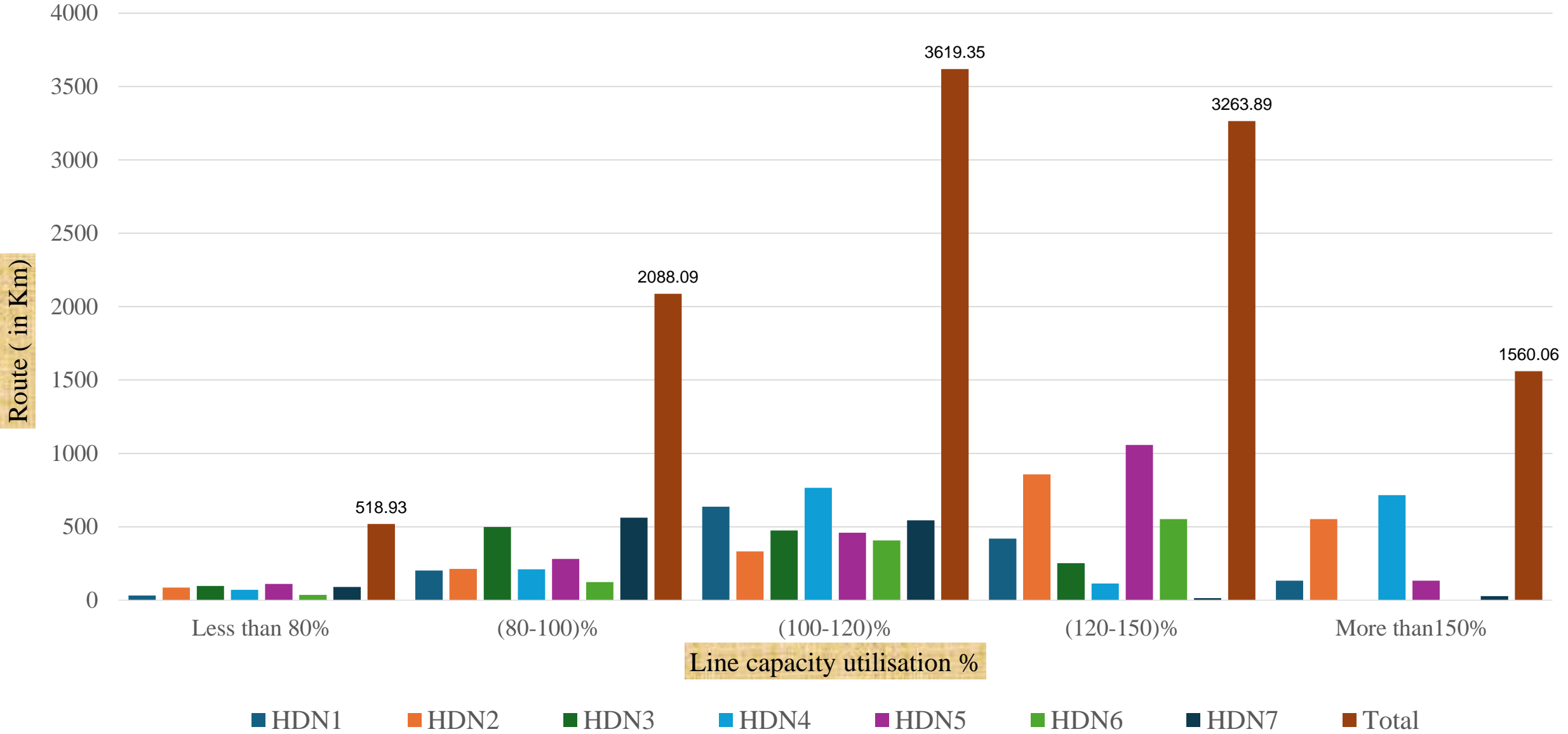


# HIGH DENSITY NETWORK STATUS (ROUTE KM-WISE)

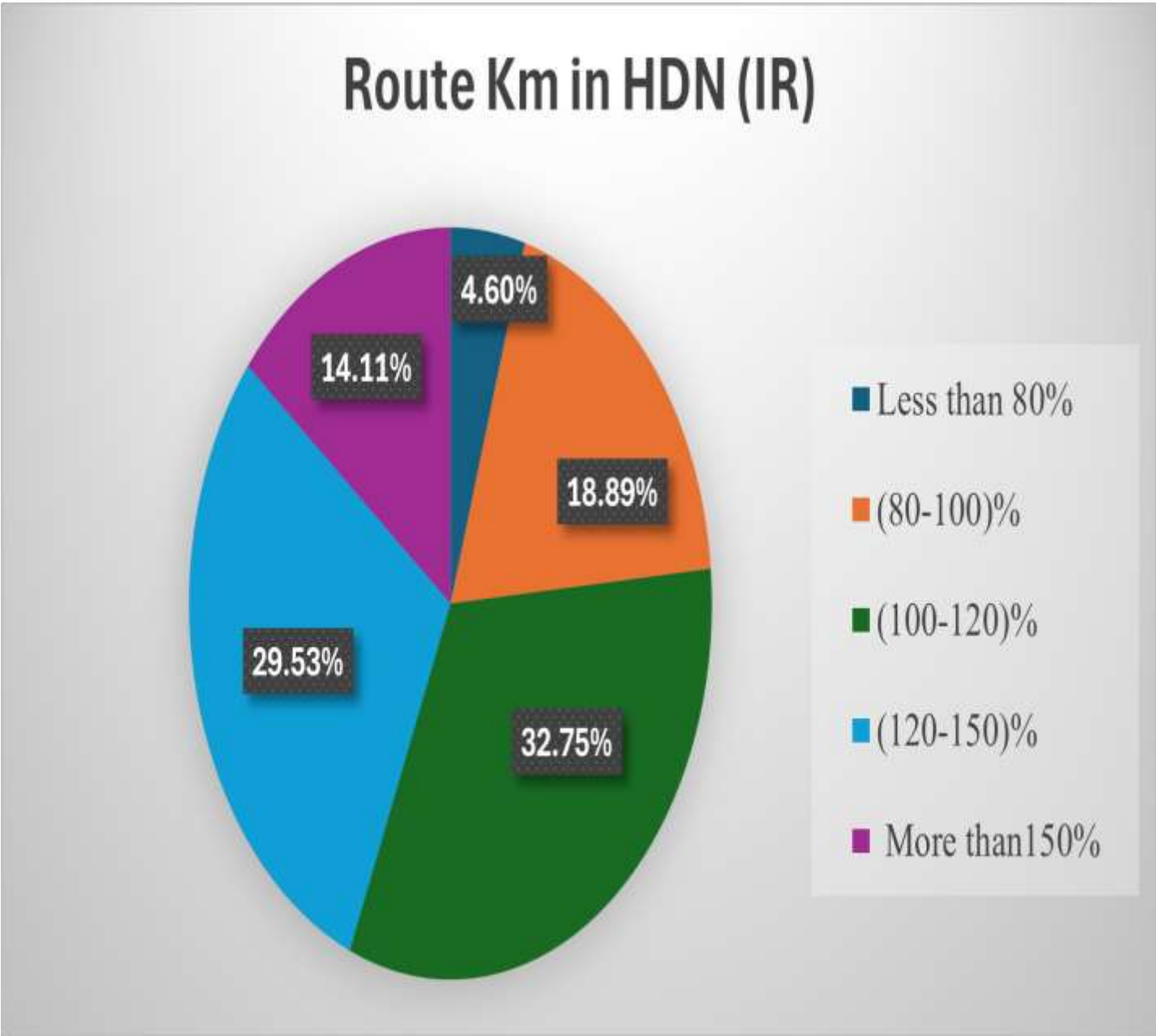


High Density Network Status

# Line capacity utilisation status (Route Km wise)



Line Capacity Utilisation Status in HDN (IR)	Route Km in HDN (IR)
Less than 80%	4.60%
(80-100)%	18.89%
(100-120)%	32.75%
(120-150)%	29.53%
More than 150%	14.11%



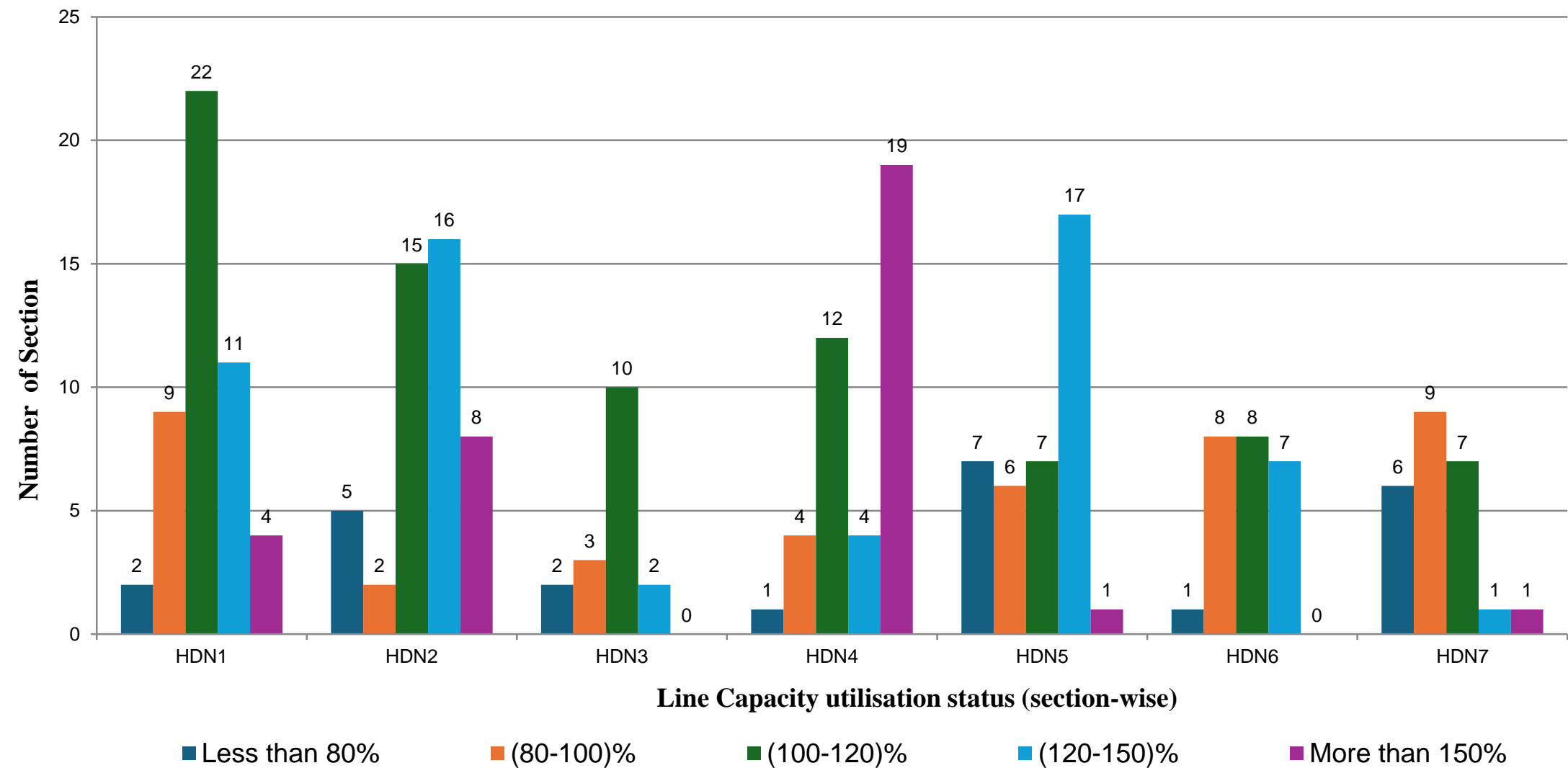
# Line Capacity Utilisation status of High Density Network on IR

(section-wise)

HDN	Less than 80%	(80-100)%	(100-120)%	(120-150)%	More than 150%	Total Section
HDN1	2	9	22	11	4	48
HDN2	5	2	15	16	8	46
HDN3	2	3	10	2	0	17
HDN4	1	4	12	4	19	40
HDN5	7	6	7	17	1	38
HDN6	1	8	8	7	0	24
HDN7	6	9	7	1	1	24
Total section	24	41	81	58	33	<b>237</b>

# Line Capacity Utilisation status of High Density Network on IR

(section-wise)



# **HDN – 1**

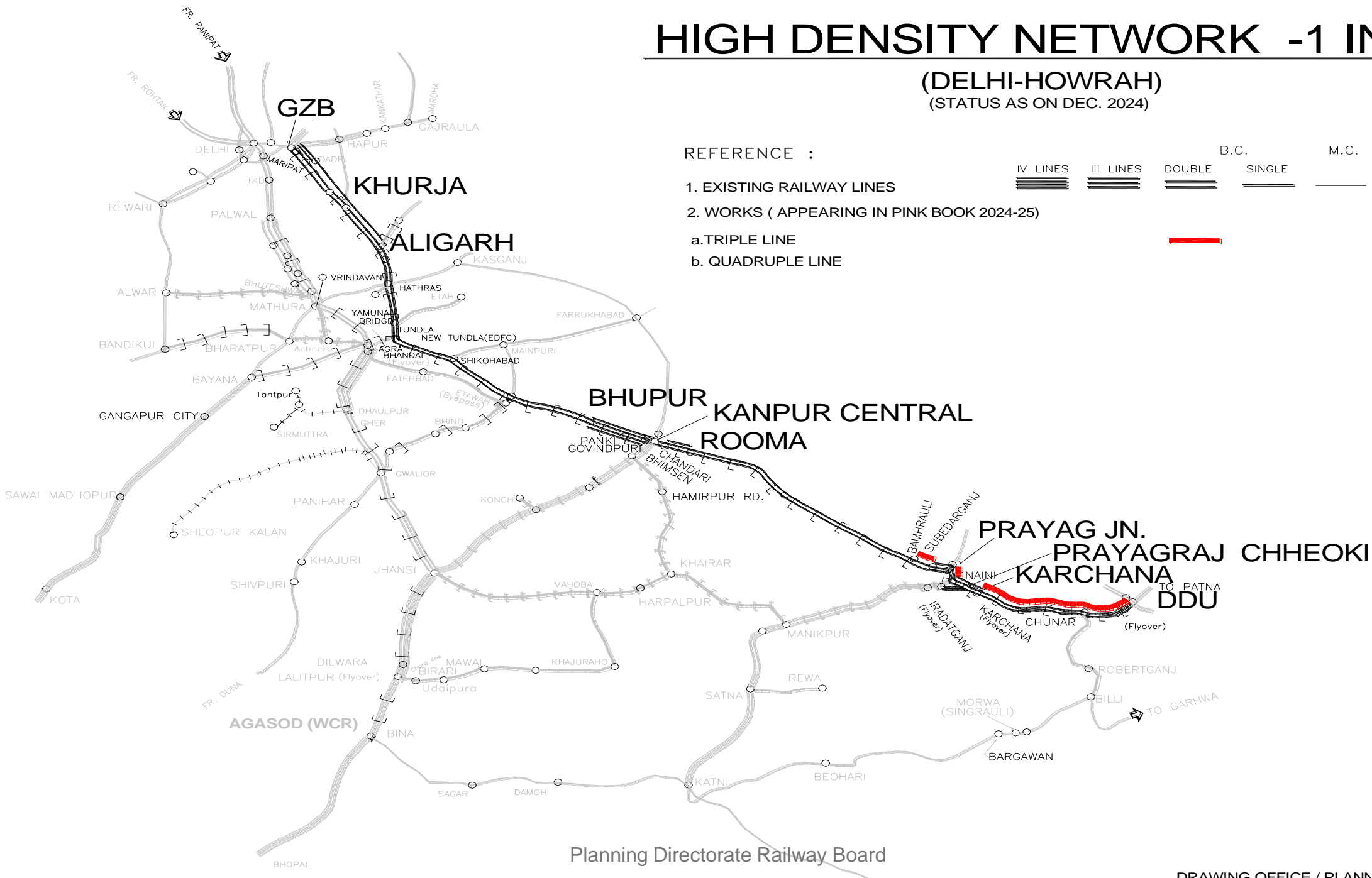
**(Howrah - Delhi via Dankuni – Asansol - Dhanbad- Prayagraj-Kanpur Central)**  
**(1422 km)**

# HIGH DENSITY NETWORK -1 IN NCR

(DELHI-HOWRAH)  
(STATUS AS ON DEC. 2024)

REFERENCE :

