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भारत सरकार GOVERNMENT OF INDIA
रेल मंत्रालय MINISTRY OF RAILWAYS
(रेलवे बोर्ड RAILWAY BOARD)

No 2006/M(N)/951/28 New Delhi, dated 10.06.2022

General Managers
All Indian Railways

Sub : Up gradation of freight maintenance infrastructure in Yards and ROH depots

Ref : Report of the Committee on Mission 3000 Million tons (copy enclosed)

Railway Board had constituted a multi disciplinary committee consisting of officers from different departments of Railway Board to prepare a road map for meeting demand of freight loading of 3000 million tons per annum by the year 2027. Report submitted by the Committee has been duly accepted by Board.

As per the report, there will be an increase in wagon population which will lead to increase in freight examinations from the current average of 411 to 541 per day. To meet this increased demand, yard examination facilities will be required to be upgraded and augmented. Also, the increased wagon population will lead to an increase in average ROH requirement from the existing 10,000 wagons per month to 14700 wagons per month.

Zonal Railways are requested to plan the additional facilities required to be created for meeting this requirement, including the resources required for operation of these additional facilities, and process for sanction at the earliest.

DA: as above

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2006/M(N)/951/28.
1179360/2022/MECHANICAL(WAGON)



MISSION 3000 MT

REPORT OF THE MULTI-DISCIPLINARY COMMITTEE FOR PLANNING VARIOUS MEASURES TO MEET FUTURE DEMAND OF FREIGHT LOADING OF 3000 MT PER ANNUM BY 2027





2006/M(N)/951/28.

1179360/2022/MECHANICAL(WAGON)

भारत सरकार/GOVERNMENT OF INDIA
रेल मंत्रालय/MINISTRY OF RAILWAYS
रेलवे बोर्ड /(RAILWAY BOARD)

No. 2022/Infra/17/5 New Delhi, dated : 16 May,2022

Subject: **Report of the Committee on Mission 3000 MT**

1. Ministry of Railways (Railway Board) vide letter No. ERB-1/2022/23/30 Dated 28/04/2022 constituted a multi disciplinary committee to deliberate and submit their recommendations for planning various measures to meet future peak demand of freight loading of 3000 MT per annum by augmentation and upgradation of network track system and rolling stock etc.

2. The Committee consisted of the following:-

i.	PED (Infra), Railway Board	Convener
ii.	PED/TT(M), Railway Board	Member
iii.	PED/E(Dev), Railway Board	Member
iv.	ED (Plg.), Railway Board	Member
v.	ED/Project Monitoring, Railway Board	Member
vi.	ED/RE, Railway Board	Member
vii.	EDME(Fr.), Railway Board	Member
viii.	ED/S&T(Proj.), Railway Board	Member
ix.	ED/FM, Railway Board	Member
x.	ED/F(X), Railway Board	Member

3. The Terms of Reference of the Committee were defined as under:-

"To prepare a road map for meeting future peak demand of freight loading of 3000 MT per annum by identifying various works for upgradation /augmentation of network, system, 2x25 kV traction & rolling stock, duly prioritizing them suggesting strategies/ modalities for their time bound implementation and devising strategy for inducing modal shift".

4. Vide Railway Board letter dated 4.5.2022 of even reference, PED/CE(Plg) and ED/Works were co-opted as Committee Members.

5.

6. The Committee held detailed deliberation on the subject and the report of the Committee is attached herewith.

(V.Shanker) 16/05/22 **ED (Plg.)**	(Vikas Kumar Jain) 16/5/22 **ED/Proj. Monitoring**	(B.S.Bodh) 16/5/22 **ED/RE**
(V.K.Agarwal) **EDME(Fr.)**	(Sudeep Shrivastava) 16/5/22 **ED/S&T(Proj.)**	(Mudit Chandra) 16/5/2022 **ED/FM**
(Ajeet Kumar Srivastava) **ED/F(X)**	(Dhananjaya Singh) 16/5/2022 **ED/Works**	(Atul B.Khare) 16/05/2022 **PED/CE(Plg)**
(Manoj Kumar Srivastava) **PED/TT(M**	(R.K.Jain) 16/5/2022 **PED/E(Dev)**	(Shri R.N.Singh) **PED (Infra)**

BACKGROUND

1.0 Preamble and Objective

Indian Railways (IR), the 4th largest Railway Network in the world, transported a record 1418 Million Tonnes(MT) cargo in the financial year 2021-22. IR plays a stellar role in meeting the logistics needs of the country and is rightly called the lifeline of the nation.

As per NITI Ayog's Vision 2030 document, Railways need to carry 40-45% share of the freight on economic and environmental considerations. National Rail Plan (NRP) was released by MoR in the year 2020 with the objective of enhancing the modal share of Rail to 40%-45% of logistics market primarily by creating adequate capacity ahead of demand. Accordingly a pipeline of capacity enhancement works was envisaged for easing the bottlenecks/constraints and augmenting the network to make it capable of moving 3600 MT cargo by 2030-31. A short-term plan namely Vision 2024 was also carved out from NRP by identifying and prioritizing certain works for achieving 2024 MT by the year 2024.

However, the pandemic and consequent supply chain disruptions have created peculiar market conditions leading to substantial rise in demand in transport sector with increased preference for railway transport especially in the wake of rising fuel prices. Further, in view of prevailing international political uncertainty impacting the fuel prices, demand for rail transportation is likely to pick up further. In such a scenario, IR needs to gear up to target the much higher traffic growth with ultimate objective to achieve 40-45% modal share by 2030 as envisaged in NRP.

Accordingly, the present Mission 3000MT has been formulated as an intermediate milestone towards achieving aforesaid ambitious target of NRP by identifying and prioritizing crucial capacity enhancement works for implementation before 2027 and suggesting an action plan for making requisite policy and strategic interventions to induce desired modal shift to Rail.

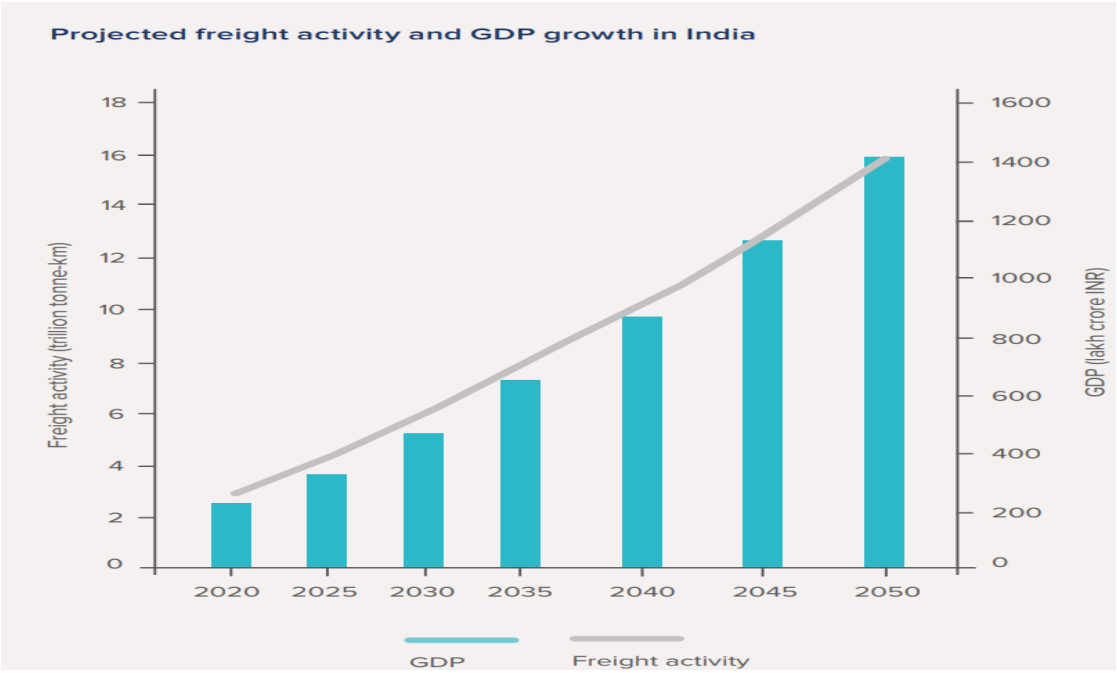
2.0 Railway's share in Logistics Market

Over last seven decades (from 1950-51 to 2021-22), India's logistics market has grown manifold from 86.5MT(originating loading) to approximately 4500-5000 MT i.e. by almost 55 times, whereas in comparison, Rail Cargo has grown only by about 20 times from 73.2 MT to 1418MT (820 billion NTKM), which is amply manifested in IR's consistently declining market share from a whopping 85% in 1951 to 60% in 1991 and to a current level of around 27%-28%.

3.0 Necessity to Improve Modal Share of Rail from National perspective

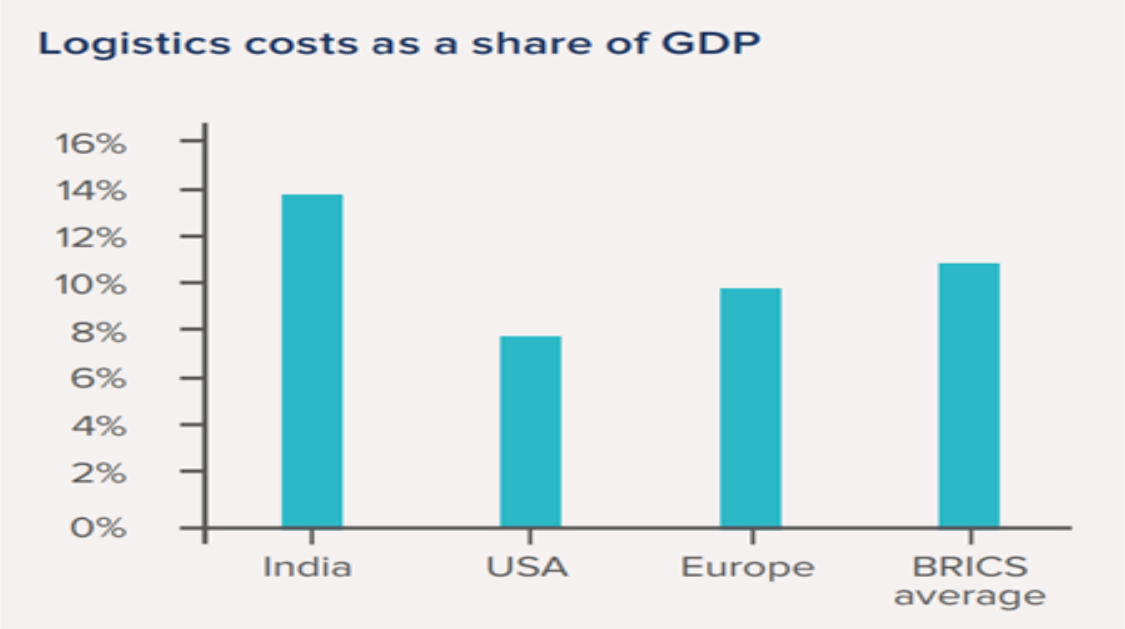
3.1 India's logistics industry handles over 10,000 types of diverse products and generates about approximately 4500-5000MT of Cargo annually, which translates into about 3 trillion NTKM of transportation output at a cost of approximately Rs.9.5 lakh crore. Demand for freight transport has been increasing rapidly to keep pace with the high economic growth coupled with the rising population and improved standards of living, which together fuel higher demand for consumption of goods, as has also been witnessed in the developed economies. With rising income levels, higher exports, rapidly growing e-commerce and retail market and a projected GDP growth of around seven percent in the next five years, the demand for goods movement is expected to grow more than 7 percent and transportation output is expected to increase from current level of 3 trillion

NTKM to 15.6 trillion NTKM by 2050, which will spur growth across all freight modes, and therefore it is high time that IR should gear up to claim its rightful place in such a growing logistics market.



3.2 The necessity to improve the rail share in logistics sector has a very strong justification on the grounds of cost effectiveness, reliability, faster transit time and environmental factors such as carbon emission etc. India being a large subcontinent, efficient and low cost transportation of minerals, food grains, industrial goods, exim consignments etc to and fro hinterland is vital for its healthy, evenly spread and balanced economic growth.

3.3 India's current logistics cost as a share of GDP is 14 percent, which is significantly higher when compared to developed economies where it ranges between 8 and 10 percent. Higher cost of logistics adversely affects the global competitiveness of the Indian Industry and consequently hampers the overall economic prosperity of the nation.



3.4 CO2 emissions from freight transport are projected to increase by 451 percent – from 220 million tonnes in 2020 to 1,214 million tonnes in 2050. Road freight is the biggest contributor to these emissions, responsible for 95 percent of CO2 emissions, as of now. In case Rail share remain the same, then by 2050, road freight is projected to be the biggest contributor to CO2 emissions, while air transport will be the second-biggest contributor, mainly due to increased express and overnight deliveries of products. Above facts and circumstances establish a strong need to improve the modal share of environmental friendly rail transportation in India's inland logistics market to 40% in line with major economies.

4.0 Key challenges & Constraints for IR in freight segment:

4.1 Due to chronic under-investment in IR over years in expansion/augmentation of network and its upgradation, it started suffering from severe capacity constraints especially on its HDN/HUN routes. Consequently, IR could not keep pace with the increasing transportation demand of growing economy specially post-1990. Capacity constraints eventually resulted in low average speed of freight traffic, sub-optimal throughput and poor reliability. In contrast, other modes of transport, mainly road, became more competitive owing to vastly improved infrastructure during last 25 years coupled with cargo friendly initiatives such as GST, electronic toll collection, increase in axle loads, door to door service, ease of moving piecemeal traffic etc. These factors have induced gradual & consistent modal shift in favour of road over a period.

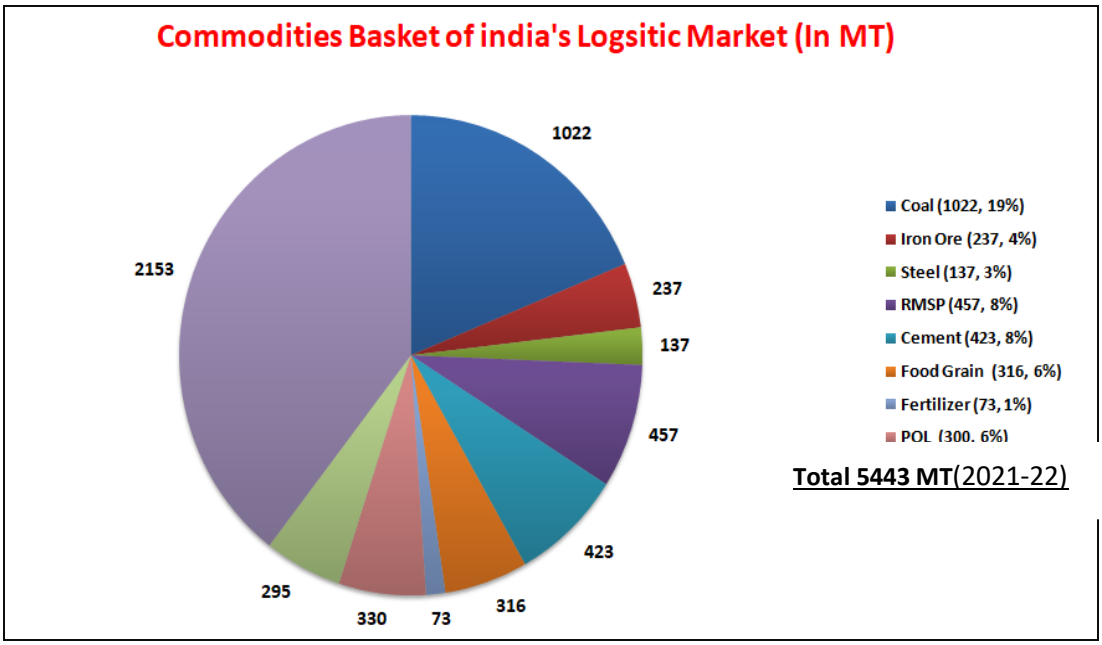
4.2 The progression in the industrial consumption patterns has also changed the dynamics of freight transport, re-orienting it towards customer's need for faster transit, door to door service, reliability, traceability, predictability and smaller parcel sizes which is better supported by road transport.

4.3 The freight segment of the IR, though growing in absolute terms, is constrained further by customer service issues, rigid policy framework, restrictions on piecemeal traffic, low containerization, inadequate inter-modal integration etc. Besides, both passenger and freight trains run on a common network and with the IR prioritizing passenger trains over freight trains for obvious reasons, transit time and reliability of freight trains are badly affected. While 60% of the capacity of the rail network is deployed for passenger transport, the segment contributes only 30% to IR's total revenues, reflecting the distortion which has crept into the system over a period.

4.4 Another major issue facing the freight segment of the IR is the better price competitiveness of road transport due to higher rail tariffs added with additional costs of first and last-mile connectivity, attributable to extensive cross-subsidization of passenger fares by high freight charges, cited by stakeholders as a key reason for the shift from rail to roads.

4.5 Railway's Limited Commodity Basket vis-a-vis Overall Logistics Scenario

Contribution of various commodities in overall logistics market and in IR's commodity basket is depicted in chart & tables below:



Commodity-wise growth of Rail Cargo over last decade

Commodity	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	CAGR
Coal	456	496	509	546	552	533	555	605	587	542	653	4.6%
RM for Steel	15	16	17	18	20	23	24	25	25	25	29	9.1%
Pigiron & Finished Steel	35	35	39	43	45	52	54	53	54	59	68	7.4%
Iron Ore	105	111	124	113	117	138	140	137	153	159	168	0.8%
Cement	108	106	110	110	105	103	113	118	111	121	139	3.0%
Food grains	46	49	55	55	46	45	44	39	38	63	73	2.4%
Fertilizers	53	46	45	47	52	48	49	52	52	54	49	1.8%
POL	40	41	41	41	43	42	43	43	45	43	45	1.4%
Containers	38	41	44	49	46	47	54	60	61	63	74	7.0%
BOG	74	67	69	73	75	74	84	89	85	103	119	3.4%
Total	**969**	**1,008**	**1,052**	**1,095**	**1,102**	**1,106**	**1,159**	**1,223**	**1,210**	**1,233**	**1,418**	**4.1%**

Railway's Current Share(Commodity-wise) in Logistics Market 2021-22(Current)vs2029-30 (projected) for BAU scenario						
Commodity	**Total In MT**	**Rly Share MT**	**% of Share**	**Total In MT**	**Rly Share (MT)**	**% Share**
Coal	1022	653.36	63.92	1400	868	62
Iron Ore	237	168.36	71.03	356	219	60
Steel	137	68.31	49.86	205	112.75	55
RMSP	457	28.88	6.31	699	69.9	10
Cement	423	138.57	32.75	743	282.34	38
Food Grain	316	73.38	23.22	395	67.15	17
Fertilizer	73	49.48	67.78	116	98.6	85
POL	330	45.05	13.65	504	50.4	10
Container	295	74.38	25.21	485	77.6	16
Balance Other Goods(BOG)	2153	118.5	5.50	3560	3.56	1
TOTAL	**5443**	**1418.27**	**26.05**	**8463**	**1862.3**	**22**

It can be observed from above that IR's freight basket is limited and highly skewed vis-à-vis overall logistics market as it is heavily dependent on coal, iron ore/steel, cement, foodgrain, POL & fertilizer, contributing almost 74% of freight volume. These commodities have witnessed a slower growth in the past few years and likely to grow at a same pace in future as well vis-à-vis overall growth of logistics sector, owing to factors like emergence of renewable energy, rise in pithead based power plants, pipe line based POL movement, modal shift to road etc. This situation is severely limiting the IR's growth potential in freight segment.

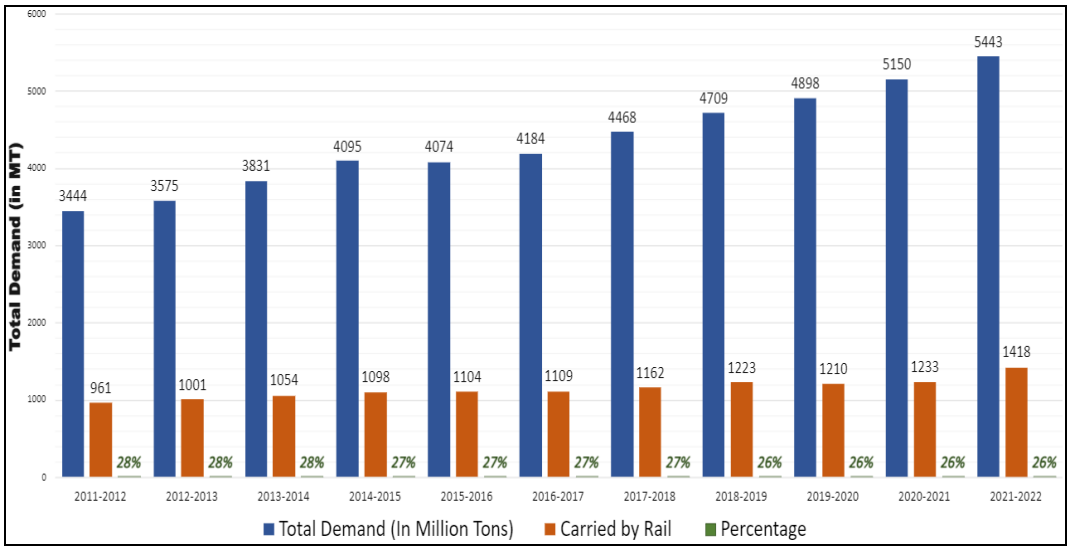
Miniscule rail co-efficient of 5.5% in BOG segment, which is fairly large at 2153 MT (approx. 40% of total logistics basket), is also a major constraint and therefore a deep dive analysis is needed to evolve an effective strategy for attempting its modal shift. Major commodities in BOG basket are stone, bauxite, finished Metals, zinc, manganese, agriculture produce, fodder, edible oil, ashes, gypsum, sugar, salt, sand, de-oiled cake, chemicals, dolomite, limestone, slag, timber, concrete product, etc., most of which presently move by road. Special marketing and pricing strategies need to be put in place to capture & shift this segment to Rail.

4.6 **Factoring in the "Network Effect" for sanctioning Projects"**: It has been observed that as the size of the network and interconnections increase, even adding small interventions and links at crucial locations may have multiplier effect on network capacity and efficiency. Rate of Return (RoR) based assessment for such crucial links on stand-alone basis does not capture the benefits of network effects and may not give the holistic perspective for investment decisions for such links/projects.

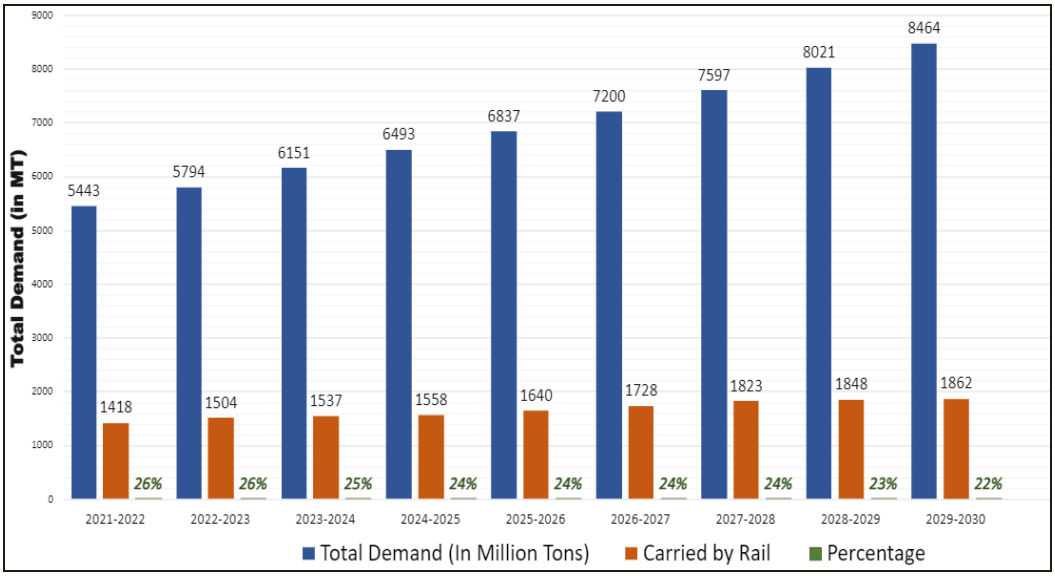
Keeping this in view, it is essential that we include comprehensive network effect analysis also while short-listing & sanctioning new railway projects such as mines/ports/industrial hubs connectivity projects and also the projects based on socio-economic considerations to connect cities/towns/district headquarter with threshold population, aspirational districts and places of tourist importance, rather than individual and stand-alone RoR based approach, which may generally be funded through Gross Budgetary Support.

4.7 All above constraints (para 4.1 to 4.6) are inhibiting the IR from realizing its optimal potential. With the "Business As Usual (BAU) scenario of CAGR of 4.1% witnessed over past decade, IR is likely to end up achieving 1728 MT of freight loading by FY27 and 1862 MT by FY30 (as depicted in following graphs and table), which is far short of target of 3000 MT by FY 27 requiring 16.2% growth rate(CAGR).

Total Logistics Market vs Rail share (current trend from 2011-12 to 2021-22)



Projected Logistics Market vs Rail share (from 2021-22 to 2029-30 as per BAU scenario)



5.0 Strategy to realize Mission-3000 MT by 2027

For achieving Mission-3000 MT, an ambitious growth of CAGR of 16.5% is needed over next five years for which IR needs to effectively address and overcome the major challenges of supply side and demand side constraints highlighted in para 4 above, in a time bound manner.

5.1 **Supply side Constraints:** To ease these constraints, there is immediate need to commission the identified Crucial Capacity Enhancement Works (i.e. Augmentation & Upgradation of Network

and Rolling stock Fleet) to enable IR to create adequate capacity to carry 3000MT Cargo with desirable efficiency, speed, cost and reliability to the satisfaction of customer vis-à-vis its current capacity of about 1500MT.

5.2 **Demand side Constraints:** With improved capacity, some additional cargo from presently unmet demand (400-500 MT) will automatically switch to Rail. However, garnering 3000MT by FY27 cargo necessitates proactive interventions for attracting incremental traffic and inducing modal shift through marketing strategy, dynamic pricing, assured transit time, higher efficiencies, diversification of commodity basket, enhanced containerization, enabling piecemeal loading, door to door service through intermodal integration and customer centric service delivery.

5.2.1 Strategies for inducing modal shift to Rail

The National Rail Plan projects modal shift from road to rail under different scenarios as analyzed below. Targeted optimum modal mix has been worked out under these scenarios and outcomes have been predicted.

Scenarios are based on two major variables- average transit speed and overall cost to customer.

Scenario 1-Business as Usual (BAU): IR infrastructure remains the same along with full implementation of Bharat Mala (road network) & both DFCs

Scenario-2 - Enhancement of average Speed to 50 Kmph on IR network by implementation of capacity enhancement works including DFCs.

Scenario 3-Enhancement of average cargo Speed to 50 Kmph through capacity enhancement works coupled with 30% reduced cost to customers (except in 4 commodities) by 2026-27.

Scenario 4- Same infrastructure with reduction of cost to customers by 30%.

ESTIMATION OF RAIL SHARE IN VARIOUS SCENARIOS					
Commodities	Existing Scenario	Scenario1: Business as Usual (BAU)	Scenario 2: Enhancement of Average Speed to 50 KMPH	Scenario 3: Enhancement Average Speed to 50 KMPH with 30% Reduced Cost to Customer	Scenario 4: Business as Usual (BAU) with 30% reduced cost to Customer
BOG	4%	1%	18%	22%	7%
Cement	37%	38%	42%	51%	48%
Coal*	65%	61%	74%	74%	67%
Container	24%	16%	44%	48%	29%
Fertilizer*	87%	85%	90%	90%	88%
Food grains	16%	17%	21%	32%	29%
Iron Ore*	65%	60%	82%	82%	70%
Pig Iron	49%	49%	57%	70%	65%
POL	18%	9%	44%	48%	14%
Steel RM*	56%	55%	60%	60%	58%
Rail Share	28%	24%	40%	45%	31%

*No tariff reduction is assumed for Coal, Fertilizer, Iron Ore and Raw Material for Steel, as the share of these commodities does not increase by more than 5% even with reduced tariff.

Ideally, IR should strive for Scenario-3 for reaching modal share of 45% through a combination of capacity enhacement works and lowering of cost to customer.

6.0 Action Plan for Mission-3000MT

As already brought out, the conventional approach and BAU scenario of 4.1% CAGR is incapable of achieving 3000 MT by 2027. Strong initiatives and robust inputs are warranted to address & overcome various constraints and challenges brought out in para-4 above for realizing such ambitious target.

Accordingly, a threefold strategy has been formulated to address following constraints:

(i) Infrastructural constraints
(ii) Rolling Stock constraints and
(iii) Marketing, pricing, customer service and policy related issues:

Strategy:

(A) Network Expansion/Augmentation and Upgradation works to improve the carrying capacity of (3000MT +20%)
(B) Commensurate Augmentation and Upgradation of Rolling Stock Fleet (Locos & Wagons)
(C) Policy, Strategic and Customer-centric initiatives for inducing modal shift to Rail

Above strategies (A), (B) & (C) have been translated into detailed action plan elaborated in various **Annexures, as summarized below:**

(A) CAPACITY ENHANCEMENT WORKS FOR NETWORK AUGMENTATION AND UPGRADATION:

ANNEXURES	MISSION	MISSION LEADERS
A-1	**Commissioning of Super Critical** (58 Nos.) **and Critical projects** (68 Nos.) which are already under implementation. The list of balance projects (74 Nos.) (19+55) along with their present status and TDC is placed at Annexure A-1.	**AM/W, PED/GS & GMs**
A-2	**Commissioning of ongoing DFC works** will lead to decongestion, increased throughput, incremental traffic and reduced logistics cost along DFC routes. Both DFCs need to be completed by March, 2023. Current progress is 1270 Km out of total 2843 Km. The section-wise targets, as given by DFCCIL, are placed at Annexure A-2.	**PED /Infra & MD/DFCCIL**
A-3	**"Priority works" of Capacity Enhancement**: Total 327 nos. (DL, NL & GC) works have been identified for early implementation. Out of these, 239 works are sanctioned, while 88 works are yet to be sanctioned. Their present status and TDC for sanctioning and completion is placed at Annexure A-3.	**AM/W, PED/GS & GMs**
A-4	**Coal related doubling/new line/GC Projects**: Early commissioning of 19 nos. identified coal related doubling/new line/GC works (mostly sanctioned) is crucial as coal shortage have become critical to the economy of the country. The list of such projects along with their present status and target dates for sanctioning & completion is placed at Annexure A-4.	**AM/W, PED/GS & GMs**
A-5	**First & last mile connectivity projects**: 50 nos. new works under this category have been identified, which are yet to be sanctioned. The list of such projects along with their present status and TDC for sanctioning & completion is placed at Annexure A-5.	**AM/W, PED/GS & GMs**
A-6	**Patch Doubling**: 188 nos. new works have been identified (unsanctioned). The list of such projects along with their present status and proposed TDC for sanctioning & completion is placed at Annexure A-6.	**AM/W, PED/GS & GMs**
A-7	East Coast of the country has tremendous potential for loading but carrying capacity in this area remains the critical constraint. Balance works of 3rd& 4th line from Khurda to Vijayanagar (300 km) need to be sanctioned & completed on priority for meeting additional transportation demands, as East Coast DFC, even if sanctioned, is likely to take 8 to 10 years.	**AM/W, PED/GS & GMs**
A-8	**Automatic signaling works**: Automatic signaling works on certain HDN/HUN need to be taken up on priority to enhance capacity & throughout. The list of such projects along with their present status of sanction and TDC is placed at Annexure A-8.	**AM/Sig, PED/GS & GMs**
A-9	**Yard-Remodeling works**: 239 nos. crucial yard remodeling works have been identified for execution, out of which 49 works have been completed. The TDC for balance works is indicated in	**AM/T, AM/W, PED/GS &**

	Annexure A-9.	**GMs**
A-10	**Traffic facility works**: About 75 nos. new works were sanctioned in 2019-20, 2020-21 and 2021-22. 61 nos. new works under this category have been identified, which are yet to be sanctioned. TDC is indicated in Annexure A-10.	**AM/T, AM/W, PED/GS & GMs**
A-11	**DFC feeder Routes** : In order to realise the full potential of DFC in future, there is an urgent need to expeditiously complete all the works of (i) upgradation of EDFC feeder routes to make them fit for 25T Axle load with 100 Kmph speed and (ii) making WDFC feeder routes fit for high rise OHE & Double Stack Container (DSC). On EDFC feeder routes, rail renewal with 1175 HT rails should be done to make it fit for 25T/100 kmph to remove the bottleneck of current speed of 45 kmph. On WDFC feeder routes, high rise OHE needs to be provided along with raising of FOB/ROB to facilitate DSC. List of feeder routes of EDFC & WDFC is at Annexure-11.	**AM/CE & GMs**
A-12	**Upgradation to 2X25 KV Traction System**: To cater to the increased cargo, 2000 nos High Horse Power Locomotives (9000 H.P. and 12,000 H.P.) are planned to be inducted over next 8/10 years. With progressive adoption of automatic signaling to increase line capacity, the number of trains in every block section will increase manifold, which will necessitate additional electric power to feed additional trains. In above scenario, present 1x25 KV OHE & associated power supply arrangement will become a bottleneck in rail operations on HDN/HUN routes. Therefore, it is necessary to switch to modern traction system of 2x25 KV especially on HDN/HUN routes. This technology has already been adopted on DFC routes and also being implemented on Delhi-Mumbai and Delhi-Howrah routes. In this backdrop, following are recommended:- (i) Sanction of 2x25 KV traction system over select HDN & HUN routes progressively as per Annexure- A-12 and their phase-wise implementation (ii) All future electrification works may be sanctioned (NL, GC, DL/Tripling/Quadrupling) with 2x25 KV system (iii) In all sanctioned RE works where tenders have yet not been called, 2x25 KV traction system may be adopted.	**AM/RE, PED/GS & GMs**
A-13	**New Gati Shakti Cargo Terminals**: 100 nos. new Gati Shakti Cargo (GCT) Terminals (already identified) must be commissioned by 2025. GCT policy has been liberalized by increasing customer participation. The list of new GCT is attached at Annexure A-13.	**AM/C & GMs**
A-14	**Upgradation /modernization of existing Railway terminals**: To minimize terminal detention & make terminals customer friendly, there is urgent need to upgrade/modernize top 200 loading & top 200 unloading terminals of IR with target of reducing total terminal detention (Arrival to Departure) below 8 hours. List at	**AM/C, AM/T & GMs**

	Annexure -14). Terminal detention must be monitored on daily basis by DRMs, PCOMs & GMs of Zonal Railways.	
A-15	**Proliferation of 25T axle load routes & Speed raising on them to 100 Kmph** by providing 1175 HT rails (List at Annexure-15).	**AM/CE & GMs**
A-16	**Removal of operating constrains/PSRs**: The list of works to be done in next five years for relaxing/raising the speed is placed at Annexure A-16. A total of 1224 nos. of works have been identified to remove speed restrictions & to raise speeds in ext 5 years.	**AM/CE & GMs**
A-17	**Transmission lines to be owned by Railways:** Many of the States are not providing open access despite IR being a deemed licensee, leading to higher tariff for IR. IR already owns 132 KV transmission lines in NCR (Dadri-Allahabad), ECR (CIC Section of Dhanbad Division, DDU Division), NE and SE ghats of Central and Western Railway and some portion of SER & ECoR where it derives advantage of reliable and low-cost power supply. Therefore, to derive above advantages of reliable & cheap power supply, laying our own Transmission line with CTU connectivity on certain GQD routes is desirable. It will also help us in sourcing solar and wind power in different States directly feeding our own transmission lines at 132 KV or OHE at 25 KV. It is therefore recommended to progressively sanction and lay 220/132 KV Transmission lines along select routes in a phased manner by prioritizing the routes as per Annexure: A-17.	**AM/RE & GMs**

(B) ROLLING STOCK (LOCO & WAGONS) AUGMENTATION AND UPGRADATION WORKS:

ANNEXURES	MISSION	MISSION LEADERS
B-1	**Adequate availability of Locomotives** is key to operating efficiency. Loco demand forecast (12000 HP/ 9000 HP) to achieve 3000 MT loading by 2027 and year-wise production projection for 2022-2023, 2023-2024, 2024-2025, 2025-26 & 2026-2027 have been worked out. (Annexure B-1)	**AM/Traction** **AM/PU** **AM/RS**
B-2	**Adequate availability of Wagons:** To meet the demand and achieve the growth chart of 3000 MT, Wagon demand forecast (Types & Nos) and procurement plan from 2022/23 to 2026/27 have been worked out. (Annexure B-2)	**AM/ME** **AM/RS**
B-3	To maximize utilization of rolling stock and minimize detention of crew and rolling stocks, PDD (Pre-departure detention of crew) needs to be monitored on daily basis with target of below 1 hr average for each lobby. Measures required for improving wagon turn around and reduction of PDD are placed at (Annexure B-3).	**AM/T & GMs**

	PDD needs to be monitored on daily basis by DRMs, PCOMs & GMs.	
B-4	Implementation & Proliferation of **EoTT for ALL Goods Trains**	**AM/Tr & GMs**
(C)	**POLICY INITIATIVES FOR INDUCING MODAL SHIFT**	
C-1	Indian Railways needs re-orientation of marketing policies strategies for inducing modal shift & attract incremental traffic from road. Some of the strategies devised suggested are placed at Annexure C-1.	**AM/C & GMs**
C-2	**Door-to-Door Service**: The customer logistics requirement can be is met fully by CTOs by providing complete integrated service. Door-To-Door Service is an area which Railway needs to focus upon for widening customer base by providing end to end integrated services. Action plan for starting Door-to-Door service through CTOs/3rd party aggregator/freight forwarder is placed at Annexure C-2.	**AM/C & GMs**
C-3	**Improving Containerization**: The volume of containerization in India is very low (5%) in the domestic sector compared to developed countries (30%). Action plan for improving containerization to 20% by addressing operational and pricing/policies issues and by liberalizing restrictive policies, are placed at Annexure C-3.	**AM/C, AM/T & GMs**
C-4	**Attracting Automobile Traffic:** The rail share of Automobile traffic in India is very low ((3.45%) due to many reasons concerning rolling stocks as well as pricing issues. Measures for improving Automobile traffic share including two-wheelers is placed at Annexure C-4.	**AM/C & GMs**
C-5	**Proliferating RO-RO service on DFC & Feeder routes.**	**AM/C& MD/DFCCIL**

7.0 SUMMARY OF ALL CAPACITY ENHANCEMENT WORKS:

A summarized position of all Capacity Enhancement Works listed under (A) and (B) above (para 6.0), is placed below:

SN	Item	First & last mile connectivity works (NL)	Doubling (DL, 3rd/4th lines)	New Lines (NL)	Gauge Conversion (GC)	MULTITRACKING (Doubling , 3rd / 4th/ 5th Line)	Total Works & NL, DL, 3rd/4th line, GC	Traffic facility and yard remodaling works	Automatic Signalling works	Upgradation to 2 X25KV	25T axle load Fitness	Transmission lines	Wagons, **155872** @0.45 Cr per Wagon	Locomotive 7014 @Rs. 15 Cr per loco.	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
A	Total no of Works Identified (B+D+F)	50	269	107	37	188	651 Nos.	385	38	6	49	11			1140
B	No of works completed till March' 22	0	61	11	14		86 Nos.	10	0		6				102
C	Total length completed till March'22	0	7094	2644	4054		13792 Kms		2395		303				16490
D	Balance No of sanctioned Works (In Progress)	0	145	72	22		239 Nos.	314	26		10	8			597
E	Balance sanctioned Length (Km) to be completed	0	9775	6406	1449		17630 Kms		8626		946	4050			31252
F	No of works yet to be sanctioned	50	63	24	1	188	326 Nos.	61	12	6	33	3			441
G	No of Kms yet to be sanctioned & executed	1112	8721	2759	84	7585	20262 Kms		2244	12046	7068	4844			46464
H	**Total Kms to be done in next 05 years (E+G)**	**1112**	**18496**	**9165**	**1533**	**7585**	**37891 Kms**		**10870 RKM**	**12046 RKM**	**8014 RKM**	**8894 RKM**			
I	Throw forward for the sanctioned work as on 01.04.2022 (Cr.)	0	70673	119953	19941	0	210567	19848			1200	3567			**235182**
J	Throw forward for the unsanctioned works as on 01.04.2022 (Cr.)	22010	142396	56094	850	164743	386093	4324	13045	15183	9013	7266	70142	**105210**	610276
K	Total Through Forward (I+J)	22010	213069	176047	20791	164743	596660	24172	13045	15183	10213	10833	70142	105210	**Rs. 845458 Cr.**

8.0 SUMMARY OF CAPEX REQUIREMENT

The Investment plan to implement the Mission-3000 MT by FY27 is summarized below, which envisages Capex of ₹ 845458 Cr over next five years:

Year wise Projected Capex for the MISSION 3000 MT

SN	Important Works	Throw forward for Sanctioned Work (Cr.)	Throw forward for NS Work (Rs.)	Total Capex (Through forward) (Cr.) (5 years)	Year wise Capex				
					2022-23	2023-24	2024-25	2025-26	2026-27
					15%	15%	25%	25%	20%
1	Doubling (DL)	70673	142395	213068	31960	31960	53267	53267	42614
2	New Line (NL)	119953	56094	176047	26407	26407	44012	44012	35209
3	Gauge Conversion (GC)	19941	850	20791	3119	3119	5198	5198	4158
4	Traffic facility and yard remodaling work	19848	4324	24172	3626	3626	6043	6043	4834
5	Last mile connectivity to Mining, Ports, Industrial Hubs etc	0	22010	22010	3302	3302	5503	5503	4402
6	Automatic Signalling		13045	13045	1957	1957	3261	3261	2609
7	Upgradation to 2 X25KV		15183	15183	2277	2277	3796	3796	3037
8	25T axle load	1200	9013	10213	1532	1532	2553	2553	2043
9	MULTITRACKING (Doubling , 3rd / 4th/ 5th Line)		164743	164743	24711	24711	41186	41186	32949
10	Transmission lines	3567	7266	10833	1625	1625	2708	2708	2167
11	Wagons Nos. 155872 @0.45 Cr per Wagon		70142	70142	10521	10521	17536	17536	14028
12	Locomotive 7014 Nos. @Rs. 15 Cr per loco.		105210	105210	15782	15782	26303	26303	21042
	Total	239505	605952	**845458**	126819	126819	211364	211364	169092

Total Capex projection for next 5 years = Rs. 8.45 Lac Crore.

9.0 Conclusion

The Committee has drawn up a comprehensive Action Plan for creation of adequate carrying capacity over next 5 years and has also devised strategy/policy initiates for inducing modal shift to Rail, for achieving 3000 MT+ freight loading by 2027. The Action Plans (Para 6.0) under Annexures (A), (B) & (C) are quite exhaustive and multi-pronged, but require time bound implementation through close monitoring of sanctioning of works & execution by respective Mission Leaders. It is suggested that implementation of all 24 mission items under Annexures (A), (B) & (C) should be piloted and monitored weekly by respective Mission Leaders.

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Annexure -A-1(a)

BALANCE SUPER CRITICAL (SC) PROJECTS

							TOTAL:58			Completed:39					Balance:19		
S.No	Rly	Project ID as Per IRPSM	Gati Shakti	Agency	PH	Name of Project	Year	Vision 24	ROUTE	Length (Km)			Total Cost (Cr)	Expenditure upto Mar-22	Throwforward as on 01.04.22	BE 2022-23 (in Cr.)	TDC
										Length of Main Project (Km)	Commissioned upto Mar 22	Balance					
1	ECoR		Y	RVNL	DL	Khurda Road-Barang	2003-04	SC	HDN 6	32.34	25.69	6.65	581.03	443.55	137.48	**164**	Mar-23
2	ECoR	04.02.15.06.1.83.001	Y	RVNL	DL	Sambalpur-Titlagarh (182 km)	2006-07	SC	HUN 7	182	132.17	50	2261.9	2200.99	60.93	**99.53**	Sep-22
3	ECoR	04.01.15.09.5.83.001	Y	RVNL	DL	Banspani-Daitari-Tomka-Jakhapura	2009-10	SC	HUN 2	164	108.31	56	1552.3	1354.75	197.51	**300**	Mar-23
4	ECoR	04.02.15.10.1.30.001	Y	ECoR	DL	Sambalpur-Talcher (174.11 km)	2010-11	SC	HUN 7	168	117.66	51	1539.3	1282.96	256.32	**172.5**	Feb-23
5	ECR N	03.05.15.15.1.36.001	Y	IRCON	DL	Hajipur-Bachwara	2015-16	SC	HDN 4	72	56.40	16	929.86	914.86	15.00	**50**	May-22
6	ER	02.02.15.10.1.30.003	Y	ER	DL	Dankuni-Chandanpur- 4th line (25.41 km)	2010-11	SC	HDN 1	25	12.50	13	533.63	492.26	41.37	**57.25**	May-22
7	ER	02.02.15.11.1.30.001	Y	ER	DL	Bandel-Boinchi - 3rd line(30.53 km)	2011-12	SC	Normal	31	23.54	7	535.6	524.51	11.09	**15.7**	May-22
8	ER	02.02.15.11.1.30.002	Y	ER	DL	Boinchi-Shaktigarh 3rd line (25.83 km)	2011-12	SC	Normal	26	17.77	8	354.6	319.09	35.51	**46.75**	May-22
9	ER	02.03.15.12.1.30.001	Y	ER	DL	Monigram-Nimtita (34.3 km)	2012-13	SC	HUN 6	34	21.32	13	442.26	428.21	14.05	**130**	Dec-22
10	NCR	06.03.15.12.1.83.001	Y	RVNL	DL	Bhimsen--Jhansi	2012-13	SC	HUN 5	206	158.20	48	2203.5	2220.12	-16.59	**400**	Aug-22
11	SCR	11.00.15.09.5.83.001	Y	RVNL	DL	Daund-Gulbarga Doubling (224.90 km) and Pune-Guntakal Electrification (641.37 km)	2009-10	SC	HDN 7	225	196.36	29	3182.1	2793.61	388.51	**100**	Jun-22
12	SCR	11.06.15.11.1.83.003	Y	RVNL	DL	Vijaywada-Gudivada-Bhimavaram-Narsapur, Gudivada-Machlipatnam & Bhimavaram-Nidadavolu DL with Electrification (221 km)	2011-12	SC	HUN 8	221	192.00	29	3746.4	3806.63	-60.28	**300**	May-22
13	SECR	13.01.15.06.1.30.001	Y	RVNL SECR	DL	Khodri-Anuppur with flyover at Bilaspur	2006-07	SC	HUN 7	72	61.60	10	792.36	608.02	184.35	**129**	Dec-22
14	SECR	04.02.15.07.1.30.001	Y	SECR RVNL	DL	Raipur-Titlagarh (203 km)	2007-08	SC+GC	HUN 7	203	173.41	30	2058.2	1722.49	335.69	**475.5**	Jun-22
15	SER	12.00.15.12.1.30.002	Y	SER	DL	Kharagpur-Narayangarh 3rd line (23.5 km)	2012-13	SC	HDN 6	24	20.00	4	270.12	214.53	55.59	**9**	Jun-22
16	SR	10.06.15.07.1.33.002	Y	SR	DL	Kurruppanthara-Chingavanam (26.54 km)	2007-08	SC	HUN 11	27	8.00	19	749.4	662.43	86.97	**50.94**	May-22
17	WCR	16.03.15.11.1.83.001	Y	RVNL	DL	Bina-Kota (282.66 km)	2011-12	SC	HUN 7	283	220.08	63	2476.4	667.27	1809.16	**390**	Nov-22
18	WCR	16.01.15.16.1.31.001	Y	WCR	DL	Powerkheda-Jujharpur-Single line flyover in UP direction	2016-17	SC	HUN 5	16	0.00	16	373.37	339.29	34.08	**88**	Jul-22
19	WR	15.01.15.11.1.30.001	Y	WR	DL	Viramgam-Samakhiali	2011-12	SC	HUN 3	182	173.53	9	1383.7	1265.15	118.54	**75.05**	Dec-22

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Annexure A-1(b)

CRITICAL PROJECTS

Total:68 | Completed:13 | Balance:55

S.No	Rly	Project ID as Per IRPSM	Gati Shakti	Agency	PH	State	Name of Project	Year	ROUTE	Length (Km)			Total Cost (Cr)	Expenditure upto Mar-22	Throwforward as on 01.04.22	BE 2022-23 (in Cr.)	TDC
										Length of Main Project *(Km)*	Length commissioned upto Mar 22	Balance length					
1	WR	15.01.14.15.1.30.001	Y	WR	GC	GUJ	Ahmedabad- Mahesana	2015-16	HUN 3	69	42	27	559	500	58	50	Sep-22
2	CR	01.03.15.12.1.30.001	Y	CR	DL	MAH	Wardha(Sewagram)-Nagpur 3rd line	2012-13	HDN 2	76	19	57	540	360	180	87	Mar-24
3	CR	01.03.15.15.1.30.004	Y	CR	DL	MAH	Wardha-Ballarshah 3rd line	2015-16	HDN 5	132	30	102	1283	616	668	305	Mar-24
4	**CR** SWR	01.04.15.15.1.30.002	Y	**CR** SWR	DL	KAR MAH	Pune-Miraj-Londa	2015-16	HUN 10	466	146	320	4028	2317	1711	1567	Mar-23
5	CR	01.01.15.16.1.30.002	Y	CR	DL	MAH	Manmad Jalgaon 3rd line	2016-17	HDN 2	160	0	160	1035	438	597	205	Mar-24
6	CR	01.00.15.16.1.30.002	Y	CR	DL	MAH	Wardha-Nagpur 4th line	2016-17	HDN 2	79	19	60	638	278	360	130	Mar-24
7	CR	01.01.15.16.1.30.001	Y	CR	DL	MAH	4th line between Jalgaon-Bhusawal	2016-17	HDN 2	24	0	24	261	190	71	55	Mar-23
8	ECoR	04.01.15.12.1.30.001	Y	ECoR	DL	ODI	Bhadrak-Nergundi 3rd line (80 km)	2012-13	HDN 6	92	4	88	843	361	482	351	Mar-24
9	ECoR	04.02.15.15.1.83.001		RVNL	DL	AP ODI	Vizianagram-Titlagarh (Sambalpur) 3rd line	2015-16	HUN 7	265	16	248	2336	2467	-132	961	Mar-24
10	ECoR	04.01.15.15.1.30.001		ECoR	DL	ODI	Jarapaada- Budhapank 3rd & 4th line with flyover at Talcher.	2015-16	HUN 7	101	0	101	810	232	578	417	Mar-24
11	ECoR	04.01.15.15.1.30.002		ECoR	DL	ODI	Budhapank- Salegaon via Rajatgarh 3rd & 4th line	2015-16	HUN 7	170	0	170	1173	775	398	510	Mar-24
12	ECoR	04.03.15.15.1.30.001	Y	ECoR	DL	CHH ODI	Jagdalpur-Koraput	2015-16	HUN 7	110	71	39	1547	757	790	249	Mar-23
13	ECR S	03.00.15.13.1.30.004	Y	ECR S	DL	JHA	Jarangdih-Danea Patch Doubling (29.2 km)	2013-14	HUN 2	29	24	5	468	457	11	20	May-22
14	ECR S	03.02.15.15.1.30.006	Y	ECR S	DL	JHA MP UP	Ramna-Singrauli	2015-16	HUN 2	160	60	100	2436	1671	765	250	Mar-24
15	ECR S	03.02.15.15.1.83.007	Y	RVNL	DL	BIH JHA	3rd line bet. Dhanbad-Sonnagar	2015-16	HUN 2	291	0	291	3406	2200	1206	1085	Dec-23
16	ECR S	03.02.15.15.1.30.004	Y	ECR S	DL	MP UP	Karaila Road- Shaktinagar	2015-16	HUN 2	32	0	32	529	369	160	160	Mar-23
17	ECR S	03.02.15.15.1.30.005	Y	ECR S	DL	JHA	Ranchi Road- Patratu	2015-16	HUN 2	31	24	7	348	259	89	30	Mar-24
18	ECR S	03.01.15.16.1.30.001	Y	ECR S	DL	BIH	Karota Patner - Mankatha Surface triangle	2016-17	HUN 1	8	0	8	129	54	75	34	Mar-23
19	ECR S	03.02.15.16.1.30.001	Y	ECR S	DL	JHA	Garhwa Road ROR	2016-17	HUN 2	7	2	5	263	91	171	60	Mar-23
20	ECR S	03.02.15.16.1.30.002	Y	ECR S	DL	JHA	Gomoh- Flyover for DN trains	2016-17	HDN 1	22	0	22	488	177	311	125	Dec-23
21	ECR N	03.00.15.18.1.30.001	Y	ECR N	DL	BIH	Darbhanga bypass line connecting Shisho Halt and Kakarghati exclusing Darbhanga Yard	2018-19	HUN 5	8	0	8	253	128	125	100	May-22

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S.No	Rly	Project ID as Per IRPSM	Gati Shakti	Agency	PH	State	Name of Project	Year	ROUTE	Length (Km)			Total Cost (Cr)	Expenditure upto Mar-22	Throwforward as on 01.04.22	BE 2022-23 (in Cr.)	TDC
										Length of Main Project *(Km)*	Length commissioned upto Mar 22	Balance length					
22	ER	02.00.15.15 .1.30.001	Y	ER	DL	WB	Sagardighi- Malda Town (Nimtita - New Farakka)	2015-16	HUN 6	25	10	16	248	177	71	17	Jun-22
23	NCR	06.00.15.15 .1.83.001	Y	RVNL	DL	MP RAJ UP	Mathura-Jhansi 3rd line	2015-16	HDN 5	274	43	231	5190	2774	2416	800	Dec-23
24	NCR	06.00.15.16 .1.30.002		NCR	DL	UP	Lalitpur-Birari with flyover at Lalitpur	2016-17	HDN 5	16	0	16	304	0	304	120	Mar-23
25	NCR	06.02.15.18 .1.51.004	Y	NCR	DL	UP	Kanpur-New Coaching Complex - Kanpur	2018-19	HDN 1	3	0	3	35	14	22	16	Oct-23
26	NCR	06.02.15.18 .1.30.005	Y	NCR	DL	UP	Ruma Chakeri- Chandari - 3rd line	2018-19	HDN 1	13	0	13	177	41	136	65	Mar-23
27	NCR	06.02.15.18 .1.30.003	Y	NCR	DL	UP	Chipiyana Buzurg - Dadri 4th line	2018-19	HDN 1	12	0	12	129	37	92	50	Mar-23
28	NCR	06.03.15.18 .1.30.001		NCR	DL	UP	Dailwara - Berari - Chord Line (5.2 km)	2018-19	HDN 5	5	0	5	69	0	69	100	Mar-23
29	**NER**/ NR	07.00.15.15 .1.30.001	Y	NER+NR	DL	UP	Rosa-Sitapur Cantt-Burhwal	2015-16	HDN 4	181	66	115	1824	1633	191	605	Mar-23
30	NER	05.00.15.15 .1.83.006	Y	RVNL	DL	UP	Varanasi-Madhosingh-Allahabad	2015-16	HUN 5	120	82	38	1294	1254	40	150	Mar-23
31	NER	07.02.15.16 .1.30.002	Y	NER	DL	UP	Domingarh-Gorakhpur-Gorakhpur Cantt.-Kusumhi - 3rd running line and Gorakhpur-Nakaha Jungle Doubling (21.15 km)	2016-17	HDN 4	21	0	21	199	128	71	62	Dec-22
32	NER	07.02.15.16 .1.30.001	Y	NER	DL	UP	Burhwal Gonda 3rd line	2016-17	HDN 4	62	0	62	800	169	631	341	Dec-23
33	NER	07.02.15.17 .1.30.001	Y	NER	DL	UP	Malhaur-Daliganj doubling with electrification	2017-18	HUN 5	13	0	13	145	127	18	21	Dec-22
34	NFR	08.00.15.13 .1.30.001	Y	NFR	DL	NER Assam	New Bongaigaon-Agthori via Rangiya (New Bongaigaon-Rangiya - Kamakhya)	2013-14	HDN 4	143	0	143	2048	752	1296	1000	Mar-23
35	NR	05.00.15.15 .1.83.004		RVNL	DL	PUN	Rajpura-Bhatinda	2015-16	Normal	173	47	126	2459	1871	588	588	Jun-22
36	NR	05.04.15.16 .1.37.001		NR	DL	UP	Barabanki-Akbarpur	2016-17	HUN 1	161	0	161	1116	432	684	529	Dec-23
37	NR	05.00.15.16 .1.30.001		NR	DL	UP	Jaunpur- Akbarpur (Tanda)	2016-17	HUN 1	77	0	77	676	259	417	412	Mar-24
38	SCR	11.00.15.15 .1.20.002	Y	RITES	DL	AP	Gooty-Dharmavaram	2015-16	HUN 9	90	57	33	1800	867	933	100	Oct-22
39	SCR	11.00.15.15 .1.30.007		SCR	DL	AP TEL	Vijayawada, Kazipet Byepass line	2015-16	HDN 5	41	2	40	621	332	289	353	Mar-23
40	SCR	11.00.15.15 .1.83.008		RVNL	DL	AP	Vijaywada- Gudur 3rd line	2015-16	HDN 6	287	67	220	5796	4259	1537	1000	Jun-22
41	SECR	13.01.15.15 .1.30.001		SECR	DL	CHH ODI	Jharsuguda-Bilaspur -4th line	2015-16	HDN 2	206	33	174	2135	700	1435	717	Dec-23
42	SECR	13.01.15.15 .1.30.003		SECR	DL	MP	Anuppur-Katni-3rd line	2015-16	HUN 7	166	14	152	1371	825	546	605	Dec-23
43	SECR	13.02.15.15 .1.30.001	Y	SECR	DL	CHH MAH	Rajnandgaon-Nagpur 3rd line	2015-16	HDN 2	228	67	161	3176	1673	1503	641	Dec-23

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S.No	Rly	Project ID as Per IRPSM	Gati Shakti	Agency	PH	State	Name of Project	Year	ROUTE	Length (Km)			Total Cost (Cr)	Expenditure upto Mar-22	Throwforward as on 01.04.22	BE 2022-23 (in Cr.)	TDC
										Length of Main Project *(Km)*	Length commissioned upto Mar 22	Balance length					
44	SER	12.00.15.15.1.30.001	Y	SER	DL	ODI	Rourkela-Jharsuguda 3rd line	2015-16	HDN 2	101	62	40	1239	1173	66	120	Oct-22
45	SER	12.00.15.15.1.83.002	Y	RVNL	DL	JHA WB	Kharagpur-Adityapur 3rd line	2015-16	HDN 2	132	60	72	2269	2001	268	500	Jul-22
46	SR	10.02.15.15.1.83.001	Y	RVNL	DL	TN	Madurai- Maniyachi-Tuticorin	2015-16	HUN 10	160	135	25	1891	1549	341	300	Jun-22
47	SWR	14.02.15.10.1.83.001	Y	RVNL	DL	KAR Goa	Hospet-Hubli-Londa-Tinaighat-Vasco-de-Gama (352.28 km)	2010-11	HUN 8	363	303	60	3037	2889	148	500	Mar-23
48	SWR	14.00.15.15.1.30.001	Y	SWR	DL	KAR	Hubli-Chikjajur	2015-16	HUN 10	190	145	45	1954	1303	651	210	Mar-23
49	WCR	16.01.15.10.1.83.001	Y	RVNL	DL	MP	Budhni-Barkhera - 3rd line (33 km)	2010-11	HDN 5	27	0	27	1703	422	1281	300	Dec-22
50	WCR	16.02.15.15.1.42.005	Y	IRCON	DL	MP	Katni- Grade separator / Byepass	2015-16	HUN 7	35	0	35	1248	627	621	300	Mar-23
51	WCR	16.02.15.15.1.42.003	Y	IRCON	DL	MP	Katni- Singrauli	2015-16	HUN 2	257	84	173	1763	1544	219	400	Mar-23
52	WCR	06.00.15.15.1.31.004	Y	WCR	DL	MP	Satna-Rewa	2015-16	Normal	50	16	34	495	343	152	101	Mar-23
53	WR	15.00.15.13.1.83.002	Y	RVNL	DL	GUJ	Palanpur-Samakhayali	2012-13	HUN 4	248	127	121	2538	2313	225	0	Feb-23
54	WR	15.04.15.15.1.30.001	Y	WR	DL	GUJ	Surendranagar-Rajkot	2015-16	HUN 3	116	27	89	1056	844	212	250	Dec-22
55	WR	15.05.15.15.1.30.001	Y	WR	DL	RAJ MP	Nimach-Chittaurgarh	2015-16	HUN 9	56	44	12	499	448	51	100	Sep-22

Annexure A-2

Status of EDFC & WDFC Work

(Total: 2843 KM, Commissioned 1147 KM, Balance 1696 KM)

A. EDFC (Total: 1337 KM, Commissioned 488 KM, Balance 849 KM)

S.No.	Section	Length	Target
1	Ludhiana – Khurja	401 Km	June'22
2	Khurja-Dadri	46 km	Dec'22
3	Khurja – Bhaupur	351 Km	Commissioned
4	Bhaupur – DDU	402 km	Mar'23
5	DDU-Sonnagar	137 km	Commissioned
6	Sonnagar – Dankuni	538 km (under PPP)	

B. WDFC (Total: 1506 KM, Commissioned 659 KM, Balance 847 KM)

S.No.	Section	Length	Target
1	Dadri-Rewari	127 km	Jun'23
2	Rewari- Palanpur	659 Km	Commissioned
3	Palanpur- Makarpura	290 Km	Dec'23
4	Makarpura– JNPT	430 Km	Dec'24

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Annexue A-3(a)

Essential Doubling Projects (Sanctioned)

Total:24 | Completed:4 | Balance:20

S.No	Rly	Project ID as Per IRPSM	Gati Shakti	Agency	PH	Name of Project	Year	Sanction/ UN Sanctioned	ROUTE	Length (Km)			Total Cost (Cr)	Expenditure upto Mar-22	Throwforward as on 01.04.22	Outlay for 21-22 *(in Cr)*	BE 2022-23 (in Cr.)	TDC
										Total	Commissioned upto Mar 22	Balance						
1	ECR N	03.01.15.15.1.42.001		IRCON	DL	Rampur Dumra - Tal-Rajendra Pul-Additional bridge and doubling	2015-16	SD	Normal	14.00	0.00	14.00	1491.00	591.33	899.67	300.00	400.00	Dec-22
2	ER	02.04.15.10.1.30.005	Y	ER	DL	Sondalia-Champapukur (23.64 km)	2010-11	SD	Normal	23.64	17.69	5.95	266.32	212.53	53.79	14.52	9.50	Oct-22
3	NCR	06.01.15.16.1.30.002	Y	NCR	DL	Yamuna Br- Agra Fort- Double line with Major Bridge at Yamuna river	2016-17	SD	Normal	2.50	0.00	2.50	121.58	25.59	95.99	10.00	21.00	Jun-23
4	NER	07.00.15.16.1.30.001	Y	NER	DL	Aunrihar-Jaunpur	2016-17	SD	Normal	60.00	22.80	37.20	432.00	368.09	63.91	35.00	63.10	Oct-22
5	NR	05.01.15.17.1.30.001	Y	NR	DL	Ludhiana-Kila Raipur(19 Kms) with freight line at Gill station on LDH-JHL section .	2017-18	SD	Normal	19.00	0.00	19.00	237.64	9.37	228.27	55.00	75.00	Mar-23
6	NR	05.03.15.17.1.30.001		NR	DL	Ludhiana-Mullanpur	2017-18	SD	Normal	21.00	0.00	21.00	234.77	10.42	224.35	10.00	100.00	Dec-23
7	NWR	09.04.15.15.1.30.001	Y	NWR	DL	Phulera- Digana	2015-16	SD	Normal	108.00	58.00	50.00	701.81	409.17	292.64	32.00	278.50	Jan-23
8	SWR CR	14.00.15.14.1.30.001	Y	SWR	DL	Hotgi-Kudgi-Gadag	2014-15	SD	Normal	284.00	195.70	88.30	1877.81	1547.96	329.85	105.00	140.00	Mar-24
9	WCR			RVNL	DL	Malkhedi-Mahadeokhedi	2015-16	SD	HUN 7	8.70	0.00	8.70	59.32		59.32	0.00	0.00	Nov-22
10	CR	01.02.15.11.1.30.001	Y	CR	DL	Kalyan-Kasara - 3rd line	2011-12	SD	HDN 7	68	0.00	68	1387.52	455.38	932.14	**168.24**	**160**	Mar-25
11	CR	01.00.15.16.1.30.001		CR	DL	Daund Manmad	2016-17	SD	HUN 10	236	34.19	202	2081.27	772.52	1308.75	**85.00**	**500**	Mar-25
12	ECR N	03.04.15.15.1.30.001	Y	ECR N	DL	Samastipur - Darbhanga	2015-16	SD	HUN 5	38	19.00	19	519.33	321.71	197.62	**45**	**50**	Mar-25
13	NCR	06.02.15.15.1.30.001	Y	NCR	DL	Mughalsarai-Allahabad, 3rd line	2015-16	SD	HDN 1	150	0.00	150	2649.44	5.60	2643.84	**0.0001**	**600**	Dec-25
14	NCR	06.00.15.16.1.30.001		NCR	DL	Jhansi-Khairar-Manikpur & Khirar-Bhimsen	2016-17	SD	Normal	425	0.00	425	4329.53	65.65	4263.88	**50**	**400**	Mar-25
15	NR	05.02.15.99.1.37.001		NR	DL	Dayabasti-Grade separator	1999-00	SD	Normal	3	0.00	3	359	119.37	239.63	**0.0001**	**50.0001**	Mar-25
16	NR	05.00.15.12.1.30.001	Y	NR	DL	Anand Vihar-Tilak Bridge 3rd & 4th line (9.77 km)	2012-13	SD	Normal	20	0.00	20	419	173.61	245.39	**5**	**150**	Mar-25
17	SER	12.04.15.18.1.30.001		SER	DL	Lodhma - Piska - Link Line bypassing Hatia/Ranchi with Y connection	2018-19	SD	HUN 2	17	0.00	17	472.5	30.30	442.20	**20**	**189**	Dec-24
18	SWR	14.01.15.18.1.30.002	Y	SWR	DL	Pennukonda to Dharmavarm excluding Dharmavaram	2018-19	SD	Normal	42	0.00	42	307.66	31.25	276.41	**10**	**60**	Oct-24
19	WR			WR	DL	Nimach-Ratlam	2018-19	SD	HUN 9	133	0.00	133	1095.88	0.25	1095.63	**50**		Mar-26
20	WR			WR	DL	Rajkot - Kanalus	2018-19	SD	Normal	111.20	0.00	111.20	1080.57	0.14	1080.43	150.00		Mar-25

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Annexure - A3(b)

NATIONAL PROJECTS

										Total:15			Completed:6			Balance:9		
S.No	Rly	Project ID as Per IRPSM	Gati Shakti	Agency	PH	Name of Project	Year	Vision 24	ROUTE	Length			Total Cost (Cr)	Expenditure upto Mar-22	Throwforward as on 01.04.22	BE 2022-23 (in Cr.)	PPP (in Cr.)	TDC
										Total	Commissioned upto Mar 22	Balance						
1	NFR	08.03.11.97.1.30.001	Y	NFR	NL	Jiribam-Imphal	2003-04	NP	Normal	111	54.80	56	12264.15	12371.18	-107.03	**1000**		Mar-23
2	NFR	08.00.11.06.5.30.001	Y	NFR	NL	Dimapur-Kohima	2006-07	NP	Normal	82	16.50	65	6911.44	1599.06	5312.38	**1000**		Dec-24
3	NFR	08.03.11.06.5.30.001	Y	NFR	NL	Teteliya-Byrnihat	2006-07	NP	Normal	22	10.15	11	1043	949.91	93.09	**100**		Not Fixed
4	NFR	08.00.11.08.5.30.001	Y	IRCON	NL	Sivok-Rangpo	2008-09	NP	Normal	44	0.00	44	8043	2558.12	5484.88	**2500**		Dec-23
5	NFR	08.00.11.08.1.30.002	Y	NFR	NL	Bhairabi-Sairang	2008-09	NP	Normal	51	0.00	51	5521.45	4951.78	569.67	**1005**		Mar-23
6	NFR	08.00.11.10.1.30.002		NFR	NL	Byrnihat-Shillong	2010-11	NP	Normal	108	0.00	108	4083.02	264.43	3818.59	**0.0001**		Not Fixed
7	NR	05.00.83.94.1.A2.001	Y	NR	NL	Udhampur-Srinagar-Baramula	1994-95	NP	Normal	272	161.00	111	37012.00	26786.29	10222.71	**5775.09**		Dec-22
8	NR	05.03.11.08.1.83.001		RVNL	NL	Bhanupalli-Bilaspur-Beri	2009-10	NP	Normal	63	0.00	63	6753.43	1426.84	5326.59	**1200**	**668**	Mar-25
9	NR	05.05.11.10.1.83.001		RVNL	NL	Rishikesh-Karanprayag	2010-11	NP	Normal	125	5.70	119	16216.31	5278.47	10937.84	**4611**		Dec-24

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Annexure A-3(c)

Essential New Lines (Sanctioned)

Total:15 | Completed:5 | Balance:10

S.No	Rly	Agency	Project ID as Per IRPSM	Cost sharing	Funding Pattern	Gati Shakti	PH	Name of Project	Year	Sanction/ UN Sanctioned	ROUTE	Length (Km)			Total Cost (Cr)	Expenditure upto Mar-22	Throwforward as on 01.04.22	BE 2022-23 (in Cr.)	TDC
												Total	Commissioned upto Mar 22	Balance					
1	ECR S	ECR S + RVNL	03.01.13.98.1.30.001			Y	NL	***Fatuha-Islampur(43.50)*** incl. MM for extn.of NL from **Neora to Daniawan (42.2)** , ***Daniawan to Biharsharif(38.2***), Biharsharif to Barbigha (25.80 Km), **Barbigha to Shekhpura(16.80)**	2001-02	Sd	Normal	167	94.20	72	1540.81	1498.77	42	**525**	Mar-23
2	ER	ER	02.02.11.00.1.30.001				NL	Tarakeshwar-Bishnupur (82.46 Km)	2000-01	Sd	Normal	82	56.61	25	1619.48	903.08	716	**80**	Mar-24
3	NER	RVNL	07.00.11.15.1.83.001	CS	100% cost of Bridge by MoRTH		NL	Mau-Ghazipur-Tarighat	2015-16	Sd	Normal	13	0.00	13	1766	1171.00	595	**350**	Mar-23
4	NFR	NFR	08.02.11.06.5.30.001				NL	Araria-Galgalia (Thakurganj)	2006-07	Sd	Normal	111	0.00	111	2145	1151.38	994	**400**	Mar-24
5	NR	NR	05.00.11.12.1.30.001	CS	Land free+ 50% CN cost	Y	NL	Rohtak-Mehem-Hansi	2012-13	Sd	Normal	64	0.00	64	889.28	635.27	254	**5**	Sep-22
6	NWR	NWR	09.03.11.96.1.30.001			Y	NL	Dausa-Gangapur City	1996-97	Sd	Normal	93	60.16	33	950	781.29	169	**114**	Dec-22
7	NWR	NWR	09.00.11.18.1.30.001				NL	Gudha-Thathana Mithri Test Track for RDSO **(Umbrella Work)**	2018-19	Sd	Normal	25	0.00	25	353.48	157.05	196	**50**	Jun-22
8	SR	SR	10.02.11.11.1.30.001				NL	Madurai-Tuticorin via Aruppukkottai	2011-12	Sd	Normal	144	18.00	126	2111.88	318.48	1793	**0.0001**	Mar-27
9	SR	SR	10.00.11.18.1.30.001			Y	NL	Rameswaram-Dhanushkodi **(Umbrella Work)**	2018-19	Sd	Normal	17	0.00	17	746.56	12.12	734	**59**	Mar-24
10	SR	SR			50% cost sharing by TN Govt for NL		NL	Chinnasalem-Kallakurichi New Line MM of Cuddalore-Salem (191 Km)	2015-16	Sd.		16	0	16	117	32	85	15	Mar-24

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Annexure A3(d)

ESSENTIAL NEW LINE 25-27 (Sanctioned)

S.No	Rly	Agency	Cost sharing	Funding Pattern	Gati Shakti	PH	Name of Project	Year	Sanction/ UN Sanctioned	ROUTE	Length (Km)			Total Cost (Cr)	Expenditure upto Mar-22	Throwforward as on 01.04.22	BE 2022-23 (in Cr.)	TDC	PPP (in Cr.)
											Total	Commissioned upto Mar 22	Balance						
1	CR	CR	CS	50:50		NL	Ahmednagar-Beed-Parle Vaijnath	1995-96	SD	Normal	261	66.28	195	4794.6	3004.94	1790	**200**	Mar-25	**367**
2	CR	CR + RVNL	CS	60:40 RLY:MAH		NL	Wardha-Nanded (via Yevatmal-Pusood)	2008-09	SD	Normal	284	0.00	284	3445.48	1680.80	1765	**541.47**	Mar-25	**279**
3	ECoR	ECoR	CS	Land free +50% cost (km 112 to km 289) by Odisha		NL	Khurda Road-Bolangir	1994-95	SD	Normal	289	104.96	184	3791.66	1791.80	2000	**655**	Mar-26	**236.12**
4	ECoR	ECoR				NL	Talcher-Bimlagarh	2003-04	SD	Normal	154	20.00	134	1928.07	978.33	950	**250**	Mar-25	
5	ECoR	ECoR	CS	25% cost by Odisha		NL	Jeypore-Malkangiri	2016-17	SD	Normal	130	0.00	130	2343.64	6.88	2337	**11**	Mar-27	**2.8**
6	ECoR	ECoR	CS	Land free+ 50% CN cost by Odisha		NL	Jeypore-Nabarangpur	2016-17	SD	Normal	41	0.00	41	747.91	2.97	745	**46**	Mar-26	**35**
7	ER	ER	CS	50% By JH		NL	Pirpainti-Jassidih	2013-14	SD	Normal	97	0.00	97	2137.81	335.40	1802	**46**	Mar-26	**55**
8	ER	ER	CS	50:50		NL	Chitra-Basukinath	2016-17	SD	Normal	38	0.00	38	793.87	85.71	708	**50.0001**	Mar-26	
9	NR	NR				NL	Nangal Dam-Talwara & Taking over siding of Mukerian-Talwara (29.16 km)	1981-82	SD	Normal	113	60.89	52	2017.96	893.44	1125	**335**	Dec-24	
10	NR	NR	CS	50% by UK Govt	Y	NL	Deoband (Muzzafar Nagar)-Roorkee	2007-08	SD	Normal	27	0.00	27	791	654.34	137	**99.9999**	Dec-24	**100**
11	NR	NR	CS	50% by HP Govt		NL	Chandigarh-Baddi	2007-08	SD	Normal	28	0.00	28	1540.14	348.34	1192	**150**	Mar-25	**300**
12	NR	NR	CS	Land free		NL	Ferozpur-Patti	2013-14	SD	Normal	26	0.00	26	299.74	0.00	300	**20.0001**	Sep-24	
13	**SCR** SWR	SCR+SWR	CS	50% by KAR for 165 Km Length		NL	Munirabad-Mahabubnagar	1997-98	SD	Normal	247	137.35	109	3472.8	2144.41	1328	**210**	Sep-24	**79**
14	SCR	SCR	CS	75:25 (Rly:AP)		NL	Kotipalli-Narsapur	2000-01	SD	Normal	57	0.00	57	2120.16	1090.91	1029	**0.0001**	Mar-24	**358**
15	SCR	SCR	CS	Land free + 33% cost + free annuity for first 5 yrs by TEL govt.		NL	Manoharabad-Kotapalli	2006-07	SD	Normal	151	43.25	108	2250	728.63	1521	**60**	Mar-25	**100**
16	SCR SWR	SCR+SWR	CS	50% by AP Govt		NL	Kadapa (Cuddapah) -Bangalore (Bangarapet)	2008-09	SD	Normal	266	21.00	245	3038	355.11	2683	**0.0001**	Mar-26	**289**
17	SCR	SCR	CS	Land free + 50% CN cost by GoAP		NL	Nadikude-Srikalahasti	2011-12	SD	Normal	309	45.85	263	2333	1319.37	1014	**150**	Mar-25	**1351**
18	SCR	SCR	CS	50% Cost by AP for AP portion		NL	Bhadrachalam-Kovvur	2012-13	SD	Normal	119	0.00	119	2154.83	2.46	2152	**0.0001**	Could be planned	
19	SECR	SECR	CS	50:50		NL	Wadsa-Gadchiroli	2011-12	SD	Normal	52	0.00	52	1096	89.93	1006	**20**	Dec-24	**60**

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ESSENTIAL NEW LINE 25-27 (Sanctioned)

S.No	Rly	Agency	Cost sharing	Funding Pattern	Gati Shakti	PH	Name of Project	Year	Sanction/ UN Sanctioned	ROUTE	Length (Km)			Total Cost (Cr)	Expenditure upto Mar-22	Throwforward as on 01.04.22	BE 2022-23 (in Cr.)	TDC	PPP (in Cr.)
											Total	Commissioned upto Mar 22	Balance						
20	SECR	SECR	CS	50:50	Y	NL	Chirimiri-Nagpur Halt	2018-19	SD	Normal	17	0.00	17	241	0.00	241	**0.0001**	Mar-24	**2**
21	SWR	SWR	CS	1. Kadur- Chik Manglur 50:50 2.Chikamagalur-Sakleshpur (47 Km) sectio- Land free + 50 % Cost by GoK		NL	Kadur-Chickmagalur-Sakleshpur	1996-97	SD	Normal	93	46.00	47	826.18	489.20	337	**41**	Mar-26	**68**
22	SWR	SWR	CS	50:50 by AP & KAR		NL	Rayadurg-Tumkur via Kalyandurg	2007-08	SD	Normal	207	63.00	144	2404.03	1106.49	1298	**50.0007**	Dec-25	**50**
23	SWR	SWR	CS	Land+ 50% CN Cost		NL	Bagalkot-Kudachi	2010-11	SD	Normal	142	30.00	112	1503.09	321.95	1181	**25**	Dec-26	**25**
24	SWR	SWR	CS	Land free + 50% CN cost		NL	Tumkur-Chitradurg-Davangere	2011-12	SD	Normal	191	0.00	191	2000.97	85.81	1915	**50.0001**	Mar-25	
25	SWR	SWR	CS	Land free + 50% CN cost		NL	Shimoga-Harihar	2011-12	SD	Normal	79	0.00	79	832.47	1.07	831	**0.0001**	Mar-26	
26	SWR	SWR	CS	Land free + 50% CN cost		NL	Whitefield-Kolar	2011-12	SD	Normal	53	0.00	53	348.85	0.35	348	**0.0001**	Mar-25	
27	SWR	SWR			Y	NL	Marikuppam-Kuppam	2011-12	SD	Normal	24	0.00	24	279.54	37.58	242	**10**	Mar-24	
28	SWR	SWR	CS	Land free + 50% CN cost		NL	Gadag-Wadi	2013-14	SD	Normal	257	22.00	235	2841.84	452.62	2389	**75**	Jun-25	**112**
29	SWR	SWR	CS	Land free + 50% CN cost		NL	Shimoga-Shikaripura-Ranebennur	2018-19	SD	Normal	89	0.00	89	994.47	1.45	993	**50.0001**	Mar-25	
30	SWR	SWR	CS	Land free + 50% CN cost		NL	Hassan-Belur **(Umbrella work)**	2018-19	SD	Normal	32	0.00	32	462.93	0.00	463	**2**	Dec-25	
31	SWR	SWR	CS	Land free + 50% CN cost		NL	Dharwad to Belgaum via Kittur	2019-20	SD	-	73	0.00	73	927.42	0.00	927	**20.0001**	Mar-24	
32	WCR	WCR				NL	Ramganjmandi-Bhopal	2000-01	SD	Normal	277	47.20	229	2909.99	1557.33	1353	**500**	Mar-30	
33	**WCR** NCR	**WCR** NCR				NL	Lalitpur-Satna, Rewa-Singrauli & Mahoba-Khajuraho	1997-98	SD	Normal	541	229.00	312	8766.18	2857.78	5908	**700**	Mar-30	
34	WR	WR		100% by Railway		NL	Somnath-Kodinar(36.91km) NL MM of Rajkot-Veraval (185 Km) GC,	2010-11	SD		37	0	37	394	0	394	**0.0001**	Mar-25	

Annexure A-3 (e)

HDN/HUN PROJECTS Of Capacity & Enhancement

Total:41 **Completed:4** **Balance:37**

S.No	Rly	Project ID as Per IRPSM	Gati Shakti	Agency	PH	Name of Project	Year	ROUTE	Length (Km)			Total Cost (Cr)	Expenditure upto Mar-22	Throwforward as on 01.04.22	BE 2022-23 (in Cr.)	TDC
									Total	Commissioned upto Mar	Balance					
1	ER	02.00.11.01.1.30.001	Y	ER	NL	Rampurhat-Murarai (29.48 km)- 3rd line	1995-96	HUN 1	29	0.00	29	350	233.00	117	95	Mar-24
2	ER	02.02.14.07.1.30.001		ER	GC	Katwa-Bazarsau (30.59 Km) - DL	2007-08	HUN 6	31	23.61	7	310	181.00	129	21	May-22
3	ECoR	04.01.15.19.1.30.001		ECoR	DL	Baghuapal Fly over	2019-20	HUN 2	20	0.00	20	151.5	0.09	151	15	Mar-24
4	ECR N	03.04.15.16.1.30.002	Y	ECR N	DL	Sagauli-Valmiknagar	2016-17	HUN 5	110	11.00	99	1215.55	616.25	599	140.63	Mar-23
5	ECR N	03.04.15.16.1.30.001	Y	ECR N	DL	Muzaffarpur-Sugauli	2016-17	HUN 5	101	0.00	101	1185.74	498.88	687	340	Mar-24
6	ER	02.02.15.12.1.30.001	Y	ER	DL	Bazar Sau-Azimganj Jn.(42.15 km)	2012-13	HUN 6	42	34.96	7	326.13	310.70	15	17.35	Dec-22
7	NCR	06.02.15.16.1.30.001		NCR	DL	Allahabad Division- Construction of Aligarh Flyover	2016-17	HDN 1	22	0.00	22	1179.27	0.13	1179	65	Mar-24
8	NCR	06.02.15.18.1.30.001		NCR	DL	Aligarh - Daud Khan 3rd line & construciton of flyover at Daud khan	2018-19	HDN 1	7	0.00	7	451.99	2.17	450	100	Mar-24
9	NCR	06.02.15.18.1.30.002		NCR	DL	Allahabad - Bumrauli 4th line (10 Km) with flying over at Subedarganj	2018-19	HDN 1	10	0.00	10	494.11	0.00	494	3.2	Mar-24
10	NCR	06.01.15.18.1.30.002		NCR	DL	Bhandai - Flyover for etawah bound down train (10 Km)	2018-19	HDN 5	10	0.00	10	186.21	8.02	178	105	Mar-24
11	NER	07.03.15.12.1.30.001	Y	NER	DL	Chhapra-Ballia Patch Doubling (65 km)	2012-13	HUN 5	65	17.00	48	728.92	629.86	99	55.36	Jul-22
12	NER	07.03.15.15.1.30.001	Y	NER	DL	Ballia-Gazipur city	2015-16	HUN 5	65	33.00	32	550	491.95	58	280.75	Jul-22
13	NER	07.03.15.16.1.83.002	Y	RVNL	DL	Phephna-Indara, Mau-Shahganj doubling excluding Indara-Mau	2016-17	HUN 5	150	0.00	150	1028.95	690.40	339	260	Jun-23
14	NER	07.03.15.16.1.83.001	Y	RVNL	DL	Bhatni-Aurnihar with electrification (125 Kms) excluding Indara-Mau(116.95 Km)	2016-17	HUN 5	117	0.00	117	1177.96	527.72	650	350	Mar-24
15	NFR	08.00.15.15.1.30.001		NFR	DL	New Bongaigaon- Goalpara-Guwahati (Kamakhaya)	2015-16	HUN 6	176	47.90	128	2950	2102.17	848	500	Mar-23
16	NR	05.04.15.16.1.37.002		NR	DL	Janghai-Pratapgarh- Amethi	2016-17	HUN 1	87	0.00	87	700	278.82	421	100	Dec-23
17	NR	05.04.15.17.1.83.002	Y	RVNL	DL	Janghai- Phaphamau with electrification	2017-18	HUN 1	47	0.00	47	409.38	140.84	269	350	Dec-23
18	NR	05.04.15.17.1.30.003	Y	NR	DL	Jaunpur Jn. - Jaunpur city -Chord line	2017-18	HUN 1	2	0.00	2	72	43.90	28	50	Dec-22
19	NR	05.04.15.17.1.37.001	Y	NR	DL	Barabanki-Malhaur - 3rd & 4th Line(32.84 km)	2017-18	HUN 1	33	0.00	33	407	28.78	378	200	Mar-23

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HDN/HUN PROJECTS Of Capacity & Enhancement

Total:41 **Completed:4** **Balance:37**

S.No	Rly	Project ID as Per IRPSM	Gati Shakti	Agency	PH	Name of Project	Year	ROUTE	Length (Km)			Total Cost (Cr)	Expenditure upto Mar-22	Throwforward as on 01.04.22	BE 2022-23 (in Cr.)	TDC
									Total	Commissioned upto Mar	Balance					
20	NWR	09.00.15.18.1.30.001	Y	NWR	DL	Degana-Rai ka Bagh	2018-19	HUN 4	146	70.00	76	808.85	561.29	248	294	Jun-22
21	SCR	11.00.15.12.1.30.001		SCR	DL	Kazipet-Vijaywada 3rd line with electrification (219.64 km)	2012-13	HDN 5	220	0.00	220	1952.68	831.25	1121	592.5	Mar-24
22	SCR	11.00.15.15.1.30.005		SCR	DL	Renigunta, Wadi & Gooty Byepass	2015-16	HDN 7	27	0.00	27	273.05	104.69	168	54	Mar-24
23	SCR	11.00.15.16.1.30.001		SCR	DL	Guntakal- Guntur	2016-17	HUN 8	401	126.96	275	3887.48	1591.73	2296	803	Mar-24
24	SECR	13.01.15.15.1.30.005	Y	SECR	DL	Jharsuguda-Bilaspur - Flyover/ Bye pass	2015-16	HDN 2	10	0.00	10	299.65	0.00	300	1.0201	Mar-24
25	SER	12.02.15.17.1.30.001	Y	SER	DL	Dumitra-link “C” line , connection with Bisra Station.	2017-18	HUN 2	2	0.00	2	42.2	9.87	32	13	Dec-23
26	SER	12.01.15.18.1.30.002	Y	SER	DL	Purulia-Kotshila	2018-19	HUN 2	39	0.00	39	361	22.19	339	80	Jun-22
27	SR	10.06.15.10.1.33.001		SR	DL	Ernakulam-Kumbalam	2010-11	HUN 11	8	0.00	8	600.82	268.76	332	5	Mar-24
28	SR	10.06.15.11.1.33.001		SR	DL	Kumbalam-Thuravur Patch doubling (15.59 km)	2011-12	HUN 11	16	0.00	16	812.85	256.71	556	5.0001	Mar-24
29	SR	10.06.15.15.1.33.002	Y	SR	DL	Trivandrum- Kanyakumari	2015-16	HUN 11	87	0.00	87	1431.9	969.52	462	393.5	Mar-24
30	SR	10.02.15.15.1.83.002	Y	RVNL	DL	Maniyachi- Nagercoil	2015-16	HUN 10	102	28.90	73	1752.25	1168.82	583	425	Jun-22
31	SWR	14.01.15.97.1.30.001		SWR	DL	Bangalore-Whitefield-Bangalore City-Krishnarajapuram Quadrupling	1997-98	HUN 10	40	0.00	40	492.87	39.28	454	100	Dec-23
32	SWR	14.01.15.18.1.32.001	Y	K RIDE	DL	Baiyapannahalli to Hosur	2018-19	HUN 10	48	0.00	48	498.73	77.41	421	55	Mar-24
33	SWR	14.01.15.18.1.32.003	Y	K RIDE	DL	Yeshwantpur to Channasandra	2018-19	HUN 10	22	0.00	22	314.11	23.24	291	35	Mar-24
34	WCR	16.02.15.15.1.33.002		WCR	DL	Katni - Bina (263 km) -3rd line	2015-16	HUN 7	279	62.10	217	2875.12	1288.68	1586	410	Mar-24
35	WCR	16.00.15.19.1.31.002	Y	WCR	DL	Ruthiyai-Bye Pass line	2019-20	HUN 2	3	0.00	3	50.57	0.00	51	21	Mar-24
36	WCR	16.01.15.08.5.31.001	Y	WCR	DL	Guna- Bye Pass line	2019-20	HUN 2	2	0.00	2	52.96	145.91	-93	33	Mar-24
37	WR	15.01.15.18.1.30.001		WR	DL	Mehsana-Palanpur	2018-19	HUN 3	65	0.00	65	537.31	0.64	537	72	Mar-24

Annexure A-3(f)

GAUGE CONVERSION (GC) WORKS

							Total:30			**Completed:11**			**Balance:19**			
S.No	**Rly**	**Project ID as Per IRPSM**	**Gati Shakti**	**Agency**	**PH**	**Name of Project**	**Year**	**ROUTE**	**Length (Km)**			**Total Cost (Cr)**	**Expenditure upto Mar-22**	**Throwforward as on 01.04.22**	**BE 2022-23 (in Cr.)**	**TDC**
									Total	**Commissioned upto Mar 22**	**Balance**					
1	NCR	06.03.14.10.1.30.002	Y	NCR	GC	Gwalior-Sheopurkalan with extension to Kota	2010-11	Normal	188	0.00	188	4552.00	610.96	3941.04	**700**	Dec-24
2	NCR	06.03.14.10.1.30.001	Y	NCR	GC	Dholpur-Sirmuttra with extension to Gangapur City	2010-11	Normal	70	0.00	70	2030.5	22.07	2008.43	**110.0001**	Mar-24
3	WR	15.01.14.08.5.30.001		WR	GC	Bhuj-Naliya with extn. From Naliya to Vayor (24.65 km)	2008-09	Normal	101	30.00	71	321.62	126.63	194.99	**4**	Mar-24
4	WR SCR	15.05.14.08.1.30.001		WR SCR	GC	Ratlam-Mhow-Khandwa-Akola and MM of Fatehabad-Chandrawati Ganj-Ujjain	2008-09	HUN 9	473	257.30	215	6212.36	2403.55	3808.81	**888**	Not Fixed
5	WR	15.00.14.17.1.30.002	Y	G-RIDE	GC	Chanasma-Ranuj	2017-18	Normal	13	0.00	215	411	0	3809	0	45352
6	ECR N	03.04.14.97.1.30.001	Y	ECR N	GC	*Jaynagar-Darbhanga-Narkatiaganj (260 Km)* & MM of Narkatiaganj-Bhikhna Tori (35 Km)	1997-98	Normal	282	260	22	1124	1123.455	0.5451	40	44986
7	ECR N	**03.04.14.03.5.30.001**	Y	ECR N	GC	Sakri-Laukaha Bazar-Nirmali & Saharsa-Forbesganj	2003-04	Normal	206.1	134	72.06	1783	1582.631	200.3695	200	45352
8	ECR	03.04.14.10.1.30.001	Y	IRCON	GC	Jaynagar-Bijalpura, incl. extn. Bet, Bijalpura-Bardibas (Nepal)	2010-11	Normal	52.34	52.18	0.16	784	538.5539	245.4461	0.0001	45717

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GAUGE CONVERSION (GC) WORKS																
							Total:30			Completed:11			Balance:19			
S.No	Rly	Project ID as Per IRPSM	Gati Shakti	Agency	PH	Name of Project	Year	ROUTE	Length (Km)			Total Cost (Cr)	Expenditure upto Mar-22	Throwforward as on 01.04.22	BE 2022-23 (in Cr.)	TDC
									Total	Commissioned upto Mar 22	Balance					
9	NER	07.02.14.11.1.83.001	Y	RVNL	GC	Lucknow-Pilibhit via Sitapur, Lakhimpur	2011-12	Normal	262.8	237.68	25.08	1488.55	1367.07	121.48	186	45047
10	NER	07.03.14.16.1.30.001	Y	NER	GC	Indara-Dohrighat	2016-17	Normal	34.37	0	34.37	213.35	105.5417	107.8083	39	44866
11	NER	07.02.14.16.1.30.001		NER	GC	Bahraich-Nanpara-Nepal Ganj	2016-17	Normal	56.15	0	56.15	341.66	0.036	341.624	33.999	45352
12	SECR	**SECR**		SECR	GC	Kendri-Dhamtari & Abhanpur-Rajim	2011-12	Normal	67.2	0	67.2	544	0	544	50	45352
13	SR	10.05.14.06.1.30.001	Y	SR	GC	Tiruturaipundi-Agastiyampi	2007-08	Normal	37	37	0	3081.21	1729.552	1351.658	75	44743
14	SR	10.02.14.08.1.30.001	Y	SR	GC	Madurai-Bodinayakkanur	2008-09	Normal	90.41	75.21	15.2	591	444.2154	146.7846	125	44743
15	WR NWR	15.01.14.08.1.30.001	Y	WR NWR	GC	Ahmedabad-Himmatnagar-Udaipur including Modasa-Shamlaji Road	2008-09	Normal	295.7	256.39	39.34	2165	2082.576	82.4279	268	44682
16	WR	15.06.14.11.1.30.001	Y	WR	GC	Miyagam-Karjan-Dabhoi-Samalaya GC with electrification	2011-12	Normal	96.46	32	64.46	844.1	339.5826	504.5174	150	45352
17	WR	15.01.14.15.1.30.001	Y	WR	GC	Ahmedabad-Mahesana	2015-16	HUN 3	68.78	42.19	26.59	558.56	500.0797	58.4803	50	44805
18	SECR	13.02.14.13.1.30.001	Y	MRIDC	GC	Nagbir-Nagpur	2013-14	Normal	116.2	0	116.15	1400	200	1200		45352
19	WR	15.00.14.17.1.30.009	Y	G-RIDE	GC	Katosan Rd-Chanasma	2017-18	Normal	51.72	0	51.72	375	56	319		45352

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Annexure A-3(g)

Essential Doubling (Not Sanctioned)

S.No	Rly	Project ID as Per IRPSM	Agency	PH	Name of Project	Year	Sanction/ UN Sanctioned	ROUTE	Length (Km)			Total Cost (Cr)	Expenditure upto Mar-22	Throwforward as on 01.04.22	Outlay for 21-22 *(in Cr)*	BE 2022-23 (in Cr.)	TDC
									Total	Commissioned upto Mar 22	Balance						
1	ECR S	03.00.15.19.1.30.002	ECR S	DL	Doubling of Pradhan Kuntha Jn- Pathardih Bazar- Bhojudih	2019-20	N-S	HUN 2	17.10	0.00	17.10	171.00	0.00	171.00	5.00	5.00	-
2	ER	02.00.15.19.1.30.001	ER	DL	Madhupur bye-pass line	2019-20	N-S	HUN 1	7.41	0.00	7.41	106.50	0.00	106.50	50.00	15.00	Feb-25
3	NCR	06.00.15.19.1.00.001	NCR	DL	Doubling of Billi- Chunar	2019-20	N-S	HUN 2	108.00	0.00	108.00	1080.00	0.00	1080.00	5.00	0.10	5 year after sanctioning of project
4	NER	07.00.15.19.1.30.001	NER	DL	Doubling of Gorakhpur- Valmikinagar	2019-20	N-S	HUN 5	87.00	0.00	87.00	1199.00	0.00	1199.00	5.00	5.00	Mar-25
5	NFR	08.00.15.17.1.30.002	NFR	DL	Saraighat Bridge DL	2017-18	N-S	HDN 4	7.00	0.00	7.00	1477.92	0.00	1477.92	5.00	15.50	-
6	NFR	08.00.15.19.1.30.002	NFR	DL	Doubling of Lumding- Furkating part of Lumding-Tinsukia Jn- Dibrugarh	2019-20	N-S	HUN 6	140.00	0.00	140.00	2360.00	0.00	2360.00	5.00	1.00	-
7	NFR	08.00.15.19.1.30.001	NFR	DL	Doubling of Katihar- Kumedpur and Katihar-Mukuria	2019-20	N-S	HUN 6	64.50	0.00	64.50	645.00	0.00	645.00	5.00	1.00	-
8	NR	05.04.15.17.1.37.004	NR	DL	Varanasi-Mughalsarai -3rd line (16.72 km) with substructure of two lines on Bridge no.-11 (Malviya Bridge)	2017-18	N-S	HUN 1	16.72	0.00	16.72	1350.00	0.60	1349.40	5.00	0.10	Not Fixed
9	NR	05.00.15.19.1.30.008	NR	DL	Doubling of Jakhal- Hisar Part of Firozpur-Bhatinda and Jakhal- Hisar	2019-20	N-S	HUN 4	82.00	0.00	82.00	820.00	0.00	820.00	0.00	1.00	Dec-24
10	NR	05.00.15.19.1.37.007	NR	DL	Connectivity between Palwal and New Prithala	2019-20	N-S	HDN 3	3.50	0.00	3.50	65.75	0.00	65.75	10.00	1.00	-
11	NWR	09.00.15.19.1.30.001	NWR	DL	Sawaimadhopur-Jaipur	2019-20	N-S	Normal	131.27	0.00	131.27	1121.48	0.00	1121.48	5.00	1.00	Mar-25
12	NWR	09.00.15.19.1.30.004	NWR	DL	Doubling of Luni-Samdhari Bhatinda- Bhildi via Sirsa, Hisar, Ratangarh, Degana, Luni, Samdhari excluding Degana- Rai ka Bag	2019-20	N-S	HUN 4	278.00	0.00	278.00	2780.00	0.00	2780.00	5.00	5.00	Mar-25
13	NWR		NWR	DL	Doubling of Ajmer- Chittorgarh	2019-20	N-S	HUN 9	186.00	0.00	186.00	1860.00	0.00	1860.00		1.00	Mar-25
14	SCR		SCR	DL	Doubling of Mudkhed-Secunderabad-Mehaboob nagar-Dhone bypassAkola- Dhone via Purna, Mudhkhed, Secunderabad, Mehboobnagar excluding Purna-Mudkhed and Bolarum-Mehboobnagar including Dhone bye pass	2019-20	N-S	HUN 9	419.00	0.00	419.00	4190.00	2.10	4187.90		5.00	Not Fixed
15	SECR		SECR	DL	Doubling of Boridand-Bishrampur part of Boridand- Ambikapur and Boridand- Chirmiri	2019-20	**N-S**	HUN 7	98.30	0.00	98.30	1240.00	0.00	1240.00		5.00	Mar-25
16	SER		SER	DL	Doubling between Bhojudi- Talgoria in connection with permanent diversion of fire affected Dhanbad- Chandrapura line	2019-20	**N-S**	HUN 2	12.50	0.00	12.50	142.06	0.00	142.06		35.00	-
17	SR		SR	DL	Turavur- Ambalapuza	2015-16	**N-S**	HUN 11	45.86	0.00	45.86	1281.63	0.92	1280.71		1.00	Mar-24

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Essential Doubling (Not Sanctioned)

S.No	Rly	Project ID as Per IRPSM	Agency	PH	Name of Project	Year	Sanction/ UN Sanctioned	ROUTE	Length (Km)			Total Cost (Cr)	Expenditure upto Mar-22	Throwforward as on 01.04.22	Outlay for 21-22 *(in Cr)*	BE 2022-23 (in Cr.)	TDC
									Total	Commissioned upto Mar 22	Balance						
18	SR	10.00.15.19.1.30.001	SR	DL	Doubling of Chennai Beach- Chennai Egmore	2019-20	**N-S**	HDN 6	4.30	0.00	4.30	280.74	0.00	280.74	5.00	54.20	Aug-23
19	NCR	06.00.15.15.1.30.003	NCR+ECR+ER	DL	Byepass at Sainthia, Sitarmpur, Mughalsarai, Allahabad, Etawah	2015-16	N-S	HDN 1	24	0.00	24	1404.22	1.12	1403.10	**38**	**150**	Feb-25
20	CR	01.00.15.18.1.30.001	MRIDC	DL	Igatpuri - Manmad 3rd line	2018-19	N-S	HDN 2	122	0.00	122	1860	0.06	1859.94	**0.0001**	**0.0001**	
21	CR	01.00.15.19.1.30.001	CR	DL	Bhusawal-Wardha 3rd Line	2019-20	N-S	HDN 2	313	0.00	313	2485	0.00	2485.00	**0.0001**	**1**	
22	ECoR	04.01.15.15.1.83.003	RVNL	DL	Bhadrak-Vizianagram 3rd line	2015-16	N-S	HDN 6	385	0.00	385	4601.00	2.67	4598.33	**0.0001**	**1**	
23	ECR S	03.00.15.19.1.30.004	ECR S	DL	Permanent diversion of fire affected Dhanbad-Chandrapura line by Dhanbad- Ispatnagar line via Telulmari, Nichitpur, Matari, Telo including Y connection at Dhanbad and Ispatnagar	2019-20	N-S	Normal	44	0.00	44	438.00	0.00	438.00	**0.0001**	**5**	
24	ECR N	03.00.15.19.1.30.005	ECR N	DL	Barauni- Bachwara 3rd & 4th line	2019-20	N-S	HDN 4	32	0.00	32	645.00	0.00	645.00	**0.0001**	**5**	
25	ECR S	03.00.15.19.1.30.003	ECR S	DL	Sonenagar bye pass line from Chiralapothu to Bagha Bishunpur	2019-20	N-S	HUN 2	10	0.00	10	181.1	0.00	181.10	**0.0001**	**5**	
26	NCR	06.02.15.16.1.30.002	NCR	DL	Iradatganj-Kunwahdih Construction of Flyover	2016-17	N-S	HUN 5	23	0.00	23	2877.5	0.00	2877.50	**0.0001**	**0.1**	
27	NCR	06.02.15.16.1.30.004	NCR	DL	Karchhana- Iradatganj Construction of Flyover	2016-17	N-S	HUN 5	13	0.00	13	1041.6	1.92	1039.68	**0.0001**	**0.1**	
28	NCR	06.02.15.16.1.30.005	NCR	DL	Naini - Irdatganj Construction of Flyover	2016-17	N-S	HUN 5	13	0.00	13	681.5	0.32	681.18	**0.0001**	**0.1**	
29	NCR	06.01.15.18.1.30.003	NCR	DL	Mathura-Dholpur - 4th line	2018-19	N-S	HDN 5	107	0.00	107	2945.79	0.02	2945.77	**0.0001**	**0.0001**	
30	NCR	06.01.15.18.1.30.001	NCR	DL	Agra Fort and Bandikui	2018-19	N-S	Normal	150	0.00	150	1389.81	0.00	1389.81	**0.0001**	**30**	
31	**NCR,** WCR	06.03.15.18.1.30.002	NCR+WCR	DL	Dholpur Jhansi - Bina - 4th line.	2018-19	N-S	HDN 5	322	0.00	322	4870.95	0.32	4870.63	**0.0001**	**10**	
32	NWR	09.00.15.19.1.30.002	NWR	DL	Byepass line at Sawaimadhopur	2019-20	N-S	HDN 3	7	0.00	7	252.00	0.00	252.00	**0.0001**	**1**	
33	SCR	11.00.15.15.1.30.001	SCR	DL	Duvvada-Vijaywada - 3rd line	2015-16	N-S	HDN 6	333	0.00	333	3873.07	1.00	3872.07	**0.0001**	**1**	
34	SER	12.01.15.17.1.30.001	SER	DL	Radhanagar siding line of Adra Division to Barachak and Y connection line to Sitaram pur .	2017-18	N-S	Normal	10	0.00	10	39.93	0.00	39.93	**0.0001**	**0.01**	
35	SER	12.01.15.18.1.30.001	SER	DL	Chandil- Anara- Burnpur - 3rd line with additional loop line at Nimdih, Urma, Tamna, Charra & Bagalia (125KM).	2018-19	N-S	HUN 2	125	0.00	125	1604.31	0.00	1604.31	**0.0001**	**40**	
36	SER	12.00.15.19.1.30.001	SER	DL	Rourkela-Bondamunda A Cabin 5th line	2019-20	N-S	HDN 2	10	0.00	10	269.02	0.00	269.02	**0.0001**	**5**	

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Essential Doubling (Not Sanctioned)

S.No	Rly	Project ID as Per IRPSM	Agency	PH	Name of Project	Year	Sanction/ UN Sanctioned	ROUTE	Length (Km)			Total Cost (Cr)	Expenditure upto Mar-22	Throwforward as on 01.04.22	Outlay for 21-22 (in Cr)		TDC
									Total	Commissioned upto Mar 22	Balance						
1	WR				Doubling of Surendranagar-Pipavav SPV line				273			5460					
2	WR				Doubling of Ratlam - Fatehabad - Laxmibai Nagar				115			2300					
3	WR				Doubling of Gandhidham-Bhuj line				57.2			1144					
4	WR				Doubling of Viramgam- Mahesana				63			1260					
5	WR				Doubling of Mahesana - Patan - Bhildi				117			2340					
6	WR				Doubling of Botad - Sabarmati				292			5840					
7	WR				Doubling of Ahmedabad-Himmatnagar				92.5			1850					
8	NFR				FKG-Dibrugarh (Doubling)				193.7			3874					
9	NFR				Lanka-Chandranathpur				217			4340					
10	NFR				Silchar & Chandranathpur				22			440					
11	NFR				-Badarpur-Agartala (in lieu of doubling of LMG-Badarpur-AGTL				263			5260					
12	ECOR				Doubling of Haridaspur – Paradeep line				522			10440					
13	NWR				Bhatinda-Hanumangarh-Suratgarh-Bikaner				323.9			3300					
14	NWR				Lalgarh-Phalodi-Jaisalmer				313.95			3200					
15	NWR				Merta Road –Bikaner				172			1700					
16	NR				Doubling of SIR-MRND-NLDM section.				107.7			2154					
17	NR				Doubling of PFM-UCR-ON section so as to provide an alternate route.				212			4240					
18	SCR				Guntur-Bibinagar (FLS)- (11.02% ROR.)				239			2592					
19	SCR				Motumarri-Vishnupuram - 89 kms.				89			1780					
20	SCR				Mudkhed-Adilabad – 243 kms.				243			4860					
21	ECR				Doubling of Jamuniatand-Chandrapura (8 km).				8			160					
22	ECR				Shivpur-Kathautia-Doubling.				169			3380					
23	ECR				Chainpur-West Bokaro Doubling with Yard remodeling of Chainpur.				320			6400					
24	ECR				Tilaiya-Rajgir-Bakhtiyarpur-Doubling.				90.6			1812					
25	ECR				Chainpur-West Bokaro Doubling with Yard remodeling of Chainpur.				320			6400					
26	ECR				Tilaiya-Rajgir-Bakhtiyarpur-Doubling.				90.6			1812					