- 1. EXISTING RAILWAY LINES
- 2. WORKS ( APPEARING IN PINK BOOK 2024-25)
  - a. TRIPLE LINE
  - b. QUADRUPLER LINE



# HIGH DENSITY NETWORK - 1 IN ECR

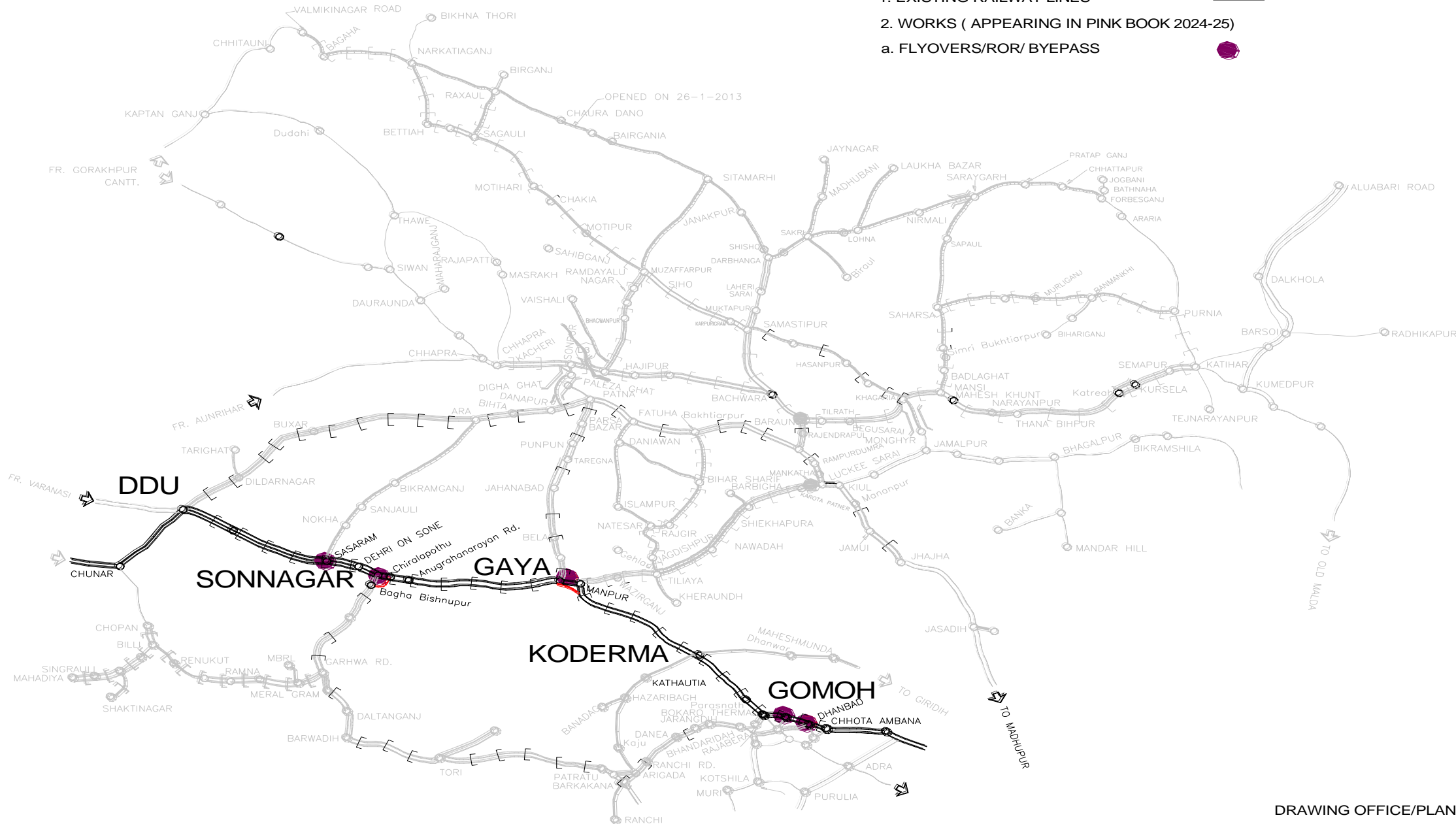
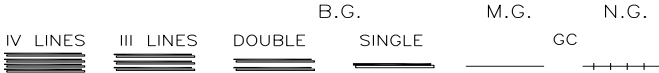
(DELHI-HOWRAH)  
(STATUS AS ON DEC. 2024)

REFERENCE :

1. EXISTING RAILWAY LINES

2. WORKS ( APPEARING IN PINK BOOK 2024-25)

a. FLYOVERS/ROR/ BYEPASS





# HIGH DENSITY NETWORK - 1 IN ER

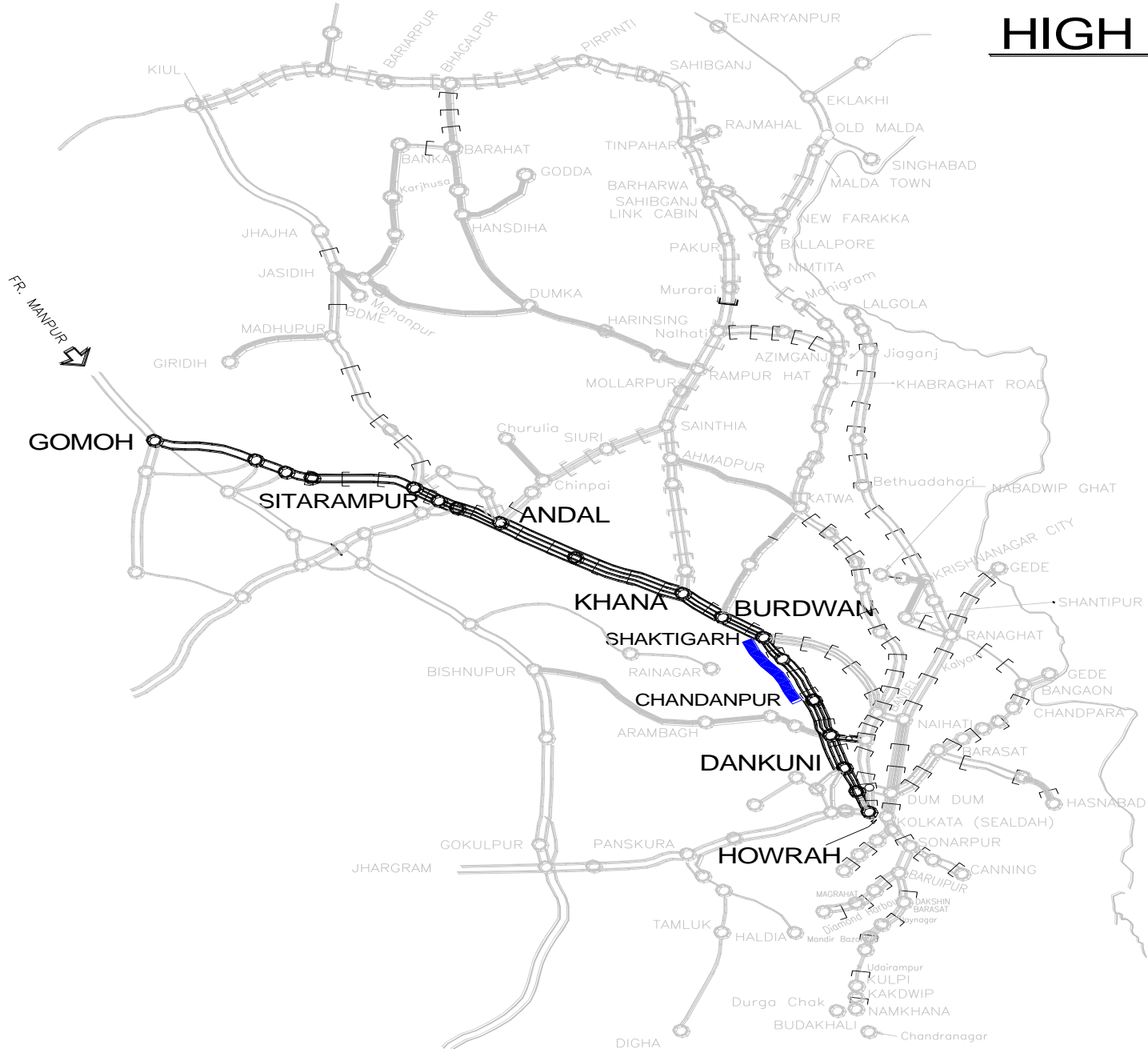
(DELHI-HOWRAH)

(STATUS AS ON DEC. 2024)

REFERENCE :

- 1. EXISTING RAILWAY LINES
- 2. WORKS (APPEARING IN PINK BOOK 2024-25)
  - a. TRIPLE LINE
  - b. QUADRUPLE LINE

IV LINES	III LINES	DOUBLE	B.G. SINGLE	N.G.
=====	=====	=====	=====	=====



S. No.	Rly	Div	Route	Section	Group Route	Length (Km)	Line arrangement	System of working	Charted Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Charted Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress
1	ER	HWH	Howrah (HWH)-Khana (108 km)	Howrah-Sorting yard RRI	A	3.11	Hexa	M/L- Auto, HWH-SYAE-Cord-ABS-MACL	262	350	133.6	
2				Sorting yard RRI - Belur		3.46	Penta	Auto	251	253	100.8	
3				Belur-Dankuni		8.24	TL (DL-BEQ to BLY)		82	71	86.6	
4				Dankuni - Chandanpur		25.41	QL		132	129	97.7	Removal of Infringement for clearing of route over HWH Division for DSDC.
5				Chandanpur - Saktigarh		42.66	TL	103	116	112.6	Continuous track circuiting with Auto block Signalling in " A " & "C" routes.	
6				Saktigarh-Barddhaman		11.52		162	178	109.9		
7				Barddhaman-Khana		13.07		131	144	109.9		
8		ASN	Khana-Sitarampur (101 km)	Khana-Andal		66.53	QL	Absolute-MACL	130	147.5	113.5	1. Provision of Auto signalling in Khana - Andal section(21-22). 2. Durgapur - DCOP 5th line (23-24).
9				Andal-Asansol		25.71			129	156.5	121.3	1.5th line b/w Kalipahri- Bakhtarnagar (2024-25). 2.Auto signalling work in Andal - Sitarampur section(22-23). 3.Construction of Sitarampur Fly Over.
10				Asansol-Sitarampur		8.93			130	148	113.8	
11			Sitarampur-Pradhankhanta (40.26 km)	Sitarampur-Chotaambana		34.41	DL	Auto	80	80	100.0	
12				Chotaambana-Pradhankhunta		5.85			80	80	100.0	

S. No.	Rly	Div	Route	Section	Group Route	Length (Kms)	Line arrangement	System of working	Charted Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Charted Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress
13	ECR	DHN	Pradhankhantra (PKA) -Manpur (204 km)	Pradhankhanta – Dhanbad	A	9.57	DL	ABS	65	60.9	93.8	1. Raising of Speed to 160 KMPH in DDU - PKA section with ABS . 2. Gomoh ROR, Koderma (KQR) ROR ,Sasaram (SSM) ROR. 3. Multitracking between Sonnagar (SEB) – Pradhankhantra (PKA). 4. Dhanbad (DHN) - Rajabera (RJB) 3rd line 5. Automatic signalling, DFC
14				Dhanbad- N.S.C.B.Gomoh		29.3			65	49.6	76.3	
15				Gomoh-Koderma		93.4			53	66.6	125.7	
16				Koderma- Bandhua		64.8			53	71.3	134.5	
17				Bandhua- Manpur		7.05		Auto	53	56.6	106.8	
18		DDU	Manpur-DDU (208 km)	Manpur-Gaya		5.24	TL	ABS	77	127	164.93	
19				Gaya-Sonnagar-		79.4			67	81	120.89	
20				Sonnagar-Sasaram		23.6			84	137	163.09	
21				Sasaram-DDU		100			75	131	174.66	
22	NCR	PRYG	DDU-GZB (760 Km)	Pt. Deen Dayal Upadhyay - Jeonathpur		4.68	DL	Auto	72	88.57	123.01	1. Raising of speed to 160 KMPH / 200 KMPH on existing NDLS-HWH route including CNB-LKO. (PWP 2017-18). 2. Provision of 3rd line between DDU to PRYJ(PWP 2015-16).
23				Jeonathpur - Chunar		27.44			79	97.76	123.75	
24				Chunar - Mirzapur		31.08			81	102.28	126.27	
25				Mirzapur -Prayagaraj Cheoki Jn.		80.8			81	102.32	126.32	

S. No.	Rly	Div	Route	Section	Group Route	Length (Kms)	Line arrangement	System of working	Charted Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Charted Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking/auto signalling works under FLS/DPR
26	NCR	PRYG	DDU-GZB (760 Km)	Prayagraj Cheoki Jn.-Naini	A	1.45	TL	Auto	59	75.42	127.83	1. Raising of speed to 160 KMPH / 200 KMPH on existing NDLS-HWH route including CNB-LKO. (PWP 2017-18). 2. Provision of 3rd line between DDU to PRYJ(PWP 2015-16).	
27				Naini - Prayagaraj		7.44	DL		79	97.56	123.49		
28				Prayagraj - Subedarganj		3.69	TL		75	89.34	119.12	1. Raising of speed to 160 KMPH / 200 KMPH on existing NDLS-HWH route including CNB-LKO. (PWP 2017-18). 2. 4th line from Prayagraj to Bamhrauli.( 2018-19). with flyover. 3. 3rd line between ALJN – DAQ parallel to UP line and construction of Flyover at Daudkhan. ( 2018-19). 4. Construction of Fly over between ALJN-HGJ (PWP 2016-17).	
29				Subedarganj - Sujatpur		43.67	DL		76	89.93	118.33		
30				Sujatpur-Fatehpur		69.29			76	80.73	106.22		
31				Fatehpur-Rooma		61.7			76	82.23	108.20		
32				Rooma-Chandari		11.94	TL		76	87.13	114.64		
33				Chandari-Kanpur		3.92	DL		43	66.43	154.49		
34				Chandari-Juhi/West		2.04			32	23.70	74.06		
35				Juhi/West-Panki		7.4	QL		90	105.36	117.07		
36				Panki-Bhaupur		11.38			92	108.71	118.16	FLS for Bhaupur-Kanpur 5th and 6th line (20 km)	

S. No.	Rly	Div	Route	Section	Group Route	Length (Kms)	Line arrangement	System of working	Charted Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Charted Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking/auto signalling works under FLS/DPR	
37	NCR	PRYG	DDU-GZB (760 Km)	Bhaupur - Etawah	A	116.7	DL	Auto	92	99.71	108.38	1. Raising of speed to 160 KMPH / 200 KMPH on existing NDLS-HWH route including CNB-LKO. (PWP 2017-18). 2. 4th line from Prayagraj to Bamhrauli.( 2018-19). 3. 3rd line between ALJN – DAQ parallel to UP line and construction of Flyover at Daudkhan. ( 2018-19). 4. An additional Down loop line in North side at ALJN station. (2023-24) 5. Construction of Fly over between ALJN-HGJ (PWP 2016-17).		
38				Etawah- Sikohabad		55.37			90	95.28	105.87			
39				Sikohabad - Tundla		36.48			91	98.42	108.15			
40				Tundla - Tundla/West		1.1			96	98.42	102.52			
41				Tundla/West - Mitawali		5.51			87	82.23	94.52			
42				Mitawali - Barhan		8.1			90	89.62	99.58			
43				Barhan-Daudkhan		56.24	TL		89	87.97	98.84		FLS for Dadri-Daudkhan 4th line (96 km)	
44				Daudkhan-Aligarh		7.06			89	92.97	104.46			
45				Aligarh Jn.- Khurja		43.3			91	85.93	94.43			
46				Khurja - Dankaur		28.2			90	86	95.56			
47				Dankaur - Dadri		17.67			92	88	95.65			
48				Dadri - Gaziabad		16.66			QL	89	100.85			

# HDN – 2

**(Howrah-Mumbai via Kharagpur-Tatanagar- Jharsuguda-Bilaspur-Nagpur-Bhusaval-Igatpuri)**

# HIGH DENSITY NETWORK - 2 IN CR

(MUMBAI-HOWRAH)

(STATUS AS ON DEC. 2024)

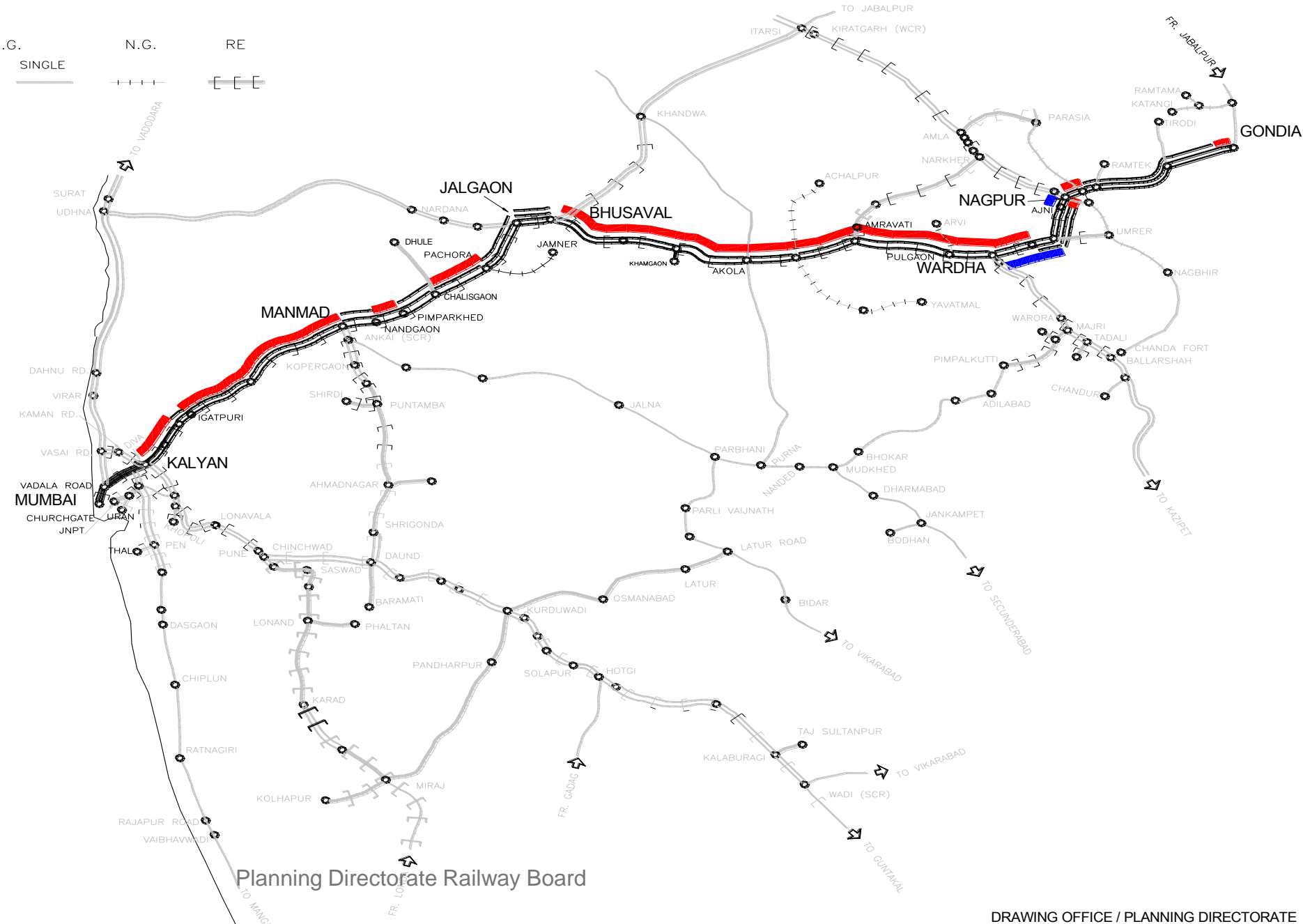
REFERENCE :

1. EXISTING RAILWAY LINES

2. WORKS (APPEARING IN PINK BOOK 2024-25)

a. TRIPLE LINE

b. QUADRUPLER LINE



Planning Directorate Railway Board

# HIGH DENSITY NETWORK - 2 IN SECR

(MUMBAI-HOWRAH)

(STATUS AS ON DEC. 2024)

REFERENCE :

1. EXISTING RAILWAY LINES

IV lines



III lines



DOUBLE



SINGLE



N.G.