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Annexure A3(h)

ESSENTIAL NEW LINE 25-27 (Not Sanctioned)																		
S.No	Rly	Agency	Cost sharing	Funding Pattern	Gati Shakti	PH	Name of Project	Year	Sanction/ UN Sanctioned	ROUTE	Length (Km)			Total Cost (Cr)	Expenditure upto Mar-22	Throwforward as on 01.04.22	BE 2022-23 (in Cr.)	TDC	PPP (in Cr.)
											Total	Commissioned upto Mar 22	Balance						
1	CR	CR	CS	50:50		NL	Vaibhavwadi-Kolhapur	2016-17	N-S	Normal	108	0.00	108	3438.49	0.00	3438	**0.0001**	Mar-26	
2	NWR	NWR				NL	Dedicated Test Track for RDSO (Phase-II)	2019-20	N-S	-	34	0.00	34	466.42	2.56	464	**0.0001**	Mar-23	
3	ECR S	ECR S				NL	Dhanbad-Chandrapura alternate route via Tundu-Nichitpur **(Umbrella Work)**	2018-19	N-S	Normal	26	0.00	26	475	0.00	475	**0.0001**	Mar-25	
4	SER	SER				NL	Namkum-Kandra	2018-19	N-S	Normal	106	0.00	106	2381.52	0.00	2382	**0.0001**	Dec-25	
5	SER	SER				NL	Kiriburu to Barbil	2019-20	N-S	Normal	25	0.00	25	600	0.00	600	**0.0001**	Dec-25	
6	CR	MRIDC	JV			NL	Pune-Nasik	2016-17	N-S	Normal	235	0.00	235	5341.68	0.00	5341.68	**0.0001**		
7	CR	CR				NL	Phaltan to Pandharpur.	2017-18	N-S	Normal	105	0.00	105	1152.94	0.00	1152.94	**0.0001**		
8	ECoR	ECoR				NL	Extension of Naupada-Gunupur new line upto Theruvali	2017-18	N-S	Normal	79	0.00	79	1397.52	0.47	1397.05	**10.0001**		
9	ER	ER	CS	50:50		NL	Godda-Pakur	2016-17	N-S	Normal	80	0.00	80	2023.76	0.91	2022.85	**0.0001**		
10	WR	DMIDC	PPP			NL	Bhimnath-Dholera	2016-17	N-S	Normal	28	0.00	28	140.00	0.03	139.97	**0.0001**		
1	SECR						GARE PELMA - SARDEGA				44			880					
2	SECR						WADSA - GADCHIROLI				54			1080					
3	SECR						GADCHIROLI - BHANUPRATAPPUR				133			2660					
4	SECR						KHARSIA - NAYA RAIPUR - PARAMALKASA				305			6100					
5	SECR						PARSA KANTE - KATGHORA				84.5			1690					
6	SECR						AMBIKAPUR - RENUKOOT				157.5			3150					
7	SECR						AMBIKAPUR - GARWA ROAD				170			3400					
8	SECR						DHARAMJAIGARH - PATHALGAON - LOHARDAGA				291			5820					
9	SECR						LAJKURA - SARDEGA				488			9760					
10	SECR						SARDEGA - PATHALGAON				103			2060					
11	WR						New Bhuj to Mandvi				58.3			1166					
12	ECOR						Gandhamardan Iron Ore mines with Naranpur station				12.76			255.2					
13	WCR						Connectivity/provision of a new line upto coal washeries on left side of new station. (Katni-Singrauli Section) (Route 3 Km, Target loading 2 MTPA Coal)				3			60					
14	WCR						Construction of a new line from Gajra Bahra station connecting coal mining area.(Katni-Singrauli Section) (Route 30 Km, Target loading 4 MTPA, Adani Coal)				30			600					

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Annexure A-3(i)

GC (Not Sanctioned)

S.No	Rly	Project ID as Per IRPSM	Cost sharing	Funding Pattern	Gati Shakti	Agency	PH	Name of Project	Year	Sanction/ UN Sanctioned	ROUTE	Length			Total Cost (Cr)	Expenditure upto Mar-22	Throwforward as on 01.04.22	Outlay for 21-22 *(in Cr)*	BE 2022-23 (in Cr.)	PPP (in Cr.)
												Total	Commissioned upto Mar 22	Balance						
1	CR	01.00.14.19.1.30.001				CR	GC	Pachora-Jamner with extension upto Malkapur NG to BG	2019-20	N-S	-	84	0.00	84	849.68	0.00	849.68	**0.0001**	**0.0001**	

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Annexure A-3 (J)

PIPE LINE

S.No	Rly	Cost sharing	Funding Pattern	Gati Shakti	Agency	PH	Name of Project	Year	Sanction/ UN Sanctioned	ROUTE	Length (Km)			Total Cost (Cr)	Expenditure upto Mar-22	Throwforward as on 01.04.22	Outlay for 21-22 *(in Cr)*	BE 2022-23 (in Cr.)	PPP (in Cr.)
1	CR	SPV			RVNL	NL	Dighi Port-Roha	2015-16	SD	Normal	34	0.00	34	724.68	0.19	724.49	**0.0001**	**0.0001**	
2	CR	CS			CR	NL	**Solapur-tuljapur-Osmanabad (Umbrella Work)**	2018-19	SD	Normal	84	0.00	84	904.92	0.62	904.30	**20**	**10**	
3	ECR S	CS	50:50		ECR S	NL	**Parasnath-Madhuban-Giridih new line**	2018-19	SD	Normal	49	0.00	49	971.25	0.00	971.25	**0.0001**	**50.0001**	
4	ER				ER	DL	Naihati-Ranaghat-3rdline (35.54 km)	2000-01	SD	Normal	36	0.00	36	284	100.00	184.00	**0.0001**	**70**	
5	NFR	MEA	100%	Y	IRCON	NL	Jogbani-Biratnagar(Nepal)	2010-11	SD	Normal	19	8.00	11	402	333.46	68.54	**0.0000**	**0**	**1**
6	NFR				NFR	NL	Murkongselek-Pasighat	2011-12	SD	Normal	27	0.00	27	980.00	158.29	821.71	**0.0001**	**100**	
7	NFR	CS	100% by DONEAR	Y	IRCON	NL	Agartala-Akhaura (Bangladesh)	2012-13	SD	Normal	5	0.00	5	708.73	580.00	128.73	**0.0000**	**0**	**1**
8	SECR	CS SPV			RVNL/IRCON	NL	Dallirajahra-Jagdalpur	1998-99	SD	Normal	235	58.80	176	4160.30	1009.88	3150.42	**0.0000**	**0.0001**	**500**
9	SECR	SPV			IRCON	NL	Gevra Road-Pendra Road	2013-14	SD	Normal	135	0.00	135	4970.11	839.44	4130.67	**0.0000**	**0**	**500**
10	SECR	JV			CRCL	NL	Katghora-Dongargarh (Dongargarh-Kharigarh-Bilaspur)	2016-17	SD	Normal	295	0.00	295	5950.47	0.00	5950.47	**0.0000**		
11	SECR	SPV			IRCON	NL	Dharamjaigarh-Korba	2016-17	SD	Normal	63	0.00	63	1686.22	172.40	1513.82	**0.0000**	**0.0001**	**300**
12	SECR	SPV			IRCON	DL	Gevra Rd-Pendra Rd	2015-16	SD	Normal	135	0.00	135	1750.10	452.01	1298.09	**0.0000**	**0.0001**	
13	SER				SER	GC	Rupsa-Bangriposi MM New Line from Buramara to Chakulia	1995-96	SD	Normal	159	90.00	69	1418.38	192.35	1226.03	**0.0001**	**1**	
14	SWR				SWR	NL	Hubli-Ankola	1997-98	SD	Normal	167	0.00	167	5174.3	158.13	5016.17	**10**	**0.0001**	
15	WR				WR	DL	Indore-Dewas-Ujjain	2016-17	SD	Normal	79	15.32	64	603.69	422.78	180.91	**0.0001**	**200**	
16	WR				WR	DL	Anand-Godhara	2017-18	SD	Normal	79	0.00	79	692.26	3.04	689.22	**5**	**100**	
17	WR			Y	WR	DL	Ujjain - Fly Over	2019-20	SD	Normal	2	0.00	2	99.72	0.00	99.72	**0.0001**	**10**	

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Annexure A-4

COAL CONNECTIVITY PROJECTS

										Total: 22			**Completed: 03**			**Balance: 19**			
S.No	**Rly**	**Project ID as Per IRPSM**	**Cost sharing**	**Funding Pattern**	**Gati Shakti**	**Agency**	**PH**	**Name of Project**	**Year**	**ROUTE**	**Length (Km)**			**Total Cost (Cr)**	**Expenditure upto Mar-22**	**Throwforward as on 01.04.22**	**BE 2022-23 (in Cr.)**	**PPP (in Cr.)**	**TDC**
											Total	**Commissioned upto Mar 22**	**Balance**						
1	ECoR	04.01.11.96.5.83.001	SPV		Y	RVNL	NL	Angul-Sukinda Road	1996-97	Normal	104	0.00	104	2440.53	2069.46	371.07	0	475	Jun-22
2	ECR S	03.02.11.98.1.30.001	CS	2/3rd of original cost + 50% of Addl cost by JHA	Y	ECR S	NL	Koderma-Ranchi	1998-99	Normal	202	175.00	27	3733.4	3703.87	29.53	55		Jun-22
3	ECR S	03.02.11.03.1.30.001	CS	2/3rd of original cost + 50% of Addl cost by JHA (for 15 Km only)	Y	ECR S	NL	Koderma-Tilaiya	2001-02	Normal	65	24.50	40	1625.87	1020.97	604.90	275		Dec-22
4	SCR	11.06.11.10.1.30.001	CS	CN cost by SCCL, Land & RE by Rly. Now 618 Cr By SCCL & Bal. by Rly	Y	SCR	NL	Bhadrachalam Road-Sattupalli	2010-11	Normal	54	40.10	14	927.94	717.28	210.66	100.51	62	May-22
5	SECR	13.01.11.13.1.30.003	SPV		Y	IRCON	NL	Kharsia-Dharamjaygarh with spur line (Raigarh(Mand Colliery)-Bhudeopur)	2013-14	Normal	122	86.50	36	3055.15	2858.09	197.06	0	1000	Mar-23
6	SR	10.05.14.95.1.30.001				SR	GC	Karaikudi-Paralam NL(23 km)	1995-96	Normal	23.00	0.00	23	325	723.28	-398.28	121.8		Mar-24
7	**CR,** WCR	01.03.15.15.1.30.003			Y	**CR,** WCR	DL	Itarsi- Nagpur 3rd line. Bal.	2015-16	HDN 5	280	25.00	255	2499.91	612.64	1887.27	610		Mar-24
8	ECoR	04.02.15.09.1.30.001				ECoR	DL	Brundamal-Jharsuguda-flyover connection for joining DN Line	2009-10	HUN 7	7	0.00	7	94.06	58.97	35.09	40.5		Mar-24
9	ECR N	03.01.15.15.1.41.002			Y	IRCON	DL	Kiul- Gaya	2015-16	HUN 1	124	19.00	105	1200.2	1089.00	111.20	77.19		Mar-23
10	NCR	06.03.15.15.1.30.001			Y	NCR WCR	DL	Jhansi-Bina 3rd line	2015-16	HDN 5	153	41.00	112	2001.9	984.94	1016.96	320		Mar-24
11	SCR	11.00.15.15.1.30.004			Y	SCR	DL	Kazipet -Ballarshah - 3rd line Excl. Mandamari-	2015-16	HDN 5	202	50.00	152	2063.03	1752.70	310.33	550.43		Mar-24

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S.No	Rly	Project ID as Per IRPSM	Cost sharing	Funding Pattern	Gati Shakti	Agency	PH	Name of Project	Year	ROUTE	Length (Km)			Total Cost (Cr)	Expenditure upto Mar-22	Throwforward as on 01.04.22	BE 2022-23 (in Cr.)	PPP (in Cr.)	TDC
12	SER	12.00.15.15.1.30.004				SER	DL	Bondamunda-Ranchi	2015-16	HUN 2	159	35.30	123	2073.2	1185.64	887.56	400		Dec-23
13	SER	12.03.15.16.1.30.001				SER	DL	Narayangarh-Bhadrak 3rd line	2016-17	HDN 6	153	0.00	153	2400	385.72	2014.28	800		Dec-23
14	SER	12.01.15.16.1.30.001			Y	SER	DL	Damodar-Mohisila	2016-17	Normal	8	0.00	8	104.04	59.05	44.99	8		Mar-23
15	SER	12.02.15.16.1.30.001			Y	SER	DL	Bondamunda-Rourkela 4th line	2016-17	HDN 2	9	0.00	9	139.5	48.33	91.17	22		Jun-22
16	SER	12.01.15.18.1.30.003			Y	SER	DL	Talgaria - Bokaro N/ Cabin -doubling (38 Km) with two loops at Chas & Ispatnagar	2018-19	Normal	32	0.00	32	512.4	147.46	364.94	100		Jun-22
17	SR	10.00.15.17.1.30.001			Y	SR	DL	Salem-Magnesite Junction-Omalur	2017-18	HUN 10	11	0.00	11	114.87	63.87	51.00	41		Aug-22
18	ECoR		SPV			JV	NL	Angul- Balram – Jarpada Inner Corridor of MCRL/Odisha			64		64	1600				1600	
19	ECR		SPV			JV	NL	Shivpur-Kathautia (17-18) /NL / ECR			49		49	1799				1799	

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Annexure A 5

First & last mile connectivity Projects to Mining areas, Ports, Industrial Hubs etc

Sn	Rly	Name of Work	Connectivity with	Length (Km)	Approx cost (In cr of rs)	TDC for sanction	TDC for completion
1	ECOR	Kodingamali Bauxite ore mines (9.4 KM)	Singaram Station to Kodingamali Bauxite ore mines	10	190	Jun-22	Mar-26
2	ECOR	Sasubohumali Bauxite ore mines (30 Km)	Tikri Station to Sasubohumali Bauxite ore mines	30	600	Dec-22	Dec-26
3	ECOR	Kutrumali Bauxite ore mines (25 Km)	Tikri Station to Kutrumali Bauxite ore mines	25	500	Dec-22	Dec-26
4	ECOR	Sijumali Bauxite ore mines (30 Km)	Tikri Station to Kutrumali Bauxite ore mines	30	600	Dec-22	Dec-26
5	WCR	Devendra nagar-Amanganj	Proposed New Crossing Station Devendra nagar in Panna-Satna Section	50	1000	Jun-23	Jun-26
6	ECR	New rail line (09 Km) between Chetar and Banhardih captive mine of NTPC	Chetar Station to Bandardih Captive mine.	9	180	Mar-23	Mar-27
7	ECR	Shivpur - Chatti Bariatu/ Kerandhari new line	Shivpur station to Chati Bariatu Coal mines	15	300	Mar-23	Mar-27
8	ECR	BES-Badam New line	Bes station to Badam Coal mines	12	240	Mar-23	Mar-27
9	ER	New line from Deocha –Pachami coal mine in Birbhum district of West Bengal to Mallarpur station (20 Km)	Mallarpur to Deocha-Pachami Coal Mines.	20	400	Sep-23	Sep-27
10	ER	New line from Saharpur-Jamarpani coal mine in Dumka district of Jharkhand to Harinsingh station (10 Km)	Harinsingh to Saharpur-Jamarpani coal mine	10	200	Mar-23	Mar-26
11	SECR	Gare Pelma-Sardega (30 Km)	Gharghoda station	30	600	Jun-23	Mar-27

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First & last mile connectivity Projects to Mining areas, Ports, Industrial Hubs etc

Sn	Rly	Name of Work	Connectivity with	Length (Km)	Approx cost (In cr of rs)	TDC for sanction	TDC for completion
12	WCR	Construction of a new crossing station between Gondawali-Mahdiya in KTE-SGRL section.	Proposed New crossing station between Gondawali-Mahdiya	7.5	150	Mar-23	Mar-26
13	WCR	Connectivity/provision of a new line upto Gorbi coal block on right side of new station. (5 Km)	Proposed New crossing station between Gondawali-Mahdiya	5	100	Mar-23	Mar-25
14	WCR	Connectivity/provision of a new line upto coal washries on left side of new station (3 Km)	Proposed New crossing station between Gondawali-Mahdiya	3	60	Mar-23	Mar-25
15	WCR	Construction of a new line from Gajra Bahra station connecting mining area (25-30 Km)	Gajra Bahra Station	30	600	Sep-23	Sep-26
16	DFC/CR	New Nilje(DFC)- Taloje Panchnand/CR Connection(ESP approved	Taloje Panchand	16	320		
17	DFC/NWR	New Malikpur(DFC)-Pachar Malikpur/NWR Connection	Pachar Malikpur	5	100		
18	DFC/NWR	New Kishangarh(DFC)-Gegal Akhri/NWR Connection	Gegal Akhri	9	180		
19	DFC/NWR	New Kishangarh(Block section)-Madar/NWR Connection	Madar	19	380		
20	DFC/WR	New Gothangam(DFC)- Gothangam/WR connection	Gothangam				
21	DFC/WR	New Gholvad(DFC)- Sanjan/WR connection	Sanjan	21	420		
22	DFC/WR	New Bhestan(DFC)-Bhestan/WR connection	Bhetsan				
23	WCR	Construction of a new line from MDDP station to ODG station connecting industrial belt. (25 Km)	Mandideep Station	25	500	Sep-23	Sep-26
24	WCR	Construction of a new triangular line from Gosalpur station to new crossing station with connectivity to Dundi station connecting mining area and industrial area (25 - 30 Km)	Gosalpur Station	30	600	Sep-23	Mar-27

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First & last mile connectivity Projects to Mining areas, Ports, Industrial Hubs etc

Sn	Rly	Name of Work	Connectivity with	Length (Km)	Approx cost (In cr of rs)	TDC for sanction	TDC for completion
25	ECOR	Gandhmardan Iron ore mines (25 Km)	Goladih station to Gandhmardan Iron ore mines	25	500	Jul-22	Jul-25
26	SER	Barbil to Nayagarh via Nuagaon, Guali, Shanimpur, Balda, (63 KM)	Barbil Station	63	1260	Dec-22	Dec-26
27	SER	Sanindpur to Dholtapahar via Kurmitar (62 Km)	Sanindpur station to Dholtapahar	62	1240	Dec-22	Dec-26
28	SER	Nuagaon to Barsuan via Dholtapahar (56 Km)	Barsuan station to Dholtapahar mines	56	1120	Dec-22	Dec-26
29	CR	Dighi (Suggested by Port authority)	Roha Station	41	820	Sep-23	Sep-27
30	CR	Karanja Terminal,Raigad (Suggested by Port authority)	Uran city Station	7	140	Sep-23	Sep-27
31	KRCL	JSW Port,Ratnagiri (Suggested by Port authority)	Digni Station (Proposed) on KRCL				
32	WR	M/s Chhara Port nearest Railway station New Kodinar (new Line from Somnath to New Kodinar section) on Bhavnagar Division.	Somnath Station to Chhara Port	50	1000	Sep-23	Sep-26
33	WR	Naliya-Jakhau Port New Line (27 Km)	Naliya	27	540	Jun-23	Jun-26
34	WR	Hazira (Suggested by Port authority)	Gothangam to Panoli (29 Km)	29	580	Jun-23	Jun-26
35	WR	Vadhvan Port		12			
36	SCR	Bhavnapadu	Routhpuram	9	180	Sep-23	Sep-26
37	SCR	Narasapur	Narasapur			Sep-23	Sep-26
38	SCR	Durgarajapatnam	Gudur	41	820	Sep-23	Sep-26
39	SCR	Machlipatnam	Pedana	10	200	Sep-23	Sep-26
40	WR	Salt loading from Hajipir, Approx. 75 Kms from Deshalpur (Bhuj-Naliya section)	Deshalpur station	75	1500	Sep-23	Sep-27
				918.5	18120		
1	**WR**	Hazira Port – Gothangam station of BRC Division		46	920		
2	**WR**	Naliya - Jakhau Port		27	540		
3	**SER**	Barbil-Banspani (19 KM)		19	380		
4	**SER**	Barbil-Kiriburu (24.5 KM)		24.5	490		
5	**ECR**	New Rail line between Chetar and Banhardih captive mines of NTPC. (12MT).		15	300		
6	**ECR**	New Rail line from Shivpur to Chatti Bariyatu (7MT) and Kerendari (6MT) Mines of NTPC.		15	300		
7	**ECR**	New Rail line from BES to Badam Mines of NTPC. (3MT).		15	300		
8	**ECR**	New Rail line from Biratoli to Chakla Coal Mines of Hindalco.		4	80		
9	**ECR**	New Rail line from Demu to Tubed Mines of DVC .		21	420		
10	**ECR**	Hazaribagh-Banadag Double line for Bulb line connectivity of NTPC Silo and Bulb.		8	160		

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PROPOSED MULTITRACKING (Doubling , 3rd / 4th/ 5th Line) WORKS

Annexure A 6

S.NO	Zone	Division	section	Patch Multi tracking (Doubling , 3rd / 4th/ 5th Line) section	approx Length of proposed Multitracking (km)	DL (KM)	3rd &4th (KM)	Status of FLS/DPR	TDC for sanction	TDC for Completion
1	CR	NGP	Wardha-Ballarshah (Prop. 4th line) (132 km)	Majri - Warora-Chikni Road	22.5	0	22.5	Railway proposal awaited.	Dec'2022	Dec'2025
2	CR	NGP	Wardha-Ballarshah (Prop. 4th line) (132 km)	Wagholi-Sonegaon-Bhugaon-Chitoda Jn.	22.59	0	22.59	Railway proposal awaited.	Dec'2022	Dec'2025
3	ECR	DHN	Koderma-Hazaribagh Town	Hazaribagh-Katkamasandi	25	25	0	Railway proposal awaited.	Dec'2022	Dec'2025
4	ECR	DHN	Koderma-Hazaribagh Town	Barhi-Koderma	22	22	0	Railway proposal awaited.	Dec'2022	Dec'2025
5	ECR	DHN	Hazaribagh -Arigada	Y connection is requird connecting kuju station to Ranchi Road	5	5	0	Railway proposal awaited.	Dec'2022	Dec'2025
6	ECR	DNR	Patna-Jhajha-Bakhtiyarpur Link Rajgir	Barh to Bakhtiyarpur to Harnauti	28	28	0	Railway proposal awaited.	Dec'2022	Dec'2025
7	ECR	DNR	Patna-Jhajha	More-Barahiya	25	25	0	Railway proposal awaited.	Dec'2022	Dec'2025
8	ER	HWH	Rampur hat-Sahibganj	Murarai-Pakur 3rd & 4th line	23.91	0	23.91	Railway proposal awaited.	June'2023	June'2027
9	ER	HWH	Rampur hat-Sahibganj	Pakur-Gumani 3rd & 4th line	18.48	0	18.48	Railway proposal awaited.	Dec'2022	Dec'2025
10	ER	HWH	Bardhman-Howrah	Bardhman-Shaktigarh	11.53	0	11.53	Railway proposal awaited.	Dec'2022	Dec'2025
11	ER	MLDT	Malda Town-New Farakka	Malda Town-Chamnagram 3rd & 4th line	29.5	0	29.5	Railway proposal awaited.	June'2023	June'2027
12	ER	ASN	Andal-Sitarampur	Kalipahari-Bakhtanagar 5th line	17.61	0	17.61	Railway proposal awaited.	Dec'2022	Dec'2025
13	ER	ASN	Khana-Andal	DCOP-Durgapur 5th line	3.5	0	3.5	Railway proposal awaited.	Dec'2022	Dec'2025
14	ER	ASN	Andal-Sitarampur	Extension of Nimuch up avoiding line to connec up loop of Kalipahari	8	8	0	Railway proposal awaited.	Dec'2022	Dec'2025
15	ECOR	KUR	CTC-PRDP	PRDP-DMA	12	0	12	Railway proposal awaited.	Dec'2022	Dec'2025
16	ECOR	KUR	CTC-PRDP	GRKN-RHMA	15	0	15	Railway proposal awaited.	Dec'2022	Dec'2025
17	ECOR	SBP	SBP-JSG	SRLA-SSN	8	0	8	Railway proposal awaited.	Dec'2022	Dec'2025
18	ECOR	SBP	TIG-LAE	HSK-TRKR-KBJ	23	0	23	Railway proposal awaited.	June'2023	June'2027
19	ECOR	WAT	PSA-VSKP	DVD-SCMN	16	0	16	Railway proposal awaited.	Dec'2022	Dec'2025
20	ECOR	WAT	PSA-VSKP	VSKP-GPT	7	0	7	Railway proposal awaited.	Dec'2022	Dec'2025
21	ECOR	WAT	WMY-Complex	OEC-SCMN	5.5	5.5	0	Railway proposal awaited.	Dec'2022	Dec'2025
22	ECOR	WAT	VSKP Complex	VDPD-GJC	5	0	5	Railway proposal awaited.	Dec'2022	Dec'2025
23	ECOR	KUR	JKPR-NYG	BGPL-SKND	8.5	0	8.5	Railway proposal awaited.	Dec'2022	Dec'2025
24	NER	LJN	Domingarh-Khalilbad	(i) Triple Line section (ii) Dn extended loop line at Jagatbela.	30	0	30	Railway proposal awaited.	June'2023	June'2027
25	NER	IZN	Bhojipura-Bareilly	Twin Single line.	19.31	19.31	0	Railway proposal awaited.	Dec'2022	Dec'2025
26	NCR	PRYJ	Kanpur Central-Ghaziabad	Panki Dham-GMC 4th line	2	0	2	FLS under sanction.	Dec'2022	Dec'2025
27	NCR	PRYJ	Prayagraj Chheoki-Manikpur	Iradatganj-Shankargarh 3rd & 4th line	27	0	27	FLS under sanction.	June'2023	June'2027
28	NFR	KIR	ALUABARIROAD – SILIGURI JN – ALIPURDUAR	BAGDOGRA – GULMA	18.42	18.42	0	Railway proposal awaited.	Dec'2022	Dec'2025
29	NFR	KIR	NEWJALPAIGURI-BARSOI -RADHIKAPUR	SANJAYGRAM - DHACHANA	12.25	12.25	0	Railway proposal awaited.	Dec'2022	Dec'2025
30	NFR	KIR	NEW COOCHBEHAR - SILIGURI JN	AMBARI FALAKATA - SILIGURI JN	15.85	15.85	0	Railway proposal awaited.	Dec'2022	Dec'2025
31	NFR	RNY	GUWAHATI- RANGIYA – RANGAPARA NORTH	KHANDIKAR - KENDUKONA	14.63	14.63	0	Railway proposal awaited.	Dec'2022	Dec'2025
32	NR	LKO	3rd & 4th line between Dilkusha - Malhaur	Dilkusha - Malhaur	8.2	0	8.2	FLS already sanction.	Dec'2022	Dec'2025
33	NR	LKO	Doubling between Jaunpur Junction - Zafrabad	ZFD-FD	6.5	6.5	0	FLS already sanction.	Dec'2022	Dec'2025
34	NR	MB	Doubling at Laksar avoiding line.	Roorki-HW	2.5	2.5	0	Railway proposal awaited.	Dec'2022	Dec'2025
35	NR	DLI	Provision of 4th line between Chipyana Buzurg-Ghaz	GZB-ALJN	2	0	2	Railway proposal awaited.	Dec'2022	Dec'2025

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36	NR	MB	3rd and 4th line between Rosa-Moradabad (Section	Shahjahanpur- Moradabd)	161	0	161	FLS already sanction.	June'2023	June'2028
37	NWR	JP	Rewari-Ringus	Kathuwas-Narnaul	24.12	24.12	0	FLS already sanction.	Dec'2022	Dec'2025
38	NWR	JU	Samdhari-Bhildi	Samdhari--mokalasar	26.15	26.15	0	DPR available for Luni-Samdl	Dec'2022	Dec'2027
39	NWR	JU	Samdhari-Bhildi	Mokalasar-Jalore	32.87	32.87	0			
40	NWR	JU	Samdhari-Bhildi	Jalore-Modran	34.67	34.67	0			
41	NWR	JU	Samdhari-Bhildi	Modran-Marwar Bhimal	27.72	27.72	0			
42	NWR	JU	Samdhari-Luni	Samdhari-Dudhia	34.65	34.65	0			
43	SCR	BZA	Samalkot (SLO) -Rajhamundry (RJY)	Samalkot (SLO) - Anaparti (APT)	26.46	0	26.46	FLS already sanction.	June'2023	June'2027
44	SCR	BZA	Samalkot-Rajahmundry	Anaparti (APT) – Rajahmundry (RJY)	23.75	0	23.75	FLS already sanction.	June'2023	June'2027
45	SCR	BZA	Rajahmundry (RJY) - Nidadavolu (NDD)	Kovvur (KVR) -Nidadavolu (NDD)	14.82	0	14.82	FLS already sanction.	Dec'2022	Dec'2025
46	SCR	BZA	Samalkot (SLO)-Duvvada (DVD)	Thadi (THY) -Anakapalli (AKY)	6.26	0	6.26	FLS already sanction.	Dec'2022	Dec'2025
47	SCR	BZA	Samalkot (SLO)-Duvvada (DVD)	Gullipadu (GUU)-Narsipatnam Road (NRP)	11	0	11	FLS already sanction.	Dec'2022	Dec'2025
48	SCR	BZA	Samalkot (SLO)-Duvvada (DVD)	Ravikampadu (RVKD) -Annavaram (ANV)	7.2	0	7.2	FLS already sanction.	Dec'2022	Dec'2025
49	SCR	SC	Secunderabad (SC) - Kazipet (KZJ)	Kazipet (KZJ) - Ganapur (GNP)	19.5	0	19.5	Railway proposal awaited.	Dec'2022	Dec'2025
50	SCR	SC	Secunderabad (SC) - Kazipet (KZJ)	Ganapur (GNP) -Raghunathpalli (RGP)	16.5	0	16.5	Railway proposal awaited.	Dec'2022	Dec'2025
51	SCR	SC	Secunderabad (SC) - Kazipet (KZJ)	Bhongir (BG)- Aler (ALER)	23	0	23	Railway proposal awaited.	June'2023	June'2027
52	SCR	SC	Secunderabad (SC) - Kazipet (KZJ)	Ghatkesar (GT) - Bibinagar(BN)	12.75	0	12.75	Railway proposal awaited.	Dec'2022	Dec'2025
53	SCR	SC	Secunderabad (SC) - WADI (WD)	Lingampalli(LPI)- Sankarpalli (SKP)	20.5	0	20.5	Railway proposal awaited.	June'2023	June'2027
54	SCR	SC	Secunderabad (SC) - WADI (WD)	Sankapalli (SKP)- chittaguda (CTF)	19	0	19	Railway proposal awaited.	June'2023	June'2027
55	SCR	SC	Secunderabad (SC) - WADI (WD)	Sulehalli (SUH)- Malkhaid Road(MQR)	24.86	0	24.86	Railway proposal awaited.	June'2023	June'2027
56	SCR	SC	Secunderabad (SC) - WADI (WD)	Tandur (TDU)- Nawandgi (NWH)	17	0	17	Railway proposal awaited.	June'2023	June'2027
57	SCR	SC	Secunderabad (SC) - WADI (WD)	Vikarabad (VKB)- Dharur (DRR)	20.37	0	20.37	Railway proposal awaited.	June'2023	June'2027
58	SCR	GNT	Nallapadu (NLPD)-Krishna canal (KCC)	Nallapadu (NLPD)- Krishna canal (KCC)	36	0	36	Railway proposal awaited.	June'2023	June'2027
59	SCR	SC	Dornakal (DKJ) – Manugur (MUGR)	Dornakal (DKJ) - Karepali (KRA)	15	15	0	FLS already sanction.	Dec'2022	Dec'2025
60	SCR	SC	Dornakal (DKJ) – Manugur (MUGR)	Karepali (KRA)- Tadikalapudi (TPY)	23	23	0	FLS already sanction.	Dec'2022	Dec'2025
61	SCR	SC	Dornakal (DKJ) – Manugur (MUGR)	Tadikalapudi (TPY)- Bhadrachalam (BDCR)	19	19	0	FLS already sanction.	Dec'2022	Dec'2025
62	SCR	SC	Moulali (MLY)-Sanathnagar (SNF)	Moulali (MLY)-Sanathnagar (SNF)	19.676	19.68	0	FLS already sanction.	Dec'2022	Dec'2025
63	SCR	SC/GNT	Motammari (MTMI) – Vishnupuram (VNUP)	JaggayyapetaTown (JPTN B cabin) - Ramapuram (RRPM)	9	9	0	FLS already sanction.	Dec'2022	Dec'2025
64	SCR	SC/GNT	Motammari (MTMI) – Vishnupuram (VNUP)	Makkapeta (MAPA) - JaggayyapetaTown (JPTN)	9	9	0	FLS already sanction.	Dec'2022	Dec'2025
65	SCR	SC/GNT	Motammari (MTMI) – Vishnupuram (VNUP)	Ramapuram (RRPM)- Mallecheruvu (MACU)	9	9	0	FLS already sanction.	Dec'2022	Dec'2025
66	SCR	SC/GNT	Motammari (MTMI) – Vishnupuram (VNUP)	Ragapuram -Janphad (JNPD)	13	13	0	FLS already sanction.	Dec'2022	Dec'2025
67	SCR	GTL	Pendakallu-Gooty Doubling	Pendakallu-Gooty	29.275	29.28	0	FLS already sanction.	Dec'2022	Dec'2025
68	SCR	GTL	Tirupathi (TPTY) – Pakala(PAKA) Doubling	Tirupathi (TPTY) - Mugilipattu (MNPT)	22.24	22.24	0	FLS already sanction.	Dec'2022	Dec'2025
69	SCR	HYB	Mudhked (MUE) –Medchal (MED) Doubling	Basar(BSX)- Jankampet (JKPT)	23	23	0	DPR available for Mudkhed-D	Dec'2022	Dec'2028
70	SCR	HYB	Mudhked (MUE) –Medchal (MED) Doubling	Basar(BSX)- Karkheli (KEK)	23	23	0			
71	SCR	HYB	Mudhked (MUE) –Medchal (MED) Doubling	Umri (UMRI) - Mudhked (MUE)	20	20	0			
72	SCR	HYB	Mabhabubnagar (MBNR) – Dhone(DHNE) Doubling	Mabhabubnagar (MBNR)- Devarkadra (DKC)	25	25	0			
73	SCR	HYB	Mabhabubnagar (MBNR) – Dhone(DHNE) Doubling	Gadwal (GWD)- Itikyala (IKI)	19	19	0			
74	SCR	HYB	Mabhabubnagar (MBNR) – Dhone(DHNE) Doubling	Bolsa (BLSA)- Mudhked (MUE)	29	29	0			
75	SCR	HYB	Mabhabubnagar (MBNR) – Dhone(DHNE) Doubling	Dhone (DHNE)- Veldurti (VDI)	20	20	0			
76	SCR	HYB	Mabhabubnagar (MBNR) – Dhone(DHNE) Doubling	Veldurti (VDI)- Dupadu (DUU)	23	23	0			

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77	SCR	NED	Aurangabad and Ankai with Bypass at Ankai	Nagarsol(NSL) - Ankai (ANK)	9.52	9.52	0	FLS already sanction.	Dec'2022	Dec'2025
78	SCR	NED	Aurangabad and Ankai with Bypass at Ankai	Nagarsol (NSL)- Rotegaon (RGO)	22	22	0	FLS already sanction.	Dec'2022	Dec'2025
79	SCR	NED	Aurangabad and Ankai with Bypass at Ankai	Rotegaon (RGO)- Lasur (LSR)	14	14	0	FLS already sanction.	Dec'2022	Dec'2025
80	SCR	NED	Aurangabad and Ankai with Bypass at Ankai	Lasur (LSR)- Potul (POZ)	12	12	0	FLS already sanction.	Dec'2022	Dec'2025
81	SCR	NED	Aurangabad and Ankai with Bypass at Ankai	Potul (POZ)- Aurangabad (AWB)	23	23	0	FLS already sanction.	Dec'2022	Dec'2025
82	SCR	GNT	Nallapadu (NLPD) – Pagidipalli (PGDP)	Pondugula (PDGL)- Miryalaguda (MRGA)	20	20	0	FLS already sanction.	Dec'2022	Dec'2025
83	SCR	GNT	Nallapadu (NLPD) – Pagidipalli (PGDP)	Vishnupuram (VNUP)- Nadikudi (NDKD)	22	22	0	FLS already sanction.	Dec'2022	Dec'2025
84	SCR	GNT	Nallapadu (NLPD) – Pagidipalli (PGDP)	Pedakurapadu (PKPU)- Sattenapalli (SAP)	13	13	0	FLS already sanction.	Dec'2022	Dec'2025
85	SCR	GNT	Nallapadu (NLPD) – Pagidipalli (PGDP)	Nagireddypalli (NRDP)- Valligonda (VLG)	10	10	0	FLS already sanction.	Dec'2022	Dec'2025
86	SCR	GNT	Nallapadu (NLPD) – Pagidipalli (PGDP)	Bommaipalli (BMMP)-Pagidipalli (PGDP)	5	5	0	FLS already sanction.	Dec'2022	Dec'2025
87	SCR	SC	Kazipet- Peddapalli-Karimnagar	Peddapalli Station	1.18	1.18	0	FLS already sanction.	Dec'2022	Dec'2025
88	SCR	HYB	Peddapalli- Karimnagar -Secunderabad	Nizamabad Station	8	8	0	Railway proposal awaited.	Dec'2022	Dec'2025
89	SCR	SC	Tandur -Seram	Tandur Station	3.5	3.5	0	Railway proposal awaited.	Dec'2022	Dec'2025
90	SER	KGP	KGP/Nimpura-Midnapur	Kalaikunda -Nimpura West Outer-Gokulpur Connectivity avoiding Nimpura recption yard	5	5	0	Railway proposal awaited.	Dec'2022	Dec'2025
91	SER	KGP	KGP-TATA	3rd & 4th line between Nimpura reception yard to KGP	4.4	0	4.4	Railway proposal awaited.	Dec'2022	Dec'2025
92	SER	CKP	Dongapaosi -Jaroli	Dongapaosi -Jaroli 3rd & 4th line	44.1	0	44.1	Railway proposal awaited.	June'2023	June'2027
93	SER	CKP	Tata-Chandil	Gamaharia-Chandil 3rd & 4th line	25.5	0	25.5	Railway proposal awaited.	June'2023	June'2027
94	SER	CKP	Bondamunda-Barsuan	Barsuan-Bimalgarh douling with one crossing sation at Gagnaposh	21	21	0	Railway proposal awaited.	Dec'2022	Dec'2025
95	SER	CKP	JSG-Rourkela	4th line between Dhutra to Bambra	28	0	28	Railway proposal awaited.	June'2023	June'2027
96	SER	CKP	Noamundi-Padapahar	Byepass line between Noamundi and Jamkundia at Padapahar	5	5	0	Railway proposal awaited.	Dec'2022	Dec'2025
97	SER	KGP	Nimpura-Bhadrak section	Hijli-Nimpura 3rd & 4th line	5	0	5	Railway proposal awaited.	Dec'2022	Dec'2025
98	SER	CKP	Dongoaposi-Bolanikhadan	Doubling between Barbil-Bolanikhadan	3	3	0	Railway proposal awaited.	Dec'2022	Dec'2025
99	SER	CKP	Tata-CKP	Adityapur-Rajkharswan 4th line	37	0	37	Railway proposal awaited.	June'2023	June'2027
100	SER	KGP	Howrah-Kharagpur section	Andul-Bagnan 4th line	33	0	33	Railway proposal awaited.	June'2023	June'2027
101	SER	KGP	Panskura-Haldia	Panskura-Tamluk 3rd & 4th line	24	0	24	Railway proposal awaited.	June'2023	June'2027
102	SER	CKP	Bondamunda-Kiriburu	Bondamunda-Bimalgarh 3rd & 4th line	41	0	41	Railway proposal awaited.	June'2023	June'2027
103	SER	KGP	Kharagpur-Bhadrak section	Soro-Ranital junction cabin 4th line	23	0	23	Railway proposal awaited.	June'2023	June'2027
104	SER	ADA	Adra-Bhujudih	Adra-Sanka-Rukni doubling	16	16	0	Railway proposal awaited.	Dec'2022	Dec'2025
105	SER	ADA	Purulia-Bhojudih	Anara-Rukni doubling	8.25	8.25	0	Railway proposal awaited.	Dec'2022	Dec'2025
106	SER	ADA	Purulia-Bokaro section	Barbendra-Damrughutu doubling and Damrughutu to BKSC 3rd & 4th line	30	30	0	Railway proposal awaited.	Dec'2022	Dec'2025
107	SECR	Bilaspur	Raigarh-Champa	Kharsia - Jharadih	5.7	0	5.7	Railway proposal awaited.	Dec'2022	Dec'2025
108	SECR	Bilaspur	Champa- Korba	Madwarani - Saragbundia	6	0	6	Railway proposal awaited.	Dec'2022	Dec'2025
109	SECR	Bilaspur	Boridand - Ambikapur	Shivprasad Nagar- Surajpur	14.6	0	14.6	Railway proposal awaited.	Dec'2022	Dec'2025
110	SECR	Bilaspur	Bilaspur - Champa	Aklatara - Naila	15	0	15	4th Line Work is sanctioned.		
111	SECR	Bilaspur	Shahdol - Anuppur	Shahdol - Singhpur	6	0	6	Railway proposal awaited.	Dec'2022	Dec'2025
112	SECR	Bilaspur	Bilaspur -Pendra Road	Kargi Road - Salka Road	8	0	8	Railway proposal awaited.	Dec'2022	Dec'2025
113	SECR	Raipur	Uslapur-Bilaspur - Dadhapara	Dadhapara - Uslapur	12.7	12.7	0	FLS already sanction.	June'2023	June'2027
114	SECR	Raipur	Bilaspur - Bhatapara	Dadhapara -Belha	9.2	0	9.2	Railway proposal awaited.	Dec'2022	Dec'2025
115	SECR	Raipur	Bilaspur - Bhatapara	Belha - Dagori	6.5	0	6.5	Railway proposal awaited.	Dec'2022	Dec'2025
116	SECR	Raipur	Bilaspur - Bhatapara	Nipania - Bhatapara	14.4	0	14.4	Railway proposal awaited.	Dec'2022	Dec'2025
117	SECR	Raipur	Bhatapara - Raipur	Bhatapara - Hathbandh	16	0	16	Railway proposal awaited.	Dec'2022	Dec'2025
118	SECR	Raipur	Raipur - Durg	Bhilai - Bhilai Nagar	8.8	0	8.8	Railway proposal awaited.	Dec'2022	Dec'2025
119	SECR	Raipur	Raipur - Durg	Bhilai Nagar - Durg Link Cabin	2.8	0	2.8	Railway proposal awaited.	Dec'2022	Dec'2025
120	SECR	Nagpur	Rajnandagaon- Dongargarh	Rajnandgaon - Dongargarh	31	0	31	Railway proposal awaited.	June'2023	June'2027
121	SR	SA	Erode-Podanur	Irugur-Podanur	10.77	10.77	0	Railway proposal awaited.	Dec'2022	Dec'2025

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122	SR	MAS	Chennai Central-Gudur	Attipattu-gummidipundi 3rd & 4th line	25.2	0	25.2	Railway proposal awaited.	June'2023	June'2027
123	SR	PGT	Manguluru-Thokur(KRCL)	Jokatte-Thokur(KRCL)	2.64	0	2.64	Railway proposal awaited.	Dec'2022	Dec'2025
124	WCR	BPL	Itarsi-Khandwa	Provision of 3rd & 4th line - Talwadiya-Mathela section	9	0	9	Railway proposal awaited.	Dec'2022	Dec'2025
125	WCR	JBP	Itarsi-Jabalpur	Provision of 3rd & 4th line - Bagratawa-Gurramkhedi section	13	0	13	Railway proposal awaited.	Dec'2022	Dec'2025
126	WCR	JBP	Itarsi-Jabalpur	Provision of 3rd & 4th line - Bheraghat-Bhitoni section	13	0	13	Railway proposal awaited.	Dec'2022	Dec'2025
127	WCR	JBP	Jabalpur-Katni	Provision of 3rd & 4th line - Niwar-Katni South section	12	0	12	Railway proposal awaited.	Dec'2022	Dec'2025
128	WCR	JBP	Katni-Satna	Provision of 3rd & 4th line - Jhukehi-Patwara section	9	0	9	Railway proposal awaited.	Dec'2022	Dec'2025
129	WCR	JBP	Katni-Satna	Provision of 3rd & 4th line - Unchhera-Lagargawan section	10	0	10	Railway proposal awaited.	Dec'2022	Dec'2025
130	WR	BRC	BJW Chord line and BRC-GDA	BRCY	3	3	0	Railway proposal awaited.	Dec'2022	Dec'2025
131	WR	BRC	BRC-GER	BRCY	4	4	0	Railway proposal awaited.	Dec'2022	Dec'2025
132	WR	BRC	BRC-GER	ANND-GER	50	0	50	Railway proposal awaited.	June'2023	June'2028
133	WR	ADI	GIM-AI	GIM-AI	10	0	10	Railway proposal awaited.	Dec'2022	Dec'2025
134	WR	ADI	CLDY-SBT	SBT	4.6	0	4.6	Railway proposal awaited.	Dec'2022	Dec'2025
135	WR	ADI	ADI-VG	MALB	5.9	5.9	0	Railway proposal awaited.	Dec'2022	Dec'2025
136	WR	ADI	ADI-MSH	SBI D	13.3	13.3	0	Railway proposal awaited.	Dec'2022	Dec'2025
137	WR	ADI	ADI-VG	SBT-GGM	16.7	0	16.7	Railway proposal awaited.	Dec'2022	Dec'2025
138	WR	ADI	SBI-ASV	SBT-ASV	5.9	5.9	0	Railway proposal awaited.	Dec'2022	Dec'2025

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PROPOSED MULTITRACKING (Doubling , 3rd / 4th/ 5th Line) WORKS

Annexure A 6

S.NO	Zone	Division	section	Patch Multi tracking (Doubling , 3rd / 4th/ 5th Line) section	approx Length of proposed Multitracking (km)	DL (KM)	3rd &4th (KM)	Status of FLS/DPR	TDC for sanction	TDC for Completion
1	NCR	ALD		Kanpur-Lucknow 3rd and 4th line	110					
2	ER	ASN		Andal – Sainthia (73.40Km.) 3rd & 4th line	73.4					
3	ER	SDAH		Ranaghat – Krishnanagar (26.04Km.) 3rd & 4th line	26.04					
4	ER	MLDT		Barharwa – Bhagalpur (128.39Km.) 3rd & 4th line	128.39					
5	SR			AJJ Yard Phase I: 3rd/4th Line connection at MAS end	80					
6	WR			Quadrupling of Ahmedabad- Viramgam- Samakhiyali Double line section (182.2 km)	182.2					
7	WR			Quadrupling of Palanpur-Samakhiyali line (247.73 km)	247.73					
8	ECOR			3rd & 4th line from Jakhapura to Nayagarh.	177					
9	ECOR			4th line from Jakhapura to Haridaspur	32					
10	ECOR			3rd and 4th line from Jarapada to Sambalpur City.	188					
11	ECOR			3rd & 4th line from Jharsuguda to Sambalpur.	51.3					
12	ECOR			4th line from Kottavalasa to Vizianagaram	37.6					
13	ECOR			3rd & 4th line from Duvvada to Simhanchalam North.	15					
14	ECOR			3rd & 4th line from Paradip to Badabandha.	19					
15	WCR			4th Line between Budni-Barkhera (Present Capacity Utilization 115% WMB Projected 130% 2027/2028 after third line)	20					
16	WCR			3rd & 4th line between Katni-Singrauli (Prsent Capacity Utilization 131% WMB Projected 120% 2027/2028)	320					
17	WCR			3rd & 4th line between Khandwa-Itarsi (Present Capacity Utilization 95% WMB, Projected 180% 2027/2028)	192					
18	CR			NE Ghat i.e. Kasara Igatpuri- 4th and 5th line	20					
19	CR			SE Ghat i.e.Karjat-Lonavla- 4th and 5th line	30					
20	CR			Bhusawal-Badnera-Wardha- 3rd and 4th line	345					
21	CR			Manmad Jalgaon- 4th line	170					
22	CR			Itarsi- Nagpur- 4th line	263					
23	CR			Wardha-Ballarshah- 4th line	158					
24	CR			Panvel Chord line (Jasai-Karjat, Jasai-Roha, Roha-Karjat)	29					
25	CR			Panvel-Karjat Doubling	29					
26	CR			Bhusawal-Khandwa- 3rd & 4th line	131					
27	CR			Jalgaon-Bhadli- Additional line for CR Ttaffic	11					
28	CR			Panevadi-Ankai- Chord line	265					
29	CR			Miraj Chord line (Hubali/Solapur-Kolhapur)	223					
30	CR			Connecting Chord Nilje-Kopar	22					
31	CR			Chalisgaon- Flyover (ROR) for Dhule-Chalisgaon-Nandgaon	98					

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32	SER			4th line between TATA –ROU	170		170			
33	SER			4th line between RKSN - DPS	75		75			
34	SER			3rd & 4th line between NPRY – KGP	6.36		6.36			
34	SER			ADL-BZN 4th line	32.9		32.9			
36	SER			KGP-TATA 4th line	134.08		134.08			
37	SER			3rd & 4th line between GMH-CNI &	25.58		25.58			
38	SER			3rd & 4th line between SNY - KND	14.65		14.65			
39	SER			SORO-RNTL 4th line	21		21			
40	SER			ADRA – SANKA-RUI doubling	14.82	14.82				
41	SER			BKSC to BKSC 'N' Cabin 3rd & 4th line	3		3			
42	SER			3rd & 4th line between JRLI-DPS	44.94		44.94			
43	SER			Doubling between BBN-BYX	6.16	6.16				
44	NR			3rd and 4th line between DDU and BSB	17					
45	NR			3rd and 4th line between CNB-LKO-ML Grade separator flyover between MKG-ML	7					
46	NR			3rd & 4th line between SSB-ROK, bi-directional	83					
47	NR			3rd and 4th line between ROZA-BE-MB-SRE sections	401					
48	SCR			3rd & 4th line :Secunderabad to Kazipet (85.48 kms), 764.3 cr, 18.01% ROR.	85.48					
49	SCR			3rd & 4th line: Vijayawada to Duvvada (335 kms), 4483.19 cr, 17.41% ROR.	335					
50	ECR			Gomoh-Telo-3rd & 4th line.	12					

Annexure A 7

Patches identified for 3rd & 4th Line in KUR – VZM section (In Lieu of Eco DFC)

Sl. No	Section	Length (in Km)	Remarks
1	Khurda - Nirakarpur (KUR – NKP)	26	KUR is a major junction station with a branch line to Puri where many coaching trains are handled. KUR is also a crew changing point. Hence congestion at KUR should be eased out by extending trippling for next few
2	Humma - Golanthra (HMA – GTA)	47	To ease out traffic from Gopalpur Port, IREL siding, Jagannathpur goods shed trippling of block sections on both sides of these terminals are proposed.
3	Mandasa Road – Kotabommali (MMS – KBM)	52	In order to ease the interchange at PSA point which is also a crew changing point, a few sections on both sides are proposed to be trippled.
4	Vizianagaram - Ponduru (VZM – PDU)	54	VZM is a major junction station in HWH – CEN trunk route from where Rayagada – Vizianagaram double line begins. KTV – VZM is already 3 line sections and tripling of RV line is also a sanctioned work. Hence in
	Total	179	

Total length of KUR – VZM section = 363 Km

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Annexure-A8

Routes identified for Automatic Signalling Works

HDN No	HDN Route	Railway	section	Km	Provided	RKM	To be provided	RKM	TDC	Cost
2	Mumbai- Howrah	CR	CSTM- Nagpur	838	CSTM- Kalyan-Titwala,Bhusawal-Jalgaon	94	Titwala- Nagpur ex Bhusawal - Jalgaon Nagpur-Badnera-175 Rkm Chalisgaon-Pachora-Jalgaon-97 Rkm) Manmad - Chalisgaon & Varangaon - Akola Jn (194 Km) *Titwala-Manmad(198Km) & Akola-Badnera (80Km)*	744	2026-27	
5	New- Delhi- Chennai		Itarsi- Ballharshah	509	Godhani-Nagpur- Khapri	19	Darakoh- Ballharshah ex Godhani-Khapri(399Km) **Itarsi-Darkoh(91Km)**	490	2026-27	
7	Mumbai- Chennai (Excl CSTM-Kalyan)		Kalyan-Pune-Wadi	554	Kalyan-Karjat, Kajrat- Lonavla-Khadki	132	Khadki-Pune(6km) -in progress Pune-Madha(202Km) ***Madha-Wadi(214 Km)***	422	2026-27	
			Total	**1901**		**245**		**1656**		
6	Howrah-Chennai (Excl HWH-KGP)	**ECoR**	Bhadrak- Duvada	606	Khurda Rd-Nergundi, Gopalpatnam- Duvada	81	Bhadrak- Duvada (Ex-Barang-Retang, Cuttack- Rajatgarh, Gopalpatnam- Vizag) **Sanc:Vijaynagram-Semachalam- 53RKM** Bhadrak-Duvada Ex	525	2026-27	
1	DLI- HWH	**ECR**	DDU-Pardhankunta	414			DDU-Pardhankunta (Track Detection Sanctioned); Line Side signal included and submitted to NCR	414	2025-26	
4	Delhi-Guwahti		Chhapra Kacheri-Katihar	365			***Chhapra Kacheri-Katihar***	365	2026-27	
			Total	**779**				**779**		
1	DLI- HWH	**ER**	Pardhankunta-Howrah	250	Howrah- Belmuri, Sitarampur-Chhotambana	80	Pardhankunta- Belmuri Excl Sitarampur- Chhota Ambana	170	2025-26	
1	DLI- HWH	**NCR**	Ghaziabad-Deen Dayal Upadhyay	766	Ghaziabad-Fatehpur, Sirathu - Mirzapur - BH'K'(Mugalsarai)	706	Fatehpur-Sirathu (in progress)	60	2025-26	
3	New- Delhi- Mumbai		Palwal-Mathura	87	Palwal-Mathura	87			2025-26	
5	New- Delhi- Chennai		Mathura- Bina	424	Mathura-Agra	50	Agra- Bina Sanc: Jhansi-Bina-153 RKM {REL} & Dholpur-Jhansi-163Km balance: AGC-DHO- Put up to hon'ble MR	374	2026-27	

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			Total	**1277**		**843**		**434**		
4	Delhi-Guwahti	**NER**	Sitaur Cantt- Chhapra Kacheri	477			Sitaur Cantt- Chhapra Kacheri (Sanc: Burhwal- GKP- 208 RKM) Sitapur Cantt-Burhwal & Gorakhpur-Chhapra Kacheri)	477	2026-27	
4	Delhi-Guwahti	**NFR**	Katihar-Guwahati	581			Katihar-Guwahati (sanctioned-Malda- NJP-235RKM) Katihar- Mukuria & NJP-GHY	581	2026-27	
1	DLI- HWH	**NR**	Delhi- Ghaziabad (Chipyana Buzurg)	24	Delhi- Ghaziabad (Chipyana Buzurg)	24			2025-26	
3	New- Delhi- Mumbai		New Delhi- Palwal	49	New Delhi- Palwal	49			2025-26	
4	Delhi-Guwahti		Ghaziabad-Sitapur Cantt	404			***Ghaziabad-Sitapur Cantt***	404	2026-27	
			Total	**477**		**73**		**404**		
5	New- Delhi- Chennai	**SCR**	Ballharshah-Gudur	747			Ballharshah-Gudur: Ballharshah- Motumari-391 Km (Motumari-Vijaywada, Vijaywada-Talamanchi, Talamanchi-Gudur	747	2026-27	
6	Howrah-Chennai (Excl HWH-Kharagpur)		Duvada- Vijaywada	319	Krisna Kanal-Gannavaram	25	Duvada- Vijaywada Ex Krisna Kanal-Gannavaram: Duwada-Vijaywada	294	2026-27	
7	Mumbai- Chennai (Excl CSTM-Kalyan)		Wadi-Guntkal-Renigunta	537			Wadi-Guntkal- Renigunta Yeraguntal-Renigunta-165 RKM {REL} (Balance: WD-GTL-RU	537	2026-27	
			Total	**1603**		**25**		**1578**		
2	Mumbai- Howrah	**SECR**	Nagpur-Jharsuguda	614	Nagpur-Rajnandgaon, Belha-Jairamnagar	264	Dongragarh-Jharsuguda	350	2025-26	
2	Mumbai- Howrah	**SER**	Jharsuguda- Howrah	516	Howrah- Panskura-Kharagpur, Tata-Rajkharswan	157	Kharagpur-Tata, Rajkharswan- Jharsuguda- (Raurkela-Jharsuguda with 3rd line)	359	2025-26	
6	Howrah-Chennai (Excl HWH-Kharagpur)		Kharagpur- Bhadrak	190			***Kharagpur- Bhadrak***	190	2026-27	
			Total	**706**		**157**		**549**		
5	New- Delhi- Chennai	**SR**	Gudur-Chennai	136	Gudur-Chennai	136			2026-27	
7	Mumbai- Chennai (Excl CSTM-Kalyan)		Renigunta-Chennai	133	Chennai-Arrakkonam	66	Arakkonam-Renigunta	67	2026-27	
			Total	**269**		**202**		**67**		
3	New- Delhi- Mumbai	**WCR**	Mathura- Nagda	551			Mathura- Nagda-	551	2026-27	
5	New- Delhi- Chennai		Bina-itarsi	230	Itarsi-Budhni	25	***Bina-Budhni***	205	2026-27	
			Total	**781**		**25**		**756**		

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3	New- Delhi- Mumbai	**WR**	Nagda-Mumbai Central	700	Churchgate-Mumbai Central-Vadodara	400	Vadodara- Nagda	300	2025-26	
			Total HDN	**11021**		**2395**	**4389KM,**	**8626**		
1		NCR			Allahbadh- Katni (to be extended upto Katni by WCR)	120		120		144
2		NCR			Jhansi-GMC	230		230		276
3		NCR			Tundla – Yamuna Bridge- Agra fort	40		40		48
4		SR			JTJ-ED DL section; 183 Km	183		183		219.6
5		SR			ERS-VTK DL section; 103 Km	103		103		123.6
6		WR			Ratlam-Chittaurgarh	205		205		246
7		WR			Kalol to Palanpur	114		114		136.8
8		WR			Udhna - Jalgaon (along with quadrupling)	339		339		406.8
9		WR			Surendranagar - Pipavav SPV line along with Doubling	248		248		297.6
10		NR			Automatic signaling in LDH-JRC	72		72		86.4
11		NER			Automatic Signalling in Chappra-Varanasi-Prayagraj section of BSB Div. (327 RKM)	327		327		392.4
12		NER			Automatic Signalling in GKC-CI Section of BSB Div and BUW-STP section of LJN Div. (281 RKm)	264		264		316.8

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Annexure A 9(a)

Yard Remodeling & Traffic Facilitiues Works							
S.No.	**Rly**	**Name of the Work**	**Category of Work**	**Priority of Project**	**Anticipated cost** *(Cr)*	**Expenditure Upto Mar 22** *(Cr)*	**Target date of Completion**
	Super Critical Traffic Facilities Project						
1	CR	Wardha-Chitoda - 2nd chord line(4.26 km)	Byepass	Super Critical	21.08	6.31	Jun-22
2	CR	Itarsi - Amla - Nagpur - Wardha - Bhusawal - Jalgaon (713.86 km) - Longer loop	Longer Loop	Super Critical	58.02	10.4	May-22
3	CR	BSL - Provision of separate UP and DN Main lines for BD side trains and an additional island platforms at BSL station.	Coaching Facility	Super Critical	52.89	28.24	Dec-23
4	CR	Pune : Extension of PF for 24/26 coaches and removal of DDS.	Coaching Facility	Super Critical	51.85	12.9	Feb-24
5	CR	Panvel - Kalamboli Coaching Terminus to serve Navi Mumbai area - Phase -I Stage -I	Satellite Terminal	Super Critical	216.11	10.9	Dec-23
6	CR	Lokmanya Tilak Terminus: Augmentation of Coaching facilities.	Coaching Facility	Super Critical	64.1	16.2	Mar-23
7	CR	Hadapsar - Development as satellite terminal	Satellite Terminal	Super Critical	34.71	22.7	Mar-23
8	ECoR	Chipurupalli - Conversion of L4 into longer loop with common loop status for python trains	Longer Loop	Super Critical	8.26	7.76	May-22
9	ECoR	Gopalapatnam- Vizianagaram - Provision of auto signalling incl. Simhachalam bypass line.	Auto Signalling	Super Critical	61.12	33.11	May-22
10	ECR	Bakhtiyarpur - Fly-over, Bakhtiyarpur - Barh - 3rd line & surface triangle between Bakhtiyarpur - Rajgir line and Athmalgola - Bakhatiyarpur up line	Flyover	Super Critical	237.5	254.82	Feb-23
11	ECR	Mughalsarai - 24-coach platforms on all lines, direct reception of goods in up departure line at speed of 75 kmph	Coaching Facility	Super Critical	16.12	9.44	Oct-22
12	ECR	Barauni - Improvement of traffic facilities at bye pass station	Byepass	Super Critical	57.19	12.35	Aug-22
13	ER	New Garia - New rail terminal station between Sealdah & Sonarpur.	Satellite Terminal	Super Critical	33.72	2.19	
14	NR	Lucknow-Moradabad : 8 IBS on Kakori- Alamnagar, Dalel Nagar-Balamau, Balamau- Baghuli, Hardoi-Kaurha, Aigwan-Kahilia, Pitamberpur-Rasuiya, Nararia-Milak and Munda Panday- Rampur	IBS	Super Critical	17.49	15.87	
15	NR	Lucknow-Saharanpur - Addl directional up & down loops (17 Nos)	Loop	Super Critical	91.47	71.62	Mar-22
16	NR	Panipat-Subzimandi - Automatic signalling	Auto Signalling	Super Critical	40.32	36.03	Dec-22
17	NR	Pilkhuwa-Dasna - New crossing station	crossing station	Super Critical	13.81	11	Mar-22
18	NR	Mughalsarai - Lucknow - Moradabad – Ambala- Jalandhar - Amritsar (1150 km) - Longer loops	Longer Loop	Super Critical	309.68	15.09	Sep-23

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S.No.	Rly	Name of the Work	Category of Work	Priority of Project	Anticipated cost *(Cr)*	Expenditure Upto Mar 22 *(Cr)*	Target date of Completion
19	NR	Varanasi - Yard remodelling work (Phase-II)	Yard Remodelling	Super Critical	568.07	330.76	Oct-23
20	NR	Haridwar-Dehradun Section - Development of Facilities for running of 18 coach Trains.	Coaching Facility	Super Critical	128.54	138.41	Jun-22
21	NR	Bijwasan - Provision of Coaching/Freight handling Terminal.	Satellite Terminal	Super Critical	412.68	81.86	Mar-24
22	NR	Shakurbasti - Coaching terminal in metre gauge area	Satellite Terminal	Super Critical	254.58	134	Mar-23
23	NR	Lucknow-Kanpur - Addl loop line (3 stations)	Addl. Loop	Super Critical	32.25	3.15	
24	NR	Manak Nagar - Addl loop	Addl. Loop	Super Critical	33	14	
25	NR	Patel Nagar - Yard modification & upgradation of signalling gears	Yard Remodelling	Super Critical	39.56	12	Mar-22
26	NR	Lucknow four line entry and exit with yard remodelling	Yard Remodelling	Super Critical	94.98	14.3	Dec-22
27	NR	Pratapgarh - Yard remodeling	Yard Remodelling	Super Critical	43.73	35	Mar-22
28	NR	Anand Vihar - Development of new terminal and provision of 3 cross overs between 3rd& 4th line andGAL(Phse-II)	Satellite Terminal	Super Critical	163.72	163.72	Mar-22
29	NCR	Achnera - Bypass line connecting Parkham (Mathura-Achnera route) to Chiksana (Agra Fort-Bandikui route)	Byepass	Super Critical	11.17	9.4	Jun-22
30	NCR	Mathura Jn - Yard remodeling & flyover at Bhuteshwar	Yard Remodelling	Super Critical	327.23	70	Mar-24
31	NER	Aishbagh-Manaknagar - Independent bypass line	Byepass	Super Critical	81.53	24	Dec-22
32	NER	Gorakhpur Cantt. - Remodelling of station for developing as satellite terminal	Coaching Facility	Super Critical	24.64	29	Dec-22
33	NER	Aishbagh - Development into satellite terminal station	Satellite Terminal	Super Critical	10.35	4.5	May-22
34	NER	Varanasi City - Home platform, track etc. & shunting neck for coaching facilities in connection with development of satellite station	Satellite Terminal	Super Critical	9.99	3.13	
35	NER	Gomtinagar - New terminal station	Satellite Terminal	Super Critical	175.3	113.7	
36	NWR	Rewari- Khatuwas Doubling	Traffic Facilities	Super Critical	342	0	
37	SR	Kochuveli (KCVL): Augmentation of coaching facilities (2 PF & 1 stabling line)	Traffic Facilities	Super Critical	38.68	0	
38	SR	IBS between Kanjikode & Walayar	Traffic Facilities	Super Critical	4.13	0	
39	SCR	Tirupati - Development of entry from southern side	Coaching Facility	Super Critical	77.29	66	Sep-22
40	SCR	Charlapalli - Development of satellite terminal	Satellite Terminal	Super Critical	221.15	72	Jun-22
41	SCR	Rajahmundry Modification of RJY yard.	Yard Remodelling	Super Critical	36.68	29	Dec-22
42	SECR	Yard Modification of Korba.	Traffic Facilities	Super Critical	48.76	0	
43	SECR	Provision of 3 IBS in Boridand-Surajpur Section	Traffic Facilities	Super Critical	9.28	0	
44	SECR	Auto Signalling in Champa-Korba section	Traffic Facilities	Super Critical	34.59	0	

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S.No.	Rly	Name of the Work	Category of Work	Priority of Project	Anticipated cost *(Cr)*	Expenditure Upto Mar 22 *(Cr)*	Target date of Completion
45	SER	Provision of Automatic Block Signalling arrangement in Up and Dn lines in RNC-TIS- RNC i.e. RNC-NKM-TIS and TIS-NKM-RNCblock sections of Ranchi Division.	Auto Signalling	Super Critical	18.34	17	Jul-22
46	SER	Santragachi - Island platform between 1st loop & R3 by dismantling R1 & R2 with common loop signalling facility	Coaching Facility	Super Critical	32.7	18	Mar-23
47	SER	Shalimar- Development of coaching terminal by provision of essential passenger amenities.	Coaching Facililty	Super Critical	558.3	188	Mar-23
48	SER	Tikiapara - Santaragachi - Directconnectivity for 4th line with Howrah yard (platform Nos 17-23)	Multi Tracking	Super Critical	23.61	2	Feb-23
49	SER	Sankrail - Freight terminal	Freight terminal	Super Critical	151.6	154	May-22
50	SER	Ranital : Provision of extra loops in UP direction (Common Loop) & DN direction with reception and dispatch facility.	Addl. Loop	Super Critical	26.24	10	Oct-22
51	SER	Santragachi-Development of circulating area, essential Passenger Amenities & road connectivity with Kona expressway.	Coaching Facility	Super Critical	445.7	341	Jun-23
52	WR	Vadodara Yard:-Segregation of Ahmedabad and Godhra.	Yard Remodelling	Super Critical	26.61	31	May-22
53	WR	Sabarmati- Providing for left over facilities for operationalization of Sabarmati Coaching Terminal.	Coaching facility	Super Critical	40.75	31	Jun-22
54	WR	Chharodi – Provision of additional loop line with electrification	Traffic Facilities	Super Critical	13.61	10	Jun-22
55	WR	Vadodara Station – Increasing speed from 15 kmph to 50 kmph on Main line at BRCP	Traffic Facilities	Super Critical	13.38	8.69	Aug-22
56	WCR	Itarsi - North South grade separator/ fly over with yard remodelling	Flyover	Super Critical	146.64	129	-
		Total	**56**	**Super Critical**	**6107**	**2865**	

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Annexure A 9(b)

Yard Remodeling & Traffic Facilitiues Works							
S.No.	**Rly**	**Name of the Work**	**Category of Work**	**Priority of Project**	**Anticipated cost** *(Cr)*	**Expenditure Upto Mar 22** *(Cr)*	**Target date of Completion**
	Critical Traffic facilities Projects						
1	CR	Chatrapati Shivaji Terminus Mumbai - Extn. of platform Nos 10,11,12 & 13 for 24 coaches	Coaching Facility	Critical	62.43	21.29	May-24
2	CR	Kamshet~~Shifting of turnout and crossover at KMST for increasing CSL	Traffic Facilities	Critical	3.64	2.8	Jul-22
3	CR	Godhani-Nagpur-Khapri - Automatic block signalling system replacing absolute block system	Traffic Facilities	Critical	31.22	30.22	Jun-22
4	ECoR	Lanjigarh Road - Add loop line with common loop facility	Addl. Loop	Critical	7.74	5.27	Jun-22
5	EcoR	TLHR- Provision of a Block Cabin with signaling arrangement on the proposed lead line of M/s Global Coal & Mining Ltd siding taking off from Talcher Station in between TLHR & TLSB Cabin for formation of Long Haul Trains	Longer Loop	Critical	6.47	3.7	Jul-22
6	NR	Rohtak-Samar Gopalpur, Jind-Barsola & Jakhal-Bareta - Intermediate block sections adjacent to jn stations towards longer block sections	IBS	Critical	5.96	2.8	
7	NR	Delhi-Ambala - Removal of permanent speed restriction & shifting of turnouts (4 stations)	RPSR	Critical	5	5.05	Sep-22
8	NR	Jammu - Second entry in c/w development of coaching terminal	Coaching Facility	Critical	222.91	26.55	Mar-24
9	NR	Bari Brahman - Development of satellite of freight goods terminal	Freight Terminal	Critical	69.19	47.2	Jun-22
10	NR	Salarpur yard-Developement of freight terminal	Yard Remodelling	Critical	153.92	43.14	Dec-22
11	NR	Holambi Kalan-Acquisition of land for freight &Coaching terminal	Development of frieght & coaching terminal	Critical	800	508	Mar-23
12	NR	Kalka. - Yard remodeling for Provision of one additional BG Platform Along with Provision of Central Panel.	Yard remodeling	Critical	15.31		
13	NCR	Aligarh-Ghaziabad – Automatic signaling in place of absolute block working on up line in connection with 3rd line.	Automatic signaling	Critical	109.79	75.85	Jun-22
14	NCR	Aligarh-Ghaziabad – Bidirectional automatic ignaling on middle line in connection with 3rd line.	Automatic signaling	Critical	90.07	72.79	Jun-22
15	NER	Provision of 2nd distant signals & 3rd line crossing at two stations	Traffic Facilities	Critical	100		
16	NER	Tikri - Conversion of halt station into 3-line crossing station (28.65 km) (between Mankapur - Katra 28.65Km section).	Crossing Station	Critical	10.72	5.72	May-22
17	NWR	Khatipura - Development of new terminal facility as satellite station to Jaipur	Coaching Facility	Critical	187.39	78.1	Jun-22
18	***SR***	Mangalore Central Additional PF Line	Coaching Facility	Critical	6.66	0.4	Mar-23

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S.No.	Rly	Name of the Work	Category of Work	Priority of Project	Anticipated cost *(Cr)*	Expenditure Upto Mar 22 *(Cr)*	Target date of Completion
19	SR	Mangalore Central (MAQ): Provision of new 24 coach pit line of CAMTEC standards in lieu of existing 18 coach pit line (UW: 2019-20) & Ullal (ULL): Provision of additional loop on up line as common loop with PF and FOB	Traffic Facilities	Critical	7.29	6.5	Jul-22
20	**SR**	Tirupattur (TPT): Provision of additional loop on Up line with PF & FOB	Traffic Facilities	Critical	9.49	39.05	Sep-22
21	SCR	Tiruchanur - Conversion of C class station as B class station with loop line on Up and Dn lines with high level platform	Crossing Station	Critical	56.39		
22	SCR	Renigunta - Mamanduru & Mamanduru - Balapalle - IB signals on up & down lines	IBS	Critical	6.05		
23	SCR	Vijayawada - Duvvada - IB stop signals (5 Nos)	IBS	Critical	12.13	10.4	Oct-22
24	SECR	Twin Single Line in Khodri-Khongsara Section	Traffic Facilities	Critical	3.43	1	Dec-24
25	SER	Sankrail-Santragachi - Link line (14.5 km) via flyover from down side to up side	Flyover	Critical	421.18	260	Feb-23
26	SWR	Naganahalli - Development of satellite terminal	Satellite Terminal	Critical	789.29	0	
27	WR	Andheri-Virar - Extension of suburban platforms for running 15-car services on slow corridor	Coaching Facility	Critical	59.56	42.85	
28	WR	Ahmedabad-Sanand section – Provision of automatic Signalling	Traffic Facilities	Critical	16.8	0	
29	WCR	Bansa Pahar - Additional loop to accommodate long haul trains	Longer Loop	Critical	10.71	7.5	Dec-22
30	WCR	Gangapur City-Mathura - Removal of permanent speed restriction of 90 kmph at 1093/1 to 1093/28	RPSR	Critical	7.9	3.5	
		Total	**30**	**Critical**	**3289**	**1300**	

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Annexure A 9 (c)

Yard Remodeling & Traffic Facilitiues Works							
S.No.	**Rly**	**Name of the Work**	**Category of Work**	**Priority of Project**	**Anticipated cost** *(Cr)*	**Expenditure Upto Mar 22** *(Cr)*	**Target date of Completion**
	Essential Traffic Facilities Works						
1	CR	Ajni - Development as satellite terminal	Terminal facility	Essential	45.33	5.2	Dec-23
2	ECR	Patna Saheb - Addl. platform	Coaching Facility	Essential	3	0	Dec-23
3	ECR	Pawapuri Road-Silao - Crossing stations	Crossing Station	Essential	8.38	3.05	Oct-22
4	ER	Andal-Sainthia - Broad gauge bypass line with direct connection from quadruple line to branch line	Byepass	Essential	97.54	0	Two year after Land acquisiiton
5	ER	Howrah - Extension of platform No.10-11 & 12-13 for accommodating longer length train	Coaching Facililty	Essential	17.6	0.37	Mar-24
6	NCR	Kitham & Ghosrana- Provision of longer loop lines at Kitham station (Mathura- Agra) and at Ghosrana station (AF-BKI) for running of Pythons	Longer loop	Essential	8.92	8.72	Sep-22
7	NCR	Development of Subedarganj Station as a Satellite station (Umbrella work)	Coaching Facility	Essential	44.4	4.53	Mar-24
8	NCR	JHANSI Division : MANIKPUR - Provision of Up loop line at Manikpur and connecting of stabling line to Mainline and shunting neck at ALD end	Yard Remodelling	Essential	7.24		
9	NER	Gonda Jn Yard - Bypass line (2 Nos).	Byepass	Essential	12.51	11.27	Mar-23
10	NER	Chhapra - 2nd entry, 2nd home platform, island platform, 3 new tracks & one stabling line etc.	Coaching Facility	Essential	24.62	7.08	Dec-23
11	NWR	Rewari-Sadulpur - Bypass line	Bye pass	Essential	75	47.82	Mar-23
12	SCR	Vijayawada - Gudur (295 km) - Longer loop	Longer Loop	Essential	30	21.64	Sep-22
13	SCR	Visakhapatnam - Vijayawada (350 km) - Longer loop	Longer Loop	Essential	47.2	40.17	Aug-22
14	SECR	Ib - Fly-over	Flyover	Essential	445.46		
15	WCR	Jabalpur Division - Intermediate block sections (11 Nos)	IBS	Essential	29.61	24.72	Jul-22
16	WCR	Mason Gaon & Bhairon Pur - Conversion of C- class stations into intermediate block sections	IBS	Essential	6.69	5.68	Sep-22
17	WCR	Satna-Manikpur - Extn. of up loop lines at Sagma station to accommodate long haul	Longer Loop	Essential	5.32	2.81	Mar-23
18	WCR	Madan Mahal-Howbagh - Development of Madan Mahal station as coaching terminal & Howbagh station as coaching complex	Satellite Terminal	Essential	136	33.85	Mar-24
		Total	**18**	**Essential**	**1045**	**217**	

Annexure A-9(d)

Identified High Priority Traffic Facilities (PH-16) works for Mission 3000 MT to be completed by 2027

S.No	Rly	Name of work	Pink Book No	Year of Sanction (Umbrella Year)	Cost (Rs. cr)	Targetted Year of Completion
1	CR	Karjat - Extension of receipt & despatch lines, addl line connecting up yard to Karjat-Panvel and 4th line between Karjat-Palasdari.	38	2010-2011	75.44	March'23
2	CR	Kasara - Extension of receipt & despatch lines (3 Nos each in up & down yards).	37	2010-2011	1.99	Ph.-I : March'23 Ph.-II : March'24
3	CR	Wadi Bunder- Connectivity of RD3 line with 7th line.	65	Umbrella Wok 2019-2020	6.11	March'23
4	CR	Wadibunder :- Provision of Eight Nos Stabling Sidings.	65	Umbrella Wok 2019-2020	54.21	Not fixed. Kept in Abeyance.
5	CR	Bhusawal~Khandwa~Extension of Up & DN loop lines at Duskheda, Burhanpur, Mandwa and Dorgargaon stations in Bhusawal-Khandwa section.	65	Umbrella Wok 2019-2020	9.47	Oct.'22
6	CR	Bhusawal~Igatpuri~Extension of Up & DN loop lines at Hisvahal and Niphad stations in Bhusaval-Igatpuri section.	65	Umbrella Wok 2019-2020	9.09	Not fixed. Kept in Abeyance.
7	CR	BADNERA Station – Proposed yard re-modelling for provision of additional goods loop line of 753 M CSR in UP direction.	65	Umbrella Wok 2019-2020	4.01	Not fixed. Kept in Abeyance.
8	CR	Bhusawal~Igatpuri~Lahavit - Deolali : Provision of IBS in both direction.	65	Umbrella Wok 2019-2020	6.79	Not fixed. Kept in Abeyance.
9	CR	Bhusawal~Igatpuri~Extension of Up & DN loop lines at Asvali, Lahavit, Odha and Kasbe Sukene stations in BSL-IGP section.	65	Umbrella Wok 2019-2020	10.9	March'23
10	CR	MANMAD-SUMMIT IBS - Provision of IBS in Manmad – Summit section in both direction	65	Umbrella Wok 2019-2020	4.92	Sep.'22
11	CR	Hinganghat-Nagri-Yenor - Conversion of existing 'C' Class station between HGT and NGI station to 'B' Class station with four lines.	65	Umbrella Wok 2019-2020	14.18	Not fixed. Kept in Abeyance.
12	CR	Dhamangaon-Chandur-Conversion of Dipore "C' class station to 'B' class station.	65	Umbrella Wok 2019-2020	24.21	Not fixed. Kept in Abeyance.
13	CR	Augmentation of Loop /Main lines at BOK, DMN, CND, MLR and JMV stations of NGP division.	65	Umbrella Wok 2019-2020	19.43	Not fixed. Kept in Abeyance.
14	CR	GCMC: Construction of two no. stabling lines along with connection to short shunting neck.	65	Umbrella Wok 2019-2020	9.97	Not fixed.
15	CR	Kasbe-sukene : Development of Goods shed facilities at Kasbe Sukene station.	67	Umbrella Wok 2020-2021	3.65	March'23
16	ECOR	Simhanchalam North – Gopalpatnam: yard remodeling for removal of diamond cross over	PB 2022-23 Item No. 38	2009-10	61.72	
17	ECOR	Automatic Block Signalling between Cuttack – Paradeep (83 Km)	81 (U)	2018-19	65.16	

Identified High Priority Traffic Facilities (PH-16) works for Mission 3000 MT to be completed by 2027						
S.No	Rly	Name of work	Pink Book No	Year of Sanction (Umbrella Year)	Cost (Rs. cr)	Targetted Year of Completion
18	ECOR	One additional loop line on DN side at RLJC	82(U)	2019-20	9.35	
19	ECOR	Badabandha : One additional loop line.	82(U)	2019-20	8.98	
20	ECOR	Provision of two additional loop lines at Arangamahanadi station in TIG – LAE section	82(U)	2019-20	12.09	
21	ECOR	ABS and CTC system in Jakhapura - Keonjhargarh section	85	2020-21	198.00	
22	ECOR	Duvvada yard modification of L/1,L/3 & L/6 to provide simultaneous movements from all directions and pathway facilities between L/6 – L/7	82(U)	2019-20	2.51	
23	ECOR	Titlagarh – Lakholi section : Provision of Intermediate Block Signalling in between Muribahal – Kantabaji block section.	No 29 PB of NR (Not yet Sanctioned)	2022-23	5.59	
24	ECOR	Titlagarh – Lakholi section : Provision of Intermediate Block Signalling in between Harishankar Road – Lakhana Block section	No 29 PB of NR (Not yet Sanctioned)	2022-23	5.52	
25	ECOR	Titlagarh – Lakholi section: Provision of Intermediate Block Signalling in between Kantabanji – Tureikala block section.	No 29 PB of NR (Not yet Sanctioned)	2022-23	5.43	
26	ECOR	Titilagarh – Lakholi section: Provision of Intermediate Block Signalling in between Lakhana – Nawapara Road block section.	No 29 PB of NR (Not yet Sanctioned)	2022-23	5.51	
27	ECOR	Proposed raising of sectional speed from 110 KmPh to 130 KmPh on Bhadrakh – Palasa section of Khurda Road Division	No 29 PB of NR (Not yet Sanctioned)	2022-23	323.97	
28	ECOR	Palasa – Duvvada – Raising of speed from 110 KmPh to 130 KmPh between Palasa – Visakhapatnam – Duvvada section of Waltair division	No 29 PB of NR (Not yet Sanctioned)	2022-23	295.82	
29	ECOR	Proposed Raising of speed from 30 KmPh to 50KmPh in loop lines from Bhadrak to Palasa of Khurda Road Division	No 29 PB of NR (Not yet Sanctioned)	2022-23	55.29	
30	ECOR	Yard modification at stations between Palasa – Duvvada section in connection with enhancement of speed over 1st loop to 50 K.	No 29 PB of NR (Not yet Sanctioned)	2022-23	32.48	
31	ECR	Provision of goods shed at Nawalshai station with crossing station facility with additional two lines.	117	2019-20	16.03	

Identified High Priority Traffic Facilities (PH-16) works for Mission 3000 MT to be completed by 2027						
S.No	Rly	Name of work	Pink Book No	Year of Sanction (Umbrella Year)	Cost (Rs. cr)	Targetted Year of Completion
32	ECR	KTH:- Yard remodeling of KTH along with removal of DDS and conversion of single line working into double line.	117	2019-20	16.07	
33	ECR	KDS: Removal of diamond crossing at CRP end at KDS yard with other yard remodeling.	117	2019-20	3.04	
34	ECR	Jamuniatanr:- Extension of loop line no. 2 & 3 at Jamuniatanr station at Mahuda end.	117	2019-20	2.78	
35	ECR	Kuchman New Down Common Loop	85	2008-09	5.60	
36	ECR	IBH facility in between Rafiganj-Ismailpur	117	2019-20	10.25	
37	ECR	Provision of IBH in BAchwara – Teghra	117	2019-20	4.56	
38	ECR	Nazirganj provision of Directional Loop line	117	2019-20	13.44	
39	ECR	Chakand - New freight terminal	107	2016-17	16.50	
40	ECR	Dumraon - New freight terminal	111	2016-17	5.15	
41	ECR	Provision of new freight terminal at KUA.	117	2019-20	4.79	
42	ECR	Provision of two nos. of stabling lines at PPTA.	117	2021-22	15.05	
43	ECR	Provision of IBH in Muzaffarpur - Ramdayalu	116	2021-22	4.49	
44	ECR	Provision of IBH in Sonpur – Hajipur section	117	2019-20	4.50	
45	ER	Kunuri - Construction of loading and unloading platform for development of goods shed.	UW	2021-22	13.29	
46	ER	Installation & Commissioning of new RRI Indoor equipment and outdoor at HWH/ RRI in connection with alteration of different yard remodelling works.	UW	2021-22	37.43	
47	ER	Construction of loading and unloading platform for development of Goods Shed at Dainhat Station in BDC- KWAE section	UW	2021-22	4.63	
48	ER	Direct reception facility of Goods train from Line no. 13 to 21 from both ends at Malda Town station	UW	2021-22	24.47	
49	ER	Jamirghata - Provision of new PI building at Jamirghata with Yard Remodelling.	UW	2021-22	9.05	
50	ER	Provision of new goods shed at Dhubulia station in Ranaghat-Lalgola section	UW	2021-22	2.53	
51	ER	Provision of new goods shed at Murshidabad in Ranaghat- Lalgola section	UW	2021-22	8.95	

Identified High Priority Traffic Facilities (PH-16) works for Mission 3000 MT to be completed by 2027						
S.No	Rly	Name of work	Pink Book No	Year of Sanction (Umbrella Year)	Cost (Rs. cr)	Targetted Year of Completion
52	ER	At NACC - Renovation of wharf in between line no. 8 & 9, 9 & 10 (thoroughly) & by the side of line no. 10 (thoroughly including yard) and line no. 7 & 8 towards Durgapur ROB Entry & Exit point including improvement of drainage system with all other ancillary works.	UW	2021-22	2.74	
53	ER	Aranghata ~Provision of Up loop beside Up Line at Aranghata	UW	2021-22	5.5	
54	ER	Durgapur - Extension of up & down loops	PB-59	2011-12	6.52	
55	ER	Andal - Conversion of down line No.2 into common loop	PB-63	2012-13	12.25	
56	ER	Jasidih new bye-pass line.	UW	2020-21	293.67	
57	ER	Pakur, Tilvita & Kotalpukur - Development of freight & passenger train handling facilities	PB-48	2008-09	12.33	
58	ER	Improvement of goods shed approach road, wharf, amenities to goods shed labour, material shelter etc at MLDT & GZM Goods shed	UW	2020-21	7.58	
59	NCR	Provision of additional loop line in KBP station yard & Expansion of Kuberpur goods shed with additional goods siding.	PB-92(UW)	2021-2022	41.15	
60	NCR	Raising of speed in Chunar - Chopan section.	PB-92(UW)	2021-2022	44.41	
61	NCR	Conversion of 'D' class station (Vishwanathpuri) into ‘B’ class station between Chunar and Shakteshgarh.(20.94 Km)	PB-89(UW)	2018-2019	27.45	
62	NCR	Provision of Intermediate Block signalling (5 nos.) between Manikpur-Panhai, Panhai-Dabhaura , Dabhaura-Katayadandi , Link jn.-Iradatganj & Shankargarh-Majhiari in Naini-Manikpur aection	PB-90(UW)	2019-2020	15.24	
63	NCR	BHIMSEN : Provision of logistics park *Financial sanction awaited	PB-89(UW)	2018-2019	95.26	
64	NCR	Chithari: Splitting of longer block sections.	PB-89(UW)	2018-2019	13.51	
65	NCR	Mansingh Ka Pura~~Bah-Udi More-Splitting of more than 38 Kms long block section by converting D class station into B class station in the section.	PB-89(UW)	2018-2019	25.82	

Identified High Priority Traffic Facilities (PH-16) works for Mission 3000 MT to be completed by 2027						
S.No	Rly	Name of work	Pink Book No	Year of Sanction (Umbrella Year)	Cost (Rs. cr)	Targetted Year of Completion
66	NCR	Prayagraj Division - Provision of Double Distant Signals on 'B' route between Link Jn to Manikpur section.	PB-92(UW)	2021-2022	10.89	
67	NCR	Proposal of new goods shed at Tikamgarh station .	PB-92(UW)	2021-2022	12.5	
68	NCR	KHAJURAHO : Provision of chord line from Mohaba line to Lalitpur line	PB-89(UW)	2018-2019	33.4	
69	NCR	Jhansi Division - Extension of loop lines (1500 m) (Jasra & Dabhaura)	PB-77	2013-2014	55.93	
70	NCR	Provision of 20 Sand Humps/Over runs between Prayagraj-Kanpur Section.	PB-90(UW)	2018-2019	25.64	
71	NER	North Eastern Railway - Development of coaching facilities, provision of dock line, stabling line, addl loops, crossing stations, longer loops (Umbrella Work 2019-20).	PB 2022-23 Item no. 74	2019-2020	70	
72	NER	North Eastern Railway - New Traffic Facility lump sum works (Umbrella Work 2019-20).	PB 2022-23 Item no. 75	2019-2020	4	
73	NER	North Eastern Railway - Development of coaching facilities, provision of dock line, stabling line, addl loops, crossing stations, longer loops (Umbrella Work 2020-21).	PB 2022-23 Item no. 77	2020-2021	127.94	
74	NER	Provision of automatic block signaling with centralised traffic control system on North Eastern Railway (Umbrella Work 2020-21).	PB 2022-23 Item no. 76	2020-2021	434	
75	NER	North Eastern Railway-Provision of Intermediate Block Signalling (PB#123/NR/2021-22)	PB 2022-23 Item no. 78	2021-2022	25	
76	NER	Lucknow jn.~~Gorakhpur cantt~~Provision of automatic block signalling with centralised traffic control system on NER.	PB 2022-23 Item no. 76	2021-2022	433.9	
77	NER	Bhatni-Peokol - Broad gauge bypass line.	PB 2022-23 Item no. 56	2012-2013	67.6795	
78	NER	Chhapra Jn - Interlocking of goods lines 8, 9, 10, 11 and provision of shunt signals for stabling lines 12, 13, 14, 15 & pit lines.	PB 2022-23 Item no. 62	2016-2017	5.8485	
79	NFR	Provision of automatic block signaling with centralised traffic control system between New Jalpaiguri-Malda Town	59	2020-21	284.13	

Identified High Priority Traffic Facilities (PH-16) works for Mission 3000 MT to be completed by 2027						
S.No	Rly	Name of work	Pink Book No	Year of Sanction (Umbrella Year)	Cost (Rs. cr)	Targetted Year of Completion
80	NFR	At Tipkai & Basbari Up-gradation of 'D' class to 'B' class stations to increase sectional capacity in between Fakiragram-Golakganj (46 km)	56	2019-20	36.73	
81	NFR	At Agthori- Development as world class station & satellite station with integrated coaching maintenance facilities	50	201617	517.51	
82	NFR	Silghat Town- Pit line, sick line, water hydrant line including deep tube well, water tank	52	2017-18	28.37	
83	NFR	Senchoa & Haibargaon- Development of goods circulating area and approach road	53	2017-18	13.59	
84	NFR	Guwahati-Yard remodeling for 26 coaches length platform and provision od 2nd entry & direct connectivity to yard and diesel shed	55	2018-19	144.86	
85	NFR	New Guwahati- Construction of 3 nos of pit lines, sick line & 2 nos stabling lines	54	2018-19	226.34	
86	NFR	Salchapra-Provision of one additional goods handling loop line including developemnt of goods circulating area & approach road	56	2019-20	9.33	
87	NFR	Mariani-Provision of central panel operation with distributed EI syatem	56	2019-20	12.53	
88	NFR	Provision of Intermediate Block signaling over NF Railway	60	2021-22	126.9	
89	NFR	At Dhamalgaon- Provision of one line for goods loading/unloading facility with related infrastructure works	56	2019-20	10.06	
90	NFR	Kharahat- Up-gradation of 'D' class station to 'B' mclass station to increasing sectional capacity between- Sibsagar Town-Moranhat section	56	2019-20	19.76	
91	NFR	Arunachal-Jiribam-Improvement to Engineering, S&T and Electrical works to restore Absolute Block working & making the section fit for Rajdhani	58	2020-21	11.75	
92	NFR	Dangtal-Provision of additional common loop line with electronic interlocking .	58	2020-21	14.19	

Identified High Priority Traffic Facilities (PH-16) works for Mission 3000 MT to be completed by 2027						
S.No	Rly	Name of work	Pink Book No	Year of Sanction (Umbrella Year)	Cost (Rs. cr)	Targetted Year of Completion
93	NFR	Gosaigaon Hat- Yard remodeling to enable direct reception facility on line no.5	58	2020-21	14.7	
94	NR	Provision of one additional loop line (second loop) with new H.L Pass plat. & FOB at Anandpur Sahib station on SIR-DLPC section	PB 2022-23 Item NO. 124(U)	2021-2022	11.21	
95	NR	Provision of one additional loop line (second loop) at una Himachal station	124(U)	2021-2022	9.36	
96	NR	Asaoti~~Addition & alteration i/c/w provision of High rise OHE at Asaoti/Piyala station and merger of DFCCIL western corridor at Asaoti yard.	122(U)	2018-2019	36.06	
97	NR	Direct connectivity of UP GAL with UP Goods lines and DN GAL with DN Goods lines to provide 3rd & 4th line in Tughlakabad yard	122(U)	2018-2019	33.24	
98	NR	Provision of Bi-directional signalled movement between NDLS-SBB & TKJ-HNZM including triangle area of UP & DN GAL at Tilak Bridge.	124(U)	2021-2022	21.46	
99	NR	Firozpur Division - Repl of Neal's token instrument with tokenless block system (8 sections)	117(U)	2017-2018	5.9	
100	NR	Provision of IBS between BBMN-JAT, SMBX-VJPJ and PTKC-KNDI on Jalandhar Cantt-Jammu Tawi section	122(U)	2018-2019	11.04	
101	NR	GURDASPUR~~GURDASPUR~~re modelling of GSP	124(U)	2021-2022	9.79	
102	NR	Automatic Block signaling across Varanasi area (approximately 30 Km).	124(U)	2021-2022	27.24	
103	NR	Provision of First loop at 3 Stations SIQ,TLMD & BRPT in Up direction in BSB-ZBD section with common loop facility.	124(U)	2021-2022	12.15	
104	NR	Provision of IBSs at 11 locations between LKO-SRE section.	124(U)	2018-2019	40.64	
105	NR	Balamau~~Provision of DN loop and yard remodeling of BLM	124(U)	2021-2022	34.36	
106	NWR	Jenal-Bhildi - New block station	44	2017-18	18.95	
107	NWR	Rakhi & Ledarmer - Addl loop lines at stations	43	2017-18	9.3	
108	NWR	Rewari -Madar Jn.--Provision of Double Distant Signal in Rewari-Alwar and Bandikui-Madar Section on Jaipur Division	48 (U)	2019-20	47.39	

Identified High Priority Traffic Facilities (PH-16) works for Mission 3000 MT to be completed by 2027						
S.No	Rly	Name of work	Pink Book No	Year of Sanction (Umbrella Year)	Cost (Rs. cr)	Targetted Year of Completion
109	NWR	Conversion of Bhiwani City Halt station into a crossing station with freight terminal facilities	48 (U)	2019-20	26.51	
110	NWR	Provision of one full length stabling line and extension of Goods PF by 50 mtrs at BME.	48 (U)	2019-20	7.8	
111	NWR	Provision of additional loop line at 06 stations of Jodhpur Division.	48 (U)	2019-20	26.8	
112	NWR	Banwali - Shifting of goods shed of Sri Ganganagar	42	2016-17	11.05	
113	NWR	Lahli- Shfting of goods shed from ROK (NR) to LHLL (NWR)	51(U)	2020-21	15.75	
114	NWR	Provision of one additional loop line each at four, two line stations on Bhimal Pandoli,Kapasan & Bhopal Sagar (COR-UDZ) of AII division.	48(U)	2019-20	32.43	
115	NWR	Provision of STD-II R from Sadulpur (excl.) To Hissar (excl.) section (BKN division) (Three stations).	48(U)	2019-20	24.9	
116	NWR	Provision of additional loop line at three, Two line stations for the facilities of simultaneous reception and dispatch Aslu, Dokwa (SDLP-CUR) and Joharpura (CUR-RTGH) section of BKN division.	48(U)	2019-20	19.46	
117	NWR	Three full length stabling lines and conversion of line no 9 into running line at Bhagat ki Kothi yard	51(U)	2020-21	28.93	
118	NWR	Additional loop line at Sudsar, Persaneu and Gadwala stations on Bikaner –Ratangarh section of BKN division.	48(U)	2019-20	22.3	
119	NWR	Phulera - 2 Additional stabling lines in FL yard.	48(U)	2019-20	7.47	
120	NWR	Development of freight terminal and infrastructural facilities at Satrod station.	51(U)	2020-21	12.05	
121	SCR	Kakinada Port: Yard remodelling with Provision of two stabling lines, extension of 5A line and complete interlocking.	PB-80 (Subwork)	2020-2021 (UMB)	26.97	2023-24
122	SCR	Nagarsol: Provision of two (02) additional loop lines.	PB-77 (Subwork)	2018-19 (UMB)	13.35	2022-23
123	SCR	Nagarsol: Proposed construction of S&T interlocking room for two (02) additional loop lines	PB-78 (Subwork)	2019-20 (UMB)	0.4834	2022-23

Identified High Priority Traffic Facilities (PH-16) works for Mission 3000 MT to be completed by 2027						
S.No	Rly	Name of work	Pink Book No	Year of Sanction (Umbrella Year)	Cost (Rs. cr)	Targetted Year of Completion
124	SCR	Gandhipuram: New crossing station between Karepalli-Chimalpahad on DKJ-BDCR section.	PB-80 (Subwork)	2020-2021 (UMB)	26.52	2023-24
125	SCR	Jankampet Jn: Provision of two additional loop	PB-78 (Subwork)	2019-2020 (UMB)	11.3	2023-24
126	SCR	Narasingapalli: Provision of Addl. Loop line on DN side.	PB-78 (Subwork)	2019-2020 (UMB)	9.63	2023-24
127	SCR	Krishna Canal-Mangalgiri: Provision of IB signals	PB-78 (Subwork)	2019-20 (UMB)	3.55	2022-23
128	SCR	Moula Ali: Provision of two additional chord lines between Moula Ali 'C' cabin	PB-78 (Subwork)	2019-2020 (UMB)	37.3	2023-24
129	SCR	Umdanagar-Timmapur: New crossing station (Peddashapur)	PB-55	2010-2011	28.9	2022-23
130	SCR	New crossing stations (4 Nos)-PERUR between Kaukuntla-Wanaparthy Road (18.27 kms)	PB-76	2017-2018	38.26	2022-23
131	SCR	New crossing station between Vikarabad-Sadashivpet Road	PB-77 (Subwork)	2018-19 (UMB)	3.75	2024-25
132	SCR	Falaknuma: DN Loop line (Standard Double line layout)	PB-78 (Subwork)	2019-2020 (UMB)	8.57	2023-24
133	SCR	Cuddapah-Kanamanopalli: IBS Signals on UP & DN lines	PB-77 (Subwork)	2018-19 (UMB)	3.75	2022-23
134	SCR	Thangundi-Yadgir: IBS Signals on UP & DN lines	PB-77 (Subwork)	2018-19 (UMB)	5.55	2022-23
135	SCR	Dharur-Rukmapur: IBS Signals on UP & DN lines	PB-77 (Subwork)	2018-19 (UMB)	2.88	2022-23
136	SER	Bhojudih-Yard remodelling work of Bhojudih station to increase the CSL of UP and DN yard lines.	PB-62 (U)	2020-2021	66.37	
137	SER	Revival of Tupadih station in Bondamunda-Kiriburu Section.	PB-62 (U)	2020-2021	17.97	
138	SER	Sini~~Provision of additional Down Loop Line at SINI Yard	PB-64 (U)	2021-2022	7.95	
139	SER	Kiriburu Yard Re-modelling	PB-62 (U)	2021-2022	2.67	
140	SER	Provision of additional loop line at Birarajpur Station.	PB-64 (U)	2021-2022	6.53	
141	SER	Nimpura Reception Yard : Connectivity of Line No. 5, 6, 7 & 8 at KGP end.	PB-64 (U)	2021-2022	8.87	
142	SER	Construction of Up loop line at KITA	PB-61 (U)	2018-2019	17.19	
143	SER	Construction of additional loop at JONA Station	PB-61 (U)	2018-2019	15.74	
144	SER	Piska - Construction of additional loop line at PISKA (PIS) station.	PB-62 (U)	2020-2021	8.32	

Identified High Priority Traffic Facilities (PH-16) works for Mission 3000 MT to be completed by 2027						
S.No	Rly	Name of work	Pink Book No	Year of Sanction (Umbrella Year)	Cost (Rs. cr)	Targetted Year of Completion
145	SER	Haldipada-Balasore - Improvement of mobility by removal of permanent speed restriction from 75 to 110 kmph in block section	PB-58	2017-2018	5.59	
146	SER	Markona-Soro - Improvement of mobility by removal of permanent speed restriction from 75 to 110 kmph in block section	PB-59	2017-2018	4.54	
147	SER	Narayangarh-Bhakrabad - Improvement of mobility by removal of permanent speed restriction from 60 to 110 kmph in block section	PB-57	2017-2018	3.49	
148	SER	Nimpura : Construction of connecting road between Clinker siding to LC gate at Reception Yard.	PB-62 (U)	2020-2021	4.72	
149	SER	Bankra Nayabaz : Additional Loop lines.	PB-62 (U)	2021-2022	29.16	
150	SER	Midnapur : New goods line with goods platform at West side (Rangamati) and 120m dead end at GSL.	PB-64 (U)	2021-2022	6.53	
151	SECR	Bilaspur~~Dadhapara :- Conversion of existing DN line into Bi-directional line between DPH-BSP tripple line section	PB-129 of NR (U) Not yet sanctioned	2022-23	5	
152	SECR	Capacity augmentation (Doubling) of RVH-RSD line with electrification and coaching fitness of line no.2	PB-52 (U)	2021-2022	15.29	
153	SECR	Gondia :- Elimination of diamond crossover No. 112 & 115 at Gondia yard.	PB-50 (U)	2021-2022	6.8	
154	SECR	Provisioning of a new 'B' class block cabin between Katora and Surajpur stations under umbrella work.	PB-49 (U)	2019-2020	22.4	
155	SECR	H-Cabin:-Construction of loop line at H-Cabin BMY	PB-50 (U)	2020-2021	11.81	
156	SECR	Udalkachar:-Provision of an additional Loop line at Udalkachhar station.	PB-50 (U)	2021-2022	12	
157	SECR	Maroda:- New exchange yard for addl traffic of Bhilai Steel Plant	PB-33	2010-2011	20.31	
158	SECR	Chandafort :- Provision of additional loop line at Chanda Fort with extension of existing bridge.	PB-49 (U)	2018-2019	11.61	
159	SECR	Kalumna-Itwari :- Connection of shunting neck with crossovers	PB-48	2017-2018	6.35	

Identified High Priority Traffic Facilities (PH-16) works for Mission 3000 MT to be completed by 2027						
S.No	Rly	Name of work	Pink Book No	Year of Sanction (Umbrella Year)	Cost (Rs. cr)	Targetted Year of Completion
160	SECR	Nagpur Division- Provision of 4 IBH in Bargi-Gwarighat, Samnapur-Balaghat, Sondad-Dewalgaon,& Kelzar-Chandafort	PB-129 of NR (U) (Not Yet Sanctioned)	2022-23	20	
161	SECR	Madwarani:- Provisioning of UP & DN additional lines under umbrella work	PB-49 (U)	2020-2021	40.09	
162	SECR	Daghora: Provisioning of loop line	PB-52 (U)	2021-2022	14.47	
163	SECR	Bhupdeopur - Remodelling for dealing with new private sidings	PB-26	2008-2009	13.61	
164	SECR	Khongsara:- Conversion of Bamboo Siding into running line	PB-49 (U)	2020-2021	7.81	
165	SECR	Bilaspur Division : Provisioning of cross overs at NIQ, HRB and shifting of X/O at ROB station	PB-129 of NR (U) (Not Yet Sanctioned)	2022-23	9	
166	SR	TPGY- Provision of one additional line for 715M for pass through trains from/ to ED direction.	2019-20 UW	2019-20	3.4261	
167	SR	Erode Jn: Extension of Platform Nos. 3 & 4 at TPM end to hold 24 coaches	2020-21 UW	2020-21	5.4759	
168	SR	Korukkupet-Replacing existing 1 in 8.5 crossovers to 1 in 12 for allowing BLC at MSB end	2020-21 UW	2020-21	6.5824	
169	SR	Walajabad - Extension of Ballast siding Line at WJ to accommodate NMG/BCACBM Rake for automobile Loading	2020-21 UW	2020-21	6.2389	
170	SR	Jolarpettai(JTJ): Proposal for replacement of 1 in 8.5 turnouts to facilitate BLCA rake movements to Goods shed.	2020-21 UW	2020-21	4.0894	
171	SR	Kallayi - Provision of full length unloading PF & modification to Goods unloading lines	PWP 2022-23 (Not yet Sanctioned)	2022-23	8.7574	
172	SR	Arakkonam: 3rd & 4th line connectivity with Road No.1 & 2 at Arakkonam yard (Phase-I)	PWP 2022-23 (Not yet Sanctioned)	2022-23	75.3949	
173	SWR	Bengaluru Yard Remodeling: Provision of Electronic Interlocking, New Station Master Building and other Traffic Facilities	44	2018-19	39.21	
174	SWR	BNC-Augmentation of Terminal Facilities for Commuter Services	44	2018-19	37.94	
175	SWR	Belagula - Provision of two additional running/stabling lines in the existing yard.	44	2018-19	12.85	

Identified High Priority Traffic Facilities (PH-16) works for Mission 3000 MT to be completed by 2027						
S.No	Rly	Name of work	Pink Book No	Year of Sanction (Umbrella Year)	Cost (Rs. cr)	Targetted Year of Completion
176	SWR	Provision of Crossing station with 03 running lines between SLM-RDG.	44	2018-19	19.79	
177	SWR	TNGL: Provision of 2 additional loop lines with R&D facility.	44	2018-19	13.48	
178	SWR	Ashokpuram Yard remodelling	52	2021-22	15.17	
179	SWR	Ashokapuram~Requirement of additional works for AP yard Remodeling.	Yet to come in PB	2022-23	13.39	
180	SWR	Kotegangur Crossing station	52	2021-22	21.2	
181	SWR	HAS yard Remodeling: Up gradation of the Std of Interlocking from STD-I to STD-III to provide simultaneous reception/dispatch in all four directions.	Yet to come in PB	2022-23	22.4	
182	SWR	NDV: Provision of one additional Emergency crossover at YNK end.	Yet to come in PB	2022-23	4.31	
183	SWR	KPN: Provision of Emergency Crossover at JTJ end duly Shifting Slip Siding towards JTJ side.	Yet to come in PB	2022-23	14.05	
184	SWR	Vasco-da-gama~Improvement of goods handling facility at VSG Goods shed.	Yet to come in PB	2022-23	4.8	
185	SWR	VARADAPURA~VRDP- Provision of additional loop line	Yet to come in PB	2022-23	11.53	
186	SWR	Bangalore city: Nayandahalli IBS-Provision of IBS between SBC-NYH Section.	Yet to come in PB	2022-23	4.45	
187	SWR	YPR- Provision of concrete platform for stabling line No. 10	53	2020-21	0.79	
188	WCR	NKJ 'C' Yard remodelling for improvement in traffic facility.	33	2015-16	12.22	
189	WCR	Automatic Signalling with Central Traffic Control between Bina-Bhopal-Itarsi	47	2020-21	268	
190	WCR	Sagma – Extension of UP loop line into long haul loop.	40	2017-18	5.33	
191	WCR	Extension of Salamatpur goods shed to accommodate full rake.	Yet to come in PB	U2020-21	4.77	
192	WCR	Panihar – provision of goods shed with both side entry & exit.	Yet to come in PB	U2020-21	7.41	
193	WCR	Harda-Augmentation and shifting of goods shed from Dn side to Up side for placement of rakes in one spur.	Yet to come in PB	U2020-21	5.94	
194	WCR	MDDP, ASKN and SVPI- Improvement in circulating area, cover shed, merchant room, high mast etc.	Yet to come in PB	U2020-21		
195	WCR	Kota - Up gradation of goods shed.	UM 2019-20	U 2019-20	4.05	
196	WCR	Dakaniya Talav – Provision of Up & Dn loop lines.	UM 2019-20	U 2019-20	24.48	

Identified High Priority Traffic Facilities (PH-16) works for Mission 3000 MT to be completed by 2027						
S.No	Rly	Name of work	Pink Book No	Year of Sanction (Umbrella Year)	Cost (Rs. cr)	Targetted Year of Completion
197	WCR	Kachhpura - Chord Line	UM 2019-20	U2018-19	49.55	
198	WR	Raising of speed to 160 kmph/200 kmph on existing New Delhi-Mumbai route (incl. Vadodara-Ahmedabad) - A mission to achieve a travel time of 12 hours between Delhi - Mumba	65	2017-18	6661.4	
199	WR	Haripar - Intermediate Block stop signal at Haripar of Viramgam-Samakhiyali section	2020-21 Umbrella work, PB 70	2021-22	3.27	
200	WR	Ahmedabad - Kalol section :- Provision of automatic signalling.	2020-21 Umbrella work, PB 70	2021-22	28.72	
201	WR	Bandra Terminus - Provision of 3 nos washing cum inspection lines by conversing	2019-20 Umbrella work, PB 68	2021-22	26.87	
202	WR	Udhna - Provision of new goods line for loading/unloading in Udhna New Goods Shed (UNGU)	2020-21 Umbrella work, PB 70	2021-22	13.68	
203	WR	Pratapnagar: Development of station as a satellite station of Vadodara	2020-21 Umbrella work, PB 70	2021-22	24.14	
204	WR	Ratlam Division: Improvement of goods shed platform surface at various goods shed Chanderia, Shambhupura, Daloda, Shujalpur & Sehore goods shed.	2019-20 Umbrella work, PB 68	2020-21	6.96	
205	WR	Kapadvanj:-Converting SPL class in to B class station with Electronic Interlocking.	2019-20 Umbrella work, PB 68	2020-21	6.66	
206	WR	Morbi - Yard remodelling One additional new loop line No. 4 for loading/ Unloading containers by Machine.	2019-20 Umbrella work, PB 68	2020-21	4.88	
207	WR	Gandhidham jn.- Remodeling of freight yard	2019-20 Umbrella work, PB 68	2020-21	38.87	
208	WR	Gandhidham - Provision of left over facilities in GIM freight yard.	2019-20 Umbrella work, PB 68	2020-21	55.47	
209	WR	Kankariya yard: Remodeling of freight yard	2019-20 Umbrella work, PB 68	2020-21	19.48	
210	WR	Rajkot~~Somnath~ - Upgradation of interlocking from STD I to STD II(R) in Lushala to Somnath section	2019-20 Umbrella work, PB 68	2020-21	19.3	

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Annexure A-9(e)

Proposals of Traffic Facility Works

Sr No.	RLY	Division	Name of Work	Cost(Rs. Cr.)	Justification/Remarks	State
1	ECOR		Yard remodeling work at Naupada & Palasa Jn.			
2	ECOR		Increase speed on 1st loop to 50 kmph from Bhadrak-Palasa and from Palasa-Duvada			
3	CR		Extesion of Lonavla BVT Yard lines			
4	NWR		Yard Remodelling at Phulera St.			
5	SER		Yard remodelling at Bondamunda		DPR submitted to Board	
6	SER		Yard remodelling at Anara		DPR submitted to Board	
7	SER		Yard remodelling at Pururlia		DPR submitted to Board	
8	SER		Yard remodelling at Rukni		Proposal in process	
9	SER		Fly over between Adityapur – Gamariah – Birarajpur		PETS in progress	
10	SER		KKQ-NMP West Outer Bypass		FLS to be sanctioned	
11	SER		Bypass between Noamundi - Jamkundia		PETS in progress	
12	SER		Chandil goods shed – direct reception of DN trains			
13	SER		Bokaro - Unloading wharf between line no. 2 & 3			
14	SER		Barbil~~Barbil~~Extension of loading platform of line no-4 at Barabil(BBN) to facilitate loading of full rake.			
15	SWR		Ranjitpura Yard Remodelling with 4 extra looplines.			
16	SWR		Additional 5 Looplines at Banihatti			
17	SWR		Y - connection from Amrutpura to MMEC siding.			
18	SWR		Yard remodelling of Tinaighat Yard with extra 5 lines.			
19	SWR		Development of Yard at Kalem Station			
20	SWR		Remodelling of Vasco yard with extra 4 lines			
21	SWR		Quadrupling between Hospete to Bellary with RE and double distant signalling for high speed.			