RE

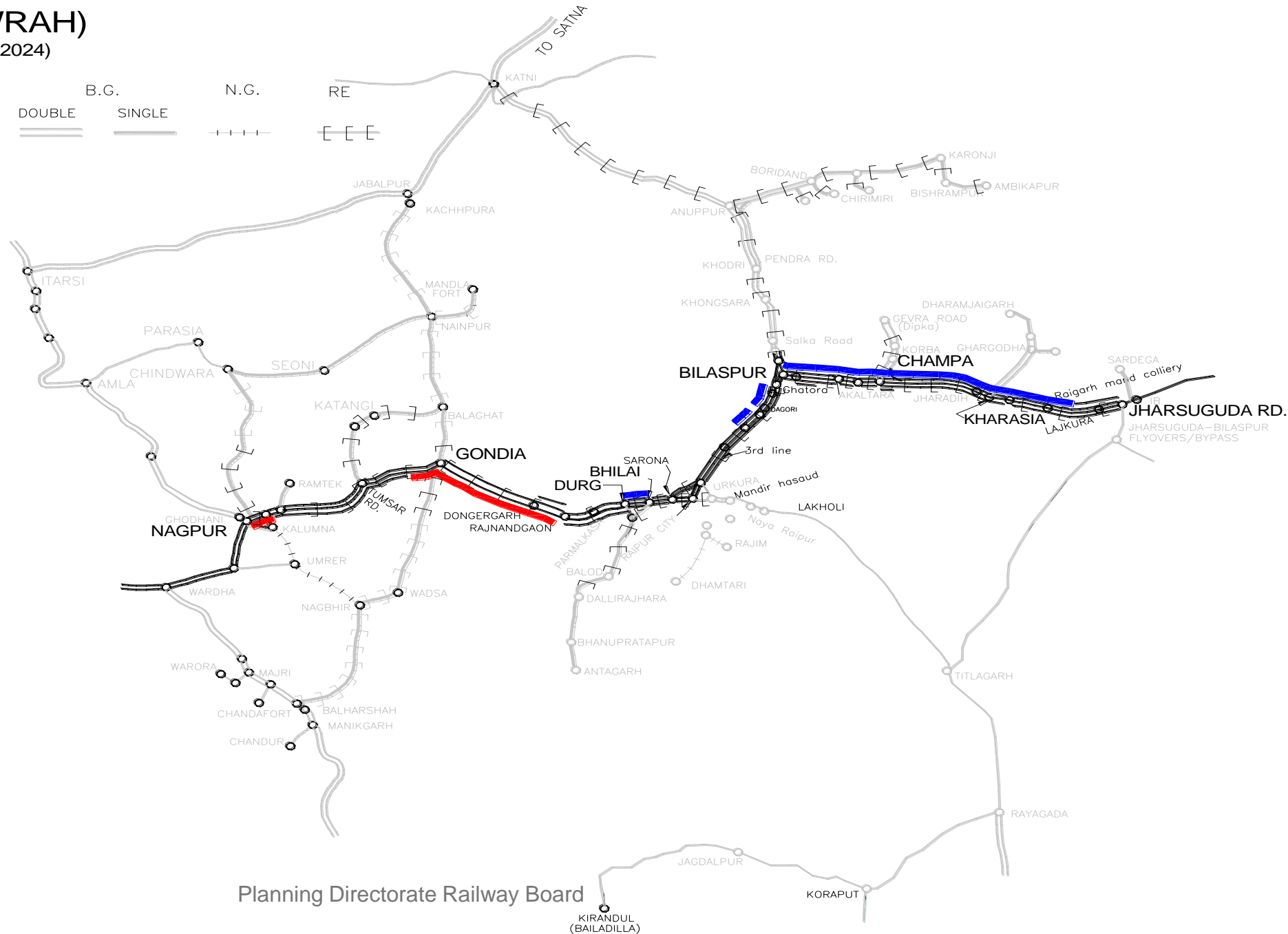


2. WORKS(APPEARING IN PINK BOOK 2024-25)

a. TRIPLE LINE



b. QUADRUPLE LINE





# HIGH DENSITY NETWORK - 2 IN SER

REFERENCE :

1. EXISTING RAILWAY LINES



2. WORKS (APPEARING IN PINK BOOK 2024-25)

a. TRIPLE LINE



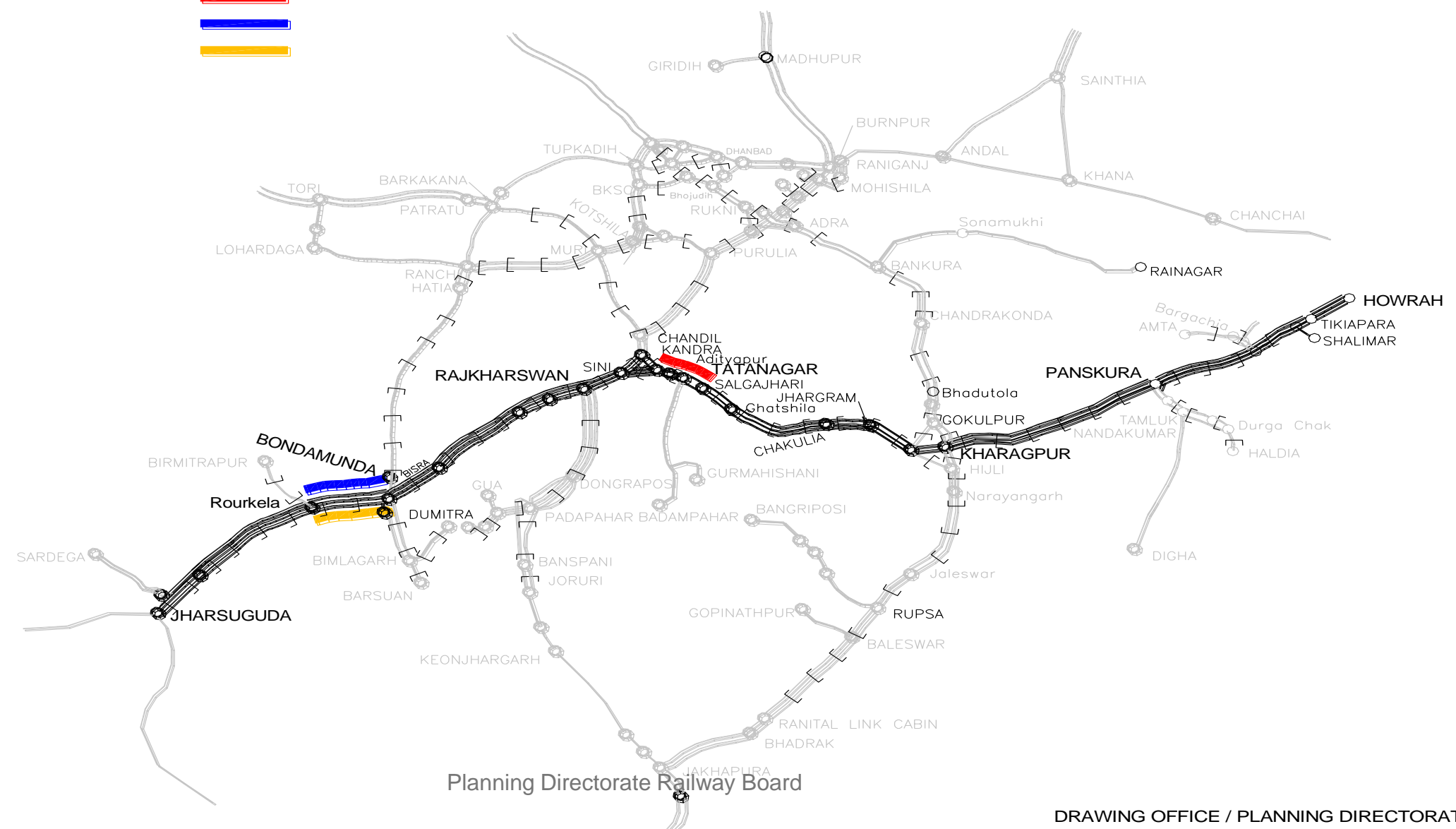
b. QUADRUPLE LINE



c. FIFTH LINE



(MUMBAI-HOWRAH)  
(STATUS AS ON DEC. 2024)



Planning Directorate Railway Board

DRAWING OFFICE / PLANNING DIRECTORATE

S. No.	Rly	Div	Route	Section	Group Route	Length (Kms)	Line arrangement	System of working	Charted Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Charted Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking/auto signalling works under FLS/DPR
1	CR	BB	CSMT-Igatpuri (137 km)	CSMT-Dadar	A	9	DL	Auto	170	195.79	115.17	CSMT-CLA 5th & 6th line.	
2				Dadar-Kurla		7			170	197.73	116.31		
3				Kurla-Thane		18			170	200.41	117.89		
4				Kurla-Thane (5th & 6th Line)					170	38.03	22.37		
5				Thane-Diva		9			170	186.91	109.95		
6				Thane-Diva (5th & 6th Line)					170	34.57	20.34		
7				Diva-Kalyan		11			170	173.53	102.08		
8				Diva-Kalyan (5th & 6th line)					170	61.99	36.46		
9				Kalyan-Titwala		11			120	133.57	111.31	KYN-KSRA 3rd line	KYN-ASO 4th line
10				Titwala-Asangaon		21		ABS	58	94.37	162.70		
11				Asangaon-Kasara		35			58	75.57	130.29		
12				Kasara-Igatpuri		16	TL		45	74.59	165.76		KSRA-IGP-MMR multitracking

S. No.	Rly	Div	Route	Section	Group Route	Length (Kms)	Line arrangement	System of working	Charted Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Charted Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking/auto signalling works under FLS/DPR
13	CR	BSL	Igatpuri-Badnera (551 km)	Igatpuri-Manmad	A	124	DL	ABS	50	67.32	134.64		KSRA-IGP-MMR multitracking
14				Manmad-Nandgaon		25			52	78.84	151.62	MMR-JL 3rd line WIP. (2016-17 )	MMR-JL 4th line
15				Nandgaon-Jalgaon		135			52	81.03	155.83		
16				Jalgaon-Bhusawal		24		Auto	66	87.43	132.46		
17				Jalgaon-Bhusawal 3rd & 4th line		24			66	22.4	33.93		
18				Bhusawal-Badnera		219		Auto + ABS	52	80.64	155.08	1. BSL-BD-WR 3rd line work sanctioned. 2. ABS between VNA-BD 3. ABS between BD-WR	BSL-BD-WR 4th line
19		NGP	Badnera-Nagpur (174 km)	Badnera-Wardha		95		ABS	52.5	59.35	113.04		
20				Wardha-Nagpur		79			55	81.81	148.75	1. 3rd line between WR-NGP WIP(12-13) 2. 4th line between WR-NGP WIP (16-17). 3. ABS between SEGM-KRI	

S. No.	Rly	Div	Route	Section	Group Route	Length (Kms)	Line arrangement	System of working	Charted Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Charted Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking/auto signalling works under FLS/DPR
21	SECR	NAG	NGP-Durg (266 km)	Nagpur-Tumsar Road-Kalumna	A	80.7	DL	AUTO	72	95	131.9		FLS of 4th line with auto signalling between Kalumna - Tumsar Road is under progress as multitracking works.
22				Tumsa Rd-Gondia		49.8			72	94	130.6	1. Construction of 3rd line between Gangajhari - Gondia with auto signalling is under progress.	FLS of 4th line with auto signalling between Tumsar Road - Gondia is under progress as multitracking works.
23				Gondia-Durg		135			74	107	144.6	1. Construction of 3rd line with auto signalling between Gondia - Gudma is under progress. 2. Construction work of 4th line with auto signalling between Dongargarh - Rajnandgaon under progress.	1. FLS of 4th line with auto signalling between Gondia - Dongargarh is under progress as multitracking works. 2. 4th line with auto signalling between Dongargarh - Rajnandgaon is sanctioned by Railway Board on 19.09.2022. DPR against FLS of 4th line between Rajnandgaon - Durg sent to Railway Board and compliance of Railway Board under progress.

S. No.	Rly	Div	Route	Section	Group Route	Length (Kms)	Line arrangement	System of working	Charted Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Charted Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking/auto signalling works under FLS/DPR
24	SECR	R	Durg-Bilaspur (148 km)	Durg-Bhilai		13.6	Triple	Auto	79	139	176	4th line with auto signalling between Durg link cabin (DLBS) - Bhilai sanctioned by Railway Board on 02.12.2022 and construction work is under progress.	DPR against FLS of 4th line between Durg - Durg lin cabin (DLBS) sent to Railway Board and compliance of Railway Board under progress.
25				Bhilai-Kumhari-Sarona		17.3	Triple		81	159	196	1. Auto signalling between Raipur - Urkura under progress.	DPR against FLS of 4th line between Bhilai - Kumhari - Sarona sent to Railway Board and complience of Railway Board under progress.
26				Sarona-Raipur		6	DL	ABS	54	78.7	148	2. Auto signalling between Urkura - Dagori under progress.	FLS of Rail over Rail at Sarona is under progress.
27				Raipur-Urkura		5.6	DL		57	63	111	3. 4th line between Belha - Dagori (06.00 km), Nipania - Bhaapar (15.00 km), Bhatapara - Hathbandh (15.30 km) of the section Urkura Bilapur has been sanctioned by Railway Board & construction work is under progress.	FLS of Rail over Rail at Urkura is under progress.
28				Urkura-Bilaspur		105	Triple	BSP-BYL Auto BYL- URK ABS	103	162.5	158		FLS for 4th line between Bilaspur - Dadhapara, Dagori - Nipania and Hathbandh - Urkura of the section Urkura - Bilaspur is under progress as multitracking.