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Proposals of Traffic Facility Works

Sr No.	RLY	Division	Name of Work	Cost(Rs. Cr.)	Justification/Remarks	State
22	SWR		Tinaighat yard remodeling with 4 extra loop lines (38.95 KM)	38.95	Proposal for 05 common loop line, 02 full length shunting neck , 02 spur lines of 400 mtrs sent to Railway Board in WP 2022-23 as umbrella work proposal. Not sanctioned.	
23	SWR		VJR yard remodeling as part of LD-MRJ doubling with 2 extra loop lines (20.73 KM)		Proposal for VJR: Provision of additional 02 common loop lines sent to Railway Board in WP 2022-23 as umbrella work proposal. Not sanctioned.	
24	SWR		Desur yard remodeling with 4 extra loop lines (45.59 KM)		Proposal for Desur; Provision of additional 06 common loop line sent to Railway Board in WP 2022-23 as umbrella work proposal. Not sanctioned.	
25	SWR		Kusgal yard remodeling with 6 extra loop lines (38.81 KM)		Proposal for Kusugal: Provision of 04 common loop line sent to Railway Board in WP 2022-23 as umbrella work proposal. Not sanctioned.	
26	NR		A Grade separator flyover at SLN to segregate DDU-SLN-LKO and PRG-SLN-AYC traffic streams			
27	NR		Y-Connection required at a.BWI-SHG-DJD b. TD-ABP-KTHE c. DRG-AYC-KEA d. SIQ-ZBD-MAY e. SQN-JNH-MAY f. GTNR-ML-LBH			
28	NR		Doubling of PFM Bypass			
29	NR		To decongest LKO area, flyover at ON so as to provide an alternate route via PFM-UCR-ON-BLM.			

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Proposals of Traffic Facility Works

Sr No.	RLY	Division	Name of Work	Cost(Rs. Cr.)	Justification/Remarks	State
30	NR		Grade separator flyover at ROZA for traffic coming from SPC.			
31	NR		Full length loops at station on ON-BLM section with EI and providing Y connection at BLM from both ON and SPC direction.			
32	NR		Grade separator flyover at ROZA for SPC-ROZA-SPN UP traffic stream.			
33	NR		DN loop at SRE			
34	NR		Doubling of LRJ avoiding line			
35	NR		Phase-II of LAKN station			
36	NR		10 IBS between MB-GZB			
37	NR		Extension of loop line at- IQB, RK, DNRA, BEK, HBW, SEO, KH, TDP, MST, KKJ			
38	NR		Longer loops required at-DLQ, AJI, BEK, LDR AND QXR			
39	NR		Y-connection at CH for traffic between Harduaganj-MB			
40	NR		Grade separator flyover across MB(HKP-KGF) for DN traffic coming from GZB side.			
41	NR		Longer loops at-Bassipathana and Mianpur			
42	NR		Longer loops required at- Chhanarrorian, Hiranagar, Sujanpur, Dasua, Kalabakar, Goneana, Faridkot, Ajitwal, Talwandi/Firozshah			
43	NR		Provision of IBS at BBMN-JAT, SMBX-VJPJ and PTKC-KNDI (total-3) one to be commissioned this year			
44	NR		Y-connection required- a.Faridkot to Firozshah, b.Faridkot to Mullanwala Khas			
45	NR		Longer Loops required at: JSKA, PTRD, KIP, NNO, ASE, SMF, KZH, BSPH, DTN, HMQ, SSZ, SMK, GNU, RDDE			

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Proposals of Traffic Facility Works

Sr No.	RLY	Division	Name of Work	Cost(Rs. Cr.)	Justification/Remarks	State
46	NR		BNW-ROK-PNP section to be developed as a feeder route of WDFC			
47	NR		Y-connection at ABO to avoid reversal of trains			
48	NR		Y-connection required a.LDH avoiding connecting Chawapail, DUI line at QRP and FZR-LDH line at Chaukiman, b.Kauli-SBJ, c.KLSX-HMI			
49	SCR		Vikarabad Bye-pass – 2.6 kms, 69.282 cr.			
50	SCR		Mudkhed (5.69 kms), Peddapalli (1.37 kms), Purna(3.05 kms) bye-passes.			
51	SCR		Vishnupuram, Nancherla, Vijayawada(Gudur line to Gudivada LINE), Nizamabad, Parli, Latur bye-passes.			
52	SCR		Pudi-Yerpedu, Yerraguntla Bye-passes.			
53	SCR		Guntakal West – Mallappa Gate. ROR		PETS survey in progress. TDC for report submission is June 2022.	
54	ECR		Hazaribagh Surface Crossing towards Arigada.			
55	ECR		Koderma Bye-pass (ROR) towards Gomoh.			
56	ECR		Koderma Bypass towards Gujhandi.			
57	ECR		ROR at Patratu for NTPC.			
58	ECR		Chainpur-West Bokaro Doubling with Yard remodeling of Chainpur.			
59	ECR		Bulb line for NPGCL at Ankorah.			
60	ECR		Y connection at ARA.			
61	ECR		Hajipur-Bye-pass.			
Note Approximate cost for 61 works is taken as 4324 Cr.						

Annexure- A-10

SAME AS Annexure A- 9

Annexure A-11

Feeder Routes for DFC

Eastern Corridor

S N	Route	Kms.
1	Sonnagar- Garwa Road- Barkakana	311
2	Gomoh-Chandrapura-Bokaro-Muri-Chandil-Sini-Chakradhapur	216
3	Patratu- Gomoh including PD Branch Line	128
4	Sonnagar - Gaya - Gomoh	249
5	Gomoh - Pradhankhunta (39 kms.) including Kusunda–Tetulmari (4.5 Kms.) Katrasgarh–Nichitpur, Pradhankhunta-Pathardih links (24 kms.)	68
6	Pradhankhunta - Asansol - Andal including coal Branch lines	75
7	Dhanbad-Katrasgarh-Jamuniatar-Chandrapura	36
8	Andal-Sainthia-Pakur	151
9	Dankuni-Andul-Panskura-Haldia	155
10	Dankuni-DumDum Junction - Ballygunj Junction - Diamond Harbour Ballygunj Junction - Budge Budge	101
11	Chandil-Bhojidih-Mohuda-Gomoh	144
12	Tatanagar-Chandil	20
13	Mughalsarai – Unchahar via Janghai, Phaphamau	205
14	Aligarh – Harduaganj	15
15	Zafrabad – Tanda	99
16	Kanpur – Paricha	198
17	Varanasi-Sultanpur-Utratia –Rosa	558
18	Ludhiana –Beas-Govindwal Sahib	112
19	Rajpura – Dhuri – Bhatinda (Lehra Mohabbat)	173
20	Sirhind – Rupnagar – Nangal Dam	104
21	Hissar-Bhatinda-Suratgarh	298
22	Suratgarh-Biradhwal	18
	Total Route Kms.	**3434**

Western Corridor

1	Pipavav– Surendranagar– Viramgam– Mehsana	395
2	Kandla Port– Gandhidham- Palanpur	312
3	Mundra Port – Gandhidham	66
4	Viramgram – Samakhiali	182
5	Hazira – Surat	40
6	Ludhiana – Hissar – Rewari	348
7	Bharuch – Dahej	62
	Total Route Kms.	**1405**

Annexure-A-12

Routes identified for upgradation to 2x25 kv system over period

(A) **Following HDN/HUN routes have been identified for upgradation to 2x25 kv OHE system in phased manner:**

HDN/ HUN	Routes	Route KMs	Cost* (Rs. Cr.)
HDN 2	Howrah – Mumbai main route via Jalgoan, Nagpur, Bilaspur	1889	2834
HDN 7	Mumbai - Chennai	1224	1836
HDN 5	Delhi – Chennai main route via Bhopal – Nagpur – Balharshah – Vijayawada - Gudur	2048	3072
HDN 6	Howrah – Chennai	1113	1670
HUN 7	**Vizianagram/Paradeep to Kota via** Vizianagram -Raipur, Bilaspur-Katni-bina, Bina-Kota & Paradeep-Cuttak Barag-Titiagarh & Sambalpur-Lapanga Lapanga -Jharsuguda Sambalpur -Titlagarh Titlagarh-Singapur Rd &Kottavalasa-Kinrandul, Singapur Rd.-Koraput, Champa-Gevra Rd. & Anuppur- Boridand-Ambikapur & Boriband-Chirimiri, Paradeep-Cuttack	2737	2737
HUN 2	**Kharagpur to Udhna via** Khargpur-Midnapur- Bankura-Adra -Katni-Jabalpur Itarasi , Bhusawal- Jalgaon-Udhna & Asansol-Adra-Bhojudih-Dhanbad & Purulia-Chandil, Chandil- Tori & Ranchi- Barsuan & Garwa Rd.- Sohnnagar & Billi-Chunar & Rajkharswan- Jakhapura, Tori-Ranchi Jn.	3035	3035
Total		12046 RKM	15183

(B)

Following routes may be taken on immediate priority			
1	Mundra/Kandla – Samakhiali - Palanpur	375	
2	Paradeep – Cuttack - Sambhalpur	355	
3	Gopalpur – Balikuda -Visakhapatnam	465	
4	Visakhaptnam- Titlagarh - Raipur	527	
5	Bhadrak - Cuttack	115	
6	Bina – Kota	303	
(Above routes are part of identified HUN/HDNs)		**Total = 2140**	
* Cost Rs. 1.5 Cr/RKM for HDN and Rs. 1.0 Cr/RKM for HUN			

Annexure A-13

100 New Gati Shakti Terminals to be commissioned by 2025

A. Status:

1. In order to boost investment from industry in development of additional terminals for handling rail cargo, a new 'Gati Shakti Multi-Modal Cargo Terminal (GCT)' policy was launched on 15th December 2021. This policy replaces the previous Private Siding and Private Freight Terminal (PFT) policies of Indian Railways – and is more liberal and customer/ operator friendly vis-à-vis the previous policies.

2. The salient features of GCT policy are as under:
   - Simplified (online) application process, for quick and hassle free approvals
   - No Departmental Charges, or any other charges (except Application Fees of Rs 20,000/- only) to be levied by Railways
   - No Land Licensing Fee to be charged for the Railway land used for connectivity
   - All common-user traffic facilities at the serving stations to be constructed and maintained by Railway
   - No cost of commercial staff to be charged from the Operator
   - Maintenance of all assets (track, signaling, and OHE) by Railway at its own cost (excluding the yard and loading/ unloading lines), even on non-Railway land
   - Railway reserves the right to grant connectivity to other Terminal(s) from such portions of track which is being maintained by Railway

   Setting-up of GCTs fully or partially on Railway land is also permitted now. Selection of the Operator for setting-up of a GCT on Railway land shall be through open tender.

3. Due to non-levy of certain charges (especially Land License Fee for the Railway land used for connectivity, and Maintenance Charges), the operational cost for GCTs will be significantly lower – which will result in reduction in overall transportation cost for rail-transport. Further, as a result of the removal of earlier pain-points (such as time-consuming approval process and levy of various charges), industry has expressed keen interest in developing terminals under this policy.

4. Many of the existing Private Sidings and PFTs have also expressed desire to migrate to the new policy (which is permitted under the policy provisions) – as they will be exempted from payment of Land License Fee and Maintenance Charges. In return, Railway will get the right to grant connectivity any other terminal(s) from their connectivity portion of track, which will lead to increase in Railways' cargo business.

5. So far, 08 GCTs have been commissioned and commissioning of 100 GCTs is being targeted during the nest three Financial Years, i.e. till 2024-25.

B. Way forward:

The present GCT policy permits licensing of Railway land to Operators for a maximum period of five years at a time, which is to be renewed periodically for a maximum period of thirty-five years. To make this policy more attractive, especially for the terminals to be set-up totally or partially on Railway land, permission for long-term leasing/ licensing of Railway land is imperative.

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TARGET PROPOSED FOR GATI SHAKTI CARGO GERMINALS (GCTs) FOR 2022-23					
SN	**Zone**	**Name of the**	**Station**	**State**	**District**
1	CR	JNPT Dry Port	Sindi/NGP Divn	Maharashtra	Wardha
2	CR	RCCPL Pvt.Ltd.	Mukutban	Maharashtra	Yavatmal
3	CR	JSW (Expansion PEN-THAL Sec)	Dolvi	Maharashtra	Raigad
4	CR	Shree Cement Pvt. Siding	Patas /Pune Divn	Maharashtra	Pune
5	CR	JSW Pvt. Siding	Kalmeshwar/NGP Divn.	Maharashtra	Nagpur
6	CR	FUELCO GPFT	Moorsa/NGP Divn	Maharashtra	Chandrapur
7	ECoR	M/s MCL-Jagannath SILO Loading (Expn)	Talcher (TLHR)	Odisha	Angul
8	ECoR	Ultratech Cement Ltd.	Machapur (MZY)	Odisha	Cuttack
9	ECoR	CONCOR-PFT	PRDP	Odisha	Jagatsinghpur
10	ECoR	Paradip East Quay Coal Terminal Pvt. Ltd. (Phase II)	PRDP	Odisha	Jagatsinghpur
11	ECR	GPFT of M/s. Pristine Logistics & Infra Pvt. Ltd.	Mansi/SEE	Bihar	Khagariya
12	ECR	Godavari Commodities Ltd.	Shivpoor/DHN	Jharkhand	Chatra
13	ECR	Hindustan Urvarak & Rasayan Ltd. - Revival of Ammonia-Urea Fertilizer Complex	Sindri/DHN	Jharkhand	Dhanbad
14	ECR	Hindustan Urvarak & Rasayan Ltd. - Revival of Ammonia-Urea Fertilizer Complex	Barauni-Garhara/SEE	Bihar	Begusarai
15	ECR	Siding of M/s. Land Port Authority of India	Raxaul/SPJ	Bihar	East Champaran
16	ECR	Pvt. Decanting Siding of BPCL	Kumarbagh/SPJ	Bihar	West Champaran
17	ECR	Obra -C Thermal Power extension project	Obradam/DHN	Uttar Pradesh	Sonbadhra
18	ECR	Silo Project of M/s. Adani Agri Logistics (Darbhanga) Ltd.	Jogiyara/SPJ	Bihar	Madhubani
19	ECR	North Urimari OCP	Patratu.DHN	Jharkhand	Ramgarh
20	ER	Adani Power (Jharkhand) Ltd.	Godda, Malda Divn	Jharkhand	Godda
21	NCR	Ghatampur TPP by M/s NUPPL	Hamirpur Road	Uttar Pradesh	Hamirpur
22	NCR	Thermal Power Plant by M/s UPRVUNL	Harduaganj	Uttar Pradesh	Aligarh
23	NCR	Silo Siding by UPLPL	Sathnaraini	Uttar Pradesh	Fatehpur
24	NCR	Cement Grinding Unit by Wonder Cement Ltd.	Somna	Uttar Pradesh	Aligarh
25	NER	NCML Basti Pvt.Ltd	Tinich / LJN	Uttar Pradesh	Basti
26	NER	Kan Silos Gorakhpur Pvt. Ltd.	Campierganj/LJN	Uttar Pradesh	Gorakhpur
27	NER	Adani Agri	Jasoda/IZT	Uttar Pradesh	Kannauj
28	NER	Ankur Udyog Ltd.	Sahjanwa/LJN	Uttar Pradesh	Gorakhpur
29	NER	TRD Infra Pvt. Ltd.	Bhopatpura/IZT	Uttar Pradesh	Pilibhit
30	NFR	FCI Siding	Cinnamara	Assam	Jorhat
31	NFR	Development of Wheat Storage Silo	Deotala	West Bengal	Malda
32	NR	NCML Chhehreatta	Kathunangal	Punjab	Amritsar
33	NR	Leap Agri logistics (Ludhiana)	Sahnewal	Punjab	Ludhiana
34	NR	MBR Silos Pvt. Ltd.	Chajli	Punjab	Sangroor
35	NR	MBR Patiala Storage Silos	Chinta Wala	Punjab	Patiala
36	NR	KRIBHCO Fertilizer Ltd.	Banthra	Uttar Pradesh	Shahjahanpur
37	NR	NCML Batala Pvt. Ltd.	Chhina	Punjab	Gurdaspur
38	NR	ACTL	Samba	Jammu & Kashmir	Samba
39	NWR	NCML - Bhattu Pvt Ltd.	Bhattu (BKN)	Haryana	Fatehbad
40	NWR	Nayara Energy Ltd.	Kairla (JU)	Rajasthan	Pali
41	NWR	Unipro Agro Rohtak	Lahli (BKN Divn)	Haryana	Rohtak
42	NWR	Ambuja Cement Ltd.	Marwar Mundawa / JU Divn	Rajasthan	Nagaur
43	NWR	Udaipur Cement works Ltd.	Khemli (AII divn)	Rajasthan	Udaipur
44	SCR	Sai Balaji Warehousing & Logistic Pvt.Ltd.	Thipparthy (GNT)	Telangana	Nalgonda
45	SCR	Jawaharlal Nehru Port Trust -JNPT (Dry Port)	Dinagaon (NED) - Proposed station between Jalna- Badnapur	Maharashtra	Jalna

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TARGET PROPOSED FOR GATI SHAKTI CARGO GERMINALS (GCTs) FOR 2022-23					
SN	**Zone**	**Name of the**	**Station**	**State**	**District**
46	SCR	NTPC Phase I	Ramagundam	Telangana	Peddapalli
47	SCR	Rani & Others	Sultanabad (SC)	Telangana	Peddapalli
48	SCR	Sree Cements	Sulehali (SC)	Karnataka	Gulbarga
49	SCR	SCCL Siding	Sathupalli (SC)	Telangana	Khammam
50	SCR	Ramco Cement (Lime Stone)	Jaggayyapet (SC)	Andhra Pradesh	Krishna
51	SCR	BPCL	Krishnapatnam (BZA)	Andhra Pradesh	Nellore
52	SCR	Chettinad Cements	Tummalacheruvu (GNT)	Andhra Pradesh	Guntur
53	SECR	Rita Steel	Kanhan	Maharashtra	Nagpur
54	SECR	Emami Cement Ltd.	Nipania	Bihar	Nipania
55	SECR	NTPC Ltd. (Lara) Mines	Kotarlia	Chattisgarh	Raigarh
56	SER	Taurian Iron & Steel Ltd.	Barbil	Odisha	Kendujhar
57	SER	BPCL	Radhagaon	Jharkhand	Bokaro
58	SER	ESL Steel Ltd.	Bandhdih	Jharkhand	Bokaro
59	SER	NTPC	Laikera-Kechobahai	Odisha	Jharsuguda
60	SR	Legacy Warehouse & Logistics Pvt. Ltd.	Ingur-Vijayamangalam Block Section	Tamilnadu	Erode
61	SR	Chennai Petroleum Corpt. Ltd.	Tondiarpet	Tamilnadu	Chennai
62	SWR	HPCL	Sivadi (SZV) /SBC	Tamilnadu	Dharmapuri
63	SWR	Balaji Movers & Sidings Pvt. Ltd.	Oddarahalli/SBC	Karnataka	Bangalore
64	SWR	Container Corp. of India Ltd.	Kadakola/MYS	Karnataka	Mysore
65	SWR	Shree Cements East Pvt. Ltd.	Oddarahalli/SBC	Karnataka	Bangalore
66	WCR	Bhagwat Properties LLP	Sundalak	Rajasthan	Barlan
67	WCR	Swastika Logitech Ltd.	Sukhi Sewaniya Bina-	Madhya Pradesh	Bhopal
68	WCR	ACC Siding	Mehgaon/JBP	Madhya Pradesh	Satna
68	WR	CONCOR	Dahej/BRC	Gujarat	Bharuch
69	WR	Pipavav Leap Agri Logistic Ltd.	Liliya Mota/BVP	Gujarat	Amroli
70	WR	Adani Logistic Ltd.	Virochan Nagar/ADI	Gujarat	Mahesana
71	WR	Navkar Corporation	Wadharwa	Gujarat	Morbi
72	WR	Arya Multilogistics pvt. Ltd.	Surbari	Gujarat	Kutch
73	WR	Maruti Suzuki Pvt. Ltd.	Becharaji/ADI	Gujarat	Mahesana

LIST OF GCTs ALREADY COMMISSIONED					
1	SER	Jai Balaji Industries	Barajamda-Barbil	commissioned on 27.12.2021	Kendujhar district, Odisha
2	SER	OMPL (Orissa Metalliks)	Gokulpur	commssioned on 31.01.2022	Alamchak Belda, East Medinipur district, West Bengal
3	ECoR	Paradip East Quay Coal Terminal Pvt. Ltd.-PEQP	PRDP	commissioned on 20.02.2022	Paradip, Jagatsinghpur district, Odisha
4	ER	Maithon Power Ltd. Siding (MMMT)	Thaparnagar (TNW)	commissioned on 22.02.2022	Dhanbad District, Jharkhand
5	ECR	Bokaro Thermal Power Station-A (DVC)	Jarangdih	commissioned on 09.02.2022	Bokaro district, Jharkhand
6	SCR	IOCL	Nakkanadoddi/GTL	commissioned on 22.03.2022	Guntakal district, Anantapur, Andhra Pradesh
7	NER	Hindustan Urvark Rasayan Ltd	Nakha Jungle	commissioned on 25.03.2022	Gola, Gorakhpur district, Uttar Pradesh
8	WR	CONCOR	Varnama	commissioned on 29.03.2022	Karjan, Vadodara district, Gujarat

Annexure -A-14

Upgradation/ modernization of existing Railway terminals to minimize terminal detention & make them customer friendly

A. Status:

1. A policy for development of goods-sheds through private investment is already in place. This policy permits development and maintenance of infrastructural facilities at goods-sheds by private agencies, for a maximum period of 10 years, for which part of Terminal Charges/ Terminal Access Charges accrued at the goods-shed are shared with the agency.

2. To reduce terminal detention and increase wagon turnaround, all Zonal Railways have been advised to use the provision of penal Demurrage up to three times of normal demurrage rate.

B. Way forward:

The policy for development of goods-sheds presently does not permit construction of any value-added service facilities (such as warehouses). There is a demand from the industry to permit construction of warehouses, etc, within the goods-shed premises under this policy. This will require permission for long-term leasing/ licensing of Railway land to outside agencies/ developers. If permitted, this will make the policy more attractive and will bring in more investment in up-gradation of goods-sheds. Very recently, the Railway Board has modified plan head 53 from "Passenger Amenities" to "Customer Amenities" so that frieght customers are also included under this plan head. However, this change has to be implemented on all zones and all good sheds improvement should be charged under plan head 53.

S No	Zone	Dvsn	Sttn	Outward			S No	Zone	Dvsn	Sttn	Inward		
				Wagons	Weight in MT	Earnings in Rs. Cr.					Wagons	Weight in MT	Earnings in Rs. Cr.
1	EC	DHN	BNDG	136859	9.39	1,468.36	1	NC	PRYJ	MUNU	80932	5.45	536.85
2	SW	UBL	RNJP	88929	6.18	387.68	2	SE	ADRA	BDIH	48187	3.34	330.60
3	CR	NGP	GGS	76792	5.33	610.42	3	NR	DLI	GZB	50915	3.32	547.55
4	SE	CKP	JRLI	72569	5.1103	415.6992	4	ER	HWH	DKAE	46032	2.9631	424.8827
5	SE	CKP	BSPX	66274	4.65	369.51	5	SC	BZA	KNGK	40990	2.57	263.91
6	CR	NGP	WANI	65759	4.57	390.08	6	SW	SBC	SGWF	39459	2.51	346.35
7	ECO	KUR	NYG	59901	4.1947	432.9834	7	EC	SEE	NRPA	35263	2.25	203.54
8	SE	CKP	BBN	59064	4.13	305.03	8	SE	CKP	BIRP	30090	2.09	148.08
9	NW	JU	SONU	54815	3.82	905.88	9	EC	DNR	FUT	31630	1.99	242.77
10	ECO	WAT	KKGM	52580	3.65	182.89	10	EC	DDU	SEB	28812	1.99	220.27
11	EC	DHN	SGRL	36653	2.55	250.83	11	EC	SPJ	RXL	30616	1.97	272.67
12	SE	CKP	PJSB	35553	2.51	187.54	12	NR	FZR	DDL	30168	1.93	524.27
13	SC	SC	TPY	38099	2.50	70.47	13	NF	LMG	JRNA	30562	1.93	221.72
14	SEC	BSP	ROB	37496	2.45	57.95	14	CR	PUNE	LONI	29062	1.89	157.03
15	SE	CKP	BXF	33323	2.33	196.75	15	NR	FZR	JAT	32141	1.82	213.42
16	EC	DHN	MDMD	33282	2.32	205.12	16	NC	PRYJ	CPC	27504	1.80	148.43
17	SW	MYS	SLU	32999	2.29	149.36	17	WR	ADI	GIMB	28101	1.78	270.98
18	NF	APDJ	DLO	32684	2.20	218.73	18	NE	BSB	SV	27898	1.76	159.98
19	EC	DHN	CHRI	30573	2.13	238.60	19	NF	RNY	AZA	34062	1.76	327.25
20	SEC	BSP	KCHP	29640	2.03	256.20	20	WR	BCT	BOR	27135	1.76	298.82
21	SC	SC	PRPI	28860	2.01	181.11	21	SE	KGP	SGTY	27084	1.74	161.36
22	ECO	KUR	DATR	27199	1.89	103.04	22	NC	AGRA	JAB	26354	1.73	192.99

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S No	Zone	Dvsn	Sttn	Outward			S No	Zone	Dvsn	Sttn	Inward		
				Wagons	Weight in MT	Earnings in Rs. Cr.					Wagons	Weight in MT	Earnings in Rs. Cr.
23	ER	HWH	PKRZ	29271	1.83	136.05	23	ER	ASN	ASN	24852	1.70	135.14
24	WR	ADI	KDLP	28085	1.7735	283.432	24	EC	SEE	BTSS	24606	1.63	147.77
25	SE	CKP	BUF	24803	1.72	196.44	25	NW	JP	KKU	25373	1.61	216.04
26	ER	ASN	ICML	26122	1.71	119.30	26	CR	BB	KLMG	24352	1.56	336.91
27	EC	DHN	KRSL	23244	1.62	173.92	27	ER	ASN	DGR	22506	1.54	112.95
28	ER	ASN	HZH	24556	1.60	80.52	28	SE	ADRA	CRS	21846	1.52	114.76
29	EC	DNR	SHK	23413	1.55	55.12	29	ECO	KUR	SKND	21781	1.50	86.47
30	NR	MB	ROZA	24328	1.53	186.30	30	NW	JP	KORI	22191	1.49	108.29
31	ER	HWH	PKRY	23845	1.49	110.92	31	EC	SEE	KPGM	23457	1.48	139.35
32	ECO	KUR	PRNR	20980	1.47	113.75	32	SE	ADRA	CNI	21056	1.45	111.12
33	SE	ADRA	BQA	21190	1.38	49.74	33	EC	SEE	GHZ	21413	1.40	46.15
34	SW	UBL	SMLI	19201	1.34	91.23	34	ECO	WAT	BDXX	17578	1.37	57.16
35	SE	CKP	DJHR	18904	1.32	105.48	35	WR	ADI	KKF	20790	1.33	227.41
36	WC	JBP	GSPR	18226	1.26	187.51	36	NF	LMG	NGC	20428	1.31	204.01
37	ECO	KUR	SKND	18147	1.25	126.09	37	SE	KGP	NKKH	18844	1.29	102.11
38	EC	DHN	SPXS	17950	1.25	162.31	38	CR	BSL	NK	19459	1.27	136.46
39	SEC	R	BYL	18077	1.24	88.80	39	NE	LJN	TSG	19306	1.22	127.25
40	SE	CKP	RKSI	17825	1.23	296.36	40	SE	CKP	TATA	18223	1.21	103.77
41	ER	MLDT	MZC	18688	1.19	68.00	41	EC	SPJ	MHL	18582	1.19	78.90
42	WR	BCT	UNGU	18625	1.17	92.03	42	ER	MLDT	MLDT	18024	1.16	92.54
43	WR	ADI	GIMB	18403	1.17	164.92	43	NR	MB	ROZA	17513	1.16	133.82
44	WR	ADI	CHIB	18311	1.16	180.59	44	NR	DLI	BVH	17905	1.15	297.22
45	SEC	BSP	GGDA	16869	1.10	45.53	45	SR	MAS	KOKG	18580	1.14	143.63
46	SEC	BSP	PSBD	15467	1.07	71.26	46	NF	KIR	PRNA	17837	1.12	164.24
47	SE	CKP	LIKA	15507	1.06	48.05	47	ECO	KUR	CTC	17115	1.12	108.25
48	SE	CKP	RGZ	15232	1.06	151.99	48	SEC	NAG	KAV	17068	1.10	171.92
49	NR	FZR	MOGA	16779	1.05	226.67	49	NE	IZN	RUPC	17130	1.10	109.17
50	ECO	WAT	KRDL	13469	1.04	131.63	50	NR	UMB	CDG	16403	1.09	218.29
51	ER	MLDT	SBG	16127	1.04	64.23	51	NF	KIR	NJP	16602	1.08	109.88
52	ER	MLDT	BPSH	16123	1.03	66.63	52	EC	SEE	SAI	17107	1.08	135.07
53	NW	AII	DRB	18398	1.02	32.34	53	NE	BSB	DEOS	16838	1.06	103.24
54	SE	CKP	BYX	14264	1.00	79.35	54	WR	BCT	ST	16472	1.06	96.07
55	SC	SC	KRMR	14841	0.95	111.05	55	CR	PUNE	SSV	16361	1.05	113.53
56	ER	MLDT	BHW	14875	0.93	63.34	56	SC	SC	SNAG	16345	1.03	160.56
57	ER	MLDT	BKIR	14715	0.92	67.68	57	NE	LJN	BST	16387	1.03	103.82
58	SEC	R	TLD	14149	0.91	97.01	58	NR	LKO	AMG	15571	1.03	86.58
59	WC	JBP	KEQ	13452	0.90	126.50	59	NE	LJN	JEA	15990	1.01	111.77
60	ER	HWH	PRGR	13986	0.87	52.35	60	ER	ASN	TOP	14495	1.00	73.06
61	EC	DHN	MLMD	12138	0.85	91.33	61	EC	DHN	KUJU	14386	1.00	75.06
62	NR	UMB	PTA	13524	0.83	150.06	62	SW	MYS	MNGT	15583	0.99	155.98
63	WR	ADI	SNLR	13250	0.83	124.28	63	ER	SDAH	CED	14793	0.98	59.88
64	SC	GTL	MLK	11556	0.80	35.91	64	CR	PUNE	MRJ	17398	0.98	121.34
65	ER	HWH	PKRX	12571	0.79	54.17	65	WR	ADI	KRIR	15319	0.98	213.23
66	SC	GTL	RGM	11252	0.78	29.73	66	EC	SPJ	JNR	15541	0.98	60.41
67	EC	DHN	BHKD	10676	0.74	154.16	67	EC	SPJ	CAA	15170	0.97	69.23
68	NR	UMB	BNN	11891	0.74	135.68	68	ER	SDAH	KNJ	14917	0.96	120.61
69	ER	HWH	HRNS	11292	0.73	41.70	69	NF	RNY	CGS	18602	0.96	172.99
70	ER	MLDT	SSGS	11395	0.72	46.92	70	NC	PRYJ	NYN	15115	0.96	89.34
71	ER	MLDT	BKMT	11527	0.72	62.86	71	CR	SUR	ANG	14686	0.95	103.39
72	ER	MLDT	BKGS	11211	0.71	53.10	72	ECO	WAT	JDB	12393	0.95	46.83
73	SEC	BSP	BUA	10315	0.71	52.52	73	EC	SPJ	SHC	14844	0.95	91.05
74	WC	JBP	BRRB	10091	0.70	102.11	74	CR	BSL	JL	14678	0.95	89.65
75	WC	JBP	MEGN	10102	0.70	39.99	75	WR	ADI	KDLP	14666	0.9271	133.321
76	ER	MLDT	SLJ	11148	0.70	45.78	76	EC	SEE	NNA	14782	0.93	119.41
77	ER	MLDT	SBGG	11086	0.70	43.17	77	SE	KGP	PSOR	13308	0.92	78.65
78	SE	ADRA	BKSC	10005	0.69	133.16	78	NE	LJN	SUBR	14370	0.90	86.02
79	NR	FZR	KKP	11115	0.69	136.48	79	NR	LKO	SOP	14325	0.89	104.19

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S No	Zone	Dvsn	Sttn	Outward			S No	Zone	Dvsn	Sttn	Inward		
				Wagons	Weight in MT	Earnings in Rs. Cr.					Wagons	Weight in MT	Earnings in Rs. Cr.
80	WC	JBP	GWCB	10365	0.69	85.85	80	EC	SPJ	BMKI	14281	0.89	110.48
81	SEC	BSP	JRGJ	9866	0.69	38.15	81	NF	TSK	NTSK	14460	0.88	168.63
82	WC	JBP	MYR	10667	0.67	52.06	82	NC	PRYJ	HGJ	12549	0.87	70.88
83	NW	BKN	SSA	11011	0.67	135.93	83	NR	MB	MB	13489	0.87	76.85
84	SE	CKP	BJMD	9048	0.65	32.41	84	NR	MB	BRYC	13288	0.86	75.48
85	NW	JU	NAC	10109	0.63	69.28	85	NE	BSB	KHM	13213	0.85	100.02
86	WR	ADI	KOD	9865	0.62	78.79	86	WR	BRC	BH	13148	0.85	51.58
87	NR	DLI	SHDM	9937	0.62	102.79	87	SR	MDU	TEN	15026	0.85	88.26
88	NR	DLI	DKZ	15533	0.61	108.09	88	NF	KIR	KIR	13372	0.85	105.19
89	NR	UMB	YJUD	9861	0.61	92.50	89	EC	DDU	DDU	12237	0.84	67.83
90	WR	RJT	WML	10107	0.61	79.40	90	EC	SPJ	TRS	13427	0.84	57.16
91	NR	UMB	MOT	9665	0.60	106.96	91	NC	JHS	RRU	12561	0.82	72.96
92	NR	DLI	JHL	9708	0.60	99.94	92	EC	SPJ	BTH	13244	0.82	98.56
93	ER	HWH	PKRW	9439	0.59	45.30	93	EC	SPJ	KUMB	12727	0.82	64.20
94	NR	DLI	BLZ	9523	0.59	101.98	94	NE	BSB	CHPG	13101	0.82	88.85
95	NR	FZR	AJL	9217	0.57	115.90	95	SC	NED	AWB	12602	0.82	85.76
96	SW	UBL	YTG	8142	0.57	74.39	96	EC	SEE	TIL	12788	0.80	104.47
97	NR	DLI	TUN	9177	0.57	100.56	97	ECO	KUR	MCS	11913	0.79	60.44
98	SE	CKP	BMPR	8129	0.57	72.77	98	NR	LKO	SHG	12513	0.79	65.36
99	CR	NGP	RAJR	8131	0.56	48.97	99	NR	DLI	PRTP	12321	0.78	75.25
100	ECO	KUR	GADH	8013	0.56	43.78	100	ER	SDAH	CSZ	12069	0.77	118.50

Annexure-15(a)

Item no. 12:- Proliferation of 25T axle load routes & speed raising on 25T routes by providing 110 UTS rails.

Proliferation of 25T Axle load routes is one of the major strategies to cater to the requirement of carrying additional freight traffic on IR and to achieve the goal of 3000 MT per annum by year 2027.

Track structure consisting of 110 UTS rails has been stipulated for Operation of 25 ton axle load upto 100 kmph vide Board's Letter dated 14.03.2018, based on the stresses induced in rails by such operation. Subsequently, based on Board's decision, vide letter dated 01.09.2020, as an interim measure till the renewal of existing rails with 60 kg 110 UTS rails, operation of 25 ton axle load wagon on 60 kg 90 UTS rail was permitted at 45 kmph speed on 7 notified 25 ton routes and DFC feeder routes with safety regulations like Installation of WILD, Compulsory weighment of every rake and Adequate powering. GM of the Zonal railways were advised to identify the routes on which 25t axle load wagon can run, having 60kg 90 UTS rail and other pre-requisites.

Accordingly, routes have been notified for 25 ton operation. Currently, notified 25T Axle load routes are mainly on ECoR & SER with small sections on ER, SECR & SWR (List enclosed as Annexure I). Primarily, it has been on routes where Iron-Ore is being transported from the mines to major steel plants. Benefit is also accruing in loading other bulk commodities like coal, clinker, limestone etc. on these routes as almost 15% additional pay load can be carried per rake.

One major limiting factor in faster proliferation of 25T axle load routes is speed limit of 45 kmph for such rakes due to absence of 110 UTS rails. Installation of WILD on identified routes is also required being a prerequisite. Production of 1175 HT rails(having required UTS) is likely to commence in near future and tender for procurement of 1175 HT rails to be invited soon and contract for installation of WILD have been awarded.

Regarding replacement of existing 60 kg rails with 1175 HT rails for permitting higher speeds upto 100 kmph, it is pertinent to mention that out of total track length of permitted 25 ton axle load routes of 6354 kms, only 1759 kms(28%) will be becoming due for renewal upto 2027. However, to yield full benefit on all these routes, rail renewal of entire 6354 KM length should be done with 1175 HT rail.

In light of the current position, it will be better if the missing links in the Zones (Total route length 1216 KM) where 25 axle load routes have already been identified should be made fit (List enclosed as Annexure – II) within target time. Rail renewal with 1175 HT rails will be taken up on these identified routes on priority. Subsequently, feeder routes for both Eastern and Western DFC should be taken up.

Issues which need to be followed up:

i) Installation of WILD on priority on routes already fit for 25T axle load and identified routes.
ii) Replacement of rail to 110 UTS standard on priority on the notified and identified routes.
iii) Premature replacement of existing rails by 1175 HT rails on the notified and identified routes.

Identified 25T Routes but 25T axle load trains not permitted (Annexure -I)

S.N	Railway	Division	Name of section	Route length	Reason for not permitting 25T axle load	Remarks/Action plan for permitting 25T axle load operation	TDC for Track work
1	ECoR	Sambalpur	Titlagarh - Lakholi (ex) (Up & DN)	172.78	1. 08 nos. 52 KG fan shaped layout turnout will be renewed to 60 Kg fanshape layout turnout in Kantabanji station yard. 2. WILD to be installed.	The work will be done by RVNL/Raipur. TDC:31.08.2022	Aug'2022
2	ECoR	Sambalpur	Sarala Jn.- Sambalpur City - Kerejanga (UP-SL & DN)	136.6	1. TRR(P) from 52 Kg to 60 Kg work is in progress. 2. WILD to be installed.	25T axl load operation will be notified after completion of TTR(P) work. TDC: 31.08.2022	Aug'2022
3	ECoR	Waltair	Manabar - Dummuriput (Bye pass line)	11.93	1. TRR (P) from 52 Kg to 60 Kg work has been completed 2. WILD to be installed.	25T axl load operation will be notified. TDC: 31.05.2022	May'2022
4	ECoR	Waltair	Keutigud a - Theruvali (Bye pass line)	18.82	1. TRR (P) from 52 Kg to 60 Kg work has been completed 2. WILD to be installed.		
5	SER	ADA	Bokaro Steel City - Bandhdih	29.85	1. Minimum track structure not available. 04 Nos points laid on 52 kg rail 2. WILD to be installed.	Work Sanctioned in PB 2022-23 & work will be executed in the year 2022-23	March'2023
6	SER	ADA	Anara - Rukni	8.25	1. Minimum track structure work completed. Track fitness certificate being issued as asked by operating Deptt. 2. WILD to be installed.	-	June'2022
7	SER	ADA	Purulia-Damrughutu	37.96	1. Minimum track structure not available. 36.382 TKM 52 kg patches existed from km 323.047 to km 358.429 2. WILD to be installed.	35.382 km CTR(P) sanctioned in PB 2022-23 and Work will be executed in the year 2022-23	March'2023

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S.N	Railway	Division	Name of section	Route length	Reason for not permitting 25T axle load	Remarks/Action plan for permitting 25T axle load operation	TDC for Track work
8	SER	ADA	Salboni - Joychandi pahar	135.68	1. Minimum track structure not available. 19.595 TKM 52 kg patches existed from km 214-214.967, km 229.81 - 230.054, km 234.011 - 241.55 , km 244.603 - km 248.342, km 269.599 - 270.075 & km 274.0 - 280.63 2. WILD to be installed.	19.595 Tkm CTR(P) sanctioned in PB 2022-23 and work will be executed in the year 2022-23	Dec'2022
9	SER	ADA	Tatanagar-TWS (Tisco Work site)	4.49	1. Minimum track structure not available. 0.99 km 52 kg patches existed at Tisco Siding Line No. 22 2. WILD to be installed.	0.99 km TRR Work Sanctioned & work in progress	June'2022
10	SER	CKP	Sardega-Dhutra	54	1. Minimum track structure work completed. 2. WILD to be installed.		June'2022
11	SER	CKP	Gamharia -Chandil	25.59	1. Minimum track structure work completed. Track fitness certificate being issued as asked by operating Deptt. 2. WILD to be installed.	-	June'2022
12	SER	KGP	Gokulpur - Nimpura - Bhadrak (limit of	184.635	1. Minimum track structure work completed. Track fitness certificate being issued as asked by operating Deptt. 2. WILD to be installed.	-	June'2022
13	SER	KGP	Haldia - Panskura-Nimpura yard	120.14	1. Minimum track structure not available. 1.265 TKM 52 kg patches existed from km 128.88 to km 130.145 2. Minimum track structure not available. 2.35 TKM 52 kg patches existed at Nimpura Through Yard (Line No. 4,5, & 6) 3. WILD to be installed.	1.265 CTR(P) Sanctioned in HLZ-PKU section in PB 2022-23 and work will be executed in the year 2022-23 TRR Work sanctioned in Out of Turn 2021-22 & work will be executed in the year 2022-23.	Sep'2022

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S.N	Railway	Division	Name of section	Route length	Reason for not permitting 25T axle load	Remarks/Action plan for permitting 25T axle load operation	TDC for Track work
14	SWR	UBL	Ballari-Toranagallu	32.55	52kg rail & WILD/OMRS to be installed	TRR(P) has been sanctioned for 37.32 km. 25t axle load can be permitted after completion of this work	June'2023
15	SWR	UBL	Toranagallu-Hosapete	32.77	52kg rail & WILD/OMRS to be installed	TRR(P) has been sanctioned for 33 km. 25t axle load can be permitted after completion of this work	June'2023
16	SWR	UBL	Hosapete - Swamihalli	58.86	52kg rail & WILD/OMRS to be installed	TRR(P) has been sanctioned for 42.65 km. 25t axle load can be permitted after completion of this work	Sep'2023
17	SWR	UBL	Chikjajur-Rayadurga	131.27	52kg rail & WILD/OMRS to be installed	TRR(P) to be sanctioned for a length of 69 km.	March'2024
18	SWR	UBL	Chikjajur-Sasalu	9.82	52kg rail & WILD/OMRS to be installed	TRR(P) to be sanctioned for a length of 9.82 km	March'2024
19	SWR	UBL	Chikjajur-MME siding	10.74	52kg rail & WILD/OMRS to be installed	TRR(P) to be sanctioned for a length of 10.74 km	March'2024

Annexure A-15(b)

25 Ton Permitted Routes

Railway	Division	Name of Route	Route length	
			Route km	Track km
1	2	3	4	5
ER	ASN	BAKTARNAGAR - DURGAPUR STEEL EXCHANGE YARD (via DOWN II LINE & DOWN DSP)	32.4	32.4
ECR	DHN	BRKA-MURI	3.3	3.3
ECoR	KUR	Banspani-Daitari-Jakhpura- Paradeep	310.2	594.1
ECoR	WAT	Kirandul- Kottavalasa - Vishakhapatnam	471.7	689.9
ECoR	WAT	Koraput- Rayagada- Vijaynagaram- Vishakhapatnam	363.6	631.6
ECoR	KUR	Haridaspur- Paradeep New BG line (HDS - PRDP)	82.0	111.4
ECoR	SBP	Jharsuguda - Sarla - Sambalpur - Titlagarh - Singapur Road	353.2	664.1
ECoR	SBP	Sambalpur - Sambalpur city (Tie Line)	6.1	6.1
ECoR	SBP	Jharsuguda Road - Ib	0.6	0.6
ECoR	KUR	Jakhapura - Bhadrak - Ranital	57.1	114.3
ECoR	KUR	Sukinda Road - Jajpur Keonjhar Road (By Pass Line)	10.6	10.6
ECoR	KUR	Cuttack - Barang - Palasa - Vizianagaram	409.6	844.9
ECoR	KUR	Machapur - Radhakishorepur - Barang	22.4	44.8
ECoR	KUR	Kapilas Road - Salagaon	2.9	5.8
ECoR	KUR	Rajathagarth - Radhakishorepur	1.4	2.8
SER	CKP	Banspani-Daitari-Jakhpura	16.3	16.3
SER	CKP	Noamundi -Banspani-Tata	155.1	431.4
SER	ADA, CKP &	Kiriburu-Bondamunda- Hatia- Bokaro Steel City	377.0	531.2
SER	ADA & CKP	Sini-Chandil-Damodar-Bunpur-Asansol-Durgapur including Damodar-Kalipahari	168.1	329.4
SER	CKP	Barsuan-Bimalgarh-Rourkela steel plant	32.5	32.5
SER	CKP	Gua/Bolanikhadan-Barajamda-Noamundi	37.8	61.1
SER	CKP	Bondamunda 'A' Cabin - Jharsuguda (upto SER limit)	112.3	261.3
SER	CKP	Rajkharsawan - Bondamunda 'A' Cabin	111.2	329.5
SER	CKP	Rajkharsawan (RKSN) Bypass line (Pandrasali - Barabambo) (PRSL - BRM): Single line	2.9	2.9
SER	ADA & RNC	Chandil-Gunda bihar- Muri	67.8	67.8
SER	CKP & KGP	Tatanagar-Gokulpurb via Nimpura	136.2	294.9
SER	KGP	Gokulpur-Salboni	30.7	61.5
SECR	BSP	Jharsuguda- Kirodimal/3rd line	78.5	78.5
SECR	R	Maroda - Dallirajhara/SL	75.9	75.9
SWR	Hubballi	Tornagallu-Ranjithapur	23.0	23.0
Total			**3552.3**	**6353.5**

Annexure A-16

Item no. 10 : Removal of Operating constrains/PSRs

To meet the ever increasing demand of loading, enhancement of throughput is required. Steps regarding expansion of network through doubling/tripling etc, increasing the axle load of wagons and speed of trains are being taken up. In addition, certain constraints on existing network need to be removed to enable free flow of Coaching and Goods trains to meet future demand of loading. Some of the important operating constraints are detailed below:

1) **Sectional speed**: Raising of sectional speed on Golden Quadrilateral and diagonal routes having total length of 9893 route km, to 130 kmph is targeted by June 2022. Out of which speed over 4905 route km is already raised. Recently, classification of routes has been modified and now, there are only 4 group of routes (A, B, C & D). E-Route having speed potential upto 100 kmph has been merged with D route having speed potential upto 110 kmph. This will help in raising of sectional speed upto 110 kmph without need of change in classification of route.

   To remove constraint of sectional speed in operation, during 2022-23, 8573 route km section has been targeted for raising of sectional speed to different speed bands based on feasibility. Further, 31767 km route length over BG route having sectional speed less than 110 kmph as on 01.04.2022 should be planned for 110 kmph speed in a time bound manner.

2) **Yard constraints:** Major action required for removal of this constrain is raising of loop line speed to 30 kmph, for which the existing 1 in 8 & 1/2 turn outs on certain yards need to be replaced with 1 in 12 turnouts. On Golden Quadrilateral and Diagonal routes, loop line speed is already 30 kmph, barring a few Suburban section of CR & SR.

   As on 01.04.2022, total 11166 route km section on Broad Gauge is having loop line speed less than 30 kmph, out of which 6131 km route length, where raising of speed is feasible, is targeted by December'2022. With this, the entire Broad Gauge route will have loop line speed of 30 kmph, taking a step towards increased mobility of trains.

   Further, Replacement of special layouts like Diamond and scissor crossover with 1 in 12 turnout should be planned by Zonal Railways in yard remodeling, being undertaken in doubling/tripling etc works.

3) **Permanent Speed restrictions(PSR):** PSRs can broadly be classified into following 3 categories:

   i. **Impossible**: PSRs requiring major yard remodeling, major realignment of curves, rebuilding of bridges etc involving huge expenditure, land acquisition etc with expenditure not commensurate with the time gain.

   ii. **Difficult**: PSRs requiring sanction of works like formation treatment, realignment of curves, shifting of point and crossing outside transition curve requiring minor yard remodelling without land acquisition, repair of damaged washable apron etc.

   iii. **Easy**: PSRs requiring minor geometrical rectification of curves/ turnouts, renewal of worn out track/bridge components etc not involving major sanction of works.

   As on 01.04.2022, total 6497 no of PSRs were existing over IR, out of which 5273 were under the impossible category. Out of remaining 1224 PSRs, which are possible (Difficult/Easy) for relaxation/removal, target of 177 nos has been kept for 2022-23.

   As far as detention due to PSR and average speed of goods trains is concerned, the PSRs less than 60 kmph are critical. In order to increase the average speed of goods trains, existing PSR especially less than 60 kmph should be targeted for relaxation/removal by Zonal Railways. Such PSRs normally exist in yards, the relaxation of which involve easement of curves having point and crossings and thus involve yard remodeling at huge cost. Relaxation of such PSRs should be planned during yard remodeling works for doubling, tripling etc.

   Other PSRs due to washable apron, bad formation etc should be planned for relaxation by Zonal Railways in a time bound manner.

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Removal of operating constraint/ PSR's

Year-wise action plan for Relaxation/Removal of PSRs

Railway	2022-23	2023-24	2024-25	2025-26	2026-27	Total
CR	15	52	43	0	0	**110**
ER	4	6	10	33	18	**71**
ECR	14	27	13	26	112	**192**
ECoR	31	20	17	33	4	**105**
NR	13	22	10	26	70	**141**
NCR	3	0	2	12	71	**88**
NER	9	1	2	2	1	**15**
NFR	22	25	0	3	40	**90**
NWR	10	10	10	7	3	**40**
SR	21	43	14	1	0	**79**
SCR	22	8	7	10	26	**73**
SER	16	10	0	0	0	**26**
SECR	3	0	0	0	0	**3**
SWR	19	18	7	1	0	**45**
WR	15	9	16	44	12	**96**
WCR	5	11	8	26	0	**50**
IR	**222**	**262**	**159**	**224**	**357**	**1224**

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Annexure A-16(a)

Relaxation/Removal of PSRs during 2022-23

SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
1	CR	SUR	DD-WD	DD yard	Goods line	264/8	266/1	1.3	Series of 1 in 8.5 turnouts on DR lines	8	2022-23
2	ER	SDAH	DDJ-MJT	KOAA - PTKR	SINGLE LINE	CP/1003	2/3CP	1.106	Steep Versine of Lead Curve of Point No. 307B	10	2022-23
3	ECR	DHN	BRKA-GHD	PD Branch	Siding Line	Over all points & crossing.			Due to siding point, maximum Permissible speed of WDM-2 class Engines over all Points & crossings.	10	2022-23
4	NR	LKO	LKO-FD	FD West yard	yard				Due to Turnout & Crossover.	10	2022-23
5	NCR	PRYJ	ALD-CNB	CNB Yd.	UP	PF 2,3,4,5,6,7	-	0.25	Due to negotiating double slip diamond of 1 in 10.	10	2022-23
6	NCR	PRYJ	TDL-CNB	CNB Yd.	DN	P.F. 1,2,3,4,5,6		0.25	Negotiating 1 in 10 double slip diamond Xing	10	2022-23
7	NER	Lucknow	Gorakhpur Cantt- Gonda	Gonda Yd	UP	Gonda Yd, L-1 (656/45-657/25)		0.8	Due to defactive washable apron in Gonda Yd, L-1	10	2022-23
8	NER	Lucknow	Gorakhpur Cantt- Gonda	Gonda Yd	DN	Gonda Yd, L-4 (657/2-657/8)		0.6	Old scissors crossover on wooden sleeper	10	2022-23
9	NER	Varanasi	Chhapra Ky.-Gorakhpur Cantt.	Kusumhi Yd L- 4&5	UP	490/21	490/23	0.1	Insufficient distance of emergency x-over in reverse position P.NO-213/A,213/B UP/L	10	2022-23
10	NFR	APDJ	Fakiragram - Dhubri	GKJ-MJTR	SL	43/6	43/7	0.1	INSERTION OF NEW GIRDER AT BRIDGE 28.	10	2022-23
11	NFR	RNY	NBQ-GLPT-KYQ	JPZ YD.	SL	32/.9	33/.0	0.1	Sharp curve (AYU end)	10	2022-23
12	SR	Palakkad	Podanur - Palakkad	SRR Rd.3	Up/DN	578/440	578/878	0.438	Damaged CC apron	10	2022-23
13	SWR	Mysuru	Birur-Talguppa	Shivamoga town Yd road 5	SL	SMET YD	SMET YD		Terminal yard	10	2022-23
14	CR	BB	DIVA - APTA	DW-PNVL	UP	69/2	69/0	0.100	UP ML conneting to DN ML - X-Over Pt.No.152 A&B	15	2022-23
15	CR	SUR	DD-WD	DD yard	All loop lines	-	-	-	As per WTT 102 page No.239	15	2022-23
16	NR	LKO	FD-ZBD	AY yard	yard				Due to sharp curve	15	2022-23
17	NER	Lucknow	Gorakhpur Cantt- Gonda	Gonda Yd	DN	Gonda Yd, L-3 (656/42-657/22)		0.6	Due to defactive washable apron in Gonda Yd, L-3	15	2022-23
18	NER	Varanasi	Chhapra Ky.-Gorakhpur Cantt.	Kusumhi Yd L- 4&5	DL	490/26	490/28	0.1	Due to 1:8½ turnout exist in line	15	2022-23
19	SER	Adra	ADA-GMO	Adra Yd	Yard	283/31	283/35	200	Diamond crossing with central scissor.	15	2022-23
20	SWR	Hubballi	Londa-Miraj	BGM yard	SL	610.800	611.100	0.300	negotiating pts & xing on sharp curve	15	2022-23
21	SWR	Mysuru	Chikjajur-Raydurg	Chitradurga yard	SL	33.200	33.300	0.100	Due to in motion Weigh Bridge on main line	15	2022-23
22	WR	RTM	CNA-RTM	BSSL-CNA	SL	154/10	154/11	0.100	Mid-section siding HZL take off point.	15	2022-23
23	WR	RTM	CNA-RTM	BSSL-CNA	SL	155/14	155/15	0.100	Undected turn out on M/Line	15	2022-23

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
24	ECR	DNR	FUT-IPR	DHWN-HIL	SL	17.2	17.3	0.1	LC NO 16 POOR VISIBILITY	20	2022-23
25	NFR	KIR	SGUJ-AUB	SGUJ-BORA	SL	9/4	9/5	0.10	BG/MG diamond crossing on wooden sleeper layout	20	2022-23
26	CR	SUR	DD-WD	BGVN-JNTR	DN	296/2	296/3	0.1	FOR NEGOTIATING 1 IN 12 T/out from Down line to Single line (From BGVN towards DD, it is double line and from DD towards SUR, it is single line).	30	2022-23
27	ER	SDAH	BLN-SDAH	(PQS STN.LT.)	UP	2/36	02 /22	0.366	Slushy formation.	30	2022-23
28	ECoR	WAT	KRPU-KRDL	MVG-CTS	SL	218/4	218/23	0.655	Due to diversion in 10º curve	30	2022-23
29	ECoR	KUR	Bhadrak-Khurda Road	Retang-Khurda Road	3rd	448/5A	448/11A	0.15	Points & crossing taking of curve (3rd line only)	30	2022-23
30	ECoR	KUR	Nirgundi-Talcher	Machapur Yad	DN	420/26	420/24	0.06	1 in 16 turnout for trains to end from RJGR.	30	2022-23
31	ECoR	KUR	Barang - Kapilas Road (Via RQP)	Machapur Yad	DN	420/26	420/24	0.06	Negotiating 1 in 16 turnout. (From RQP end)	30	2022-23
32	NR	MB	LKO-SRE	MB YD	UP & DN (Common)				Negotiation of T/out curve on Line-2 & 3 (LKO end).	30	2022-23
33	NFR	KIR	NJP-SGUJ	SGUJ Yd L/No.3	SL	6/8	7/5	0.70	Track with apron	30	2022-23
34	SR	Chennai	Chennai central - Gudur	Veyasarpadi - Korukkupet	UP	VK 16A	VK 19A	0.130	Major Bridge approach to be Rehabilated	30	2022-23
35	SR	Chennai	Chennai central - Arakkonam	Kadambattur-Senjipanambakkam	Up SL	47/11	47/9	0.065	Infringement to EMU stock at Kadambattur	30	2022-23
36	SR	Tiruchchirappalli	Villupuram - Tiruchchirappalli (Chord)	Sillakkudi - Ariyalur	UP	271/03	270/25	0.522	Newly laid sharp curve	30	2022-23
37	SR	Tiruchchirappalli	Villupuram - Katpadi		SL	97/000	98/000		Formation problem	30	2022-23
38	SR	Madurai	Tiruchchirappalli-Karaikkudi-Manamadurai	Kallal-Panangudi	SL	515/600	516/300	0.700	High bank attention	30	2022-23
39	SCR	GNT	GNT-KCC	MAG - KCC	DN	24/14	25/46	1.00	Insufficient transition length	30	2022-23
40	SCR	BZA	BVRM-NDD	KLDI-NDD	SL	151/9	151/8	0.10	Weak abutment of Br.No.7	30	2022-23
41	SCR	SC	SNF MLY	SNF - AMQ	SL	1/0	3-5	2.20	Series of sharp curves High bank & Inhabitation.	30	2022-23
42	SECR	NGP	KAV-ITR-NGP	ITR Yard	SL	1127/5	1127/25	0.555	For train passing Line No.3 due to points & x-ing in transition portion of curve.	30	2022-23
43	SECR	NGP	KAV-ITR-NGP	ITR - YARD	SL	1127/25	127/05	0.555	For train passing Line No.3 due to Points & X-ing in transition portion of curve.	30	2022-23
44	SWR	Mysuru	Tumakuru-Hubballi	Harihar yard ML RD 2	UP	337.600	338.300	0.700	CC apron	30	2022-23

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
45	WR	BCT	BCT-VR	LOWER PAREL - ELEPHIN STONE ROAD	DNLL	007/12	008/03	0.438	Main line on turn out side	30	2022-23
46	WCR	JBP	Jabalpur-Satna	GSPR-SHR (Hiran Br.)	DN	1025.20	1025.30	0.10	Due to inadequate lateral clearance at bridge no. 1025/1 Hiran for BCNHL and mixed load goods train only	30	2022-23
47	ECR	DNR	FUT-IPR	FUT-DHWN	SL	7.95	8	0.05	LC NO 7 POOR VISIBILITY	40	2022-23
48	ECR	DNR	FUT-IPR	DHWN-HIL	SL	13.2	13.3	0.1	LC NO 13 POOR VISIBILITY	40	2022-23
49	ECR	DNR	FUT-IPR	DHWN-HIL	SL	14.2	14.3	0.1	LC NO 14 POOR VISIBILITY	40	2022-23
50	NR	LKO	DMW-DYP	DMW-UBN	SL				For Goods Train Only due brocken PRC Sleeper	40	2022-23
51	SR	Salem	Salem - Mettur Dam	Mecherim Road-Mettur Dam	SL	26/1	35/18	9.000	Continous steep gradient	40	2022-23
52	ER	SDAH	SDAH- BLN	(PQS STN.LT.)	DN	2/ 21	2/33	0.319	Slushy formation.	45	2022-23
53	ECoR	SBP	JSG-SBP	SBP-SLRA	DN	561/2	560/8	0.4	Non transition Curve (4 degree)	45	2022-23
54	NWR	AII	MD-PNU	JTY-CTT	UP	637.9	638.1	0.2	Br no 845 (only for CC+6+2T loaded Goods trains) & WDG4 locomotive & bogie rail wagon (BRSTN)	45	2022-23
55	SR	Palakkad	Podanur - Palakkad	PTJ-MDKI	A Line	495/6	495/12		Damaged sleeper in Scissor crossover	45	2022-23
56	SR	Thiruvananthapuram	Ernakulam - Kottayam - Kayankulam	Vaikom road-Kuruppantara	Dn	36/700	37/300	0.600	Sinkage of track	45	2022-23
57	SR	Thiruvananthapuram	Ernakulam - Kottayam - Kayankulam	Chingavanam - Changanacheri	Dn	74/150	74/650	0.500	Sinkage of track	45	2022-23
58	SR	Thiruvananthapuram	Ernakulam - Kottayam - Kayankulam	Chingavanam - Changanacheri	Dn	75/500	76/000	0.500	Sinkage of track	45	2022-23
59	SR	Thiruvananthapuram	Ernakulam - Kottayam - Kayankulam	Tripunittura-Mulantu rutti	UP	10/600	10/200	0.400	Yielding formation	45	2022-23
60	SR	Madurai	Manamadurai - Virudunagar	Naraikkudi - Tiruchchuli	SL	581/900	582/000	0.100	Tresspassing over incomplete LUS	45	2022-23
61	SER	KGP	KGP-BHC	JER-RGT	UP	190/1	190/17	0.388	Due to section loss of deck plates, hook bolts of steel channel sleeper is not holding properly on bridge No.215	45	2022-23
62	SER	KGP	PKU-HLZ	KSBP-MSDL	UP	35/33	36/9	0.500	For high bank settlement	45	2022-23
63	SER	RNC	MURI-BRKA	RMT YD	SL	406/11	406/12	0.007	OHE infringe below ROB	45	2022-23
64	CR	SUR	KWV-MRJ	ARGE-MRJ	SL	558	562.7	4.7	Weak formation	50	2022-23

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
65	ER	HWH	KAN-GMAN	Gumani	UPSBG	171.08	172.01	300	Bad Bank	50	2022-23
66	NR	LKO	DDU-BSB	BHB-VYN	Up				Booked speed	50	2022-23
67	NR	LKO	DDU-BSB	BHB-VYN	Up				Booked speed	50	2022-23
68	NR	LKO	UTR-AMG Bye Pass	UTR-AMG	S/L				For BCN & BOXN wagon	50	2022-23
69	NER	Varanasi	Chhapra Ky.-Gorakhpur Cantt.	Bhatni Yd L- 4	UP	434/29	435/11	0.7	Due to less ballast cushion & Drainage problem	50	2022-23
70	NFR	RNY	NBQ-RNY-GHY	KTCH YD.	SL	333/5	333/7	0.2	Turn out taking off on transition portion of Curve.	50	2022-23
71	NWR	BKN	ROK-BNW	ROK-BNW	SL	BNWC		0.1	Standard-I interlocking. (DK Siding)	50	2022-23
72	SCR	BZA	BZA-DVD	NDD yard	DN	555/38	556/22	0.89	Jn. Station and points and crossings taking off from sharp curve.	50	2022-23
73	SCR	BZA	DVD - BZA	NDD yard	UP	556/17	556/01	0.70	Junction station and points and crossings taking from sharp 4 degree curve.	50	2022-23
74	SCR	GNT	GNT-MCLA	NDKD - MCLA	SL	115/6	115/14	0.30	5° Curve	50	2022-23
75	SCR	NED	MUE-PMKT	HDGR-HEM	SL	44/0	53/0	9.00	Yielding formation	50	2022-23
76	SCR	GNT	GNT-NDL	KCD - POO	UP	108/12	108/15	0.10	For WDG - 4MU only, on Br No 413/A	50	2022-23
77	SCR	GTL	GY-RU	MRM - RU	UP	138/25	138/23	0.06	Steep falling gradient on Road approach of LC 73	50	2022-23
78	SWR	Hubballi	Karajgi-Hubballi	Karajgi-Savanur	SL	403.500	403.800	0.300	Non std MG rebraced girder Bd no-38, for goods trains only	50	2022-23
79	SWR	Hubballi	Gadag-Hotgi	Mulvad Yd	UP	165.141	163.527	1.614	Mulvad station limit	50	2022-23
80	SWR	Mysuru	Chikjajur-Raydurg	Chitradurga-Ballenhalli	SL	38.400	39.400	1.000	Bad formation	50	2022-23
81	WR	BCT	VR-BCT	SANTACRUZ - KHAR ROAD	UPTH	17/08	17/02	0.375	Point taking off from transition length of curve	50	2022-23
82	WR	BCT	BVI-BCT STA	KANDIVALI	UP STA	32/04	30/13A	1.438	Point taking off from transition of curve	50	2022-23
83	WR	RTM	CNA-RTM	BSSL-CNA	SL	154/12	154/13	0.100	Mid-section siding HZL take off point.	50	2022-23
84	WR	RTM	CNA-RTM	BSSL-CNA	SL	155/11	155/12	0.100	Undected turn out on M/Line	50	2022-23
85	CR	BSL	BSL-BD	BSL-VNA	UP	448/6	444/13	4.2	High Speed BOXNHL	60	2022-23
86	NR	FZR	JRC-JUC	JRC-JUC	UP				Due to caked ballast and broken sleeper	60	2022-23
87	NR	DLI		TKD-OKA	UP GAL				Poor drainage	60	2022-23
88	NER	Varanasi	Bhatni - Aurinhar	Mahpur-Aurinhar	SL	125/4	125/6	0.2	Due to less transation length of curve no 14	60	2022-23
89	SR	Thiruvananthapuram	Kayankulam - Kollam	Perinad - Sasthankotta	UP	140/700	139/600	1.100	Sinkage of track	60	2022-23
90	CR	BB	CSTM -KYN	CLA-GC	DN	17/15 ES	18/4 ES	0.870	Approach to diamond on 0.40°curve	65	2022-23

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
91	ECoR	SBP	LAE-TIG	NPD-Yd	DN	116/22	115/30	0.57	Point Taking off from 2 degree curve & inadequate superelevation	65	2022-23
92	ECoR	WAT	KRPU-SPRD	KRPU-DMRT	SL	00/19	00/20	0.018	Inadequate superelivation of 5º curve on channel sleeper Br.No.1	65	2022-23
93	ECoR	KUR	Khurda Road-Nuwapada	Chatrapur Yard	UP	579/31	580/23	0.78	P & C on 3 degree curve	65	2022-23
94	NWR	BKN	RTGH-SRDR	RGCR-SRDR	SL	0/4	0/08	0.4	3.059 deg Curve	65	2022-23
95	ECoR	WAT	KRPU-KRDL	AGB-AGZ	UP	276/11	276/19	0.75	4º curve and limited transition to 30m	70	2022-23
96	ECoR	WAT	KRPU-KRDL	AGB-AGZ	UP	278/31	279/7	0.5	3º curve and limited transition to 30m	70	2022-23
97	NR	LKO	DDU-BSB	BHB-BHK	SL				Booked speed	70	2022-23
98	NER	Izzatnagar	Ramgaga Bridge-Kasganj	Bitroi-Manpur Nagariya	SL	398/9	399/12	1.00	Due to inadequate transition length of 2° & 3° sharp curve	70	2022-23
99	ECR	DNR	PNBE-DDU	GMR-BWH	UP	686.162	686.234	0.072	Br no.377 -non standard girder Br having cracked bed block	75	2022-23
100	ECR	SEE	BJU-KIR	NNR-PSR	UP	86/19	90/25	4	Diversion with curves .	75	2022-23
101	ECR	SEE	BJU-KIR	NNR-PSR	DN	90/26	86/20	3.6	Due to sharp curve no.-39,38,37,36,35 & 34	75	2022-23
102	ECoR	SBP	SBP-ANGL	HATB-JUJA	SL	28/0	28/5	0.5	Sharp curve (4.5 degree)	75	2022-23
103	ECoR	WAT	PSA-VSKP	ULM-TIU	DN	735/20	735/08	0.4	Weak Formation	75	2022-23
104	ECoR	KUR	Bhadrak-Khurda Road	Kenduapada-Manjuri Road	UP	309/11	309/15	0.12	Points & crossing on transition curve	75	2022-23
105	ECoR	KUR	Khurda Road-Nuwapada	Gangadharpur Yard	UP	513/33	513/39	0.1	Point & x-ing on transition curve.	75	2022-23
106	ECoR	KUR	Nuwapada-Khurda Road	Gangadharpur Yard	DN	514/6	513/6	1.038	Points & crossings transition curve	75	2022-23
107	NFR	KIR	SGUJ-AUB	NAK-ADQ	SL	34/5	35/1	0.60	Transition portion of curve on Pts. & Xing.	75	2022-23
108	SR	Thiruvananthapuram	Ernakulam - Kottayam - Kayankulam	Piravam road - Mulantu rutti	UP	28/200	28/000	0.200	Uneven seating of girder over bearings on Bridge No.402	75	2022-23
109	SCR	BZA	BZA-GDR	VDE-NLR	DN	172/18	172/20	0.06	Non standard girder in 2 degree curve	75	2022-23
110	SCR	BZA	BZA-GDR	NLR-VDE	UP	172/19	172/17	0.06	Non standard girder in 2 degree curve	75	2022-23
111	SCR	SC	BPQ - KZJ	MCI - PPZ	DN	263/10	266/0	2.40	yielding formation.	75	2022-23
112	SCR	NED	PRLI-PBN	GNH-PKNS	SL	297/8	300/0	2.20	Yielding formation	75	2022-23
113	SCR	NED	PBN-MUE(UP)	MTDI-MGC	UP	355/0	357/0	2.00	Yielding formation	75	2022-23
114	SWR	Hubballi	Londa-Miraj	Desur-Belgaum	SL	600.000	603.000	3.000	Due to yeilding formation	75	2022-23
115	SWR	Hubballi	Londa-Miraj	Sambre-Sulebhavi	SL	621.500	623.500	2.000	Due to yeilding formation	75	2022-23

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
116	SWR	Hubballi	Hubballi-Hospet	Bankopa-Banapur	DN	96.300	97.300	1.000	Due to yielding formation	75	2022-23
117	SWR	Bengaluru	Penukonda-Srisatysai prashant nilyam-Dharmavaram	Srisatysai prashant nilyam-Basampalle	SL	20.80	21.80	1.00	Loose soil falling from the ceiling of the tunnel	75	2022-23
118	WR	BCT	BCT-VR	LOWER PAREL - DADAR	DNLL	008/03	009/06	1.188	Due to inadequate SE	75	2022-23
119	NCR	PRYJ	CNB-ALD	ALD Yd.	DN	825/30	825/6	0.8	20 Kmph for goods train. 30 Kmph for Mail Exp. Due to washable apron on main line.	20/30	2022-23
120	NFR	APDJ	RQJ-NCB	NCB Yard	UP	125/6	126/3	0..7	Washable apron	30	2022-23
121	NFR	KIR	KIR-TNPR	MHI-TNPR	SL	25/0	33/8	8.80	Liner bite and thin flange rail	50	2022-23
122	SR	Madurai	Virudunagar - Vanchimaniyachchi	Kovilpatti-Kumarapuram-Kadambur	SL	593/300	604/800	11.5	Due to formation problem	70 40	2022-23
123	NFR	LMG	KTX- BHBR	LLBR YARD	SL	36/6	37/1	0.5	3.95 ° Sharp curve	15	2022-23
124	NFR	LMG	ARCL-JRBM	SIPC-JRBM	SL	39/3	39/9	0.6	Settlement of bank	30	2022-23
125	NFR	LMG	LMG-FKG	SZR-BXP	SL	296/7	297/1	0.4	Point & Crossing on transition of curve	45	2022-23
126	NFR	KIR	KIR-KDPR	KIR-KDPR	SL	22/7	22/8	0.10	Crack girder of Br. No. 10	50	2022-23
127	NFR	LMG	GHY-LMG	AJRE-SNBR	DN	77/5	77/7	0.20	Bad bank	50	2022-23
128	NFR	LMG	LMG-BPB	BHZ-HLX	SL	157/6	158/0	0.40	Due to turnout laid on 2.75 ° curve No.251	70	2022-23
129	NFR	LMG	LMG-BPB	SQF-BPB	SL	164/1	164/2	0.10	Misalignment of Major Bridge No 363	70	2022-23
130	NFR	LMG	CPK-SCE	CPK-SCE	SL	4/7	4/8	0.1	Due to non standard steel girder of Bridge no - 7	75	2022-23

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Annexure A-16(b)

Relaxation/Removal of PSRs during 2023-24

SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
1	ER	SDAH	SDAH-NH	NH STN. LIMIT	UP SUB	3764%	3788%	24%	1 in 8.5 X-Over.	10	2023-24
2	ECoR	WAT	GPT-SCMN By-pass Line	GPT-SCMN (Bye-pass)	DN	870/2	870/3	5%	Diamond cross over on Point No. 139,140	10	2023-24
3	NR	LKO	LKO-RBL-PBH	PBH West Yd L.No.1	SL				Diamond Crossing	10	2023-24
4	NR	LKO	JNH-PBH-RBL	PBH East Yd	SL				Diamond Crossing	10	2023-24
5	NR	LKO	JNH-PBH-RBL	PBH Goods Yd	SL				Diamond Crossing for goods train	10	2023-24
6	NR	LKO	LKO-FD	FD West yard	yard				Due to Diamond Xing	10	2023-24
7	NER	Lucknow	GKC-GD	GKP Yd. Line no 6	-	GKP/1098	GKP/1112	30%	Due to defective apron	10	2023-24
8	SR	Tiruchchirappalli	Nagapattinam - Velankanni	Nagapattinam - Velankanni	SL	1/355	2/700	135%	Imposed by CRS during opening of the section	10	2023-24
9	CR	BSL	BSL-BD	BSL-VNA	UP	446/28	446/20	0.180	1 in 12 T/Out negotiated by pass Trains with Plain Diamond . Work can be done in segregation.	15	2023-24
10	CR	BSL	BSL-BD	BSL YARD	UP	BSL Yd.(C)	BSL Yd.(C)	....	For Passenger Trains While passing Chord line 1 or 2 due to 1 in 8.5 T/out on both ends	15	2023-24
11	CR	BSL	BSL-KNW	BSL YARD	UP	BSL Yd.(B)	BSL Yd.(B)	...	For Passenger Trains While passing Chord line 1 or 2	15	2023-24
12	CR	BSL	IGP-BSL	PHQ-MYJ	DN	386/19	386/21	0.07	For Loop line. L/L taking off from 1 in 8.5 T/out (MYJ YD)	15	2023-24
13	CR	BSL	IGP-BSL	JL YD	DN	JL Yd for stopping trains.	JL Yd for stopping trains.	7%	Imposed for trains halting at Jalgaon. Simultanious entry of train is possible from two directions on the same line. The required 120m overlap has no isolation and no points are locked.	15	2023-24
14	CR	BSL	IGP-BSL	MWD YD	UP	398/1004	398/1002	2%	For Loop line taking off from 1 in 8.5 T/out (MWD YARD)	15	2023-24
15	CR	BSL	IGP-BSL	MYJ YD	UP	387/8	387/6	7%	For Loop line taking off from 1 in 8.5 T/out (MYJ YARD)	15	2023-24

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
16	CR	NGP	PUX-CWA	PUX-KUX	SL	963/5	963/4	0.1	Due to outlying siding point with key plunger lock.	15	2023-24
17	CR	SUR	DD-WD	SUR-TKWD	DN	454/7	455/7	100%	Due to Standard I interlocking	15	2023-24
18	NR	LKO	JNH-ALD	JNH yard	SL				All trains except those passing through Main Line due to Turnout	15	2023-24
19	NR	LKO	ZBD-JNH	JNH-MAY	SL				Required due to multi-line entry in JNH-yard	15	2023-24
20	NR	LKO	FD-ZBD	ZBD Yd	Dn				DN side due to sharp gradient at Point No. 145 & 146.	15	2023-24
21	NR	LKO	DDU-BSB	BSB	Yd				All DN passenger trains passing through Line No.1 due to 1:8.5 Cross Over No. 20 - E (255a/255b) in BSB Yd.	15	2023-24
22	SR	Salem	Salem - Mettur Dam	Magnesite Jn-Omalur	SL	0/0	0/100		Speed over facing point	15	2023-24
23	SR	Palakkad	Kannur - Mangalore	Netravati - Mangalore	Dn	88250%	88260%	10%	Point on curve towards MAQ side Contraflexure.	15	2023-24
24	SER	CKP	BJMD-BBN	BJMD-BBN	UP	388/25	388/37	37%	Due to points & Xing Zone on Curve	15	2023-24
25	SER	CKP	BBN-BJMD	BBN-BJMD	DN	388/38	388/26	45%	Due to points & Xing Zone on Curve	15	2023-24
26	SWR	Bengaluru	Yelhanka-Kollar	Srinivaspura-Kollar	SL	11700%	11830%	130%	Due to Non interlocked points	15	2023-24
27	NR	LKO	FD-ZBD	JNU-MGWN	SL				Br.No.84 Arch,5x6.1 Rebuilding of bridge	20	2023-24
28	SR	Tiruchchirappalli	Nagapattinam - Velankanni	Nagapattinam - Velankanni	SL	2/700	5/500	280%	Imposed by CRS during opening of the section	20	2023-24
29	SWR	Hubballi	Tornagallu-Ranjitpura	Bannihatti yd	SL	940%	880%	60%	Side of track covered with iron ore	20	2023-24
30	SR	Chennai	Chennai Beach-Korukkupet	Chennai Beach-Korukkupet	Dn Fast	0/000	1/300		Max speed in sharp curve as permitted by CRS	25	2023-24
31	SR	Chennai	Chennai Beach-Korukkupet	Chennai Beach-Korukkupet	Up Fast	1/300	0/000		Max speed in sharp curve as permitted by CRS	25	2023-24
32	CR	BB	CSTM - KYN	TNA-KYN	DNLL	47/12ES	47/14(DI PF 1)	0.060	Imposed by CRS due to inadequate isolation.	30	2023-24

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
33	CR	BSL	BD-AMI	BD-AMI (upto signal No. S-94)	SL	664A/17	665A/01	0.049	When P No 163 is set to sand hump The PSR has been imposed by S &T department for their constraint.	30	2023-24
34	CR	BSL	BSL-KNW	KNW YARD	DN	Pt No 103 to DN ML	Pt No 103 to DN ML	...	Negotiating 1 in 12 T/O	30	2023-24
35	NR	LKO	LKO-CNB	CPB-CNB	UP				Due to rusted of Steel Trough at Br. No.110	30	2023-24
36	NR	LKO	ZBD-JNH	ZBD-AMY	SL				Less Ballast Cushion due to turf bridge	30	2023-24
37	NWR	BKN	BTI-LGH	LGH-bye pass	SL	317\5	1/5	150%	Bye pass line.	30	2023-24
38	SR	Chennai	Chennai Beach - Tambaram	Chennai Beach-Chennai Fort	Dn SUB	1/4	1/10	36%	Restricted SE due to shallow girders	30	2023-24
39	SR	Chennai	Chennai Beach - Tambaram	Chennai Beach - Chennai Egmore	Up SUB	1/9	1/3	18%	Restricted SE due to shallow girders	30	2023-24
40	SR	Chennai	Chennai Beach - Velachery	Velachery - Perungudi	Up	18/3	17/25	38%	High embankment	30	2023-24
41	SR	Palakkad	Kannur - Mangalore	Charvattur - Nileshwar	Dn	80445%	80470%	25%	Weak Bridge No. 1162	30	2023-24
42	SWR	Hubballi	Gadag-Hotgi	VijayapuraYd	UP	18900%	18915%	15%	Diverergence from S/L to D/l	30	2023-24
43	SWR	Hubballi	Gadag-Hotgi	Minchanal - Vijayapura	UP	19140%	19130%	10%	Convergence from D/L to S/l	30	2023-24
44	WCR	JBP	Jabalpur-Satna	LGCE-STA (Satna Br.)	DN	117520%	117540%	10%	Due to inadequate lateral clearance at bridge no. 1175/1 Satna for BCNHL and mixed load goods train only	30	2023-24
45	SR	Chennai	Chennai Beach - Velachery	Chennai Beach - Thirumayilai	Dn	0/36	8/68.	820%	Rail/Wheel wear on sharp curve	40	2023-24
46	SR	Chennai	Chennai Beach - Velachery	Mandaveli - Chennai Beach	Up	8/67.	0/37	820%	Rail/Wheel wear on short curve	40	2023-24
47	ECoR	WAT	KRPU-SPRD	KKGM Yard	SL	46/11	46/8	20%	Points and crossings taking off from 3º curve	45	2023-24
48	ECoR	KUR	Barang-Rajathagarh	Ghantikhal Nidhipur Yard	DN	431/24	431/22	6%	Points & crossing on transition curve	45	2023-24
49	NR	UMB	CDG-SNL	SMRL-LLKN	SL				Tweaking of Track	45	2023-24

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
50	SR	Chennai	Chennai Beach - Velachery	Perungudi-Velachery	Dn	17/24	18/4	38%	High embankment	45	2023-24
51	SR	Palakkad	Podanur - Palakkad	PTJ-MDKI	B Line	495/5	495/11		Damaged sleeper in Scissor crossover	45	2023-24
52	SR	Thiruvananthapuram	Ernakulam - Kottayam - Kayankulam	Karunatura-Vaikam Road	UP	37/300	36/700	60%	Consolidation of Br.Approach(CN) New doubling of track	45	2023-24
53	SR	Thiruvananthapuram	Kollam - Tiruvananthapuram	Kadakavur-Murukkampuzha	Dn	189/000	189/900	90%	Weak formation	45	2023-24
54	SER	Adra	ADA-ASN	MDKD-DMA	UP	313/19	314/5	65%	Non transition curve on approach of Br.No.520.	45	2023-24
55	SWR	Mysuru	Hassan-Mangalore	Bantawal-Padil	DN	17860%	17870%	10%	Tress pass location	45	2023-24
56	CR	BSL	BSL-KNW	BAU-AGQ	UP	500/17	500/15	7%	Only for Goods train (observe inner distant signal)	50	2023-24
57	CR	NGP	PUX-CWA	PUX-CWA	SL	962/6	962/7	3%	Due to false curve on bridge approach	50	2023-24
58	ER	HWH	KAN-GMAN	Gumani	UPSBG	17019%	17029%		Bad bank	50	2023-24
59	ECR	SEE	MFP-HJP	MFP-RD	UP	52/19	52/21	80%	Less visibility due to right side position of Advance Starter.	50	2023-24
60	NR	FZR	KKP-FZR	KKP-FZR	SL				Only for DN Trains , due to non availability of Sand Hump.	50	2023-24
61	NR	LKO	LKO-CNB	HRN-JTU	Dn				Crack in parapet wall of Br. No. 40 between Km. 25/4-6. Major Arch Bridge of the year 1875 having 5 X 6.10 m span located over SAI river.	50	2023-24
62	SR	Salem	Jolarpettai - Erode	Through Salem Yard (Dn line) SA Road No.5 Dn trains	DN	332/20	333/32	140%	PF/CC Apron/Turn out	50	2023-24
63	SR	Salem	Jolarpettai - Erode	Through Salem Yard Rd 6(Up line)	UP	333/29	332/21	140%	PF/CC Apron/ Turnouts	50	2023-24

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
64	SR	Thiruvananthapuram	Tiruvananthapuram - Nagercoil	Tiruvananthapuram - Nemam	Up & Dn Direction (SL)	Through NYY,KZE, ERL	Through NYY,KZE,ERL	390%	Non isolation of main line	50	2023-24
65	SCR	SC	BPQ - KZJ	MAGH - BPQ	UP	137/19	137/1	41%	Destressed Bridge No.298.with tall pillers	50	2023-24
66	SER	CKP	BJMD-GX	BJMD-GX	SL	395/09G	395/11G	10%	Due to old channel sleeper and fittings	50	2023-24
67	SER	KGP	ROP - BGY	BTQ yard	SL	23/1	24/7	160%	Standard – (I) interlocking.	50	2023-24
68	SWR	Hubballi	Hubballi-Hospet	Gadag yard	DN	5710%	5880%	170%	Due to junction yard arrangement	50	2023-24
69	SWR	Hubballi	Hubballi-Hospet	Gadag yard	UP	5710%	5880%	170%	Due to junction yard arrangement	50	2023-24
70	SWR	Hubballi	Gadag-Hotgi	Badami-Guledagudda	SL	6655%	6759%	103%	Standard I interlocking	50	2023-24
71	SWR	Hubballi	Gadag-Hotgi	Guledagudda yd	SL	7950%	8060%	110%	Standard I interlocking	50	2023-24
72	SWR	Hubballi	Gadag-Hotgi	Bagalkot yd	SL	9300%	9500%	200%	Standard I interlocking	50	2023-24
73	SWR	Hubballi	Gadag-Hotgi	Bagalkot-Mugalloli	SL	9600%	10010%	410%	Yeilding formation and water formation on both side of bank	50	2023-24
74	SWR	Hubballi	Gadag-Hotgi	Mugalloli Yd	SL	10030%	10210%	180%	Standard I interlocking	50	2023-24
75	WR	BCT	BCT-BVI STA	KANDIVALI	DN STA	31/12	32/09	81%	Transition Length & Point taking off in transition of curve	50	2023-24
76	WR	BCT	VR-ST	SURAT YARD	UP	267/07	266/05	106%	Point taking off from 1 deg curve	50	2023-24
77	CR	BB	CSTM - KYN	KYN yard	DNLL	52/7ES (52/400) revised EP(52/46)	52/13ES (52/500) revised EP (52/56)	0.180	Due to diamond on curve.	55	2023-24
78	NR	LKO	BSB-JNH	JNH-SQN	DN				This is the maximum speed potential of the curve, as per approved ESP to accommodate doubling.	55	2023-24
79	CR	SUR	KWV-LTRR	PJR-UMD	SL	446/0	446/14	40%	Viaduct 446/1, plate girder 19X 18.3 m	60	2023-24
80	ER	HWH	KAN-GMAN	Rampurhat	UPSBG	10003%	10023%		Inadequate transition for 1.54 degree curve Xing on transition of Pt No/ 512B	60	2023-24
81	SR	Thiruvananthapuram	Ernakulam - Kottayam - Kayankulam	Triuvalla-Chengannur	Dn	87/600	87/900	30%	Settlementof Track atBr.Approach	60	2023-24

SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
82	SR	Thiruvananthapuram	Ernakulam - Kottayam - Kayankulam	Chengannur - Triuvalla	UP	88/000	87/600	40%	Sinkage of track (due to doubling work)	60	2023-24
83	SR	Thiruvananthapuram	Ernakulam - Alappuzha - Kayankulam	Kumbalam - Thuravur	SL	9/700	10/700	100%	Reinforcement of piles of Br No.AK 31 foundation exposed due to Bio fouling growth in foundation	60	2023-24
84	SR	Thiruvananthapuram	Ernakulam - Alappuzha - Kayankulam	Ambalapuzha - Haripad	SL	78/100	78/400	30%	Weak formation	60	2023-24
85	WR	BCT	BCT-BVI STA	KANDIVALI	DN STA	31/05	31/12	44%	Transition Length & Point taking off in transition of curve	60	2023-24
86	CR	BB	CSTM - KYN	KYN yard	UPLL	52/13 ES (52/300) revised EP(52/46)	52/7 ES (52/400) revised EP (52/56)	0.180	Due to diamond on curve.	65	2023-24
87	CR	BB	CSTM - KYN	KYN yard	UPLL	51/13 ES (51/900) revised EP(52/2)	51/4 ES (52/00) revised EP(52/4)	0.270	Due to diamond on curve.	65	2023-24
88	CR	BSL	BSL-KNW	NPNR-MWA	UP	525/27	525/9	0.20	Cross over and T/out laid with inadequate cant (NPNR YD)	65	2023-24
89	CR	BSL	IGP-BSL	SS-JL	DN	419/11	419/17	0.21	Diamond D/slip on curve. Due to which the cant has been zeroed for 20m on either side and further cant has been uniformly increased to match the cant of curve. IRPWM para no 416.	65	2023-24
90	CR	BSL	MMR-AWB	MMR-AAK	UP	495/800	496/100	0.30	Due to sharp curve of 3° with turnout in contrary flexure hence speed potential works out to 65 Kmph.	65	2023-24
91	CR	NGP	SEGM-BPQ	MJRI-BUX	UP	845/23	845/21	0.503	Yielding formation	65	2023-24
92	ECoR	WAT	KRPU-KRDL	NKX-JDB	UP	295/23	295/31	40%	3º CURVE WITH RESTRICTED TRANSITION LENGTH	65	2023-24
93	ECoR	KUR	Bhadrak-Khurda Road	Kapilas Road-Byree	DN	389/6	389/2	12%	Alignment of Bad bank.	65	2023-24
94	ECoR	KUR	Khurda Road-Nuwapada	Surla Road-Ichhapuram	UP	623/1	624/31	200%	Yeilding formation	65	2023-24

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
95	ECoR	KUR	Nuwapada-Khurda Road	Ichhapuram - Surla Road	DN	624/22	624/2	60%	Yeilding formation	65	2023-24
96	ECoR	KUR	Nuwapada-Khurda Road	Chatrapur Yard	DN	580/24	579/32	75%	P & C on 3 degree curve	65	2023-24
97	ECoR	KUR	Nuwapada-Khurda Road	Ganjam - Humma	DN	567/24	566/42	83%	Yielding formation	65	2023-24
98	CR	NGP	NGP-SEGM	BTBR Yard	UP	808/29	808/27	0.1	T/Out on curve of 1.11 degree.	70	2023-24
99	CR	NGP	NGP-SEGM	BOK-BTBR	DN	808/30	808/28	0.1	Turnout on 1.1 dgree curve	70	2023-24
100	CR	SUR	KWV-LTRR	YSI-DKY	SL	469/6	471/8	220%	Due to Sharp Curve more of 3.75 and 4° with 140mm cant. (Parmitted SE 140mm)	70	2023-24
101	ER	HWH	KAN-GMAN	Murarai	DNSBG	12526%	12520%		Bad bank	70	2023-24
102	SR	Madurai	Dindigul - Palani	Chatrappatti - Palani	SL	57/500	57/800	30%	Poor Visibility on Curve lying on cutting (For both direction)	70	2023-24
103	CR	BB	DIVA - APTA	DW-PNVL	DN	66/13	67/17	1.00	Curve of 3 degree withT/out of indequate cant.	75	2023-24
104	CR	BSL	BSL-KNW	RV-WGA	UP	479/21	479/19	0.06	Inadequate length of transition of curve - 2.3°. Due to girder bridge further increase of transition length is not possible (Raver Yard)	75	2023-24
105	CR	BSL	IGP-BSL	AV-PI	UP	160/50	160/30.	0.20	Bad formation leading to non-uniform settlement.	75	2023-24
106	ECR	DNR	PNBE-DDU	ARA-KUA	DN	59075%	59079%	4%	Br no.219- Bed block defective	75	2023-24
107	ECR	DNR	PNBE-DDU	BWH-GMR	DN	68616%	68623%	7%	Br no.377-misalignment of girder	75	2023-24
108	ECoR	KUR	Nuwapada-Khurda Road	Chatrapur - Ganjam	DN	575/24	575/6	54%	Yeilding formation	75	2023-24
109	ECoR	KUR	Nuwapada-Khurda Road	Balugaon - Gangadharpur	DN	516/16	515/14	96%	Un even settlement of track	75	2023-24
110	NR	FZR	LDH-PHR	LDH-PHR	UP				Corroded trough BR. NO 1A UP	75	2023-24
111	NR	UMB	RPJ-BTI	PTA-DBN-Yd	SL				Due to inadequate transition length of curve No.8-A and 8-B.	75	2023-24

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
112	NR	MB	LKO-SRE	HRI YD	DN				DN Main Line on T/out at both end.	75	2023-24
113	NR	LKO	LKO-CNB	CPB-CNB	Dn				Due to eccentricity of track with respect to girder for Br.No.110	75	2023-24
114	SR	Chennai	Chennai central - Arakkonam	Villivakkam-Perambur Loco Works	Up FL	8/9A	8/5A	13%	Yielding formation	75	2023-24
115	SR	Palakkad	Kozhikkode - Kannur	Thalassery - Ettakot	Dn	73500%	73520%	20%	Weak Bridge No. 1085	75	2023-24
116	SR	Palakkad	Kozhikkode - Kannur	Thalassery - Ettakot	Dn	73780%	73790%	10%	Weak Bridge No. 1090	75	2023-24
117	SR	Thiruvananthapuram	Ernakulam - Kottayam - Kayankulam	Chengannur - Triuvalla	UP	90/500	90/600	10%	Yielding formation	75	2023-24
118	SR	Thiruvananthapuram	Ernakulam - Kottayam - Kayankulam	Triuvalla - Changanacheri	UP	82/600	82/300	30%	Settlement of track due to doubling(CN)	75	2023-24
119	SR	Thiruvananthapuram	Ernakulam - Kottayam - Kayankulam	Changanacheri - Chingavanam	UP	75/500	76/000	50%	Sinkage of track (due to doubling work)	75	2023-24
120	SR	Thiruvananthapuram	Kollam - Tiruvananthapuram	Mayyanad - Paravur	Dn	165/800	166/200	40%	Weak formation	75	2023-24
121	SCR	HYB	GLY-DHNE	IKI-MOA-ALPR	SL	219/0	220/0	400%	Consolidation of track	75	2023-24
122	SCR	NED	AK-PAU	LHD - AMW	SL	786/2	786/3	10%	Yielding formation	75	2023-24
123	SCR	NED	MMR-PBN(SL)	MVO-DGPP	SL	253/0	258/0	500%	Yielding formation	75	2023-24
124	SCR	NED	PBN-MUE(UP)	LBG-NED	UP	343/0	346/0	300%	Yielding formation	75	2023-24
125	SWR	Hubballi	Karajgi-Hubballi	Gudgeri-South Hubballi	SL	43410%	46690%	3280%	Yielding of formation	75	2023-24
126	SWR	Hubballi	Hubballi-Londa	KNO-UBL, Up direction	UP	46300%	46630%	330%	Due to yeilding formation	75	2023-24
127	SWR	Hubballi	Hubballi-Londa	SUBL-KNO DN line	DN	46510%	46300%	210%	Due to yielding formation	75	2023-24
128	SWR	Hubballi	Hubballi-Hospet	Harlapur-Sompur	DN	7830%	8600%	770%	Due to yeilding formation of old existing track	75	2023-24

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
129	SWR	Hubballi	Hubballi-Hospet	Sompur-Harlapur	UP	7830%	7570%	260%	Due to yeilding formation of old existing track	75	2023-24
130	SWR	Hubballi	Gadag-Hotgi	Vijayapura-Minchanal	DN	20110%	20150%	40%	Due to alignment of Bridge no 78	75	2023-24
131	NFR	LMG	KTX-BHBR	KTX-ALGP	SL	0/8	7/3	650%	WEAK FORMATION	30	2023-24
132	WCR	Kota	KOTA-RTA	BON - ATH	SL	37/ 06	38/ 01	60%	For loaded Goods train with CC+8+2T and CC+6+2T due to bridge No 34	45	2023-24
133	WCR	Kota	RMA-JLWC	Julmi-Jhalawar City	SL	09/0	09/01	10%	Sign of distress in wing wall of major bridge No.9 (4x18.30m PSC Girder)	50 (Pass.)/ 50 (Goods)	2023-24
134	WCR	Kota	RMA-JLWC	Julmi-Jhalawar City	SL	16/05	16/06	5%	Sign of distress in wing wall of major bridge No. 20 at Km 16/5-6 (2x18.30m PSC Girder)	50 (Pass.)/ 50 (Goods)	2023-24
135	WCR	Kota	RMA-JLWC	Julmi-Jhalawar City	SL	20/01	20/02	10%	sign of destress in wing wall of major bridge No 24 at Km 20/1-2 (3 X 18.30 m PSC girder)	50 (Pass.)/ 50 (Goods)	2023-24
136	SER	KGP	KGP-BHC	BLS-HIP	DN	228/22	228/14	18%	Lateral vibration of pier no.2 of Bridge No. 263 DN	60 for passenger & 45 for Goods	2023-24
137	WCR	BPL	GUNA-GWL	SVPI-MOJ	Sl	123000%	123200%	200%	Deep cutting & vulnerable location	65/50 (Monsoon)	2023-24
138	WCR	BPL	GUNA-GWL	GHAI-PNHR	Sl	1274/07	1275/0	30%	Deep cutting & vulnerable location	65/50 (Monsoon)	2023-24
139	WCR	BPL	GUNA-GWL	GHAI-PNHR	Sl	1288/05	1291/02	270%	Deep cutting & vulnerable location	65/50 (Monsoon)	2023-24
140	NFR	LMG	KXJ-BRGM	KXJ-NLBR	SL	4/1	4/6	50%	Due to sharp curve of 3.7°	85	2023-24
141	NFR	LMG	KXJ-BRGM	NLBR-BRGM	SL	15/6	15/9	30%	Due to sharp curve of 2.9°	85	2023-24
142	NFR	LMG	KXJ-BRGM	NLBR-BRGM	SL	16/7	17/0	30%	Due to sharp curve of 2.9°	85	2023-24
143	NFR	LMG	PKB-MYD	PKB-MYD	SL	190/6	190/9	30%	Due to cross over PKB-MYD & LMG-MYD	15	2023-24
144	NFR	KIR	NJP-MLDT	SM-BKRD	UP	192/0	192/1	10%	Crack in cross girders of Br. No. 20	20	2023-24
145	NFR	KIR	KIR-KDPR	KIR-KDPR	SL	9/9	10/0	190%	Crack girder of Br. No. 4	30	2023-24
146	NFR	LMG	LMG-BPB	DKE-MPP	SL	49/7	49/8	10%	Settlement of track	30	2023-24
147	NFR	TSK	Furkating - Jorhat - Mariani	BLOCK SECTION	SL	69/4	73/3	390%	Due to 3 nos sharp curve (Curve No-53,54 ,59) & unauthorized crossing	40	2023-24

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
148	NFR	LMG	ARCL-JRBM	SIPC-JRBM	SL	39/0	39/9	90%	Due to 4.90° Curve No.16 and steep cutting	70	2023-24
149	NFR	LMG	LMG-FKG	LCT-NLN	SL	204/1	204/3	20%	Sharp curve 5°	70	2023-24
150	NFR	LMG	LMG-FKG	LCT-NLN	SL	210/0	210/7	70%	Sharp curve 5°	70	2023-24
151	NFR	LMG	LMG-FKG	NLN-DPU	SL	222/0	222/3	30%	Sharp curve 5°	70	2023-24
152	NFR	LMG	LMG-FKG	DPU-DLDE	SL	223/8	224/3	50%	Sharp curve 5°	70	2023-24

Annexure A-16 (c)

Relaxation/Removal of PSRs during 2024-25

SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
1	CR	PA	PA-LNL	Pune Yard	Pune Yard	190/8	190/14	0.4	On ward Sign.No.S3 station yard	10	2024-25
2	CR	PA	DD-PA	Pune Yard	Pune Yard	192/6			Pune Yard from signal no S-78	10	2024-25
3	CR	PA	MRJ-PUNE	Pune Yard	Pune Yard	192/06			Pune Yard signal no S-81 Onwards	10	2024-25
4	ECoR	WAT	KTV-KRPU	BDVR-SLPM yd	SL	44/33	45/01	0.2	Pt No 23A located in transition portion of 8º curve	10	2024-25
5	NR	LKO	ZBD-BSB	BSB	Yard				While negotiating point No. 61(313a/310b) due to diamond double slip from UP Loop, DN Loop and DN Main Line in BSB Yd. (Old Pt. no.61), 310A (BSB-SOP)	10	2024-25
6	CR	BSL	BSL-BD	BSL-VNA	DN	446/19	446/27	0.15	1 in 12 T/Out negotiated by pass Trains with Plain Diamond .	15	2024-25
7	CR	PA	PA-MRJ	KOV	SL	237/7	239/0	1.24	While stopping on M/Line due to LC No 112 Km 239/1-2.	15	2024-25
8	CR	PA	PA-LNL	Pune Yard	Pune Yard	190/2	190/8	0.4	Sign. No. S1 to S3 for goods train	15	2024-25
9	CR	SUR	DD-WD	TKWD-SUR	UP	455/7	454/4	1.3	Due to Standard I interlocking	15	2024-25
10	ECoR	WAT	PSA-VSKP	VZM Yard (PSA-VSKP)	Dn	817/20	817/24	0.1	1 in 8½ single slip diamond crossing	15	2024-25
11	NR	UMB	UMB-LDH	RPJ YD	UP				Entry from L. No. 2 and 3 to RBR 15 kmph due to 1 in 8.5 t/out	15	2024-25
12	NR	MB	BLM-ON	MAH-MAKI	SL				Overfacing points being non interlocked stations from MAH to MAKI	15	2024-25
13	NR	LKO	LKO-RBL-PBH	MLJ-UTR	Up				Cross over point No. 102 a and 102 b Km. for all UP & DN trains passing through line No. 1 - 7 . (Main Line Negotiating Turnout)	15	2024-25
14	NR	LKO	LKO-RBL-PBH	MLJ-UTR	Dn				Cross over point No. 102 a and 102 b Km. for all UP & DN trains passing through line No. 1 - 7 . (Main Line Negotiating Turnout)	15	2024-25
15	WR	BRC	ANND-GDA	GDA Yard	SL	77/26	77/32	0.6	DUE TO 07 DEGREE REVERSE CURVE IN X-OVER BETWEEN POINT NO. 105 AND 106.	15	2024-25
16	CR	NGP	AMF-NGP	GNQ-NGP	DN	1042/6	1042/14	0.2	N S Special diamond	20	2024-25
17	ER	SDAH	BT-SXC	BT Stn. YARD	DN	0/14	0/2	0.2	Non transition reverse curve.	20	2024-25
18	ER	SDAH	DDJ-MJT	BZB - BBDB	SINGLE LINE	44782	44785	0.15	Damaged private Building Wall	20	2024-25
19	SR	Chennai	Chennai Beach - Chennai Egmore	Chennai Beach	Main	1/4-ML	1/12-ML	0.250	Bridge No. 5A (RUB) on sharp curve	20	2024-25
20	CR	PA	PA-LNL	Pune Yard	Pune Yard	190/2	190/8	0.4	Sign. No. S1 to S3 for passenger train	30	2024-25