S. No.	Rly	Div	Route	Section	Group Route	Length (Kms)	Line arrangement	System of working	Charted Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Charted Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking/auto signalling works under FLS/DPR
29	SECR	BSP	Bilaspur-Jharsuguda (204 km)	Bilaspur-Champa	A	53.16	CPH-LATIA: Triple LATIA-BSP: Quad	CPH-AKT: ABS AKT-BSP: AUTO	113	148.8	132	1. Auto signalling between Jairamnagar - Champa is sanctioned . 2. Construction of 4th line work between Latia - Champa is under progress.	
30				Champa-Raigarh		79.46	RIG-ROB: Triple ROB-SKT: Quad SKT-SGRD: Triple SGRD-CPH: Quad	ABS	112	98.6	88	1. Auto signalling work between Champa - Raigarh is under progress. 2. 4th line construction work of Saragaon - Sakti, Robertson - Raigarh is under progress. 3. Construction of 5th line patch between Kharsia - Jaradih is under progress	
31				Raigarh – Jharsuguda		71.6	JSG-JMG : Quad JMG-RIG : Tripple		93	97.6	103	1. Auto signalling between Raigarh - Jharsuguda is sanctioned. 2. Construction work of 4th line between Jamgaon - Raigarh is under progress.	
32	SER	CKP	Jharsuguda-Tatanagar (310 km)	Jharsuguda-Rourekla		101	Triple		67	90.6	136	1. Bagdehi - Jharsuguda- 4th line. 2. Auto signalling work between ROU- JSG (All line)	Rourkela - Bagdehi 4th line (Part of ROU-JSG 4th line)

S. No.	Rly	Div	Route	Section	Group Route	Length (Kms)	Line arrangement	System of working	Chartered Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Chartered Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking/auto signalling works under FLS/DPR
33	SER	CKP	JSG-TATA (310 km)	Rourkela-Bondamunda	A	9	TL	ABS	51	74.7	147	1. Bondamunda - Rourkela 4th line , TDC:- Feb '25. 2. Bondamunda - Rourkela 5th line , TDC:- Mar '26.	
34				Bondamunda-Chakradhapur		92.9			51	63.5	125	Dumetra 'c' link to Bisra Bypass TDC: June '25	Tatanagar - Rourkela 4th line except Adityapur-Rajkharswan (37 Km)
35				Chakradharpur-Rajkharswan		20.3			60	65.7	110	Auto signalling work between RKSN to ROU (up and DN main)	
36				Rajkharswan-Sini		15.3		AUTO	96	113.6	119		Adityapur - Rajkharswan 4th line
37				Sini-Gamharia		61.2			96	72	75		
38				Gamharia-TATA		10.6	DL/TL		94	108.2	115	KGP - ADTP 3rd line work is going on.TDC-Mar '25.	
39		KGP	TATA-HWH (250 km)	Tatanagar-Kharagpur		134.08	TL	ABS	77	65.8	86	1. Automatic signalling work is sanctioned for UP,DN & 3rd line. 2. KGP (NMP) - ADTP 3rd line work is going on.TDC-Mar '25.	1. Kharagpur - Nimpura 3rd line. 2. Kharagpur - Tatanagar 4th line.

S. No.	Rly	Div	Route	Section	Group Route	Length (Kms)	Line arrangement	System of working	Charted Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Charted Capacity WITH MB	Remark Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking/auto signalling works under FLS/DPR
40	SER	KGP	TATA-HWH (250 km)	Kharagpur-Panskura	A	44.69	TL	AUTO	83	114	137		Santragachi - Kharagpur 4th line
41				Panskura-Mecheda		12.26			103	144	140		
42				Mecheda-Uluberia		26.27			127	150	118		
43				Uluberia-Andul		19.88			129	153	118	Sankrail-Santragachi - Link line (14.5 km) via flyover from down side to up side (PH-16) TDC: Jan '25.	
44				Andul-Santragachi	4.82	108	132		122				
45				Santragachi-Tikiapara	4.78	134	162		121				
46				Tikiapara-Howraha	2.67	139	165		119				



# HDN – 3

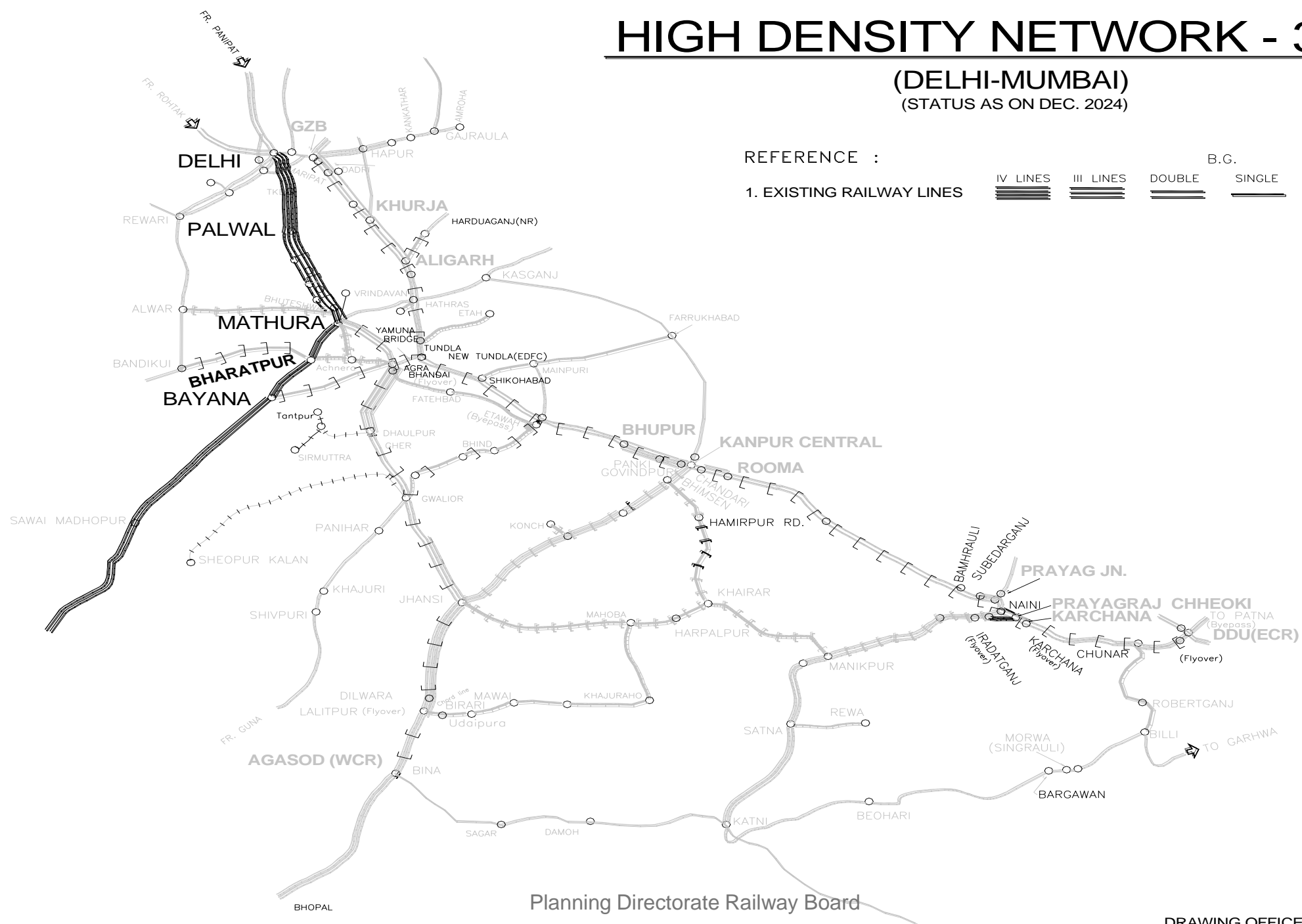
**(Mumbai - Delhi via Surat- Godhra- Ratlam- Nagda- Sawai madhopur-Mathura)**  
**(1322 km)**

# HIGH DENSITY NETWORK - 3 IN NCR

(DELHI-MUMBAI)  
(STATUS AS ON DEC. 2024)

REFERENCE :

1. EXISTING RAILWAY LINES



Planning Directorate Railway Board

DRAWING OFFICE / PLANNING DIRECTORATE

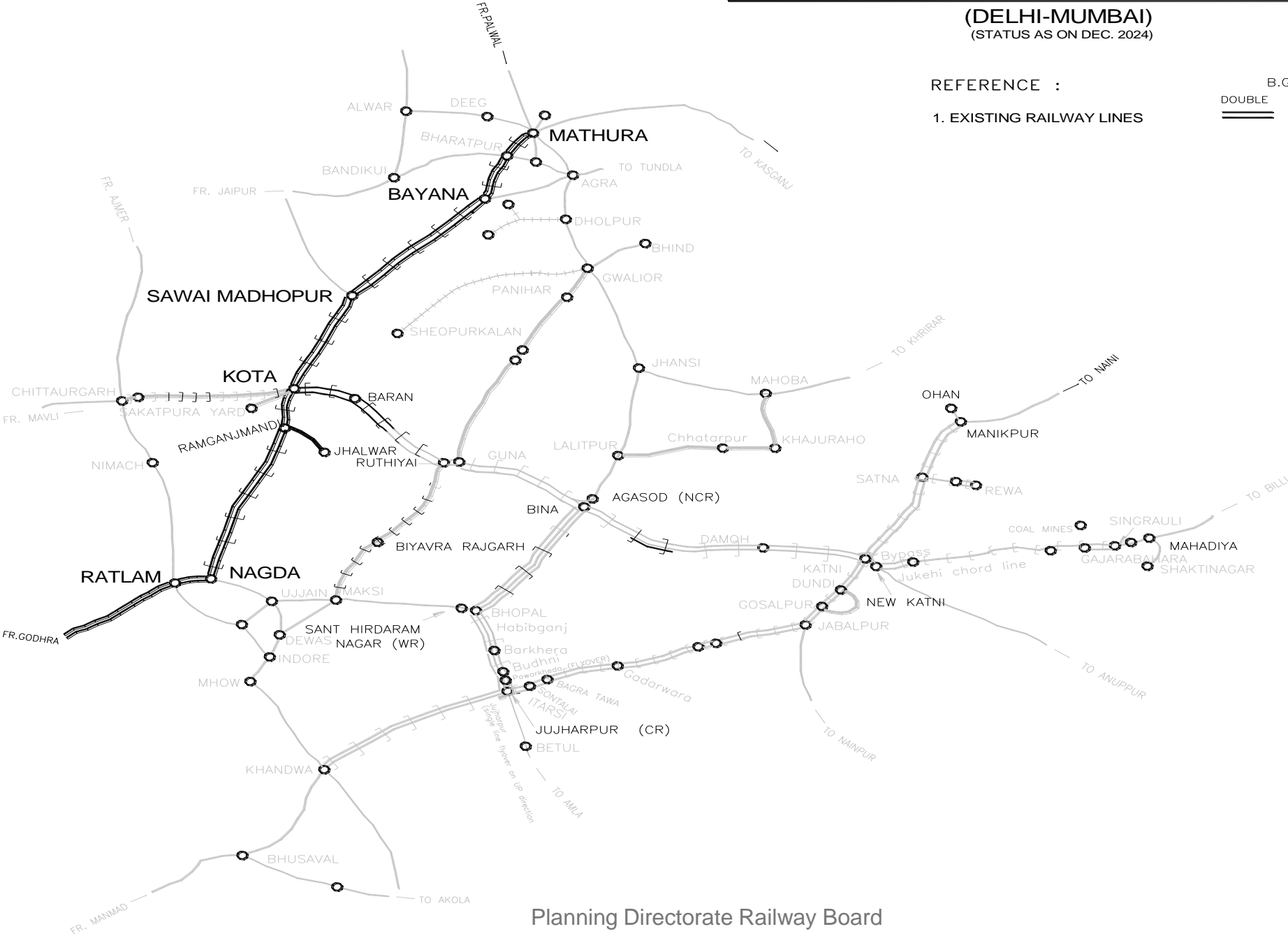
# HIGH DENSITY NETWORK -3 IN WCR

(DELHI-MUMBAI)  
(STATUS AS ON DEC. 2024)

REFERENCE :

1. EXISTING RAILWAY LINES

B.G.      N.G.      RE  
DOUBLE      SINGLE      + + + +      [ [ [ [



# HIGH DENSITY NETWORK - 3 IN WR

(DELHI-MUMBAI)  
(STATUS AS ON DEC. 2024)

REFERENCE :

1. EXISTING RAILWAY LINES
2. WORKS (APPEARING IN PINK BOOK 2024 -25)
- a. TRIPLE LINE
- b. QUADRUPLE LINE
- IV lines

III lines

DOUBLE

SINGLE

B.G.

M.G.

N.G.

RE

GC



S. No.	Rly	Div	Route	Section	Group Route	Length (Kms.)	Line arrangement	System of working	Chartered Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Chartered Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking/auto signalling works under FLS/DPR
1	WR	MMCT	MMCT-SURAT (264 km)	Churchgate- Mumbai Central (Suburban) (Through)	A	4.48	Quad	AUTO	--	189	--	6th line work	
2				Mumbai Central - Mahim (Suburban) (Through)		8.45			--	150.5	--		
3				Mahim-Bandra (Suburban) (Through Line)		1.73	Hexa		--	246.5	--		
4				Bandra-Andheri (Suburban) (Through Line)		7.17			--	251.5	--		
5				Andheri- Goregaon (Suburban) (Through Line)		5.07			--	250.5	--		
6				Goregaon -Borivali (Suburban) (Through Line)		4.08	Quad		--	247.5	--	6th line work Harbour line work	
7				Borivali-Vasai Road (Suburban) (Through Line)		17.3			--	182.5	--	5th & 6th line work	
8				Vasai Road-Virar (Suburban)(Through Line)		8.2			--	180	--		
9				Virar-Dahanu Rd.		63.8	DL		109	127.76	117.2	1. Raising of speed 160/200 KMPH on Mumbai - Delhi route, Vadodara - Ahmedabad . 2. Quadrupling work of Virar - Dahanu sanction in MUTP-III . 3. Two corridor 1 & 2 will be introduced after completion of quadrupling work. 4. 3rd & 4th line work Virar-Dahanu Rd section. 5. Vadodara - Ratlam - Nagda section: Provision of automatic signalling "	
10				Dahanu Rd.- Valsad		74.44			109	112.48	103.2		
11				Valsad- Udhna		64.65			109	109.39	100.4		
12				Udhna- Surat		4.01	Triple		109	125.35	115.0		

S. No.	Rly	Div	Route	Section	Group Route	Length (Kms.)	Line arrangement	System of working	Charted Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Charted Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking/auto signalling works under FLS/DPR
13	WR	BRC	Surat-Godhra (198 km)	Surat- Bharuch	A	58.94	DL	AUTO	109	112.54	103.2	1. Raising of speed 160/200 KMPH on Vadodara - Ahmedabad . 2. Vadodara - Ratlam - Nagda section: Provision of automatic signalling “ 3. Surat-Kosamba PH1 of 3 <sup>rd</sup> line B/w Vadodra & Virar.	
14				Bharuch - Vishwamitri		67.23			112	112.52	100.5		
15				Vishwamitri - Vadodara		2.89			116	123.58	106.5		
16				Vadodara 'D'- Chayapuri		3.05		ABS	78	50.40	64.6		
17				Chayapuri - Godhra		66.11			45	64.41	143.1		
18		RTM	Godhra-Nagda (227 km)	Godhra- Ratlam		185.21			63	81.11	128.7		
19				Ratlam- Nagda		41.35			73	83.69	114.6		
20	WCR	Kota	Nagda-Mathura (549 km)	Nagda-Kota		225			82	67.4	82.2		1. 4th line FLS under progress 2. FLS for 3rd/4th line. 3. FLS of Kushtala RoR, Bayana ROR, Provision of automatic signaling.
21				Kota-Gurla		5.56			92	96.3	104.7		
22				Gurla-Sawai Madhopur		102.2			85	80.2	94.4		
23				Sawai Madhopur-Bayana		140.8			79	68.6	86.8		
24				Bayana-Mathura Jn		75.41			70	47.8	68.3		
25	NCR	AGC	Mathura-Palwal (84 km)	Mathura Jn.- Palwal		83.4	Quad	Auto UP & DN M/L ABS in 3rd & 4th line	105	108.2	103.1		

# HDN – 4

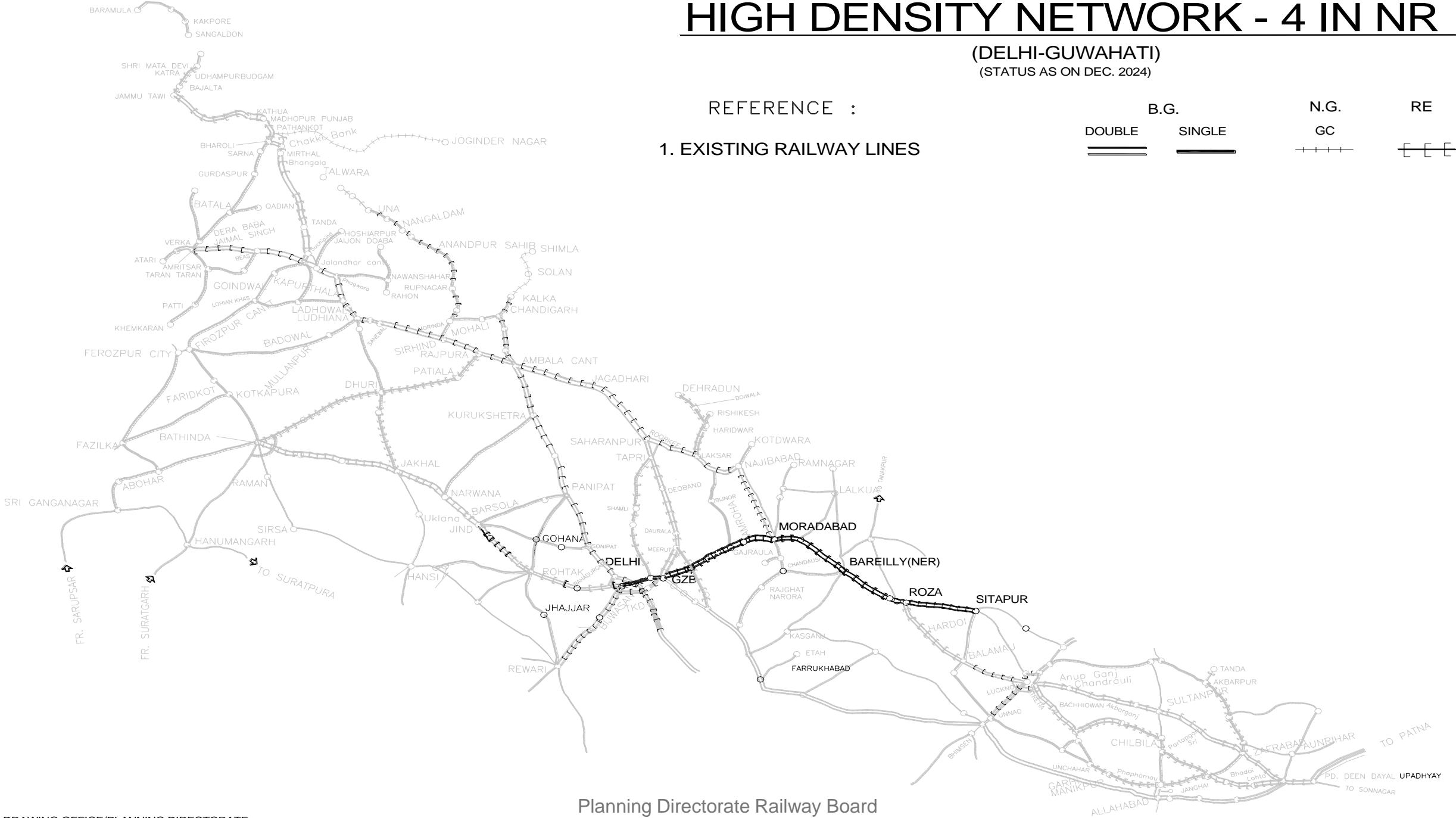
**(Delhi -Guwahati via Moradabad-Roza-Gonda-Gorakhpur-Katihar-New jalpaiguri- Rangiya)**  
**(1876 km**

# HIGH DENSITY NETWORK - 4 IN NR

(DELHI-GUWAHATI)  
(STATUS AS ON DEC. 2024)

REFERENCE :  
1. EXISTING RAILWAY LINES

B.G.		N.G.	RE
DOUBLE	SINGLE	GC	
			





# HIGH DENSITY NETWORK - 4 IN NER

(DELHI-GUWAHATI)

(STATUS AS ON DEC. 2024)

REFERENCE :

1. EXISTING RAILWAY LINES

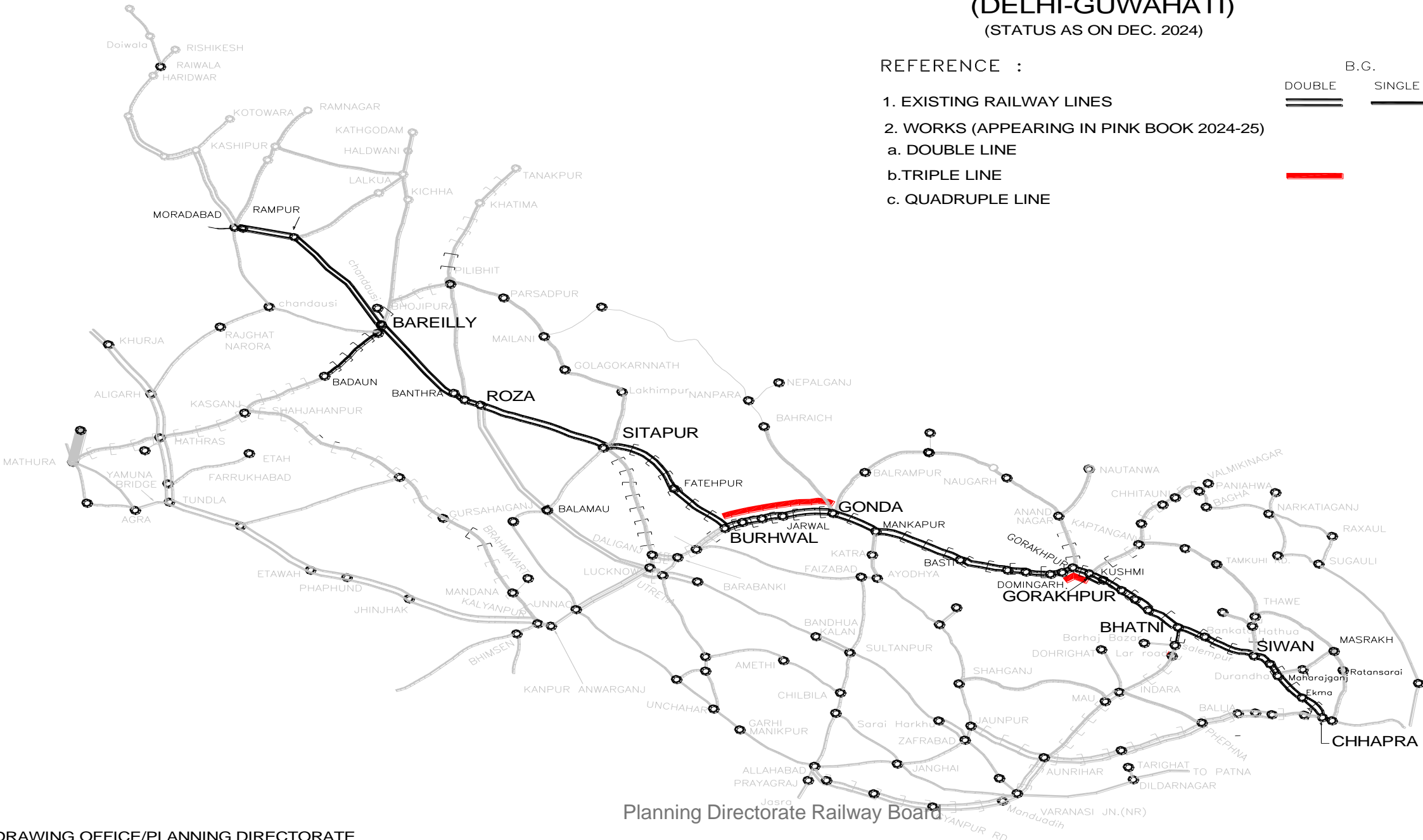
2. WORKS (APPEARING IN PINK BOOK 2024-25)

a. DOUBLE LINE

b. TRIPLE LINE

c. QUADRUPLE LINE

DOUBLE B.G. SINGLE M.G. RE



(STATUS AS ON DEC. 2024)

IV LINES      III LINES      DOUBLE      SINGLE      M.G.      N.G.      GC

- ### c. FLYOVERS BYEPASSES &TFC



DRAWING OFFICE/PLANNING DIRECTORATE

REFERENCE :

1. EXISTING RAILWAY LINES



2. WORKS ( APPEARING IN PINK BOOK 2024-25)

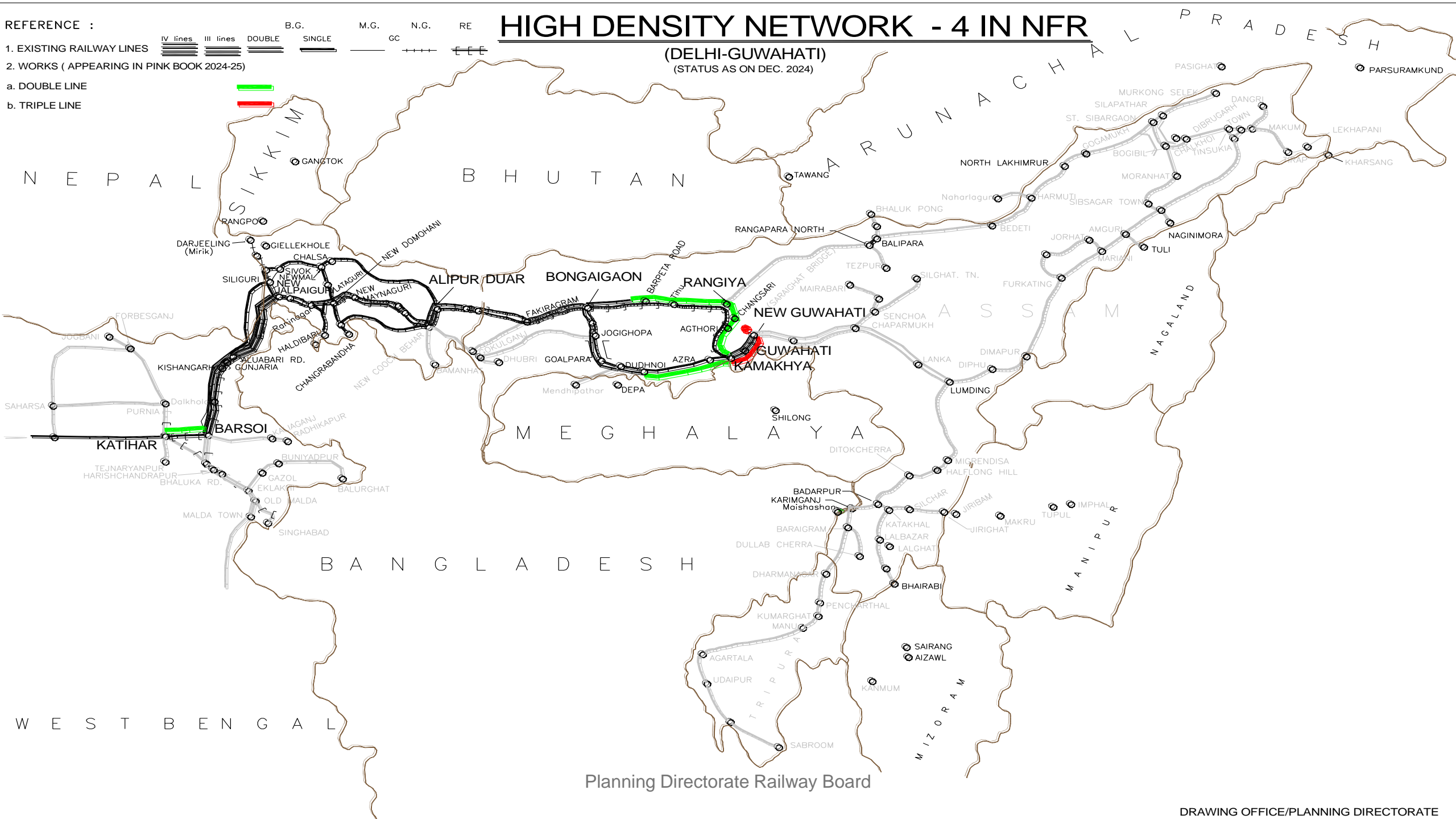
a. DOUBLE LINE

b. TRIPLE LINE

# HIGH DENSITY NETWORK - 4 IN NFR

(DELHI-GUWAHATI)

(STATUS AS ON DEC. 2024)



S. No.	Rly	Div	Route	Section	Group Route	Length (Kms.)	Line arrangement	System of working	Charted Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Charted Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking/auto signalling works under FLS/DPR
1	NR	MB	GZB-Sitapur (381 km)	Ghaziabad-Hapur	B	37	DL	ABS	50	55	110	Auto signalling works sanctioned and is in progress.	FLS for 3rd/4th line is in progress
2				Hapur-Gajrula		50.6			50	56	112		
3				Gajrula-Moradabad		53.42			50	57	114		
4				Moradabad-Kathghar		5.08			50	95	190		
5				Kathghar-Rampur		22.32			50	87	174		
6				Rampur-Bareilly		63.3			50	80	160		
7				Bareilly-Bareilly Cantt		4.44			50	84	168		
8				BRYC(Chanethi)-Shahjahanpur		66.93			50	88	176		
9				Shahjahanpur-Roza		7.35			50	93	186		
10				Roza-Sitapur City		70.4			50	29	58		

S. No.	Rly	Div	Route	Section	Group Route	Length (Kms.)	Line arrangement	System of working	Charted Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Charted Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking /auto signalling works under FLS/DPR
11	NER	LJN	Sitapur-GKC (313 km)	Sitapur-Burhwal	D	94.46	DL	ABS	40	32.05	80.13	Auto signalling works under progress	FLS for 3rd/4th line is in progress
12				Burhwal-Gonda		61.72			47	79.32	168.77	1. CLJ-BUW 3rd line. 2. BUW-GD auto signalling works under progress	FLS for 4th line is in progress
13				Gonda-Mankapur		27.94			44	68.22	155.05	1. Auto signalling works under progress. 2. DMG-GKP-GKC-KHM 3rd line sanctioned in WP 2016-17( KHM-GKC 3rd line completed.	FLS for 3rd/4th line is in progress
14				Mankapur-Gorakhpur		125.2			42	70.63	168.17		FLS for 4th line is in progress
15				Gorakhpur - Gorkhupur cantt		3.22	TSL		44	73.52	167.09		FLS for 4th line is in progress
16		BSB	GKC-CHPG (182 km)	Gorakhpur Cantt.-Chhapra	176.6	45	48		106.67	FLS for 3rd/4th line is in progress			
17				Chhapra-Chhapra Gramin	5.26	50	54.5		109	FLS for 4th line is in progress			
18	ECR	SEE	CHPG-KIR (390 km)	Chhapra Gramin-Sonpur	D Spl	48.48	DL		45	51.00	113.33	Automatic signalling work sanctioned.	FLS sanctioned for 3rd & 4th line between Chapra Kacherai - Katihar
19				Sonpur-Hajipur		5.58			45	70.00	155.56		
20				Hajipur-Muzaffarpur		53.78			43	43.00	101.18		
21				Muzaffarpur-Samastipur		51.76			43	51.50	118.85		
22				Samastipur-Bachhwara		34.45			43	45.00	103.85		
23				Bachhwara-Barauni		16.52			45	69.00	153.33	3rd & 4th line between BJU-BCA sanctioned. Work in progress.	

S. No.	Rly	Div	Route	Section	Group Route	Length (Kms.)	Line arrangement	System of working	Chartered Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Chartered Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking/auto signalling works under FLS/DPR
24	ECR	SEE	CHPG-KIR (390 km)	Barauni-Khagaria	D Spl	55.46	DL	ABS	43	53.50	125.88	Automatic signalling work sanctioned.	
25				Khagaria-Mansi		8.74			43	59.00	136.15		
26				Mansi-Koshi Block 'Hut'		73.18			43	40.00	94.12		
27				Koshi Block'Hut'-Kursela		2.64	TSL		42	40.00	96.00		
28				Kursela-Katihar		39.18	DL		41	40.00	97.96		
29	NFR	KIR	KIR-Raninagar Jalpaiguri (228 km)	Katihar-Kumedpur	D	30	SL		20	22	110	Doubling of KIR-KDPR is in progress. KIR-Mukuria Doubling is under process.	FLS for 3rd/4th line between KIR - KDPR is in progress
30				Kumedpur-Mukuria	B	23	DL		41	57	139	Provision of automatic block signaling with Centralized Traffic Control System between MLDT-AUB is in progress .	1. FLS for 3rd/4th line between KDPR - AUB is in progress 2. FLS for 3rd/4th line between AUB-NJP is completed. DPR submitted to Board 3. FLS for 3rd/4th line between NJP-KYQ is in progress
31				Mukuria – Barsoi		5			41	79	193		
32				Barsoi - Aluabari Rd		88			41	77	188		
33				Aluabari Rd - New Jalpaiguri		57			41	66	161		
34				New Jalpaiguri - Raninagar Jalpaiguri	D	26			41	59	144		

S. No.	Rly	Div	Route	Section	Group Route	Length (Kms.)	Line arrangement	System of working	Charted Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Charted Capacity WITH MB	Any doubling/multitracking/ auto signalling works under progress	Any doubling/multitracking/ auto signalling works under FLS/DPR
35	NFR	APDJ	Raninagar jalpaiguri - NBQ (225 km)	Raninagar Jalpaiguri – New Coochbehar	D	99.74	DL	ABS	43	49	113.95	1. Provision of automatic signaling with CTC between NJP-GHY has been sanctioned. 2. Doubling of Agthori-Kamakhya is in progress 3. 3rd line between KYQ-GHY is in progress.	FLS for 3rd/4th line between NJP-KYQ is in progress.
36				New Coochbehar-New Bongaigaon		125			45	49	108.88		
37		RNY	NBQ-Agthori (143km)	New Bongaigaon -Rangiya Jn.		109	SL		19	35.0	184.21		
38				Rangiya Jn.- Agthori		34			19	35.0	184.21		
39		LMG	Agthori-Guwahati (14 km)	Agthori- Kamakhya		7			20	30.7	153.50		
40				Kamakhya- Guwahati		6	TSL		26	46.9	180.38		