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
21	CR	PA	DD-PA	Pune Yard	Pune Yard	193/2	192/6	0.4	Pune yard from signal no S-72 to S-78	30	2024-25
22	CR	PA	MRJ-PUNE	Pune Yard	Pune Yard	193/02	192/06	0.4	Pune yard from signal no S-61 to S-81	30	2024-25
23	ECR	DHN	BRKA-GHD	DTO-KFT	UP Main	286.348	286.397	0.05	Due to speed potential of curve.	30	2024-25
24	NER	Varanasi	Chhapra-Aurinhar	Ballia Yd, L-2	SL	65/9	65/13	0.1	Due to less clearence of footover bridge.	30	2024-25
25	NWR	JU	PPR-BARA	PPR-BARA	SL	0/0	41/7	71.4	Due to non aviliability of maintainance staff.	30	2024-25
26	SR	Chennai	Basin Bridge - Chennai Beach		Up	BK 2/22	BB 1/16		Points in transition and negotiating turnouts	30	2024-25
27	SR	Palakkad	Mangalore - Thokur	Mangaluru jn.- Padil	Up	6.237 5.300	6.779 6.000	0.542	Due to sharp curvature CC Apron Rd.1	30	2024-25
28	SR	Palakkad	Palakkad – Pollachi	Pudunagaram - Palakkad Town		49.800	49.900	0.100	Due to Br.147 A	30	2024-25
29	SWR	Hubballi	Gadag-Hotgi	Wandal Yd	UP	137.50	137.300	0.200	Convergence from D/L to S/l	30	2024-25
30	ER	SDAH	BLN-BGB	BLN - NACC	DN	44798	44811	0.58	Encroachment	45	2024-25
31	ECoR	WAT	KTV-KRPU	ARK-GPJ	SL	109/3	109/16	0.54	Due to 8º curve	45	2024-25
32	ER	SDAH	SPR-CG	SPR - CHT	DN	16/14C	16/18C	0.1	Inadequate SE and versine of the curve.	50	2024-25
33	ER	ASN	KAN-STN	KPK-NMC	DN-II	194/26A	194/02A	0.59	1.010 Reverse curve wth 28 mm SE and without Transition length..	50	2024-25
34	ER	ASN	STN-JAJ	MDP Station limit	DN MN	292/32	292/28	0.1	1 IN 12 turnout of contrary flexure on curve.	50	2024-25
35	NR	MB	CH-HGJ	BJ-AUR	SL				Standard-1 interlocking.	50	2024-25
36	NR	LKO	LKO-FD	BBK yard	DN				T/out in sharp curve as mentioned in ESP.	50	2024-25
37	NR	LKO	LKO-FD	BBK yard	UP				T/out in sharp curve as mentioned in ESP.	50	2024-25
38	NWR	AII	MD-PUHT	MD-PUHT	UP	0.00	25.00	25.00	LC gates maintained by travelling Gate keeper.	50	2024-25
39	SWR	Hubballi	Gadag-Hotgi	Jadaram akunti yd	SL	112.500	114.400	1.900	Standard I signalling	50	2024-25
40	SWR	Hubballi	Gadag-Hotgi	Almatti yd	SL	127.400	129.800	2.400	Standard I signalling	50	2024-25
41	CR	BB	CSTM - KYN	DR-CLA	UP	10/3 ES	9/24 ES	0.180	Reverse curve of 2.5° & 1.05° with inadequate straight in between	60	2024-25
42	SWR	Hubballi	Gadag-Hotgi	Mulvad-Jumnal	UP	165.141	170.45	5.309	Yeilding formation	60	2024-25
43	SWR	Bengaluru	Bengaluru-Jollarpetai	Bengaluru Cant-Bengaluru East	UP	350.10	348.60	1.50	Insufficient super elevation for curve under ROB No. 839B	60	2024-25

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
44	SWR	Bengaluru	Chikbanawar-Hassan	SOLR-TASA	SL	38.70	41.30	2.60	Due to settlement of high bank	60	2024-25
45	WCR	BPL	RTA-MKC	RTA-VJP	Sl	1114/0	1117/0	3	For loaded goods train with CC+8+2t & CC+6+2t due to 52Kg 72 UTS rails	60	2024-25
46	WCR	BPL	RTA-MKC	VJP-KHRJ	Sl	1125/0	1131/0	6	For loaded goods train with CC+8+2t & CC+6+2t due to 52Kg 72 UTS rails	60	2024-25
47	WCR	BPL	RTA-MKC	VJP-KHRJ-CBK	Sl	1135/0	1139/0	4	For loaded goods train with CC+8+2t & CC+6+2t due to 52Kg 72 UTS rails	60	2024-25
48	WCR	BPL	RTA-MKC	KHRJ-CBK	Sl	1141/0	1155/0	14	For loaded goods train with CC+8+2t & CC+6+2t due to 52Kg 72 UTS rails	60	2024-25
49	WCR	BPL	RTA-MKC	CBK-PFR	Sl	1161/0	1210/0	49	For loaded goods train with CC+8+2t & CC+6+2t due to 52Kg 72 UTS rails	60	2024-25
50	WCR	BPL	GUNA-GWL	GUN-MINA	Sl	1094.00	1106.00	12	For loaded goods train with CC+8+2 & CC+6+2t due to 52Kg 72UTS rails	60	2024-25
51	CR	BB	CSTM - KYN	CLA-TNA	UPLL	18/5 ES	18/2 ES	.090	Approach to diamond on curve.	65	2024-25
52	CR	BB	CSTM - KYN	DR-CLA	UPLL	10/13 ES	9/26 ES	0.090	Approach to diamond on curve.	65	2024-25
53	CR	BSL	BSL-KNW	NPNR-MWA	DN	525/10	525/26	0.31	Cross over and T/out on curve laid without adequate cant - 2.12° (NPNR YD)	65	2024-25
54	CR	SUR	DD-MMR	VPR-SRL	SL	315/0	332/1	17.1	Due to sharp curves (50). For Mail Express trains and for goods Train respectivly. (Semi ghat section)	65	2024-25
55	CR	SUR	DD-MMR	PB-KNGN	SL	445/2	445/5	0.3	T/out on curve & inadequate cant in KNGN yard	65	2024-25
56	CR	SUR	DD-MMR	PB-KNGN	SL	445/9	446/9	1	Due to inadequate transition length in KNGN yard	65	2024-25
57	ER	SDAH	LKPR-KWDP-NMKA	KWDP - NAMKHANA	SINGLE LINE	95/03	95/15	0.5	Inadequate SE and versine.	65	2024-25
58	ER	ASN	KAN-STN	ASN-KPK	DN-II	210/10A	210/02A	0.07	In adequate straight Diamong crossing and 0.50 curve..	65	2024-25
59	ECR	DNR	JAJ-PNBE	GZH stn Limit.	UP	536.125	537.113	0.99	Points & Xing on curve	65	2024-25
60	ECR	SEE	BCA-SPJ	UJP-SPJ	UP	28/15	28/17	0.13	Due to 2° reverse curve.	65	2024-25
61	NCR	PRYJ	GZB-TDL	TDL Yd.	DN	1248/40	1248/12	0.7	Track is weak due to bad drainage.	65	2024-25
62	NER	Varanasi	Chhapra-Aurinhar	Sureman pur - Reoti	SL	36/13	37/3	0.8	Due to sharp reverse curve of 2.75º	65	2024-25
63	CR	SUR	KWV-LTRR	BTW-PJR	SL	413/8	414/6	0.8	Due to T/out on curve of 2.5° in BTW yard	70	2024-25
64	NR	LKO	DDU-BSB	BHB-VYN	Dn				Booked speed	70	2024-25
65	CR	SUR	DD-MMR	YL-ANK	SL	475/8	476/1	0.3	Due to T/out on 2.80 curve inadequate cant in YL yard	75	2024-25
66	ECR	DNR	JAJ-PNBE	BRYA-RDUM	UP	441.273	441.607	0.33	Bad bank	75	2024-25

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
67	ECR	DNR	PNBE-DDU	KUA-ARA	UP	590.575	590.637	0.06	Br no.219- Bed block defective	75	2024-25
68	ECR	DNR	JAJ-PNBE	JAJ Stn Limit	DN	366.325	366.891	0.57	Curve no 2/DN in JAJ stn Lt is at 4° curve in PF line.	75	2024-25
69	ECoR	WAT	SPRD-VZM	LDX-JMPT	Up	351/0	351/9	0.21	inadequate transition length on 2½º curve	75	2024-25
70	ECoR	WAT	SPRD-VZM	JMPT-LDX	DN	351/8	351/0	0.19	Inadequate transition length	75	2024-25
71	SCR	BZA	BZA-GDR	BPP-NDO	DN	360/0	370/0	10.00	Yielding formation	75	2024-25
72	SCR	BZA	BZA-GDR	TSR-BPP	UP	380/0	359/0	21.00	Yielding formation	75	2024-25
73	SCR	HYB	GLY-DHNE	MOA-ALPR	SL	232/600	236/600	4.00	Yeilding formation	75	2024-25
74	WR	BRC	BH-DGFJ	BHARUCH - THAM	SL	02/15	05/08	2.3	HEAVY TRESS PASSING. (06.00 - 22.00 Hrs) 45 (22.00 - 06.00 Hrs)	30	2024-25
75	SR	Chennai	Arakkonam - Renigunta	Ekambarakuppam-Vepagunta	Dn	102/14	103/4	0.630	Poor visibility in Deep Cutting (Passenger trains)	50	2024-25

Annexure 16(d)

Relaxation/Removal of PSRs during 2025-26

SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
1	NR	LKO	LKO-LBH	LKO-LBH	UP				During reception of UP trains while unloading into LKO chg. Yard at E/E on S/L routing signal No.15 & NL routing sig no.13 to DN starter due to provision of lesser adequate distance after the of commissioning of RRI wide CRS sanction SANG/41/51/2/VII. Pt. No.8, dt. 26.05.1988.	15	2025-26
2	NR	LKO	FD-ZBD	ZBD Yd	yard				Negotiation of 1 in 8.5 T/Out by all trains passing through line No. 2 & 3.	15	2025-26
3	NR	LKO	LKO-SLN-ZBD	JOP-ZBD	UP				UP line JOP-ZBD due to sharp curve of 8 degree	15	2025-26
4	NCR	JHS	DHO-JHS	JHS YD	UP	1127/19	1127/17	0.1	1 in 8½ T/outs from UP M/L to Back road.	15	2025-26
5	NWR	AII	MVJ-NDT	MVJ-NDT	UP	148.7	148.8	0.1	Busy Unmanned Gate at LC No.3	15	2025-26
6	ER	SDAH	BLN-BGB	NACC - MJT	DN	44836	44850	0.294	Sharp Reverse Curve.	20	2025-26
7	WR	BRC	BH-DGFJ	BHARUCH - THAM	SL	326/5 A	0/12	0.42	DUE TO 8 DEGREE NON - TRANSITION CURVE.	20	2025-26
8	ER	SDAH	DDJ-BNJ	DDC STN. LIMIT	UP LINE	44821	44823	0.06	Negative SE on X-over from UP line to Line No. 2.	30	2025-26
9	ER	SDAH	BRP-MPRD	(BRP STN.LT.)	DN	24/11	25/04	0.857	Inadequate side clearance for departure from PF - 4.	30	2025-26
10	ER	ASN	HWH-NDLS	ASN Station LIMIT	UP-1	211/31	212/23	0.52	Washable apron.	30	2025-26
11	ER	ASN	HWH-NDLS	ASN Station LIMIT	DN-1	212/24	211/34	0.515	Washable apron.	30	2025-26
12	SR	Chennai	Basin Bridge - Chennai Beach		Dn	BB1/27	BB2/10		Diamond crossing followed by curve	30	2025-26
13	WCR	JBP	Katni-Singrauli (km ex HWH)	NKJ'C' - JLW End &NKJ'C' - SGRL	SL	1029.60	1029.80	0.20	4 degree non-transition Curve	40	2025-26
14	ER	SDAH	NH-SDAH	KGK - SDAH	DN M/L	2/10Q/1	1/28Q	0.522	points & Crossing on transition of 0.75˚ Curve with inadequate SE- 18 mm.	45	2025-26
15	ER	SDAH	NH-SDAH	KGK - SDAH	DN SUB	2/6	44589	0.3	points & Crossing on transition of 0.75˚ Curve with inadequate SE- 18 mm.	45	2025-26
16	ER	SDAH	BGB-BLN	MJT - BLN	UP	44811	44798	0.579	Encroachment	45	2025-26

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
17	ER	ASN	KAN-STN	STN Station limit	UP-II	220/13A	220/29A	0.35	1 in 12 Turnout on contrary flexure 3.00 curve.	45	2025-26
18	WR	BRC	ANND-GDA	TIMBA ROAD JN	SL	54/14	54/20	0.18	OVER POINTS ON 4 DEGREE CURVE CONTRAFLEXURE OF P&C LAYOUT.	45	2025-26
19	WR	BRC	ANND-GDA	TUWA	SL	63/17	63/20	0.12	OVER POINTS ON 2 DEGREE CURVE CONTRAFLEXURE OF P&C LAYOUT.	45	2025-26
20	WCR	JBP	Itarsi-Jabalpur	BMR-BHTN (Narmada Br)	DN	952.50	952.90	0.40	For loaded goods trains with CC+8+2t & CC+6+2t on Narmada bridge	45	2025-26
21	WCR	JBP	Jabalpur-Itarsi	BNE-GAR	UP	863.6	863.3	0.30	For loaded CC+8+2t and CC+6+2t Wagons	45	2025-26
22	WCR	BPL	ET-KNW	KKN-DRHI	Up	635/11	635/7	0.094	For loaded Goods train with CC+8+2t & CC+6+2t due to Br. No. 635/1	45	2025-26
23	ER	HWH	KAN-GMAN	Chatra	UPSBG	125.11	125.23		Bad bank	50	2025-26
24	ER	HWH	KAN-GMAN	Murarai	DNSBG	122.22	122.2		Bad bank	50	2025-26
25	ER	SDAH	RHA-NH	KYI STATION LIMIT	DN LINE	48/28	48/24	0.095	points & Crossing on transition of 1.2˚ Curve.	50	2025-26
26	ER	SDAH	KYI-KLYM	KYI-KLYM	SINGLE LINE	48K/1	48K/18	0.61	Due to high degree of Curvature.	50	2025-26
27	ER	SDAH	DDJ-BNJ	GMA - ASXR	UP LINE	37/23	37/25	0.062	Ballastless PRC Bridge.	50	2025-26
28	ER	SDAH	DDJ-BNJ	MSL - GBG	UP LINE	56/25	56/41	0.349	Non transition reverse curve.	50	2025-26
29	ER	ASN	KAN-STN	KPK-NMC	DN-II	201/24A	201/22A	0.183	Siding point on passenger line outside station limit shall be detected for permitting speed 50 kmph.	50	2025-26
30	ER	ASN	KAN-STN	UDL Station limit	DN-II	186/16A	186/04A	0.317	Sharp reverse curve of 2.10	50	2025-26
31	ECoR	WAT	PSA-VSKP	VZM Yard (PSA-VSKP)	UP	817/11	819/7	1.958	Speed over facing point std	50	2025-26
32	ECoR	WAT	KTV-KRPU	MKRD-PBV	UP	169/5	170/1	0.853	Due to 6½º sharp curve and restricted super elevation to avoid flattering of inner rail.	50	2025-26
33	NR	DLI	ROK-PNP	ROK-PNP	All yards.				Due to standard-I interlocking	50	2025-26
34	NR	DLI	JHI-PNP	JCY, SFDE, PKDE, MLDE	All yards.				Due to standard-I interlocking	50	2025-26

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
35	NR	LKO	UCR-ON	All station between UCR-ON Std-I interlocking except RRS & LLJ	SL				Std-I interlocking	50	2025-26
36	NCR	JHS	DHO-JHS	GWL-STLI	UP	1223/31	1220/15	3.29	3 Nos. 3º Curve.	50	2025-26
37	NER	Varanasi	Varanasi Jn. -Allahabad City	Jhusi-Daraganj	SL	321/12	323/16	2.0	Due to weak girder of Br.No.111	50	2025-26
38	SCR	BZA	GDV-BVRM	PLVA-AKVD	DN	85/4	86/4	1.00	Due to Yielding formation	50	2025-26
39	SCR	BZA	GDV-MTM	GDV-KVM	DN	10-3	10-5	0.20	Unstable formation	50	2025-26
40	SCR	BZA	GDV-MTM	GDV-KVM	UP	10-3	10-5	0.20	Unstable formation	50	2025-26
41	WR	BRC	ANND-GDA	BHALEJ YARD	SL	10/12	11/03	0.42	POINTS AND CROSSING ARE TAKING OFF FROM TRANSITION PORTION OF CURVE NO 9.	50	2025-26
42	WR	BRC	ANND-GDA	BHALEJ YARD	SL	11/34	11/40	0.18	POINTS AND CROSSING ON 3 DEGREE CURVE INADEQUATELY SUPERELEVATED.	50	2025-26
43	WR	BRC	ANND-GDA	OD YARD	SL	17/05	17/22	0.54	1 TO 3 DEGREE COMPOUND CURVE AND INADEQUATE SUPERELEVATION DUE TO POINTS AND CROSSING.	50	2025-26
44	WR	BRC	ANND-GDA	DAKOR YARD	SL	29/39	30/03	0.12	POINTS ON 2 DEGREE, 45 MINUTES CURVE INADEQUATELY SUPERELEVATED.	50	2025-26
45	WR	BRC	ANND-GDA	ANGADI	SL	45/30	46/01	0.18	POINTS ON 1 DEGREE, 45 MINUTES CURVE CONTRAFLEXURE OF P&C LAYOUT.	50	2025-26
46	WCR	JBP	Satna-Jabalpur	JKE - KYCE (Siding)	SL	1118.6	1098	20.48	Goods siding,	50	2025-26
47	WCR	JBP	Katni-Singrauli	NKJ - KTKD	SL	1087.78	1087.91	0.13	Inadequate cant on 4 degree curve	50	2025-26
48	WCR	JBP	Katni-Singrauli	NKJ - KTKD	SL	1087.95	1088.06	0.11	Inadequate cant on 4 degree curve	50	2025-26
49	WR	BRC	ANND-GDA	THASRA	SL	38/04	38/05	0.8	POINTS ON 2 DEGREE, 30 MINUTES CURVE CONTRAFLEXURE OF P&C LAYOUT.	60	2025-26
50	ER	SDAH	BGB-BLN	MJT - BLN	UP	44831	44811	0.421	Points & Crossing on 4˚ sharp curve.	65	2025-26

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
51	ER	ASN	KAN-STN	RNG Station limit	UP-II	193/33A	194/05A	0.185	Transition length of 50.00 m between compound curve 0.90 and 3.30 curve.	65	2025-26
52	ER	ASN	KAN-STN	KPK Station limit	UP-II	206/19A	207/288	0.698	Transition length of 50.00 m between compound curve 0.90 and 3.30 curve.	65	2025-26
53	ER	ASN	KAN-STN	BCQ Station limit	UP-II	217/15A	217/21A	0.18	Nil distance between between Diamond crossing and 0.50 curve.	65	2025-26
54	ER	ASN	KAN-STN	KPK Station limit	DN-II	207/16A	206/14A	0.246	2.50 Reverse curve wth 28 mm SE and without Transition length..	65	2025-26
55	ECoR	WAT	SPRD-VZM	RGDA-LDX	UP	344/9	345/2	0.891	Major Bridge on 4½º & 4º compound curve	65	2025-26
56	WR	BRC	BRC-ST	BHARUCH JN	UP	325/29	323/15	2.42	DUE TO 3 DEGREE CURVE BETWEEN KM: 325/29 - 325/13 HAVING INADEQUATE SUPERELEVATION ETC. TRANSITION LENGTH AND BETWEEN KM 325/03 - 323/23 (UP) TO AVOID ACCELERATION ON A MAJOR BRIDGE NO 502 (NARMADA).	65	2025-26
57	ER	HWH	KAN-GMAN	Chatra	UPSBG	122.07	122.09		Bad bank	70	2025-26
58	SCR	GTL	DHNE-NDL	PNM - NDL	SL	267/3	261/17	5.30	Unstable formation	70	2025-26
59	ER	ASN	KAN-STN	PAN Station limit	DN-II	154/56A	154/30A	0.293	Due to constraint in transition length.	75	2025-26
60	ECR	DHN	BRKA-GHD	TORI-CTQ	UP Main	185.644	186.081	0.437	Pts & Xing on Curve (3°).	75	2025-26
61	ECR	DHN	BRKA-GHD	TORI-CTQ	DN Main	186.084	185.649	0.435	Point & xing on curve 3°.	75	2025-26
62	ECR	DHN	BRKA-GHD	MMLN-TORI	DN Main	179.216	179.117	0.099	Pts & Xing on curve (3°).	75	2025-26
63	ECR	DNR	JAJ-PNBE	BRYA-RDUM	DN	441.216	441.58	0.364	Bad bank	75	2025-26
64	ECR	DNR	JAJ-PNBE	ATL-RH	DN	480.741	480.979	0.238	P&C 55A lies on transition portion of curve	75	2025-26
65	ECoR	KUR	Bhadrak-Khurda Road	Bhadrak-Boudipur	UP	293/39	293/41	0.03	Points & crossing on transition curve	75	2025-26
66	ECoR	KUR	Bhadrak-Khurda Road	Boudpur-Bhadrak	DN	294/2	293/44	0.03	Points & crossing on transition curve	75	2025-26
67	ECoR	KUR	Jakhapur - Nayagarh	Sagadpata - tangiriapal	DN	131/8	137/4	5.5	4 degree curve	75	2025-26
68	SCR	SC	BPQ - KZJ	MKDI - WIRR	UP	161/3	160/23	0.50	Turnout on2˚ curves.	75	2025-26
69	SCR	BZA	GDV-BVRM	UNDI-BVRT	UP	103/5	102/5	1.50	Yeilding formation	75	2025-26

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
70	SCR	NED	MMR-PBN(SL)	RNE-KODI	SL	198/0	202/0	4.00	Yielding formation	75	2025-26
71	WR	BRC	ANND-GDA	SADANA PURA YARD	SL	06/05	06/18	0.42	DUE TO INSUFFICIENT TRANSITION LENGTH ON 2 DEGREE CURVE.	75	2025-26
72	WR	BRC	ANND-GDA	SADANA PURA YARD	SL	06/22	06/32	0.3	DUE TO INSUFFICIENT TRANSITION LENGTH ON 3 DEGREE CURVE.	75	2025-26
73	WR	BRC	ANND-GDA	SADANA PURA - BHALEJ	SL	07/15	08/02	0.48	DUE TO INSUFFICIENT TRANSITION LENGTH ON 3 DEGREE CURVE.	75	2025-26
74	WR	BRC	ANND-GDA	SADANA PURA - BHALEJ	SL	08/10	08/17	0.24	DUE TO INSUFFICIENT TRANSITION LENGTH ON 3.8 DEGREE CURVE.	75	2025-26
75	WR	BRC	ANND-GDA	BHALEJ - OD	SL	12/05	12/09	0.12	DUE TO INSUFFICIENT TRANSITION LENGTH ON 3 DEGREE CURVE.	75	2025-26
76	WR	BRC	ANND-GDA	OD - UMRETH	SL	19/03	19/07	0.2	DUE TO INSUFFICIENT TRANSITION LENGTH ON 2.8 DEGREE CURVE.	75	2025-26
77	WR	BRC	ANND-GDA	OD - UMRETH	SL	19/14	20/06	0.6	DUE TO INSUFFICIENT TRANSITION LENGTH ON 3.3 DEGREE CURVE.	75	2025-26
78	WR	BRC	ANND-GDA	DAKOR - THASRA	SL	30/14	31/06	0.66	DUE TO INSUFFICIENT TRANSITION LENGTH ON 3 DEGREE CURVE.	75	2025-26
79	WR	BRC	ANND-GDA	DAKOR - THASRA	SL	33/11	34/03	0.76	DUE TO INSUFFICIENT TRANSITION LENGTH ON 3 DEGREE CURVE.	75	2025-26
80	WR	BRC	ANND-GDA	TIMBA ROAD JN	SL	55/17	56/01	0.48	POINTS TAKING OFF FROM CURVE.	75	2025-26
81	WR	BRC	ANND-GDA	TUWA YARD	SL	64/27	65/01	0.18	NON STANDARD COMPOUND CURVE.	75	2025-26
82	WR	ADI	PNU-SIOB	BAH-DVGM	SL	92/04	92/9	0.50	Horizonal reverse curve on high bank & weak formation. UP & DN	75	2025-26
83	WCR	JBP	Katni-Singrauli	SKBR-NWB	SL	1255.54	1255.87	0.34	Speed potential on 3 degree curve	75	2025-26
84	NFR	LMG	LMG-BPB	MPP-DKE	SL	51/7	52/2	0.5	Deficiency of camber of Br. Girder no-102.	40	2025-26
85	NFR	APDJ	Samuktala Road - New Bongaigaon	FKM-KOJ	UP	221/5	221/6	0.1	Due to negative camber bridge no. 394	65	2025-26
86	NFR	APDJ	Siliguri Jn-Samuktala Road	DDM-NMZ	SL	53/5	53/6	0.1	Girder camber under observation Bridge No. 114	70	2025-26

Annexure A-16(e)

Relaxation/Removal of PSRs during 2026-27

SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
1	ECR	DHN	PKA-PEH-SNDT	PEH North cabin over point No. 53N	Single Main	0	0.1	0.1	Due to contrary flexture on sharp curves.	8	2026-27
2	ECR	DNR	BKP-RGD		SL	All trains approaching BKP station			Terminal yard	10	2026-27
3	ECR	SEE	BJU-KIR	MNE-KGG	Yd	MNE/ 1086	114/12	0.065	Due to sharpe curve for line no 6 & 7 .	10	2026-27
4	NCR	PRYJ	NYN-MKP	MKP-YD	Line-5&6	1257/100	1257/200	0.1	Due to sharp curve	10	2026-27
5	NCR	PRYJ	DDU-PRYJ	CAR-YD E/ End	Line-No. 5&12	703/23	704/ 1025	0. 900	For CAR yard (from line no. 5 to 12) due to negotiating single slip diamond xing.	10	2026-27
6	NCR	PRYJ	DDU-PRYJ	CAR-YD W/ End	Line-No. 5&12	704/ 1157	905/ 14	0. 900	For CAR yard (from line no. 5 to 12) due to multiple T/out of insufficient layout length	10	2026-27
7	NCR	PRYJ	TDL- GZB	ICD Yard	Line No. 10,11,12 & 13	1412/ 31A	1415/ 1089B	1.2	Due to sharp curve and 2nd loop	10	2026-27
8	ER	SDAH	BNJ-DDJ	DDC - DDJ	DN LINE	7/12B	6/32C	0.307	3.5˚ sharp curve.	15	2026-27
9	ECR	DHN	GMO-BRKA	BHME	UP Main	23.52	23.56	0.04	For all Dn trains entering loop due to turn out on contrary Flexure curve.	15	2026-27
10	ECR	DHN	BRKA-GHD	All sidings taken off.	Siding Line	PD Branch lines			During placement & drawing of load in shunting pattem.	15	2026-27
11	ECR	DHN	DHN-CRP	KTH	Single Main	13.641	13.686	0.045	Due to turnout & water column/Ash pit special diamond in apaproach of 1.6° curve.	15	2026-27
12	ECR	DHN	DHN-CRP	KTH	Single Main	13.407	13.461	0.054		15	2026-27
13	ECR	DHN	PKA-PEH-SNDT	PEH	Single Main	PEH East & West & link Cabin			Due to turn outs.	15	2026-27
14	ECR	DHN	PKA-PEH-SNDT	PEH Stn. Limit	Single Main	13.533	13.64	0.107	For negotiation 1 in 8 1/2 Diamond crossings for 3301 UP & 3302 DN Exp.	15	2026-27
15	ECR	DNR	RDUM-BJU	LINK cabin stnlt.	UP	3.791	3.862	0.071	Non isolation jn. of 03 main lines.	15	2026-27

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
16	ECR	DNR	BKP-RGD		SL	All trains and light engines moving out of BKP station			Key locked points.	15	2026-27
17	ECR	DNR	DLN-TRG	DHWN-HIL	SL	All stations over facing points.			Non-Interlocking	15	2026-27
18	ECoR	SBP	TIG-SBP	TIG Yd	SL	743/8		0.1	Negotiating turnout for trains coming from JSG end	15	2026-27
19	NR	UMB	SRE-LDH	SRE YD	DN				Due to 1 in 8.5 t/out	15	2026-27
20	NR	UMB	UMB-LDH	RPJ-YD	UP				Entry & Exit on Line No.3 is 15 kmph due to 1 in 8.5 T/O at both ends.	15	2026-27
21	NR	UMB	RPJ-BTI	RPJ-Yd	SL				due to t/out exit in side of 8 degree curve	15	2026-27
22	NR	UMB	CDG-MRND	CDG-SASN	SL				Due to Space Constraint	15	2026-27
23	NR	UMB	CDG-MRND	JN.Cabin-MRND	SL				Entering MRND-YD.	15	2026-27
24	NR	UMB	CDG-MRND	JN.Cabin-MRND	SL				15 kmph from Jn.Cabin side to MRND L.No. 3 due to trains negotiating turnouts.	15	2026-27
25	NR	UMB	SIR-DLPC	SIR-YD	DN				For all Dn trainsentering line no. 4, 6 7 from NLDM side due to 1 in 8.5 t/out	15	2026-27
26	NR	UMB	SIR-DLPC	NLDM-YD	SL				For all trains entering/leaving line no. 1 from NLDM side due to 1 in 8.5 t/out	15	2026-27
27	NR	UMB	SIR-DLPC	MRND-YD	SL				For all trains entering/leaving line no. 3 from MRND side due to 1 in 8.5 t/out	15	2026-27
28	NR	UMB	SIR-DLPC	NMDA-YD	SL				For all trains entering/leaving line no. 1 from NMDA side from/to CDG due to 1 in 8.5 t/out	15	2026-27
29	NR	UMB	DUI-JHL	SFM YD	SL				Sppeds of trains negotiating turnouts while entering loop line no. 1	15	2026-27
30	NR	UMB	DUI-JHL	LHA YD	SL				Sppeds of trains negotiating turnouts while entering loop line no. 2	15	2026-27
31	NCR	PRYJ	TDL-GZB	TDL Yd.	UP	1247/29	1247/33	0.1	Due to entering loop negotiating Diamond double slip Up line no. 1 (revised on 16.08.2011)	15	2026-27
32	NCR	PRYJ	TDL-GZB	TDL Yd.	UP Loop	GAL/24	GAL/26	0.05	Due to negotiating Diamong Xing single slip (revised on 04.03.2011)	15	2026-27

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
33	NCR	PRYJ	NYN-MKP	COI-LKJN	UP (Chord Line	1348/850	1347/840	0.9	Due to sharp curve	15	2026-27
34	NCR	PRYJ	NYN-MKP	LKJN-COI	DN (Chord Line	1347/840	1348/850	0.9	Due to sharp curve	15	2026-27
35	NCR	JHS	BIN-JHS	JHS Yd (CSTM end)	DN	1127/18	1127/20	0.1	1 in 8½ T/Outs from DN M/L to Back Road	15	2026-27
36	NER	Varanasi	Thawe - captanganj	Kaptanganj Yd L-3&4	SL	L-No.3 & 4 (Loop)		0.1	Due to sharp curve of 8º in loop line of 3 & 4	15	2026-27
37	WR	BCT	BCT-BVI	MUMBAI CENTRAL (MAIN) YARD	DNTH	4/19	5/5	0.125	1 in 8 1/2 diamond with slip	15	2026-27
38	WR	BCT	VR-BCT	MUMBAI CENTRAL (MAIN YARD)	UPTH	05/04	04/07	0.813	Due to point & crossing at the terminal	15	2026-27
39	ECR	DHN	BRKA-GHD	HHG-CPDR	UP Main	245.886	245.998	0.112	Due to wild life protection.	25	2026-27
40	NR	UMB	SRE-LDH	SRE YD	UP				from MB side on UP Line 25 kmph due to turn in curve but on double slip No. 199(a)/200 speed of 15 kmph is existing while moving to turnout side	25	2026-27
41	NR	UMB	RPJ-BTI	DUI-YD	SL				For all through trains as trains have to pass via centre line.	25	2026-27
42	ER	SDAH	BNJ-DDJ	DDC - DDJ	DN LINE	7/32B	7/12B	0.48	Realigned Curve	30	2026-27
43	ER	ASN	HWH-NDLS	STN Station Limit	UP-1	220/19	220/29	0.24	Grand chord line through 1 in 12 and 1in 16 turnout.	30	2026-27
44	ECR	SPJ	SMI-RXL	BGU-KWC	SL	134/9	136/8	1.9	Due to sharp curve of 3º.	30	2026-27
45	ECR	SPJ	SMI-RXL	GRH-CAO	SL	153/5	153/6	0.1	Due to sharp curve.	30	2026-27
46	NR	UMB	SIR-DLPC	NLDM-MTPR	SL				Due to non transition 7.8 curve approach of Br. No.1 .	30	2026-27
47	NR	UMB	SIR-DLPC	NLDM YD	SL				Due to transition length in approach of T/out (NLDM Yd)	30	2026-27
48	NCR	PRYJ	TDL-GZB	MWUE-YD	IIIrd	1333/7A	1333/21A	0.5	Due to negotiation of Turn-out.	30	2026-27
49	NCR	JHS	DHO-JHS	JHS YD	UP	1127/07	5 Pt. No. 35/D	0.3	1 in 12 T/outs from MKP Branch Line to UP Main Line	30	2026-27
50	NFR	KIR	KIR-KDPR	KDPR Yd	SL	170/9	171/1	0.2	Turn out & Loop line X-over to Line No.9 laid on symmtrical split in KDPR byepass line	30	2026-27

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
51	ECR	DHN	KTH-NPJE	KTH-NPJE link	Single Main	3.3	4.09	0.79	Due to inadequate SE on transition curve	40	2026-27
52	ECR	SEE	BJU-KIR	MNE-KGG	DN	115/32	115/18	0.26	Due to sharpe curve of 3° and insufficient transition length.	40	2026-27
53	NR	LKO	DMW-DYP	All station between DMW-DYP	SL				Std-I interlocking at DMW-DYP	40	2026-27
54	NFR	KIR	NJP-MLDT	HCR-BKRD	DN	177/8	178/3	0.5	Cross-over in 2.75° Curve. Turnouts taking off from inside of curve.	40	2026-27
55	NFR	KIR	NJP-MLDT	HCR-Yard	UP	178/3	177/8	0.5	Cross-over in 2.75° Curve. Turnouts taking off from inside of curve.	40	2026-27
56	ER	SDAH	BNJ-DDJ	CDP - BNJ	DN LINE	66/4	65/30B	0.158	Non transition reverse curve.	45	2026-27
57	ECR	DHN	KTH-NPJE	KTH-NPJE link	Single Main	0.39	0.7	0.31	Due to inadequate SE on transition curve	45	2026-27
58	ECR	DHN	KTH-NPJE	KTH-NPJE link	Single Main	2.38	2.62	0.24	Due to inadequate SE on transition curve	45	2026-27
59	ECR	DNR	PNBE-GYA	-	DN	DN Home signal of Patna Jn.for entering P.F No.7,8 & 9			Due to over speeding of DN trains entering	45	2026-27
60	ECR	DNR	PNBE-GYA	PRBZ-PPN	DN	3.267	3.499	0.232	Settlement of new formation.	45	2026-27
61	ECR	SPJ	DBG-SMI	JNR-BJT	SL	90/7	91/3	0.6	Due to sharp curve.	45	2026-27
62	ER	ASN	HWH-NDLS	STN Station Limit	UP-1	220/13	220/19	0.42	Non isolation of GC and ML	50	2026-27
63	ECR	DHN	GHD-BRKA	LBHT-KFT	DN Main	305.047	303.846	1.201	Due to speed potential of curve.	50	2026-27
64	ECR	DNR	JAJ-PNBE	GZH-RJPB	UP	539.963	541.325	1.362	Interlocking	50	2026-27
65	ECR	DNR	JAJ-PNBE	GZH-RJPB	DN	540.62	541.749	1.129	Interlocking	50	2026-27
66	ECoR	SBP	LAE-TIG	KMK-KRAR	UP	102/29	103/01	0.22	Improper seating of bearings on Br. No.161	50	2026-27
67	NR	UMB	RPJ-BTI	RPJ-KLI	SL				Due to 5 degree sharp curve.	50	2026-27
68	NR	UMB	RPAR-NLDM	GANL	SL				GANL 50 kmph in UP direction only	50	2026-27
69	NR	MB	CH-HGJ	DN-BBA	SL				D.K siding.	50	2026-27

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
70	NR	LKO	PBH-PFM	All station between PBH-PFM Std-I interlocking (SWE, MEM, BTJ)	SL				All station between PBH-PFM Std-I interlocking (SWE, MEM, BTJ)	50	2026-27
71	NR	LKO	CIL-FD	All station between CIL-FD Std-I interlocking (KDF, PPU, KBE, KJA, BTKD, MSOD)	SL				All station between CIL-FD Std-I interlocking (KDF, PPU, KBE, KJA, BTKD, MSOD)	50	2026-27
72	NR	LKO	LKO-SLN-ZBD	UTR East Yd	Up				UP Line BKKS-UTR due to sharp curve	50	2026-27
73	NR	LKO	LKO-SLN-ZBD	BDKN-SLN	UP				Sharp reversal curve at T/Out approaches (SLN Yd UP Line)	50	2026-27
74	NR	LKO	LKO-SLN-ZBD	BDKN-SLN	UP				Sharp Curve	50	2026-27
75	NR	LKO	LKO-SLN-ZBD	BDKN-SLN	DN				Sharp Curve	50	2026-27
76	NR	LKO	LKO-SLN-ZBD	SLN coaching Yd.	DN				Sharp Curve	50	2026-27
77	NCR	JHS	JHS-DHO	STLI-GWL	DN	1223/36	1224/34	0.78	There are six nos. T/out are taking off from 3º curve	50	2026-27
78	NFR	APDJ	Sajerpar-Pundibari (DN)	SJRR-PQZ	DN	112/2	112/3	0.1	Unauthorized track crossing	50	2026-27
79	NFR	LMG	BPB-AGTL	MANU-ABSA	SL	103/7	104/1	0.4	Land slip prone area in face of Tunnel no.3	50	2026-27
80	NFR	LMG	BPB-AGTL	MANU-ABSA	SL	106/3	107/1	0.8	Heavy Land slide	50	2026-27
81	NFR	LMG	BPB-AGTL	ABSA-MGKM	SL	124/7	124/8	0.1	Land slip prone area in face of Tunnel no.4	50	2026-27
82	SCR	GNT	GNT-NDL	GNT-NLPD	DN	4-26	4-22	0.30	Inadequate transition between 3° curve	50	2026-27
83	SCR	GNT	GNT-NDL	NLPD Yard	UP	4-13	4-29	0.30	Inadequate transition between 3° curve	50	2026-27
84	SCR	SC	BPQ - KZJ	BPQ - MAGH	DN	136/0	138/0	2.00	Unstable formation.	50	2026-27
85	WR	BCT	VR-ST	SURAT YARD	DN	266/18	267/20	1.063	Point taking off from 1 deg curve	50	2026-27

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
86	ECR	DHN	KTH-NPJE	KTH-NPJE link	Single Main	1.2	1.7	0.5	Due to inadequate SE on transition curve	55	2026-27
87	ECR	DHN	KDS-TET	KDS-TET link	Single Main	2.1	2.12	0.02	Due to transition curve.	60	2026-27
88	ECR	SEE	BJU-BCA	Teghra Yard	UP	186/15-17	186/31-33	0.4	Points & Xing on curve.	60	2026-27
89	ECR	SPJ	MFP-SGL	Chakia Yard	SL	133/13	134/3	0.33	Due to points taking off from curve.	60	2026-27
90	ECR	SPJ	SPJ-DBG	RBZ-HYT	SL	18/12	20/1	1.198	Due to 4º curve in approaches and weak girder of Br.No.15 at Km 19/7-8.	60	2026-27
91	ECR	SPJ	DBG-SKI	DBG-KKHT	SL	3/4	3/6	0.2	Due to misalignment of girder of Br. No. 30.	60	2026-27
92	ER	SDAH	BLN-BGB	BLN - NACC	DN	44811	44831	0.421	Points & Crossing on 4˚ sharp curve.	65	2026-27
93	ER	ASN	HWH-NDLS	UDL Station limit	DN-I	186/20	186/16	0.148	Inadequate transition length between Diamond crossing and 0.370 curve.	65	2026-27
94	ER	ASN	KAN-STN	UDL Station limit	UP-II	186/11A	186/15A	0.219	No straight length between Diamond crossing and 1.00 reverse curve..	65	2026-27
95	ECR	DNR	JAJ-PNBE	GZH stn Limit.	UP	537.268	537.387	0.119	Pts & Xing on curve.	65	2026-27
96	ECR	DNR	JAJ-PNBE	KEU-BSQ	DN	418.548	419.391	0.843	Currve to be disturbed in NI of KEU yd	65	2026-27
97	ECR	DNR	JAJ-PNBE	GZH Stnl	DN	537.311	537.376	0.065	Pts & Xing on curve of 3° .	65	2026-27
98	ECR	DNR	BKP-RGD	BKP-KRNN	SL	0.5	1.5	1	Due to 4° curve.	65	2026-27
99	ECR	SEE	MNE-SHC	MNE-SHC	SL	1/0	1/4	0.26	Due to Sharp curve of 3° .	65	2026-27
100	ECR	SEE	BCA-SPJ	SPJ-UJP	DN	28/28 (Br.-44)	28/26	0.5	Due to 2° reverse curve, less transition length and permanent diversion.	65	2026-27
101	ECR	SPJ	SPJ-DBG	SPJ-MKPR	SL	0/900	1/600	0.7	Due to 4.4° curve.	65	2026-27
102	ECoR	SBP	TIG-SBP	GBQ-ATS	UP	585/6	585/11	0.66	Sharp curve (5 degree)	65	2026-27
103	NR	UMB	CDG-KLK	CNDM-KLK	SL				Due to sharp curve.	65	2026-27
104	NR	UMB	SRE-MB	SRE-HNC	UP				Diamond crossing at approach of Curve	65	2026-27
105	NR	LKO	LKO-SLN-ZBD	UTR East Yd	Dn				Approach of UTR Yd. Due to sharp curvature	65	2026-27
106	NCR	PRYJ	CNB-TDL	CNB-GOY	UP	1019/10A	1019/17	0.2	Due to single slip diamond in curve No. 90 in GMC Yard. (Dec'1993)	65	2026-27
107	NCR	PRYJ	TDL-GZB	TDL Yd.	UP	1247/33	1250/17	2.75	Due to double slip diamond crossing with curves on approaches in TDL Yard. (02.05.68)	65	2026-27

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
108	NCR	PRYJ	GZB-TDL	MTI/TDL	DN	1250/16	1247/34	2.5	Due to double slip diamond crossing with curves on approaches in TDL Yard.	65	2026-27
109	NCR	PRYJ	TDL-CNB	JUHI/E	DN	1019/20	1019/12	0.28	Due to Diamond Xings on Curve as per IRPWM para 416.	65	2026-27
110	NCR	JHS	JHS-MKP	Belatal YD	SL	1235/6	1236/2	0.6	4.12º curve Taking off from T/Out	65	2026-27
111	ECR	DNR	PNBE-GYA	PRBZ STNLT.	UP	5.712	6.856	1.144	Turnout taking off from reverse curve	70	2026-27
112	ECR	DNR	PNBE-GYA	PRBZ STNLT.	DN	5	6	1	Turnout taking off from reverse curve	70	2026-27
113	ECR	SEE	BCA-SPJ	DSS Yd	UP	11/21	11/23	0.065	Due to Pts& Xing and LC in reverse curve.	70	2026-27
114	ECR	SEE	BCA-SPJ	DSS Yd	DN	11/24	11/20	0.065		70	2026-27
115	NCR	JHS	DHO-JHS	STLI-SLV	UP	1211/C7	1211/11	2.71	5º Curves.	70	2026-27
116	NFR	LMG	BPB-AGTL	MANU-ABSA	SL	112/6	113/0	0.4	5° curve	70	2026-27
117	ECR	DHN	BRKA-GHD	CPDR-MAZ	UP Main	258.575	262.462	3.887	Due to speed potential of curve.	75	2026-27
118	ECR	DHN	GHD-BRKA	KFT-CNF	DN Main	287.918	283.531	4.387	Due to speed potential of curve.	75	2026-27
119	ECR	DNR	JAJ-PNBE	FUT-BKG	UP	524.249	524.317	0.068	Br no.76 Corroded steel trough plate & girder	75	2026-27
120	ECR	DNR	JAJ-PNBE	FUT-BKG	UP	525.34	525.458	0.118	Br no.79 Corroded girder & Channel sleepers.	75	2026-27
121	ECR	DNR	JAJ-PNBE	FUT-BKG	UP	525.458	527.157	1.699	Br no.82,83,88 -Corroded girder& Channel sleepers.	75	2026-27
122	ECR	DNR	JAJ-PNBE	PNBE stn	UP	542.34	544.603	2.263	1°curve with Ca=40 mm	75	2026-27
123	ECR	DNR	JAJ-PNBE	FUT-BKG	DN	524.249	524.316	0.067	Br no.76 Corroded steel trap plate	75	2026-27
124	ECR	DNR	JAJ-PNBE	PNBE-SCY & PNBE-RJPB	DN	542.32	545.1	2.78	Old Track and P & XING . 1° CURVE WITH MULTIPLE PXING	75	2026-27
125	ECR	SEE	BJU-KIR	PSR-GAI	UP	98/31	100/05	1.6	Diversion with curves	75	2026-27
126	ECR	SEE	MFP-HJP	MFP-RD	UP	48/9	48/11	0.2	Due to turn outs taking -off from outside of 2.4° curve.	75	2026-27
127	ECR	SPJ	SGL-RXL	SGL-RGH	SL	14/10	14/12	0.132	Due to insufficient cant in Curve of 3.82º.	75	2026-27
128	ECR	SPJ	SPJ-DBG	HYT-TLWA	SL	23/10	23/13	0.198	Due to weak girder of Br.No.17.	75	2026-27
129	ECR	SPJ	SPJ-KGG	DKSG-HPO	SL	39.47	41.21	1.74	Due to speed potential of curve No.-08.	75	2026-27
130	NR	UMB	SIR-DLPC	RPAR-BARJ	SL				Two turnouts(P-15L-16 & P-18,L-17) fall on curve No. 17	75	2026-27
131	NR	UMB	SIR-DLPC	RPAR-BARJ	SL				Due to inadquate transition length of Curve No. 20	75	2026-27
132	NR	UMB	SIR-DLPC	RPAR-BARJ	SL				Due to inadquate transition length of Curve No. 21, 22	75	2026-27

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
133	NR	UMB	SIR-DLPC	RPAR-BARJ	SL				Due to inadquate transition length of Curve No. 24, 25, 26	75	2026-27
134	NR	UMB	SIR-DLPC	RPAR-BARJ	SL				Due to inadquate transition length of Curve No. 27	75	2026-27
135	NR	UMB	JHL-HSR	RPHR-HSR	SL				Due to inadequate transition length of curve	75	2026-27
136	NR	UMB	RPJ-BTI	DBN-Yd-NBA	SL				Due to inadequate transition length of 8-Cand 8-D.	75	2026-27
137	NR	UMB	RPJ-BTI	DBN-NBA-Yd	SL				Due to inadequate transition length of curve No.10.	75	2026-27
138	NR	UMB	RPJ-BTI	BTI-BTIC	SL				BTI-BTIC 75 kmph at curve No.3 of 3 degree in BTI-Yd at km 171/9 to 172/5 which is already under speed restriction.	75	2026-27
139	NR	UMB	BTI-SGNR	BTI-BHX	SL				Due to non standard bridge girder (Restricted Height Girder) and non standard fitting of 52 Kg rails on Br. No. 1	75	2026-27
140	NR	LKO	LKO-SLN-ZBD	UTR-BKKS	Up				UP Line BKKS-UTR due to sharp curve	75	2026-27
141	NCR	PRYJ	CNB-ALD	ALD Yd.	DN	824/24	824/4	0.5	Due to less transition length in curve No. 03 due to approach of bridge. (Jan'1969)	75	2026-27
142	NCR	JHS	BIN-JHS	BJI-JHS	DN	1124/16	1124/20	0.3	T/out in transition portion	75	2026-27
143	NCR	JHS	JHS-MKP	KID-BNDA	SL	1318/0	1318/5	0.5	4º curve	75	2026-27
144	SCR	SC	BPQ - KZJ	WIRR YARD	DN	160/12	160/16	0.13	Turnout on transition curve.	75	2026-27
145	SCR	BZA	BZA-GDR	GDR-MBL	DN	137/4	142/12	5.27	Yielding formation	75	2026-27
146	SCR	BZA	BZA-GDR	SDM-KRV	DN	289/26	298/14	8.70	Yielding formation	75	2026-27
147	SCR	BZA	BZA-GDR	MBL-GDR	UP	142/11	137/5	5.21	Yielding Formation.	75	2026-27
148	SCR	BZA	BZA-GDR	SDM-TNR	UP	280/0	277/0	3.00	Yielding Formation.	75	2026-27
149	SCR	BZA	BZA-GDR	KRV-OGL	UP	298/1	290/1	8.00	Yielding Formation.	75	2026-27
150	SCR	SC	BPQ - KZJ	MAGH - BPQ	UP	139/0	138/29	0.60	Bad formation.	75	2026-27
151	WR	BRC	ANND-GDA	ANAND JN - SADANA PURA	SL	04/03	04/10	0.7	DUE TO INSUFFICIENT TRANSITION LENGTH ON 3 DEGREE CURVE.	75	2026-27
152	NFR	LMG	BPB-SCL	KTX-SCA	SL	11/2	11/3	0.1	Due to negative camber on bridge No. 20 (5x30.50 OWG)	40	2026-27
153	ECR	SPJ	NKE-PNYA	VKNR-PNYA	SL	300/3	303/3	3	For Safety of wild animals.	40/25	2026-27

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
154	NFR	KIR	BOE-RDP	RGJ-BJY	SL	22/1	22/3	0.20	Inadequate transition length in Curve No. 22 & 23	50	2026-27
155	NFR	APDJ	RQJ-NCB	PQZ-SJRR	UP	112/2	112/3	0.1	Unauthorised Track Crossing	50	2026-27
156	ECR	SPJ	NKE-PNYA	VKNR-PNYA	SL	296/9	300/3	3.4	For Safety of wild animals.	60/35	2026-27
157	NFR	LMG	LMG-BPB	JGLP-NHGJ	SL	109/4	109/6	0.2	Settlement of bank at L/no.2 of JGLP yard	15	2026-27
158	NFR	LMG	LMG-BPB	JGLP-NHGJ	SL	110/4	110/5	0.1	Settlement of track	20	2026-27
159	NFR	LMG	LMG-BPB	JGLP-NHGJ	SL	110/5	110/7	0.2	Settlement of embankment	20	2026-27
160	NFR	LMG	LMG-BPB	DJA-PDJ	SL	78/0	78/3	0.3	Regular problem of falling stone debris	30	2026-27
161	NFR	LMG	LMG-BPB	DJA-PDJ	SL	79/7	81/0	1.3	Settlement of embankment	30	2026-27
162	NFR	LMG	LMG-BPB	DJA-PDJ	SL	81/1	81/4	0.3	Problem of regular settlement of bank	30	2026-27
163	NFR	LMG	LMG-BPB	DJA-PDJ	SL	82/0	82/3	0.3	Settlement of formation	30	2026-27
164	NFR	LMG	LMG-BPB	PDJ-MXR	SL	84/0	84/1	0.1	Settlement of track	30	2026-27
165	NFR	LMG	LMG-BPB	MXR-MGE	SL	92/1	92/5	0.4	Bad bank and problem on slope failure	30	2026-27
166	NFR	LMG	LMG-BPB	BXA-DCA	SL	134/1	134/2	0.1	problem of falling of stone debris	30	2026-27
167	NFR	LMG	LMG-FKG	NJN-SZR	SL	295/8	296/0	0.2	Point & Crossing on transition of curve	45	2026-27
168	NFR	LMG	LMG-FKG	LMG-BRLF	SL	196/0	196/2	0.20	Reverse curve without Transition length on Br. Approach of Br.No- 184	55	2026-27
169	NFR	TSK	Dibrugarh Town-Makum Jn - LLO	BLOCK SECTION	SL	21/2	21/6	0.40	Sharp Curve of 6.7 Degree (Curve No.12)	55	2026-27
170	NFR	TSK	Dibrugarh Town-Makum Jn - LLO	BLOCK SECTION	SL	23/2	23/5	0.30	Sharp Curve of 7.5 Degree (Curve No.15)	55	2026-27
171	NFR	TSK	Dibrugarh Town-Makum Jn - LLO	BLOCK SECTION	SL	28/3	28/7	0.40	Sharp Curve of 7.5 Degree (Curve No.20)	55	2026-27
172	NFR	TSK	Dibrugarh Town-Makum Jn - LLO	BLOCK SECTION	SL	43/4	43/8	0.40	sharp curve of 8 ° (Curve No.31)	55	2026-27
173	NFR	TSK	Dibrugarh Town-Makum Jn - LLO	BLOCK SECTION	SL	26/3	26/7	0.40	Sharp Curve of 6 Degree (Curve No.19)	65	2026-27
174	NFR	TSK	Dibrugarh Town-Makum Jn - LLO	BLOCK SECTION	SL	40/8	41/2	0.30	Sharp Curve of 6 ° (Curve No.29)	65	2026-27

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SN	Rly	Division	Major Route/ Section	Block Section/ Station Yard	Line (Up/Dn)	From Km	To Km	Length of PSR (Km)	Reason of PSR	Existing Speed (kmph)	TDC
175	NFR	KIR	KIR-MFA	SRI-JAU	SL	24/1	24/5	0.40	Loss of camber of Br. No. 16 (Kankar)	70	2026-27
176	NFR	LMG	CPK-SCE	CPK-SCE	SL	1/8	1/9	0.1	Due to non standard steel girder of Bridge no - 2	75	2026-27
177	NFR	TSK	SLGR-MRHT-DBRG	BLOCK SECTION	SL	24/8	25/2	1.30	Due to Bridge no. 30 & Sharp curve of 4°	75	2026-27
178	NFR	TSK	SLGR-MRHT-DBRG	BLOCK SECTION	SL	41/7	42/2	0.50		75	2026-27
179	NFR	TSK	SLGR-MRHT-DBRG	BLOCK SECTION	SL	1/9	2/5	0.50		75	2026-27

Annexure A-17

1.0 Railway Act, 1989, Para 11G empowers Railways to build transmission lines, maintain and operate the same for its own utilization of running of trains on the railway system. Further, Railway is a Deemed Licensee under the 3rd provision of section 14 of the Electricity Act 2003. Same has been communicated by Ministry of Power (MoP) vide letter dated 6th May 2014.As per CERC petition no. 197/MP/2015 order dated 05.11.2015, Railways is authorized to undertake transmission and distribution activities in connection with the working of Railways

2.0 Status of Transmission lines currently owned by IR

Rlys	Length of transmission line (Km)
ECR	220
ECoR	53.51
SER	112.77
NCR	1265.04
CR	465
NR	165.98
Total	**2282.3**

3.0 Sanctioned works of Transmission lines (subject to Board's observations below):

SN	Rlys	Name of work	Length (in KM)	Sanction year	Sanctioned cost (Cr)
1	NCR	Kanpur-Mughalsarai - 220/132 kv& 132/25 kv in sub-stations and 220 kv& 132 kv TR-line for obtaining direct power supply from NTPC (Phase-I)	200	2003-04	175.8
2	NCR	Naini-Jeonathpur&Jigna-Chunar (Traction Sub-stations) - 132 kv transmission line	160	2011-12	112.91
3	SECR	South East Central Railway - Direct power supply from central generating agencies	500	2002-03	230.28
4	ECR	Karamnasa, Sonenagar& Gaya - Traction substations and Jeonathpur-Sonenagar via Kudra, Karamnasa& Sasaram - 132 kv transmission line	130	2011-12	100.59
5	NCR	Mugalsarai-Ghaziabad - New 220/132 kV grid sub-station at Bhogaon, 220/132 kv transmission lines & associated works	82	2017-18	148
6	NCR	Fatehpur - New 220/132 kv grid sub-station, 220 kv transmission line & associated work	32	2017-18	106.7
7	CR	Transmission line network on Chennai-Mumbai route	1284	2017-18	1127
8	SR	Transmission line between on Chennai-Howrah route (1662 km)	1662	2017-18	1566

4.0 Tentative Action Plan for five years

Year	2022-23	2023-24	2024-25	2025-26	2026-27
Target (Km)	500	1000	1000	1000	1000

Board's observation:

As regards Transmission lines to be owned by Railways, further detailing is required. Most of the states have accorded open access to IR. IR's own power requirements might not justify such investments. Moreover there might be duplication of national capacity for which due consultation with Ministry of Power should be started. MoR should be cautious in sanctioning the same along the entire GQGD.