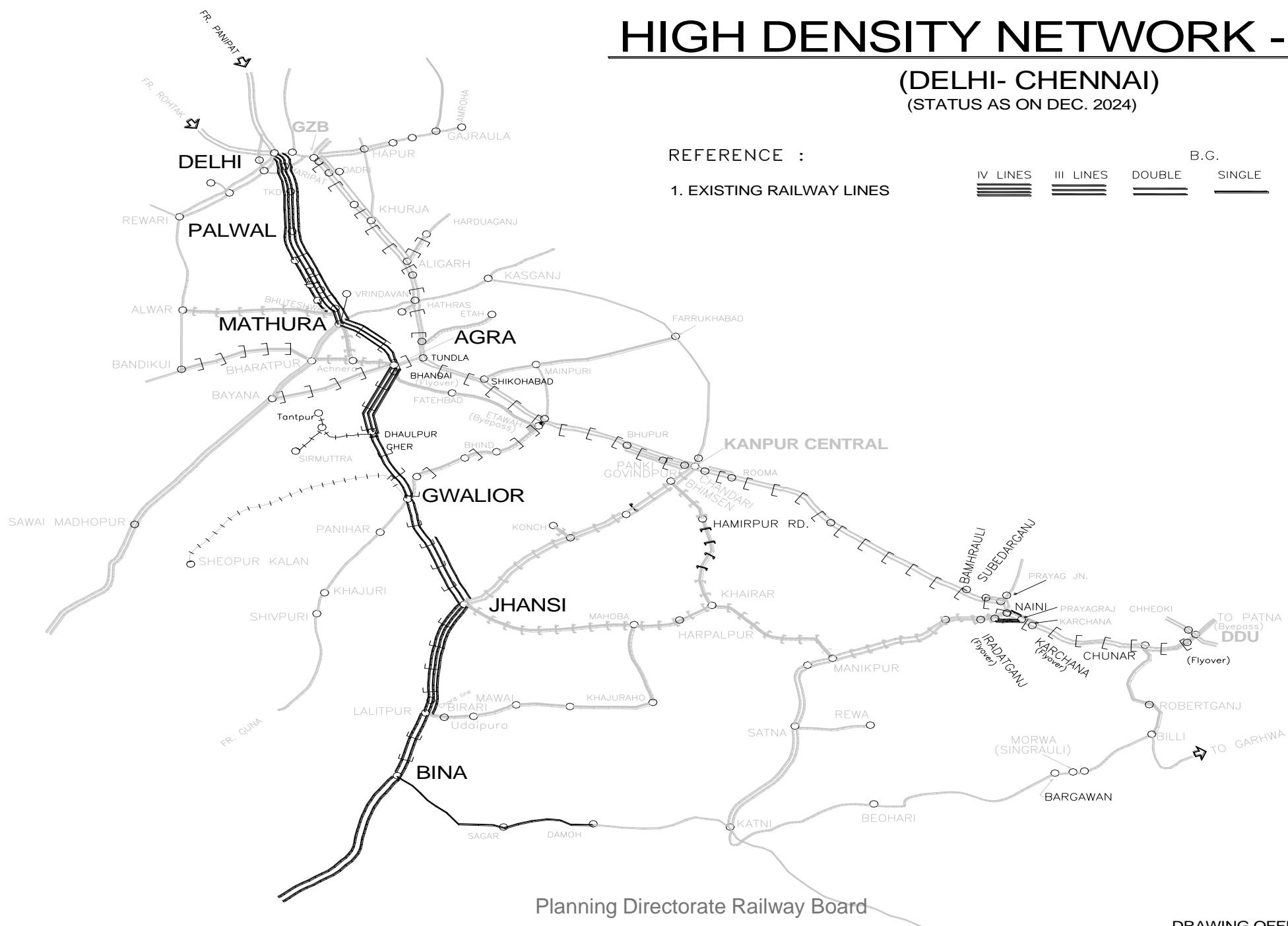
# **HDN – 5**

**(Delhi-Chennai via Mathura-Jhansi-Bina-Bhopal-Nagpur-Balharshah- Vijayawada)**  
**(2037 km)**



(STATUS AS ON DEC. 2024)

## 1. EXISTING RAILWAY LINES



Planning Directorate Railway Board

DRAWING OFFICE / PLANNING DIRECTORATE

# HIGH DENSITY NETWORK - 5 IN WCR

(DELHI-CHENNAI)  
(STATUS AS ON DEC. 2024)

REFERENCE :

1. EXISTING RAILWAY LINES

IV lines

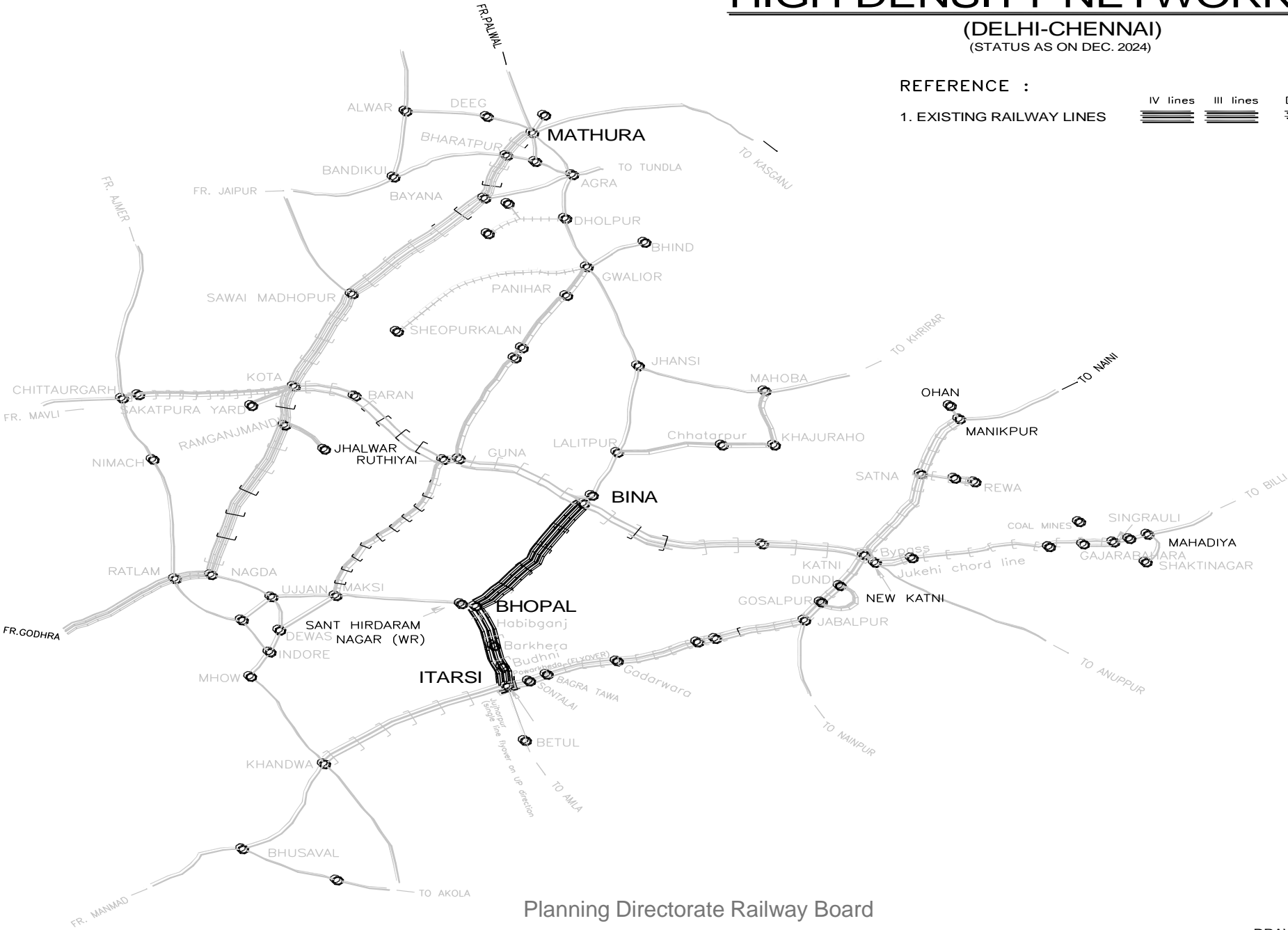
III lines

B.G.  
DOUBLE

SINGLE

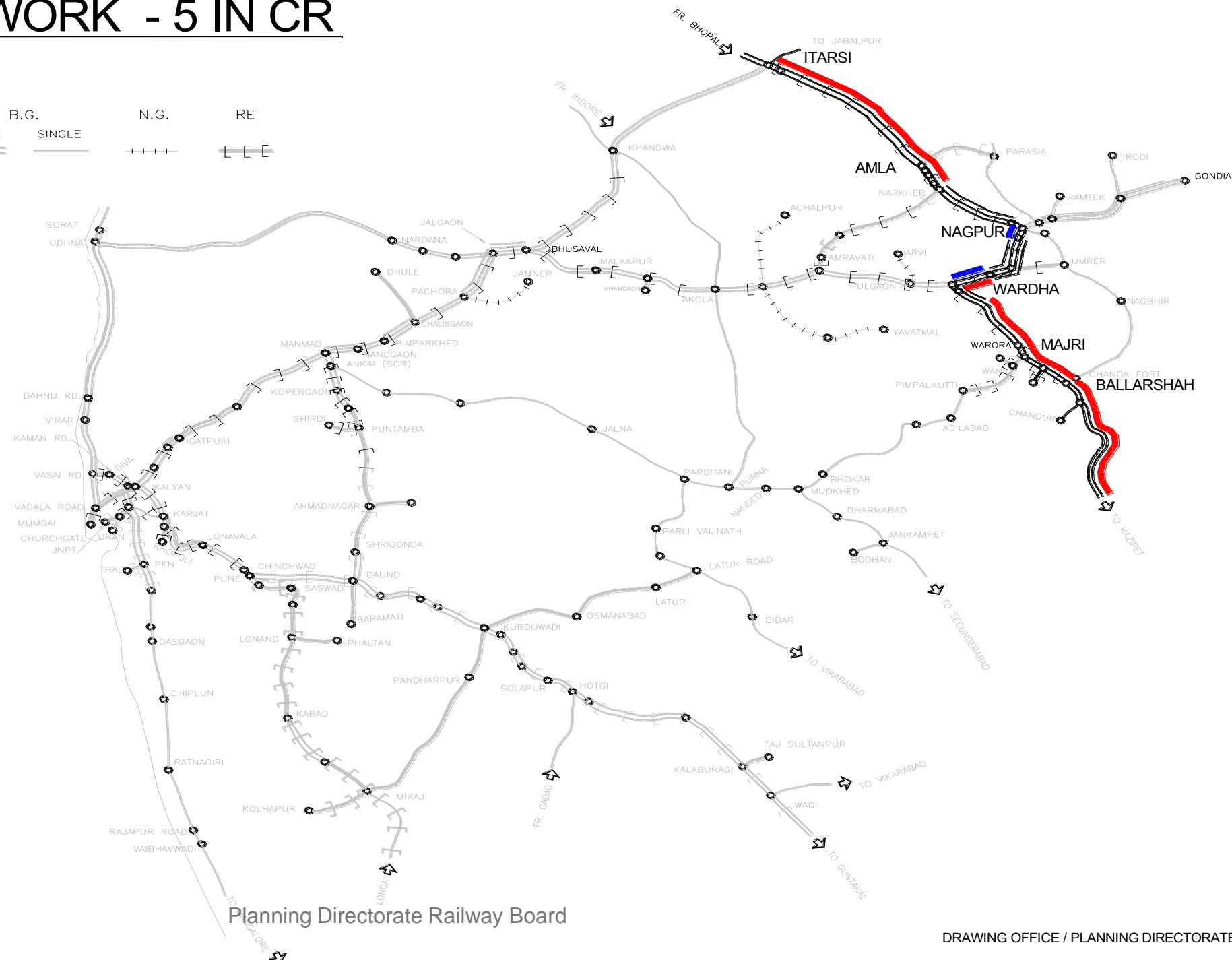
N.G.

RE



(STATUS AS ON DEC. 2024)

b. QUADRUPLER LINE










DRAWING OFFICE / PLANNING DIRECTORATE

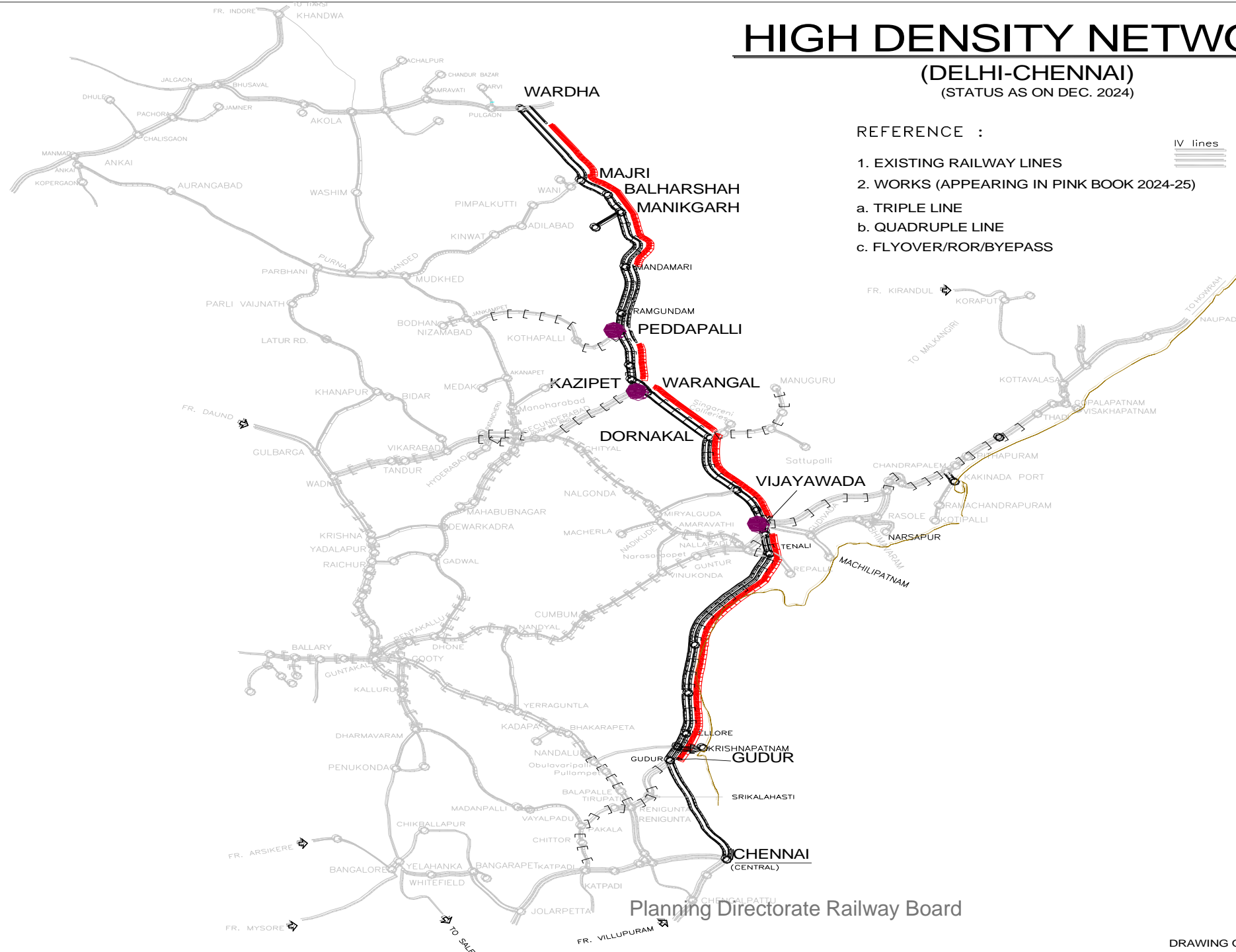
# HIGH DENSITY NETWORK - 5 IN SCR

(DELHI-CHENNAI)  
(STATUS AS ON DEC. 2024)

REFERENCE :

- EXISTING RAILWAY LINES
- WORKS (APPEARING IN PINK BOOK 2024-25)
  - TRIPLE LINE
  - QUADRUPLE LINE
  - FLYOVER/ROR/BYPASS

IV lines	III lines	DOUBLE	B.G.	SINGLE	M.G.	RE
						



Planning Directorate Railway Board



S. No.	Rly	Div	Route	Section	Group Route	Length (Kms.)	Line arrangement	System of working	Charted Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Charted Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking/auto signalling works under FLS/DPR
1	NCR	AGC	Mathura - Dholpur (107 km)	Mathura Jn - Agra	A	54.1	DL	Auto UP & DN Main line ABS in 3rd line	85	81.19	95.52	3rd line between KXM-BHA & MTJ-BAD under progress. Provision of automatic signaling Mathura Jn- Dholpur 3rd line work under progress. Mathura Jn- Dholpur 3rd line work under progress.	Mathura Jn- Dholpur 4th line is in DPR stage
2				Agra - Dholpur	A	52.5	TL	Auto UP & DN M/L (Between AGC - MIA)& ABS in 3rd line	76	87.1	114.61		
3		JHS	Dholpur -Bina (319 km)	Dholpur - Jhansi	A	167	DL/3rd	ABS + (Auto) 26-27	76	94.10	123.80	1. Provision of BINA-DHO 3rd line 2. LAR-BRRI doubling with Fly over. 3. Provision of DWA-BRRI chord line	Dholpur-Jhansi-Bina 4th line FLS under process
4				Jhansi-Bina	A	152	DL		78	97.00	124.40		
5	WCR	BPL	Bina-Itarsi (230 km)	Bina-Bhopal	A	138.4	TL	ABS	92	104.2	113.3	1. Provision of automatic signaling. 2. Chord line between Powerkheda - Gurra.	4th line FLS under process. DPR submitted
6				Bhopal-Barkhera	A	47.35			79.5	104.9	131.9		
7				Barkhera-Budni	A	19.39			72.5	104.9	144.7		
8				Budni-Itarsi	A	24.91		Auto	91	104.9	115.3		

S. No.	Rly	Div	Route	Section	Group Route	Length (Kms.)	Line arrangement	System of working	Charted Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Charted Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking/auto signalling works under FLS/DPR
9	CR	NGP	ET-BPQ (508 km)	Itarsi-Amla	A	130	DL	ABS	36.5	53.5	146.57	1. 3rd line between ET-AMLA-NGP (15-16). 2. ABS between Godhni-Dharakhoh	4th line between ET-AMLA-NGP
10				Amla-Nagpur		167			38	53.49	140.76		
11				Nagpur-Wardha		79			55	81.81	148.75	1. 3rd & 4 th line between WR-NGP WIP. 2. ABS between SEGM-KRI	
12				Wardha-Ballarshah		132			47	71.48	152.09	1. 3rd line between WR-BPQ WIP. 2. ABS between SEGM-BPQ	4th line between WR-BPQ
13	SCR	SC	BPQ-BZA (450 km)	Balharshah- Sirpur kagaznagar	A	69	TL	ABS	67	70.9	105.2	3rd line works in progress between BPQ-KZJ , Bypass line work in progress at PDPL	4th line FLS in progress
14				Sirpur kagaznagar-Bellampalli		38	DL		55	70.9	128.5		
15				Bellampalli - Mandamarri		9			57	80.7	141.9		
16				Mandamarri-Hasanparthy		104	TL		67	80.7	119.8		
17				Hasanparthy-Kazipet		12	DL		57	80.7	141.9	3rd line works in progress between KZJ-BZA	
18				Kazipet-Warangal		10			60	75.8	125.5		
19				Warangal-Nekonda		30	TL		71	75.8	106.9		
20				Nekonda - Dornakal jn		54	DL		60	75.8	125.5		

S. No.	Rly	Div	Route	Section	Group Route	Length (Kms.)	Line arrangement	System of working	Charted Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Charted Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking/auto signalling works under FLS/DPR
21	SCR	SC	BPQ-BZA (450 km)	Dornakal-Yerrupalem	A	82	DL	ABS	62	77.3	124.4	3rd line works in progress between KZJ-BZA	4th line FLS in progress
22				Yerrupalem-Vijayawada		41	TL		68	77.3	113.3		
23		BZA	Vijayawada-Krishnacanal	5		AUTO		95	132	140			
24			Krishnacanal-Tenali	26		DL	73	100	138	3rd line work between BZA-GDR is in progress	4th line FLS in progress		
25			Tenali-Bapatla	42			73	101	139				
26			Bapatla-Surareddipalem	75		TL	109	101	93				
27			Surareddipalem-Singarayakonda	18		DL	73	100	138				
28			Singarayakonda-Bitragunta	54		TL	109	100	92				
29			Bitragunta-Nellore	34			109	100	92				
30			Nellore-Gudur	38			109	103	94				
31	SR	MAS	GDR-MAS (136 km)	Gudur-Sullurupeta		54.85	DL	AUTO	78	36.4	46.5		FLS for 3rd and 4th lines in progress.
32				Sullurupeta-Gummidipundi		35.11			79	48.4	61.1		
33				Gummidipundi-Attipattu		25.2			80	79.3	99.1		
34				Attipattu-Ennore		6	QL		155	88.3	57		



S. No.	Rly	Div	Route	Section	Group Route	Length (Kms.)	Line arrange ment	System of working	Chartered Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Chartered Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking/auto signalling works under FLS/DPR
35	SR	MAS	GDR-MAS (136 km)	Ennore-Tiruvottiyur	A	7.07	QL	AUTO	155	88.4	57		
36				Tiruvottiyur-Korukkupet	A	4.88			155	90.5	58.4		
37				Korukkupet-Basin Bridge Jn.	A	0.71	DL		77	53.1	69.3		FLS sanctioned for 3rd and 4th lines
38				Basin Bridge Jn.-Chennai Central	A	2.22	Hexa		267	184	69		

# **HDN – 6**

**(Howrah - Chennai via Bhadrak-Visakhapatnam- Vijayawada )  
(1117 km)**

# HIGH DENSITY NETWORK - 6 IN SER

(HOWRAH - CHENNAI)

(STATUS AS ON DEC. 2024)

REFERENCE :

1. EXISTING RAILWAY LINES

2. WORKS (APPEARING IN PINK BOOK 2024-25)

a. TRIPLE LINE

b. QUADRUPLE LINE

IV lines



III lines



DOUBLE



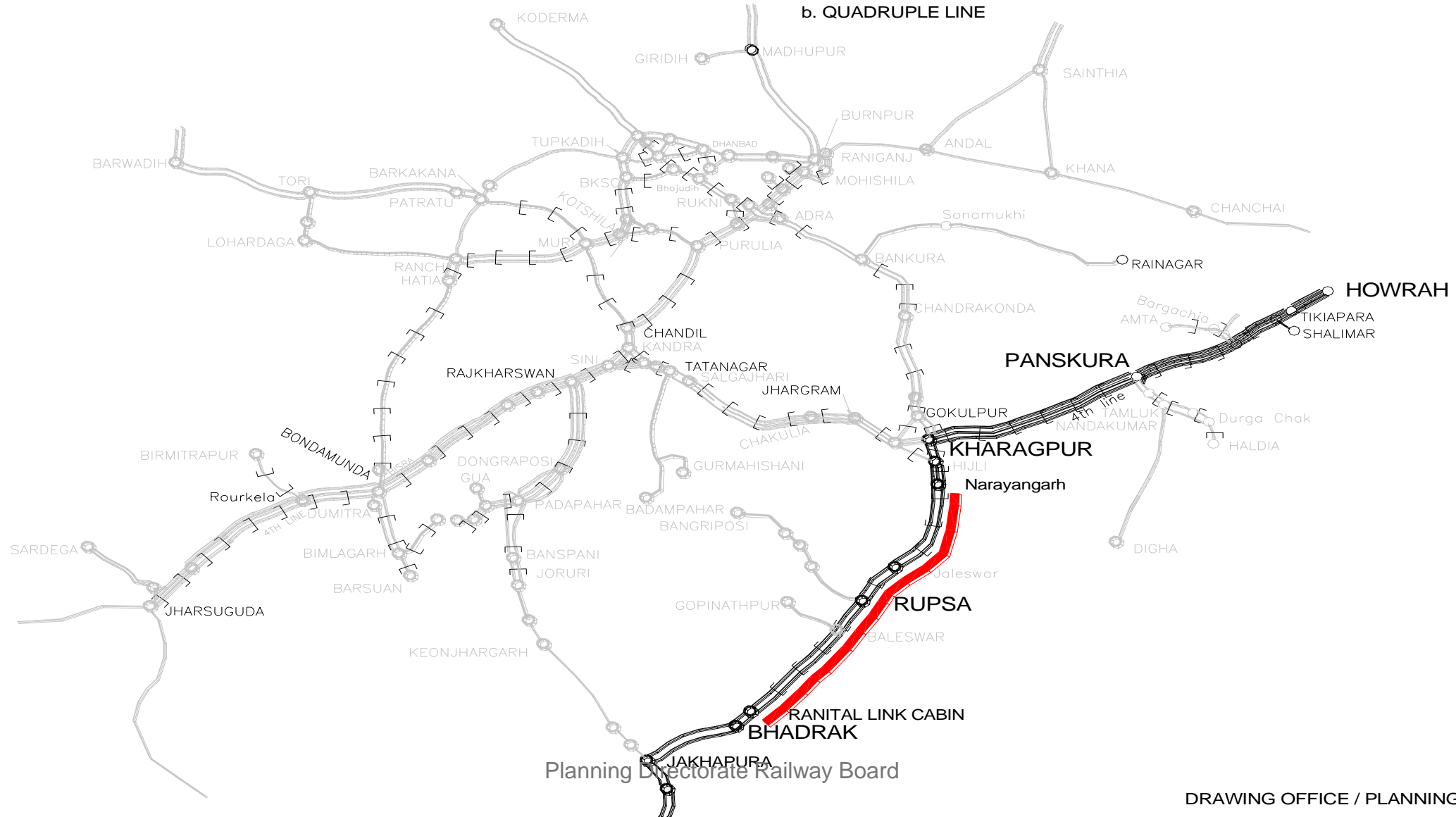
SINGLE



RE



B.G.



Planning Directorate Railway Board

DRAWING OFFICE / PLANNING DIRECTORATE

# HIGH DENSITY NETWORK - 6 IN ECoR

(HOWRAH-CHENNAI)

(STATUS AS ON DEC. 2024)

REFERENCE :

1. EXISTING RAILWAY LINES

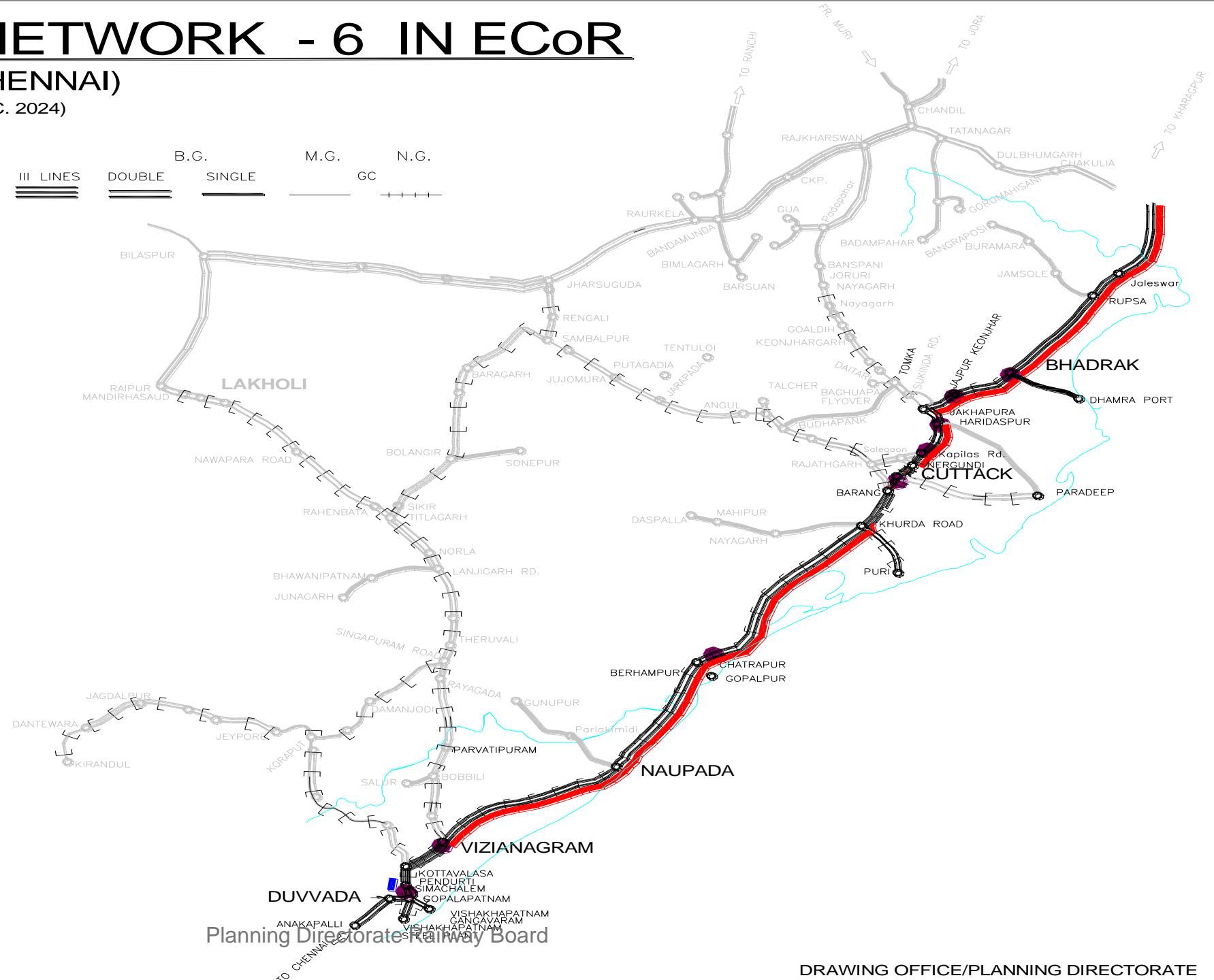
2. WORKS ( APPEARING IN PINK BOOK 2024-25)

a. TRIPLE LINE

b. QUADRUPLE LINE

c. FLYOVER/ROR/BYPASS

IV LINES  
III LINES  
DOUBLE  
SINGLE  
B.G.  
M.G.  
N.G.  
GC  
++++



Planning Directorate Railway Board

DRAWING OFFICE/PLANNING DIRECTORATE

# HIGH DENSITY NETWORK - 6 IN SCR

(HOWRAH-CHENNAI)  
(STATUS AS ON DEC. 2024)

REFERENCE :

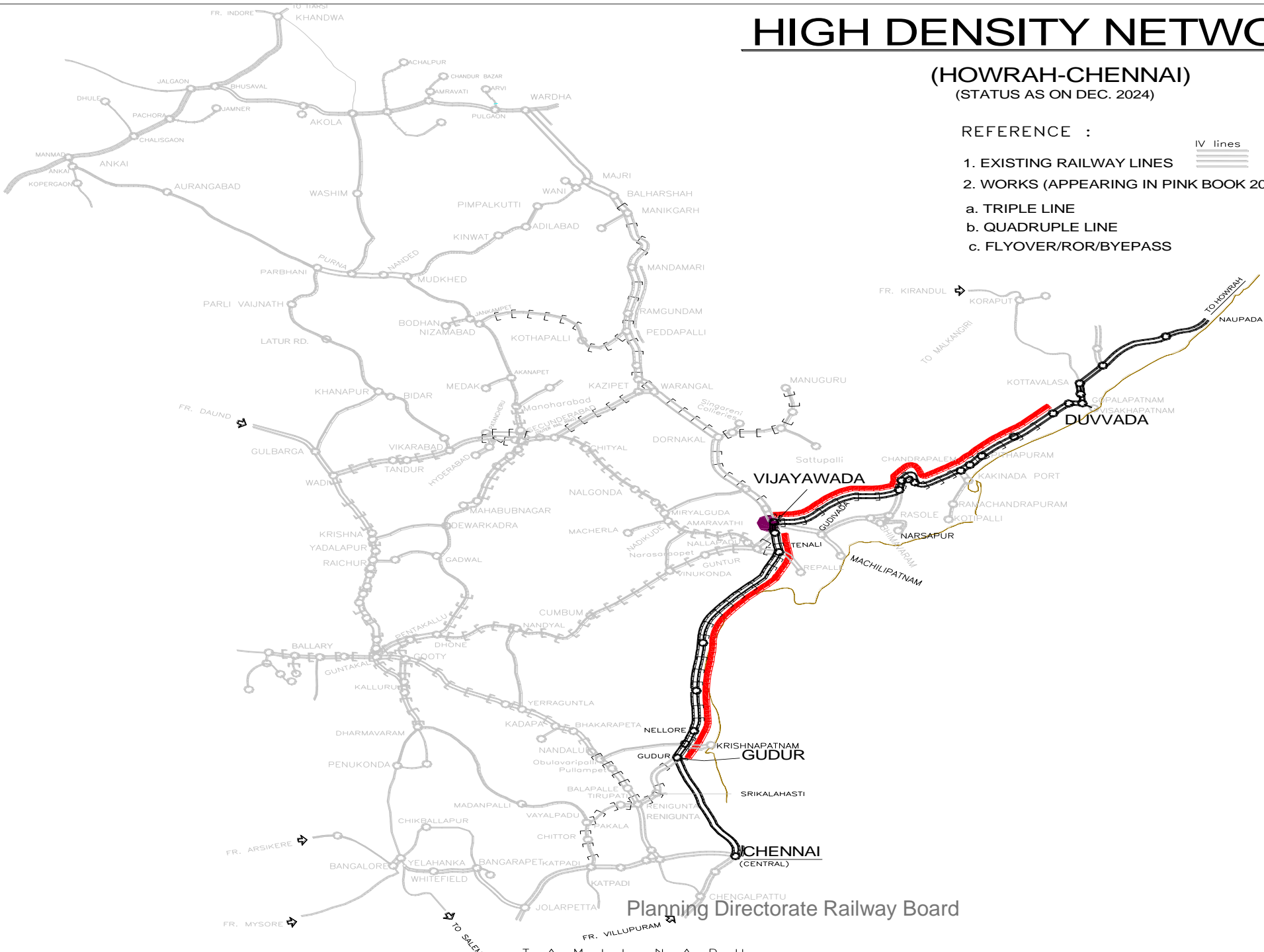
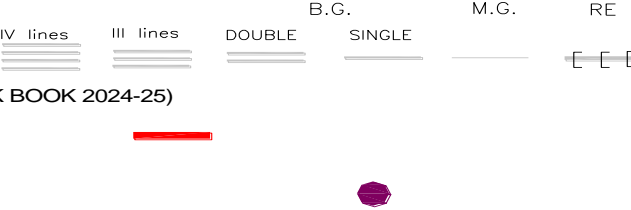
1. EXISTING RAILWAY LINES