Annexure-B1

CALCULATION OF REQUIREMENT OF ELECTRIC LOCOMOTIVES BY THE YEAR 2026-27 by TT Dte.					
	Loading	in million tonne	3000		
	Lead	in kms	565		
	Electric loco utilisation	ntkm/d/l	432094		
	HP to TL Ratio (Based on current data of HP/single loco for TLL excluding tare, obtained from CRIS for March, 2022.)	in nos.	1.62		
	Desired HP to TL ratio	in nos.	2.00		
	Diesel loco in service	in nos.	2500		
A	**Projected Traffic in 2026-27**			Million Tonne	3000
B	AVERAGE LEAD (Project by 2026-27)			Kms	565
C	ELECTRIC FREIGHT TRACTION SHARE				100.0%
D	ELECTRIC FREIGHT UTILISATION NORM (IN USE). Ntkm/day/loco has increased with CAGR of 1.33% between 14-15 to 18-19. 19-20 and 20-21 not a normal period on account of Covid-19. CAGR of 1.33% is assumed from 19-20 to 26-27			ntkm/d/l	432094
	A.LOCOS FOR FREIGHT				
E	ANTICIPATED TRAFFIC	(A*B)	bntkm		1695
F	ELECTRIC SHARE	(E*C)	bntkm		1695
G	LOCOMOTIVES REQUIRED (F/D)		NUMBER		10747
H	ADDITIONAL LOCOMOTIVES REQUIRED FOR MAINTENANCE (Target ineffective-10%				1050
I	TOTAL FREIGHT LOCOMOTIVES REQUIRED (G+H)				11797
J	WAG12 (12000 HP) ELECTRIC LOCO HOLDING ON 01.04.2022 (R/Powered)				200
K	WAG12 (12000 HP) ELECTRIC LOCOMOTIVE TO BE PRODUCED 2026-27				500
L	NET FREIGHT LOCOMOTIVE REQUIRED (I-(J+K))				11097
M	RIGHT POWERING OF FREIGHT LOCOMOTIVE		Multiplying factor		1.231
N	TOTAL FREIGHT LOCOMOTIVE REQUIRED (L*M)				13662
O	FREIGHT ELECTRIC LOCO HOLDING ON 01.04.2022 (excl. 200 nos. WAG12 Locos)				6026
P	**FREIGHT ELECTRIC LOCO PRODUCTION PLAN 2022-23 & 2023-24**				**2280**
Q	NET ELECTRIC LOCO REQUIREMENT (N-(O+P))				5356
R	LOCO REQUIREMENT AGAINST CONDEMNATION				574
S	DIESEL FREIGHT LOCOS TO REMAIN IN SERVICE				2500
T	ADDL. FREIGHT ELECTRIC LOCO REQUIREMENT BY 2026-27 (Q-R-S)				*3430*
U	Addl requirement considering demand increase @ (18+20%)				*1303*
V	**Total Electric Freight Loco Requirement for next 3 years**				***4734***
W	**Additional Electric Loco Per/year for next 3 yrs 24-25 to 26-27**				***1578***
X	Total for 5 yrs from 22-23 to 26-28 (earlier) (1140*5)				***5700***
Y	Total for 5 yrs from 22-23 to 26-27 (revised) (1140*2280+1578*3)				***7014***
Z	Additional Electric Loco required till 26-27 (Y-Z)				***1314***
Note : New Technology WAG9 (9000HP) produced during the period upto 26-27 would be deducted from total additional electrical loco requirement at Item (V)					

Annexure- B-2

Wagon Demand Forecast for 3,000 MT loading and Procurement Plan

1. Wagon requirement

1.1. Holding of Wagons as on 1st April'21 is 330,000(excluding defence).

1.2. Additional Type-wise Wagon Requirement by 2026-27 will be as per **Annexure-B-2(a)**:

1.3. There will be significant increase from current wagon holding.

2. **Procurement Plan**

2.1. 8386 wagons have been procured in 2021-22 and 24,000 wagons are expected to be inducted through GPWIS.

2.2. Hence, net procurement by IR shall be 2,67,614~2.68 lakh (including outstanding orders of 14,000 wagons and case of procurement of 90,000 wagons under finalization)

2.3. Tentative procurement of these wagon shall be:

Year	2022-23	2023-24	2024-25	2025-26	2026-27
Number of Wagons	11,174	31,174	31,174	31,174	51,174

3. **Augmentation of Maintenance Infrastructure for maintenance of additional Wagons**

3.1. There will be significant increase int the no. of rakes examined per day.

3.2. However, efforts will be made to reduce the examination by increasing the CC and Premium examination and proportionately reducing the End to End examination.

3.3. Accordingly, number of examinations are likely to be as under:

Examination Average Per Day				
	CC	Pre	E2E	Total
Actual Examination Avg /Day	89	175	147	411

Additional Examination	80	158	132	370
Equivalent examination Considering 50% in Premium and 25% in E2E	169	333	279	781
Total Examinations	305	166	70	541

3.4. To meet this increased load, yard facilities will be required to be upgraded and augmented. For this, IR has sanctioned construction of 11 Next Generation Freight Yards at locations having higher rake examination. Also, an umbrella ofRs 1,000 Crore has been sanctioned for the upgradation of other freight yards and ROH depots. Out of which, various works proposed by ZRs amounting to Rs 661 Crores have been processed for sanction**[(Annexure-B-2(b)].** ZRs will be asked to give proposals for further augmentation, to meet the increased requirement. Accordingly, if required, additional Umbrella will also be processed for sanction, for which a tentative provision of Rs 5,000 Crore is beign kept.

4. **ROH and POH augmentation:**

4.1. Increase of ROH and POH capacity shall also be required, as mentioned below:

ROH Requirement Average Per Month			
	Existing	Additional	TOTAL
Wagon Holding	3,30,000	1,55,872	4,85,872
ROH Required (target)	10,000	4,700	14,700
POH Required (target)	5,000	2,350	7,350

4.2. Details of some of the ROH facilities augmentation is given in enclosed Annexure. For POH capacity augmentation, another umbrella of 500 Crore has been sanctioned. Out of this, work as proposed by ZRs will be sanctioned. Additional Umbrella will also be processed after assessing requirement of Zonal Railways, for which a tentative provision of Rs 2,500 Crore is beign kept.

5. **New Categorization of ROH & Yards**:

5.1. Currently the Yards/Sicklines (A to F)& ROH depots (A to D) are categorized, based on availability of certain facilities. However, this categorization was done almost 20 years ago. To meet the current requirement, there is need to revise this criteria for categorization of Yards and ROH depots, for which it is proposed to form a committee of three CRSEs.

6. **Induction of New types of wagons for efficient transportation :**

6.1. For increasing the efficiency of transportation (payload, speed and sturdiness), procurement of new wagon types shall be planned for procurement.

7. **Inputs required in existing wagons:**

7.1. To increase the reliability of existing wagons, inputs are required in wagons. Such inputs shall be got elaborated after thorough study. However, tentatively cost of rehabilitation can be taken as 0.075 Crores per wagon, with total coming to 23,250 Crores for 3,00,000 IR owned wagons.

8. **Creation of Material Handling Infrastructure**

8.1. Sickmarking in open wagons on account of body/door/floor damage is more than 50%, apart from giving rise to safety concern during operation.

8.2. In covered wagons also damage to doors is done as truck is taken close to the door, which causes damage, and also after loading proper closing of doors is not done. Door damage is single biggest contributor of sickmarking in covered wagons.

8.3. Though a system of financial penalties is there for the damages inflicted on wagons during loading/unloading, it is not enough deterrent, as cases of damages and showing an increasing trend.

8.4. There are multiple reasons for such damages- use of non-standard and insufficient mechanised means, unskilled operators, lack of proper facilities like platform (for operator to see movement of bucket inside the wagon), availability of guard rails, etc.

8.5. Hence, there is a need to create Common User Facilities (CUF) for loading/unloading of consignments at loading/unloading points & charging the users for access to such facilities. Apart from preventing damages to wagons during loading/unloading, it will also help in faster loading and unloading and thereby reducing the terminal detention and thus increase wagon availability.

8.6. There are 400 sidings on IR which are having more than 1 loading/unloading on an average per day. It is proposed to create material handing infrastructure at such locations at a cost of Rs 50 Crore each, with total estimated cost of Rs 20,000 Crore.

8.7. For detailed study in this regard and working out a commercial model for this, it is proposed that a Consultancy may be given.

9. **Way side and onboard diagnostic equipments:**

9.1. High density, heavy haul operations require adequate wayside monitoring equipments – OMRS, WILD, HBD & Machine Vision Equipments. Plan is already there to install OMRS (additional), HBDs and Machine Vision Equipments. Onboard equipments will also be required to be installed. A Lumpsum cost of Rs 5,000 Crore is proposed for providing such systems.

10. **Strengthening of IT infrastructure for Maintenance:**

10.1. IT infrastructure need to be strengthened to meet the increased maintenance requirement. A Lumpsum cost of Rs 1,000 Crore is proposed for strengthening of IT infrastructure.

10.1. IT infrastructure need to be strengthened to meet the increased maintenance requirement. A Lumpsum cost of Rs 1,000 Crore is proposed for strengthening of IT infrastructure.

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Annexure-B2 (a)

ADDITIONAL WAGON REQUIREMENT CALCULATIONS (by TT Dte.)

Traffic details upto 26-27			
Year	Lead	**Loading (in MT)**	**NTKM (in billion)**
20-21	550	1232	678
21-22	578	1418	820
22-23	565	1700	961
23-24	565	1959	1107
24-25	565	2258	1276
25-26	565	2603	1471
26-27	565	3000	1695

CAGR of expected traffic growth upto 26-27		CAGR of ntkm/wagon/day upto 26-27	
Yr	NTKM	Yr	ntkm/ wagon/ day
22-23	1700	21-22	8213
26-27	3000	26-27	12637
CAGR	15.3	CAGR	9.0

ntkm/ wagon/ day upto 26-27	
Year	**ntkm/ wagon/ day**
17-18	7949
18-19	7954
19-20	7128
20-21	6900
21-22	8213
22-23	8952
23-24	9758
24-25	10636
25-26	11593
26-27	12637

WAGON REQUIREMENT upto FY 2026-27			loading 3000 mt
SN		Item	Ntkm & wagon projection
1		Expected NTKM for the FY (in Million NTKM)	1695000
2		Expected NTKM, excluding for POL & Container traffic (excl 11.7 % of total) (in Million NTKM)	1496685
3		Expected NTKM per wagon per day upto the FY	12637
4	row2*1m/ row3*365	Net wagon requirement for achieving targeted NTKMs as per utilization trends	324491
5	row4* 1.38	Since loading is not evenly spread around the year, requirement of wagons for peak loading (+18% over average) +20%	447798
6	row5* 1.045	Net requirement of wagons with ineffective percentage @ 2.5% (row5*1.025)	458993
7		Total Wagon Holding as on 01.04.2021 (Air brake only)	330310
8		Effective Wagon Holding as on 01.04.2021 (excl POL - 14498 & Container- 27544)	288268
9		Expected condemnation of air brake wagons upto 2026-27 as per Mech Dte	37533
10	row6+9-8	**Additional wagon required upto the FY**	**208258**
11		Cumulative production in 21-22	8386
12		Outstanding order as on 01.04.22	14000
13		Expected induction through GPWIS upto the FY (5000*6)	30000
14	row10-11-12-13	Additional requirement of wagons for 05 years from 2022-23 to 2026-27	**155872***

* Note : Wagon requirement of 1,02,000 (1.02 lakh) was advised by Letter No.2017/TT-1/27/1 dated 19.01.22. Additional 53,872 wagons shall be of new design wagons of 25t which can run on 25t routes in loading Railways where these routes will be proliferated with enhancement of capacity.

Annexure-B2-(b)

List of Works Sanctioned for Augmentation of Wagon Maintenance Infrastructure in Openline

a) 11 Next Generation Freight Maintenance Yards

Railway	*Division*	*Yard*
WR	*Ahmedabad*	*Gandhidham*
CR	*Bhuwawal*	*Bhusawal*
WCR	*Jabalpur*	*New Katni Yard*
ER	*Asansol*	*Andal*
NR	*Ambala*	*KJGY yard*
ECoR	*Khurda Road*	*Paradeep*
SER	*Chakradharpur*	*Bondamunda*
	Kharagpur	*Nimpura*
SECR	*Raipur*	*Classification Yard/BMY*
NFR	*Katihar*	*New Jalpaiguri Yard*
ECR	*Dhanbad*	*PTRU*

List of Works recommended for inclusion in UW 2022-23 (NR's PB-1077/22-23)

S.No.	Name of the Work	Cost in (Rs. in Crore)
Central Railway		
1	Bhusawal: Extension of covered shed in existing Unification Shed with gantry along-with allied facilities and M&Ps for attending ROH & other repairs	11.02
2	BSL DN Marshalling Yard: Augmentation of facilities for Premium examination	1.6
3	Ajni (Nagpur): Construction on New Covered Shed with Gantry, Wheel parking shed, CTRB room and associated facilities for ROH Depot Ajni	23.66
4	Augmentation of facilities for Premium Examination at Daund and Wadi yard	7.8
5	Kalamboli Yard: Provision of 'A' category yard facilities to enable premium examination	18.59
6	BSL UP Marshalling Yard: Upgradation to 'A' category Yard to enable Premium Examination	8.81
7	Ajni yard: Upgradation to 'A' category yard for enabling Premium examination	3.08
8	Miraj & Ghorpadi Yard: Upgradation to 'A' category yard for enabling Premium examination	5.02
9	Miraj: Provision of ROH facilities at Miraj	28.06
	Total	**107.64**
Eastern Railway		
1.	Augmentation of Goods infrastructure facility at Jamalpur	4.82

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2.	Improvement of maintenance facility of freight trains at CP	19.67
3.	Upgradation of Sitarampur Freight Sick line as per Vision 2024	14.94
4.	Andal – Development of infrastructure related to infrastructure deficiencies at Durgapur Steel Exchange Yard and Empty Yard/Andal	13.02
5.	Improvement in Freight trains maintenance facilities at Ranaghat	2.32
6.	Safe to run examination of freight trains along with.related facilities at Naihati	2.45
7.	Malda Town – capacity increase of goods train examination facilities (under Vision 2024)	19.14
	Total	**76.36**
East Coast Railway		
1	Provision of pathway lighting facility and welding points at ADB yard exchange yard and CC yard of C&W depot	6.7
2	Visakhapatnam-Proposal for two service buildings of size 40 M x 8 m for staffs attending yard examination at RMUY/VSKP	3
3	Provision of 12 nos. of pathways of 700M x 1.5M size with lighting facilities along 4 routes in TLHR yard	4.06
	Total	**13.76**
North Eastern Railway		
1	Kasganj Jn.- Freight maintenance infrastructural facility requirements at Kasganj station	3.18
2	GD-Replacement of old pole light fitting and Provision of lighting arrangement at bogie level at freight examination line &2 no high mast at D-shed	0.94
3	LKU-Extension of Sick line shed with an additional pit for NMG at Lalkuan Depot	2.5
	Total	**6.62**
Southern Railway		
1	Augmentation of freight examination facilities at JTJ yard	1.78
2	Augmentation of freight examination facilities at TNPM yard	2.09
3	Augmentation of freight examination facilities at MLPM yard	2.01
4	Creation of freight examination facilities at IPN yard	27.26
Total		**33.14**
South Central Railway		

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1.	Vijayawada Wagon depot Augmentation of infrastructure facilities for maintenance of wagons	8.6
2.	Vijayawada Freight yard. Proposal for uprooting of line no.4 in	3.06
3.	Kakinada: Development of freight train examination facilities for CC	19.29
4.	Raichur: Development of freight examination facilities	4.83
5.	Gooty: Augmentation of freight train examination facilities	10.9
6.	Ramagundam: Augmention of freight maintenance facilities	8.96
7.	Bellampalli: Augmentation of freight maintenance facilities	11.55
8.	Sanathnagar: Augmentation of freight maintenance facilities	9.53
9.	Dornakal: Augmentation of freight maintenance facilities	3.57
10.	Purna: Improvement to existing freight train examination facilities	0.92
	Total	**81.21**

South Eastern Railway

1	BKSC – Extension of Sick line Bokaro to create infrastructure for ROH of BOXNHL	25.98
2	ADTP – Construction of new sick line facilities	29.73
3	TATA – Extension of ROH shed at MSL.	12
4	BKSC – Provision of Pathway and lighting at Cripple line/Outward yard and other	3.86
5	NMP – Infrastructural facilities for augmentation of ROH capacity of wagons	34.71
6	ADA – Provision of auxiliary shed at WRD/ADA for bogie overhauling and	5.76
7	TATA – Improvement of rake examination facilities.	4.5
8	Haldia – Up-gradation of maintenance facilities of goods train at BH-Yard, Haldia.	7.8
9	BNDM – Improvement of rake examination facilities at the Departure	4.5
10	BJE – Infrastructural Up-gradation at Bhojudih Yard along with provision of new building for C&W staff.	3.82
11	Haldia – Upgradation of Sick line to create necessary facilities of ROH	18.5
12	ADRA – Development of freight maintenance facilities at Adra Yard and	9.62
13	BKSC Provision of New Sick line to cater sick wagons arising out of Empty Yard	17.16
	Total	**177.94**
South Western Railway		
1	HRR- Provision of crane facility in sick line	1.04
	Total	**1.04**
Western Railway		
1	Hapa-Upgradation/Improvement of Freight Wagon Maintenance Facilities	37.95

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2	Gandhidham- Development of infrastructure for freight maintenance	15.15
3	Sabarmati- Development of infrastructure for freight maintenance	38.39
4	Shambhupura- Upgradation/Improvement of Freight Wagon Maintenance Facilities	12.13
5	Udhna-Provision of ROH facility for freight stock (BLC)	2
	Total	**105.62**
West Central Railway		
1	STA-Extension of existing ROH shed by 50Mtrs.	11.3
2	NKJ-Extension of existing Old Sick Line by 40 Mtrs.	6.8
3	NKJ-Development of New ROH shed at NSL NKJ & extension of existing ROH by 50 Mtr.	11
4	ET-Augmentation of freight maintenance facilities for ROH Shed Itarsi and Freight Yard Itarsi	29.34
	Total	**58.44**

SUMMARY

Sl.no.	**Railway**	**Estimated Cost (in crore)**
1	CR	107.64
2	ER	76.36
3	ECoR	13.76
4	NER	6.62
6	SR	33.14
7	SCR	81.21
8	SER	177.94
9	SWR	1.04
10	WR	105.62
11	WCR	58.44
	Total	**661.77**

Annexure B-3

Suggestions for improvement in Wagon Turn Around and reduction in PDD:

1. At all the sidings dealing with bulk commodities it should be ensured thatSidings have mechanised handling arrangements.
   a) Loading should be done preferably through silos.
   b) Unloading system like twin or multi tippler should be deployed so that release time of 58 wagons is within one hour.
2. All these siding should work on engine on load (EOL) system.
3. All the rakes should have CC or Premium examination and intensive examinations should be negligible.Premium examination should be valid for 25 + 5 days and CC examination should be valid for 45+5 days.We should move towards universalization of CC examination.Zonal Railways to be authorised to pool all CC depots into one cluster so that invalid CC rakes can be checked at any of the CC Depots within the zone. This will minimize empty running of invalid rakes within the zone.
4. Strict disciplined should be followed so that rakes run with valid BPC and conform to requirement of examination types.
5. Target time for examination should be maximum of 3 hrs and rake released should be defect free.
6. ROH and POH workshop should work round the clock and maintenance should be on unit replacement concept.
7. Damage to wagons while handling especially where JCBs are deployed should be curbed strictly and heavy penalty to be imposed for damages.
8. 25 t axle load routes should be proliferated on ECOR, SER and SECR Railways. DPWCS on long haul should be encouraged, specially on these Railways
9. Close circuit movement of rakes should be identified by all railways and same concept as above should be implemented there also.
10. Speed differential between freight trains and mail/ express trains should be reduced so as to maximise line capacity utilisation.
11. Wagon turn around also depends on empty rake going into loading cycle early . More discounts should be encouraged to loading in empty movement direction.
12. Institute a system of daily analysis of control charts by a team of officers. They must cross check a sample of CTRs, collected from the crew /guard , with the control charts to unearth the hidden detentions.
13. Analysis of a few speed charts of locos everyday to study the loco behaviour and enginemanship. Cases of TMI locos , of shunting notches not working etc to brought out through these analysis.
14. Regular signal sighting through joint foot plates, condition of distant signals to be particularly watched.
15. Asset failure cause nearly 20% loss in line capacity. Preventive maintenance regime should be followed for all assets like signal, track, OHE ,wagons etc. Quick Response Teams should be formed so that failure to restoration time is minimised. Zones should analyse failure prone areas and these QRTs should be stationed there.
16. Flying TXR gangs should be deployed in high BOXN loading areas to minimise embedded empties.
17. Alternate clear routes for congested routes shall be used and if required track structure and signalling arrangements should be upgraded for high speeds.

18. Over powering of trains to increase balance speeds. We should strive to situation where loads don't wait for locos.
19. Loco failure in section should be minimized and target of locos failure per loco sheds should be adhered to.
Pre Departure Detention
1) Divisions/Zones should increase extended running points i.e. bye - passing atleast one crew changing point. These crack runnings should be monitored.
2) Use of shunters in yards to ready the train.
3) Provision of COA terminals in lobbies for visibility of trains.
4) Providing crew shelters at station endswherever crewsare changed.
5) All Dy. Chief controllers (Dy CHC) and crew controller should be given training in crew ordering skills.
Crew ordering should take into account:
• **Likely arrival of the train.**
• **Condition of the path ahead and likely departure time of the train. Coaching block period should also be kept in mind.**

Annexure B-4

End of Train Telemetry (EoTT)

1 EoTT establishes communication between the locomotive and last wagon of train and ensures that train is running with all coaches/wagons.EoTT system consists of: (i) Head of Train (HoT) or cab Unit (CU) device in locomotive. (ii)End of Train (EoT) or Rear Unit (RU) device on rear end of vehicle of train.

2 **Benefits:** EoTT system has following benefits:

- Continuous monitoring of air pressure in the last vehicle thus ensuring high level of safety
- Possible operational savings in terms of elimination of guard and brake van
- Improved operational efficiency (no detention for brake van/Guards)
- Enhanced safety in train operation by minimizing human dependence
- Improved train monitoring and accident investigation by introduction of appropriate proven technologies like GPS, event recorder, GSM/GPRS

3 All freight locomotives will be provided with EoTT equipment and RSP sanctions for 5085 sets are available.

4 **At present 11 locomotives are running with EoTT in SER, ECoR and ECR**

5 **Implementation Plan:**

Total sanctioned Qty In all Freight locomotives	**Upto 2021-22**	**upto 2022-23**	**Upto 2023-24**	**Upto 2024-25**
5085	11	500	2000	5085

Annexure C-1

A. Pricing strategy for inducing modal shift

The National Rail Plan assesses extent of modal shift from road to rail under four different scenarios based on two major variables, namely, Transit Time and Cost to customers.

Scenario1:Business as Usual (BAU):

Considering implementation of Project Bharat Mala (Highways and DFCs)

Scenario2:Enhancement of Average Speed to 50 Kmph.

Scenario3:Enhancement of Speed to 50 Kmph with 30% Reduced cost to customers.

Scenario 4:Business as Usual (BAU) with cost Reduction to customers by 30%.

The outcomes are summarized in table below:

ESTIMATION OF RAIL SHARE IN VARIOUS SCENARIOS					
Commodities	Existing Scenario	Scenario1: Business as Usual (BAU)	Scenario 2: Enhancement of Average Speed to 50 KMPH	Scenario 3: Enhancement Average Speed to 50 KMPH with 30% Reduced Cost to Customer	Scenario 4: Business as Usual (BAU) with 30% reduced cost to Customer
BOG	4%	1%	18%	22%	7%
Cement	37%	38%	42%	51%	48%
Coal*	65%	61%	74%	74%	67%
Container	24%	16%	44%	48%	29%
Fertilizer*	87%	85%	90%	90%	88%
Food grains	16%	17%	21%	32%	29%
Iron Ore*	65%	60%	82%	82%	70%
Pig Iron	49%	49%	57%	70%	65%
POL	18%	9%	44%	48%	14%
Steel RM*	56%	55%	60%	60%	58%
Rail Share	28%	24%	40%	45%	31%

*No tariff reduction is assumed for Coal, Fertilizer, Iron Ore and Raw Material for Steel, as the share of these commodities does not increase by more than 5% even with reduced tariff.

Ideally, IR should strive for Scenario-3 for reaching modal share of 45% through a combination of capacity enhacement works and lowering of cost to customer.

B. Existing Schemes:

Current status of various types of discounts & incentives in freight segment is as under:

1. A discount of 15% on Haulage Charge per TEU rates in case of 'empty containers and empty flat wagons' permitted from 01.05.2022 to 31.07.2022.

2. **Automatic Freight Rebate Scheme for traffic loaded in Traditional Empty Flow Directions**: Discount @15%-20% is granted automatically by system on Railway Receipts itself i.e. no request or application to be made by customer.

3. Withdrawal of Busy Season Charge @15% from 01.10.2019 for all traffic, except Iron Ore and POL traffic, which has provided a substantial reduction in freight charges.

4. **Round Trip Tariff**: Freight discount is granted to traffic if customer offers to book traffic in onwards as well as return direction.

5. **Incentive to Fly Ash and Bed Ash**:40% discount in freight is granted to traffic booked in Open Stock; both in bagged condition as well as bulk/loose condition. Also granted 40% concession, when loaded in flat wagons, in bagged condition. In covered wagons in bagged condition is charged at Class LR1.

6. **Short lead concession** has been re-introduced from 01.07.2020 under which discount in freight at the rate of 50%, 25% and 10% is granted to the traffic booked upto 0-50KM, 51-75KM and 76-90 KM respectively except Coal & Coke and Iron ore traffic.

7. **Long lead concession**: Introduced from 01.07.2020 for Iron ore and Iron & Steel traffic under which discount in freight is granted for long lead traffic. Iron & Steel for distance >1600KM and >700KM is granted 20% concession and 15% concession, respectively; and Iron Ore traffic for distance >1500 Km is granted 20% concession.

8. **Inventive Scheme for loading of Bagged consignment in open and flat wagons**: Rebate of 20% on cement, china clay, chemical manure, food grain etc.; and rebate of 30% on urea/neem coated urea is offered.

9. Introduction of the Cube container to attract the two wheeler automobile traffic- Six Cube containers can be loaded in a BLC wagon together.

10. **Automobile loading**: Presently Railways carry approximately 16% of the domestic automobile traffic which has gone up significantly as compared to 7% share in 2019.

Strategy & Approach

The major thrust should be to reduce the overall cost of rail transportation to the customer and improved resources to be achieved through improved speed, customer service, tariff reductions/rebate as well as by rationalizing some of the other charges illustrated below:

- Demurrage/Wharfage
- Access charge
- Land License
- Staff Cost
- Stabling Charges
- Maintenance Charges
- Road Bridging

None of the above charges contribute in a big way in the overall kitty of railway freight earnings yet become a major cost burden and compliance on customers. Some of these charges are results of railway's own high input cost eg. staff cost, maintenance cost or inefficiency in operations and inability to provide assured transit time or publicised schedule, leading to high Demurrage/Wharfage charges which the hapless customer bears. In addition, to protect its own investment in wagons that at times may not be customers' choice, the railway imposes both physical and financial barriers on wagons/containers etc. Most of these charges emanate from lack of railway capacity and will get addressed with adequate increase in capacity.

A number of charges are directly linked with capacity and the railway narrowing its customer base by actually demarketing itself in certain segments, ends up as illustrated below.

- Cost of size of consignment
- Cost of Restrictions
- Cost of Investments
- Cost of Maintenance practices
- Cost of unpredictability
- Cost of RO-RO
- Take the example of Mini rakes or less than train load consignments that the railway resorts to during non peak season for attracting more traffic. However due to inadequate capacity, railway is unable to sustain this traffic throughout the year, as a result many of the customers that are unable to offer full rake traffic during peak season are weaned away to other modes such as road. Even the customers who do offer full rake traffic during peak, do so at high inventory and secondary transportation costs. Railway often imposes restrictions due to capacity issues in transit or at terminals. Despite computerisation and a robust information system (FOIS), majority of these restrictions are unforeseen. This unpredictability

imposes a huge cost burden on the customer in the form of inventory costs and even labour and transport cost for secondary transportation if it had already been planned and paid for. Unpredictability due to lack of capacity in the railway freight system exacts a high cost on customers.

- **Demand supply gap** for wagons/containers in domestic sector is due to national priority for transportation of coal, fertilizer, food grains. to be addressed, need to be bridged.

- **Adequate investment schemes** for wagon investment for private players/aggregators and supply of wagons from Railways. There should be diversified use of wagons for additional products such as that of AFTO rakes for non automobile products to make investments viable.

Annexure C-2

Aggregation of Piecemeal trafic and Door to Door delivery

1.0 The Need for Door to door delivery

The biggest competitive advantage currently being offered by the road sector is Door-to-Door delivery, which is weaning away traffic from railways. The major benefits of door to door service are as under:

- **Time bound delivery is assured**, Reliable transit times and service assurance.
- **Cost effectiveness** for shorter leads is typically under 500 km. Also cost after inclusion of first mile and last mile is competitive and flexible.
- **Third party insurance** and Safety of Shipments are assured.
- **Aggregation of smaller parcel sizes**, shorter leads, Convenience of operations, cutting carbon footprints, Efficient Inventory Management is possible.
- **Live Tracking**, In transit Visibility with no Offloads and Over carry, En-route Surface Challenges (Breakdown, Accidents, Chronic Jams to be addressed)
- **Warehousing facilities are normally part of the logistic system and linked with transportation.**
- **A diversified choice of aggregators** to overcome the absence of Aggregators in certain routes.

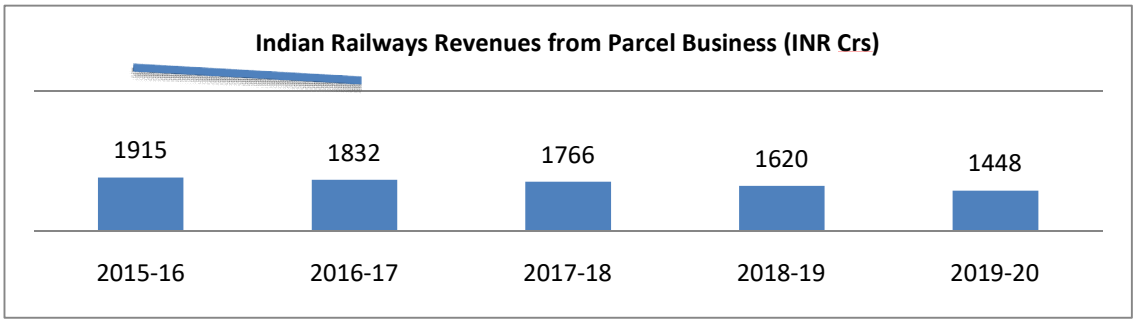
2.0 Strategies and Way Forward

- **Providing end-to-end Service:** Railways have so far have not attempted to cater to the total transport needs of the customers. First mile and Last mile delivery plays a major role in the customer's satisfaction, which need to be addressed.
- **Competent agencies** need to be associated as aggregators and service providers, and deployed to address the requirements of door to door delivery. These agencies can be linked to the important terminals to cater to the need of the customers. IR can engage them through a transparent EOI system.
- **Target areas for door to door delivery:**

  Target Customers for door to door delivery include E-Commerce, auto components, garments, textiles, handicrafts, pharmaceuticals, telecom products, import products, fast moving consumer durables (AC, TV, Dishwashers, Washing machines etc), Construction materials, Fast moving Consumer goods (Paints, Chocolates, Shampoos, Cosmetics, Personal products etc),IT components and Furniture (finished and unfinished) industry.

PARCEL TRAFFIC

- Parcel traffic revenues have huge potential. Railway revenues from parcel have indicated a declining trend despite economic growth.



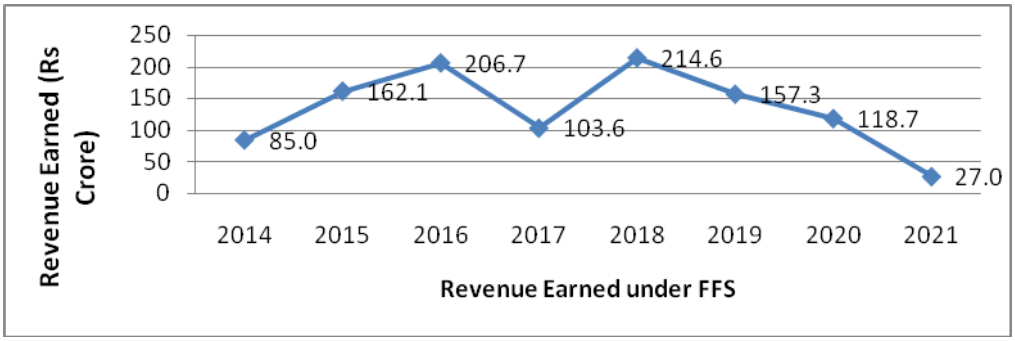
- **Global Practices:**Globally, railway systems operate on end to end logistic solutions, adopted in Germany, USA, Canada and Russia. The Railways through separate logistic divisions enter into contractual arrangements with the large logistics service providers for provision of first and last mile handling and transportation services in addition to other value added services including storage and packing.

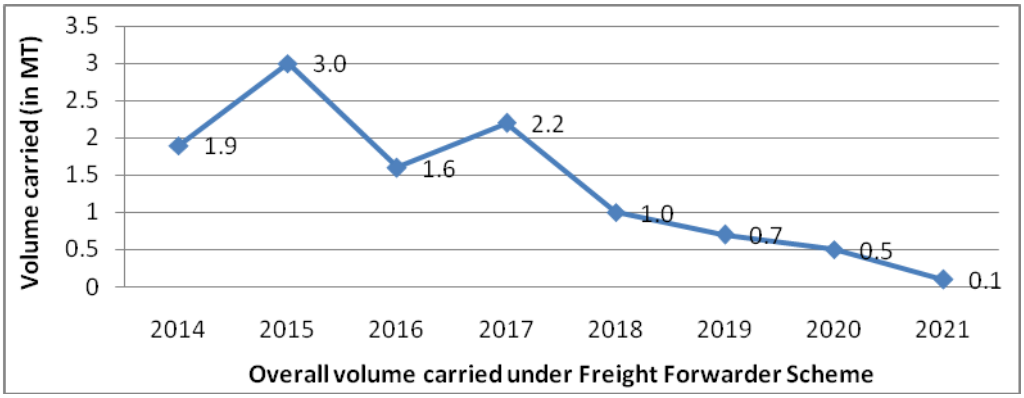
Current Initiatives

1. **eRD and eTRR** has been implemented for providing digital mode for registration of demand for wagons and electronic transmission of Railway Receipts, thereby facilitating customers to work from his office rather than visiting goods booking offices.
2. '**Roll on–Roll off**' services are being provided wherein trucks are allowed to be loaded on BRN modified rakes on compatible rates. This initiative can produce effects of collaboration with the road sector and actually can deliver goods in parcel business.
3. **Round-trip charging on container traffic**:To promote door-to-door services for short distance traffic through containerization, Haulage Charges for 0-100 km slab is charged for total to and fro movement, instead of charging for 0-50 km slab each way. This comes out to be about 35% cheaper per TEU for the complete round-trip. Since containerization also helps aggregation, this initiatives boost parcel business.
4. Regarding door-to-door service in smalls and parcel segment, a pilot for **Joint Parcel Product (JPP) has been launched in collaboration with India Post** (Deptt of Posts) – wherein first-mile-last-mile connectivity is being provided by India Post, while middle-mile transportation is being provided by Railways. This JPP targets business-to-customer (B2C) and business-to-business (B2B) market segments, with focus on e-Commerce and MSME market, at an affordable price.

Way forward

1. **Stakeholder engagement** for developing a policy palatable for the consumer as well as the aggregators and freight forwarders bearing in mind the evolving economic scenario. Extensive engagement with several noncore sectors has indicated that the existing freight forwarder policy has shown little traction with customers.





Source: TERI and National Rail Plan 2020

2. **Small Freight Aggregation Platform (Web-portal):** A virtual platform to aggregate demand of small consignments (less than train load) is required. The broad contours of the proposal include user registration, aggregator empanelment, scheduled trains on bi-weekly/weekly basis etc, consolidation, tracking etc. A study on operational zing this is already underway at TTBRU at request of Railway Board. CRIS is also engaged on the technology front.

3. **Supply of stock and suitable investment schemes for private participation**: Adequate and timely supply of rolling-stock and promotion of wagon investment schemes for private players in the logistics sector for adequate availability of parcel van.

4. **Insurance**: End to end third party insurance on the lines being provided by postal department should be proliferated.

5. **Palletization** of parcel traffic will be a big help towards aggregation. Single agency for bigger terminals to handle parcel traffic will give benefits.

6. **Multiple train options** which to be proliferated going forward: Next Day Service and Same Day Service. Auction of spaces in full rake trains which run like mail/express trains on defined routes at defined times.

7. **Sorting/Warehousing spaces**: Provide space at Stations for sorting, last mile connectivity handling, aggregation and consolidation. This facility can be provided in the Stations at Retiring room spaces etc.

8. **Technology and mechanization:** Provision of mechanized handling facilities, leveraging the technological advances for in transit load visibility through effective tracking, GPS and also for aggregation and consolidation etc. will be necessary steps.

9. **Costing:** Differentiated rates should be developed based on Industry demand, underutilized sectors, high demand sectors, industry practices and a rail road comparison. GST and other charges should be levied on composite service across the modes for first mile and last mile.

10. **Aggregator network**: On boarding of aggregators having national and regional presence in order to scale up options as compared to direct leasing (may be done through web portal).

11. **Express cargo** estimated at ₹25,000 Crore per annum in India, is a niche segment which has significant potential for railways, which needs to be addressed.

Annexure C3

Containerization and Aggregation Policy Issues

This note seeks to highlight some of the key issues affecting the sector, and to recommend some changes in policy direction that will enhance the share of containers on rail, to improve operational efficiency and reduce logistics cost for end-users. The three main areas of concern relate to

1. Service quality;

2. Infrastructure access and development; and

3. Pricing.

The current port traffic in terms of containers may be seen below:

1. Port Container traffic rail coefficient

As an illustration, Rail coefficient for ports has been analyzed for three major representative ports on West Coast catering to the north Indian hinterland. The input traffic from these ports have very skewed rail coefficient in favor of road traffic. The reasons and concerns highlighted for the container traffic mentioned above also stand good for taking initiatives in order to improve the rail coefficient of port traffic.

(Figures in TEU's)

Sr. No.	Port	Total Volume	Volume by Rail	Volume by road	Remarks
1.	INPT	28,48,650	4,78,360	23,50,290	70% for the road volume is cleared through DPD
2.	MDPT	31,80,870	9,18,771	22,62,099	70% for the road volume is cleared through DPD at local CFS
3.	PIPAVAV	3,04,391	2,26,719	77,672	

A major portion of port share contains containerized cargo and therefore, needs patronization of customers to sustain and increase the rail share various measures such as guaranteed transit time and flexible tariff regime will help in growth of this traffic.

2.0 Current Issues with Container Traffic:

2.1 Service related concerns –

a. **Reliability and transit time**– In the absence of assured transit time, **Offering "Freight Express" service in the sector** will enable further modal shift from road to rail by improving asset turnaround and thereby reducing cost. In addition, improving service quality will bring the rail product closer to what is already offered/available on road and help attract cargo from road to rail.

b. **Improving Asset Utilisation and Turnaround –Idling of rakes on account of maintenance delays and infructuous running of empty trains** to reach nominated base locations for maintenance leads to considerable inefficiencies in wagon utilization.

c. **Opening up cross border markets**–There is constraints also in opening up this sector freely for the CTOs. This will increase competition and service quality in these sectors.

2.2 Infrastructure access and development –

a. **Improving Operators' access to Container Rail Terminals (CRTs) -** Reducing the cost of access, allowing storage of containers, removing restrictions on hub and spoke operations, encouraging lift-on and lift-off operations are will encourage traffic.

b. **Other Facilitation measures:**

(i) All goods sheds where it is technically feasible to handle containers should be permitted for container operations and designated as CRTs. b. A CRT once notified should remain so on a long-term or permanent basis.

(ii) Develop a network of specialized Container Terminals on a common user platform – Access to cargo requires access to terminals. IR itself possesses the best network of terminals, and these need to be leveraged specifically to attracting container business on rail.

(iii) Improving system of attracting Private investments in their Good Sheds on both a Greenfield and Brownfield basis.

2.3 Pricing and Policy related concerns

a. The cost of repositioning empty containers and empty wagons is high (as much as 60% of loaded cost), which adds considerably to overall cost for container services. While the Railways have provided some concession in this space, more needs to be done.

b. There are two different pricing regimes on the railway system, wherein some containers are charged at a higher rate in order to protect existing railway markets for similar commodities. Such restrictive pricing categorizations tend to

reduce market response times to new cargo opportunities, and in turn prevent incremental cargo from being attracted to rail.

c. Railway pricing also works in the favor of heavy cargo because of which those who operate light cargo containers are at a disadvantage, and such cargo tends to move on road.

d. Certain commodities are still restricted for transportation by rail in containers despite having demand. This is a hindrance which restricts containerization of commodities and has an effect on the growth of overall container volume. It is for the overall benefit of the cargo volume this restriction policy should be liberalized.

3.0 Way Forward

3.1 Offer Transit Guarantee services for all container freight trains, based on a committed average speed linked with the lead between origin and destination points. Allow for up to 10% variation from commitment, and offer 2% freight rebate when the commitment is not met.

3.2 Permit universalisation of bases so that rakes can be maintained at the nearest available maintenance depot. Privatization of wagon maintenance with asset owners may be allowed to maintain their own assets. This will reduce cost and asset downtime.

3.3 Just as private operators are now permitted to operate to Nepal the same provision should be extended to Bangladesh for all private operators.

3.4 Revision on CRT Policy Some the Issues are as under as follows:

a. **Permit Hub-Spoke Operations at CRTs:**CRTs may be allowed to be nominated for hub-spoke operations.

b. **No change in CRT Categorization based on Container Traffic:**All CRTs be notified as Cat III for handling of containers, with no change being made in categorization even as container traffic increases.

c. **Permit Storage and Advance Stacking of Containers may be suitable allowed.**

3.5 Consider a pilot project for converting terminals released by CONCOR and returned to IR as "exclusive" Container handling CRTs with common access to all CTOs. These terminals should be nominated for permitting advance stacking of containers and terminal access at nominal rates.

3.6 Create a provision for share from freight revenue to terminal developers in order to attract incremental volumes; reduce degree of IR control on project specification other than related to safety and operational efficiency in order to reduce costs and allow these to be linked with market potential.

3.7 Offer free repositioning of empty containers up to a lead of 350-400 Kms in order to allow building of domestic circuits where the return cargo from one direction needs to be sourced within such a 350-400 km lead.

3.8 Increase empty discount for EXIM containers up to 50% in order to permit movement of empty containers from surplus to deficit locations at a low cost and encourage increased movement of export volumes on rail.

3.9 Entirely doing away with such a separate 'container class rate' will remove the existing restrictions on container pricing, and allow greater volumes of even some commodities that may already be partially moving through rail to be attracted through increased containerization.

3.10 The policy liberalization to allow more and more containerization will be required so that the total basket of containerized cargo is enlarged further and smaller volumes of certain commodities which are restricted now can move through containerization.

Annexure C-4

Policy Initiatives for Automobile Sector

1.0 The automobile sector in India is depended on Railway only minimally up to the extent 16% (3.45% including two-wheelers) only for transport of vehicle and other goods. The main constraints are availability of suitably design auto carriers as per demand. Since the policy for customer investments in the rakes is not very successful we need to think of other possibility as well. The number of vehicles for export is also quite substantial for rail carriers. Policy initiatives in this regards needs a fresh look.

Auto Mobile Export from India

Sr No.	Description of vehicle	FY2021-22 (Unit)	FY2022-23-Est (Unit)
1	Passenger Vehicles	4,05,000	5,7,0000
2	Commercial Vehicle	50,000	90,000
3	Three Wheeler	3,90,000	5,00,000
4	Two Wheeler	32,80,000	44,50,000

The share of Railway in transportation remained negligible during the first decade of this century. With liberalization of Indian Economy, market for luxury/big cars started picking up after 2000. Thereafter, need was felt for transportation of cars by Rail due to safer, faster transportation in bulk. In view of the demand from this segment, Indian Railway introduced newly designed BCACM wagons during in 2008-09.

2.0 Current Initiatives:

Indian Railway also took several initiatives to attract the automobile traffic, which has hitherto been predominantly moving via road .

a. To cater to the demand of automobiles sector, Automobile Freight Train Operator (AFTO) Scheme was introduced, during 2010. Private parties could procure and operate special purpose rakes designed for transportation of cars/automobiles traffic. A new design of BCACBM (double-deck-flexi-deck) wagon are being procured by various companies under AFTO scheme. These wagons have high capacity for automobile transportation (approximately 318 cars per rake).

b. Freight for AFTO wagons are separate for rakes running as loaded and those running as empty.

c. There is no increase in freight for AFTO wagons since its inception i.e May, 2013. With a view to make the scheme more liberal and customer-friendly, various provisions of scheme have been revised from time to time.

d. **Changes made to the policy**

- Registration fee has been removed.
- Net worth criteria for registration as AFTO done away with
- Condition of procurement reduced from 3 rakes to 1 rake.
- Requirement of procurement of maintenance spare wagon reduced from 4% per rake to 4% of the total cumulative holding.
- Auto ancillaries and auto spares are permitted to be carried in both directions.
- All ICDs/ Container Terminals are permitted to handle automobile traffic.

Details of AFTOs:

Sr.No.	AFT Operator	Number of rakes	
		Approved	Inducted
1	Maruti Suzuki India Ltd	6	3
2	APL Logistics/Vascor Automotive Pvt Ltd	25	22
3	IVC Logistics Limited	16	5
4	Joshi Konoike Transport & Infrastructure Pvt Ltd (JKTIPL)	13	6
5	Transport Corporation of India (TCI)	6	3
6	Adani NYK Auto Logistics Solutions Pvt.	3	3
Total		**69**	**42**

3.0 The above policies need to continue to give a thrust to the automobile traffic, which is growing and have a major potential volume for IR. The growth details can be seen from the following table:

Automobile Traffic over Indian Railways				
Year	***Number of Rakes Loaded***		***Earnings (₹ crores)***	
2017-18	933	---	203.99	---
2018-19	1,405	+ 51%	302	+ 48%
2019-20	1,599	*+14%*	331.4	*+16%*
2020-21	2,681	*+68%*	518.48	*+56%*
2021-22	3344	*+25%*	639.04	*+23%*

The policy initiatives and infrastructural inputs in terms of suitable wagon availability and proper pricing need to be prime focus of IR for the automobile sector.

4.0 Way forward:

1. In order to further improve the modal share in automobile traffic, it is important that taller automobile carrier wagons are introduced – which are being designed using the envelope of Double-Stack-Dwarf-Containers (DSDC). Hence it is very important to enable maximum number of routes for operation of DSDC, which will boost automobile traffic also.

2. *Ro-Ro services:* Ro-Ro services can give a big fillip to Railways' efforts to capture road traffic, especially on routes where we are presently not utilizing the full line-capacity. New design of Ro-Ro wagons may be included in LSFTO policy to invite private investment in these wagons. However, considering the low through-put of Ro-Ro services, these services shall be permitted only on sections where spare line-capacity is available.

3. Road-Railers are presently being operated on Delhi-Chennai circuit, and can be a major means to capture road traffic. However, a new design of Road-Railers is under development which will have higher volumetric capacity, and will utilize the envelope of DSDC. To facilitate proliferation of Road-Railers, maximum number of routes shall be made capable of handling DSDC traffic.

4. The new design of cube containers has also been tried and they will be able to capture the tow-wheeler traffic effectively.

Annexure C5

RO-RO SERVICES

1. RO-RO services utilize the optimum combination of rail and road infrastructure to provide end to end services to the customer. The efficiency of road transport for short distances and efficiency of rail transport for long distances are brought together to generate the following advantages:

    - Reduced unit cost of transportation
    - Reduced Carbon emission
    - Reduction in Import bill of HSD
    - Higher speed of transportation along with safety.
    - Reduced inventory cost of customers

2. DFCCIL has experimented with RO-RO services since August 2021 between RO-RO service between New Rewari and New Palanpur. 202 trips have been completed till April 2022 and the performance has been encouraging.

3. The distance between Rewari- Palanpur is 720 km by road and about 3000 trucks ply on this route everyday. If a major portion of this fleet is transferred to RO-RO, there will be substantial benefits in terms of Carbon emission and reduced congestion on road.
4. Two rakes of BRN are pressed into service and regular services will commence soon. Travel time by road is about 24-30 hours, which are reduced to 12 hours by RO-RO.

Way Forward:

1. DFCCIL has identified suitable routes on WDFC for optimization of the RO-RO traffic on this route, which will be operational in near future.
2. In coordination with the customers, DFCCIL is finalizing plans for RO-RO services and the customers are in the process of acquiring wagons. Procurements process for the same should be expedited.
3. Railway Board needs to finalize suitable tariff for RO-Ro traffic and the need to be used for marketing strategy for patronization of the customers.