2. WORKS (APPEARING IN PINK BOOK 2024-25)

a. TRIPLE LINE

b. QUADRUPLER LINE

c. FLYOVER/ROR/BYPASS



S. No.	Rly	Div	Route	Section	Group Route	Length (Kms.)	Line arrangement	System of working	Charted Line Capacity each way with MB	Average Nos. of train services each way (Total)	% age utilisation of Charted Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking/auto signalling works under FLS/DPR
1	SER	KGP	KGP-BZA (178 km)	Kharagpur / Nimpura-Bhadrak	B	177.85	DL	ABS	53	71.5	136	1. 3rd line is commissioned upto Belda 2. Narayangarh - Bhadrak 3rd line work. 3. Auto signalling work between KGP to BHC for UP / DN and 3rd line.	1. FLS for 4th line between Kharagpur - Bhadrak. 2. FLS for Hijli - Nimpura 3rd & 4th line
2	ECoR	KHURDA ROAD	Ranital link jn - Palasa (389 km)	Ranital Link Jn. Cabin - Bhadrak		5	78		66.98	86	1. 13rd line between Bhadrak-Nergundi section sanctioned in 2012-13; TDC: Oct25 (Ranital Link Jn. Cabin - Bhadrak section: Commissioned on 31-12-2024).	FLS for 4th line- DPR submitted to RB on 04-11-2024	
3				Bhadrak - Jakhapura		51	63		76.75	122	FLS for 4th line- DPR submitted to RB on 03-12-2024		
4				Jakhapura - Haridaspur		24	TL		94	85.88	91	2. Auto signalling sanctioned in Umbrella Work under PH-33(S&T works) over HDN route.	FLS for 4th line- DPR under preparation.
5				Haridaspur - Byree		17			75	71.56	95	1. Auto signalling sanctioned in Umbrella Work under PH-33(S&T works) over HDN route2 2. Flyover at Haridaspur ; TDC: Jan.-2027 3. Byree-Kapilas Road Flyover with 3rd line alignment; TDC:Mar.-25	
6				Byree - Nergundi		13	DL		67	70.67	105		
7				Nergundi - Cuttack		11		Auto	82	109.44	133	3rd line from Nergundi – Barang & Khurda Road - Vizianagaram sanctioned; TDC: Sep-2029.	
8				Cuttack - Barang		12			87	76.19	88		

S. No.	Rly	Div	Route	Section	Group Route	Length (Kms.)	Line arrangement	System of working	Charted Line Capacity each way with MB	Average Nos. of train services each way (Total)	% age utilisation of Charted Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking/auto signalling works under FLS/DPR
9	ECOR	KHURDAROAD	Ranital link jn - Palasa (389 km)	Barang - Khurda Road	B	35	TL	Auto	135	99.7	74	Khurda Road Flyover sanctioned & work in progress.	FLS for 4th line- DPR under preparation.
10				Khurda Road- Brahmapur		147	DL	ABS	63	74.82	118	1. 3rd line from Nergundi – Barang & Khurda Road - Vizianagaram sanctioned ;TDC-Sep-2029 2. By pass line at Vizianagaram sanctioned in 2015-16; The work is proposed to be executed along with 3rd line between Vizianagaram-Gotlam section (part of Vizianagaram-Titlagarh 3rd line project); TDC: Oct 25. 3. Vizianagaram-Kottavalasa 4th line sanctioned in 2023-24; TDC: Mar.'2028	
11				Brahmapur - Palasa		74			58	66.69	115		
12		Palasa - Naupada Jn.	26	61		63.67			105				
13			Naupada Jn. - Vizianagaram Jn.	117		60			61.78	103			
14			WALTAIR	Naupada - Duvvada (218 km)		Vizianagaram Jn. - Kottavalasa Jn.	35	TL	113	108.66	96		Flyover at Vizianagaram - DPR submitted to RB.
15						Kottavalasa Jn. - Simhachalam North	17	QL	125	123.16	98	Flyover taking of b/w Pendurti - Simhachalam North to avoid surface crossing at Simhachalam North sanctioned in 2022-23; TDC: Mar.'28.	FLS for 5th & 6th Line:- DPR under preparation.
16		Simhachalam North - Gopalpatnam				3	DL	61	54.17	89	FLS for 3rd & 4th Line:- DPR has been submitted to RB in Sep-24.		

S. No.	Rly	Div	Route	Section	Group Route	Length (Kms.)	Line arrangement	System of working	Charted Line Capacity each way with MB	Average Nos. of train services each way (Total)	% age utilisation of Charted Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking/auto signalling works under FLS/DPR
17	EC OR	WALTAIR	Naupada-Duvvada (218 km)	Gopalpatnam-Visakhapatnam	B	7	DL	Auto	100	100.32	100	3rd & 4th Line between Visakhapatnam - Gopalapatnam sanctioned in 2022-23. TDC: Mar.'2026.	
18				Gopalpatnam - Duvvada		10			73	62.11	85		FLS for 3rd & 4th Line
19				Simhachalam North - Duvvada (Bypass)	E	3			27	30	111	1. Final phase doubling of by pass line between Simhachalam North-Gopalpatnam involving Simhachalam North yard remodelling in the context of removal of diamond crossover; TDC: 2024-25. 2. 3rd & 4th Line between Duvvada-Simhachalam North sanctioned in 2022-23; TDC: Mar.'2026.	
24		SCR	Duvvada-Vijayawada (332 km)	Duvvada-Samalkot	B	133		ABS	73	87	120	.	3rd & 4th line FLS in progress
23				Samalkot-Rajamundry		50			73	100	138		
22				Rajamundry-Nidadavolu		22			73	103	141		
21				Nidadavolu-Gannavaram		107			73	87	120		
20				Gannavaram-Vijayawada		20		Auto	75	87	116		



# **HDN – 7**

**(Mumbai -Chennai via Pune – Solapur – Guntakal - Arrakonam )  
(1238 km)**

# HIGH DENSITY NETWORK - 7 IN CR

(MUMBAI-CHENNAI)  
(STATUS AS ON DEC. 2024)

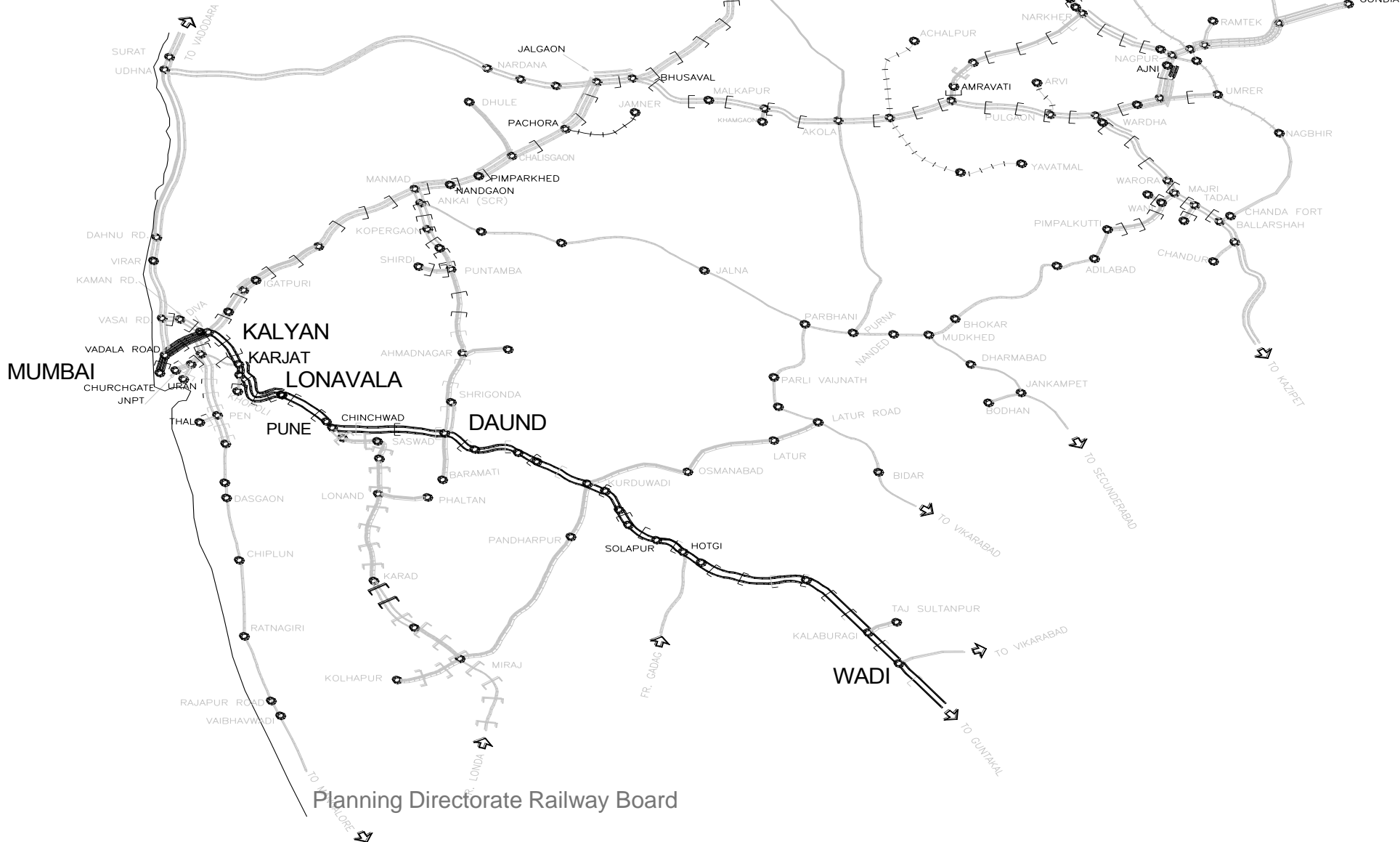
REFERENCE :

1. EXISTING RAILWAY LINES

2. WORKS (APPEARING IN PINK BOOK 2024-25)

- a. TRIPLE LINE
- b. QUADRUPLE LINE

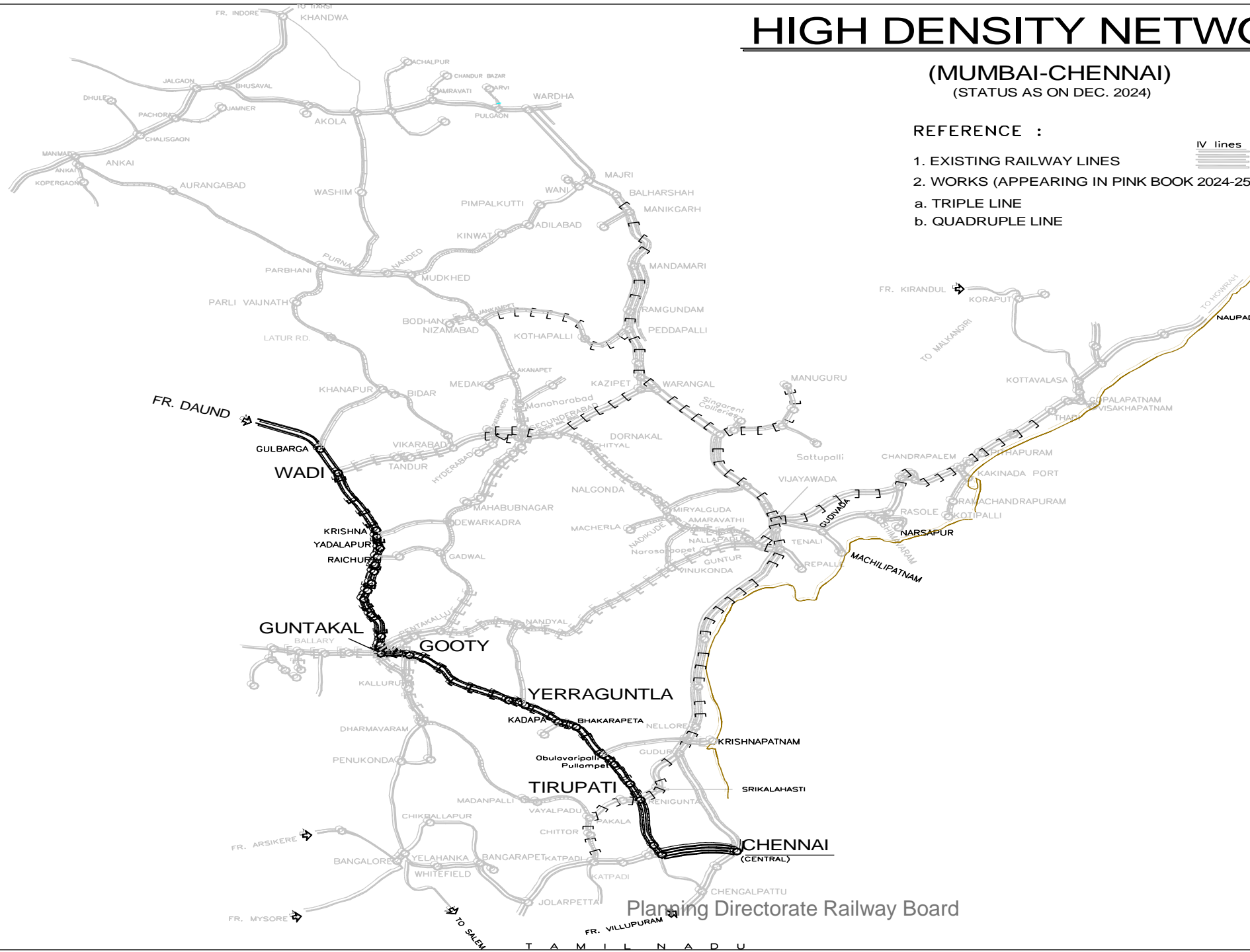
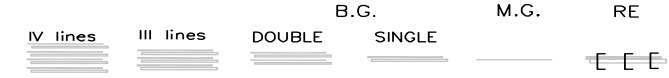
IV lines III lines DOUBLE SINGLE B.G. M.G. N.G. RE GC



(MUMBAI-CHENNAI)  
(STATUS AS ON DEC. 2024)

REFERENCE :

1. EXISTING RAILWAY LINES
2. WORKS (APPEARING IN PINK BOOK 2024-25)
  - a. TRIPLE LINE
  - b. QUADRUPLE LINE



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S. No.	Rly	Div	Route	Section	Group Route	Length (Kms.)	Line arrangement	System of working	Chartered Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Chartered Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking/auto signalling works under FLS/DPR
1	CR	BB	Kalyan-Lonavala (88 km)	Kalyan-Ambernath	B	14	DL	Auto	120	152.66	127.21%	KYN-BUD 3rd & 4th line (MUTP-3A).	
2				Ambernath-Badlapur		14			120	113.56	94.63%		
3				Badlapur-Karjat		32	DL		120	76.06	63.38%		Badlapur-Karjat 3rd & 4th line.
4				Karjat-Lonavala		28	TL	ABS	40	67.1	167.74%		Karjat - Lonavla 4th & 5th lines
5		PUNE	Lonavala-Daund (140 km)	Lonavala-Pune		64	DL	Auto	90	78.99	87.76%		3rd/4th line suburban corridor between LNL-PUNE under MUTP, executed by MRVC, sanction awaited.
6				Pune-Daund		76		ABS	74	72.09	97.42%	ABS between PUNE-DD-SUR-WADI	3rd & 4th line between PUNE-SUR-WADI
7		SUR	Daund-Wadi (339 km)	Daund-Kurduwadi		109			53	45.52	85.88%		
8				Kurduwadi-Solapur		79			54	44.31	82.06%		
9				Solapur-Hotgi		16			54	51.52	95.41%		
10				Hotgi-Wadi		135			54	58.3	107.96%		

S. No.	Rly	Div	Route	Section	Group Route	Length (Kms.)	Line arrangement	System of working	Charted Line Capacity each way with MB	Average Nos. of train services each way (Total)	%age utilisation of Charted Capacity WITH MB	Any doubling/multitracking/auto signalling works under progress	Any doubling/multitracking/auto signalling works under FLS/DPR
11	SCR	GTL	Wadi-Renigunta (538 km)	Wadi-Raichur	B	107	DL	ABS	39	40.2	103		3rd & 4th line FLS in progress
12				Raichur-Guntakal		121			39	37.4	96		
13				Guntakal-Gooty		29			37	33.1	89		
14				Gooty-Nandaluru		196			37	42.9	116		
15				Nandalur-Renigunta		85			39	39.7	102		
16	SR	MAS	Renigunta-Basin Bridge Jn (133 km)	Renigunta-Tiruttani		53.55	DL	Auto	45	41	91.1		
17				Tiruttani-Arakkonam North Cabin		11.31			80	54	67.5		
18				Arakkonam North cabin-Arakkonam Jn		1.44			52	36.3	70.3		
19				Arakkonam Jn.-Tiruvallur		26.83	QL		185	106.9	57.8		
20				Tiruvallur-Pattabiram		16.72			185	142.2	76.9		
21				Pattabiram-Avadi		3.91			185	193.3	104.5		
22				Avadi-Villivakkam		11.61			185	194.6	105.2		
23				Villivakkam-Vyasarpadi		5.8			185	194.6	105.2		
24				Vyasarpadi-Basin Bridge Jn.		1.39			185	131.1	70.9		